



Tennessee Valley Authority, Post Office Box 2000, Spring City, Tennessee 37381-2000

August 30, 2010

ATTN: Document Control Desk  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

Watts Bar Nuclear Plant, Unit 2  
NRC Docket No. 50-391

**Subject: Watts Bar Nuclear Plant (WBN) Unit 2 – Submittal of Pre-op Test Instruction**

The following approved Watts Bar Unit 2 Pre-op Test Instruction is enclosed:

<b>PTI NUMBER</b>	<b>Rev.</b>	<b>TITLE</b>
2-PTI-030A-01	0	Unit 2 Auxiliary Building ESF Coolers

If you have any questions, please contact Pete Olson at (423) 365-3294.

Sincerely,



Masoud Bajestani  
Watts Bar Unit 2 Vice President

U.S. Nuclear Regulatory Commission  
Page 2  
August 30, 2010

cc (Enclosures):

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WATTS BAR NUCLEAR PLANT  
UNIT 2 STARTUP

TITLE: Unit 2 Auxiliary Building ESF Coolers

Instruction No: 2-PTI-030A-01

Revision No: 0000

PREPARED BY: Keith Jones *Keith Jones* DATE 7-29-10

PRINT NAME/ SIGNATURE

REVIEWED BY: Bethany Merriman *Bethany Merriman* DATE 7-29-10

PRINT NAME/ SIGNATURE

INSTRUCTION APPROVAL

JTG MEETING NO: 2-10-008

JTG CHAIRMAN: *[Signature]* DATE 8/20/10

APPROVED BY: *[Signature]* DATE 8/20/10

PREOPERATIONAL STARTUP MANAGER

TEST RESULTS APPROVAL

JTG MEETING NO: \_\_\_\_\_

JTG CHAIRMAN: \_\_\_\_\_ DATE \_\_\_\_\_

APPROVED BY: \_\_\_\_\_ DATE \_\_\_\_\_

PREOPERATIONAL STARTUP MANAGER

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 2 of 144</b>
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**Revision Log**

<b>Revision or Change Number</b>	<b>Effective Date</b>	<b>Affected Page Numbers</b>	<b>Description of Revision/Change</b>
0000	<i>8/20/10</i>	ALL	This procedure is written using the Unit 1 PTI-030C-01 Rev 0 as a guide. Turbine Driven Auxiliary Feedwater Pump Room Exhaust Fan tests moved to new instruction 2-PTI-030D-01.

**Table of Contents**

<b>1.0</b>	<b>INTRODUCTION .....</b>	<b>6</b>
1.1	Test Objectives .....	6
1.2	Scope.....	6
<b>2.0</b>	<b>REFERENCES .....</b>	<b>8</b>
2.1	Performance References .....	8
2.2	Developmental References.....	8
<b>3.0</b>	<b>PRECAUTIONS AND LIMITATIONS .....</b>	<b>14</b>
<b>4.0</b>	<b>PREREQUISITE ACTIONS .....</b>	<b>16</b>
4.1	Preliminary Actions .....	16
4.2	Special Tools, Measuring and Test Equipment, Parts, and Supplies.....	22
4.3	Field Preparations.....	24
4.4	Approvals and Notifications .....	30
<b>5.0</b>	<b>ACCEPTANCE CRITERIA .....</b>	<b>31</b>
<b>6.0</b>	<b>PERFORMANCE.....</b>	<b>39</b>
6.1	2-PMCL-30-175, RHR PUMP 2A-A ROOM COOLER LOGIC .....	39
6.2	2-PMCL-30-176, RHR PUMP 2B-B ROOM COOLER LOGIC .....	43
6.3	2-PMCL-30-177, CS PUMP 2A-A ROOM COOLER LOGIC.....	46
6.4	2-PMCL-30-178, CS PUMP 2B-B ROOM COOLER LOGIC.....	49
6.5	2-PMCL-30-180, SIS PUMP 2A-A ROOM COOLER LOGIC .....	52
6.6	2-PMCL-30-179-B, SIS PUMP 2B-B ROOM COOLER LOGIC .....	55
6.7	2-PMCL-30-183, CENT CHARGING PUMP 2A-A ROOM COOLER LOGIC .....	58
6.8	2-PMCL-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER LOGIC.....	61
6.9	2-CLR-30-186, PENETRATION ROOM EL 692 COOLER 2A-A LOGIC .....	64
6.10	2-CLR-30-187, PENETRATION ROOM EL 692 COOLER 2B-B LOGIC .....	69
6.11	2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A LOGIC .....	74
6.12	2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B LOGIC .....	79

**Table of Contents (continued)**

6.13	2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A LOGIC .....	84
6.14	2-CLR-30-202, AB EL 692 PIPE CHASE COOLER 2B-B LOGIC .....	89
6.15	2-PMCL-30-175, RHR PUMP 2A-A ROOM COOLER AIR FLOW .....	94
6.16	2-PMCL-30-176, RHR PUMP 2B-B ROOM COOLER AIR FLOW .....	95
6.17	2-PMCL-30-177, CS PUMP 2A-A ROOM COOLER AIR FLOW.....	96
6.18	2-PMCL-30-178, CS PUMP 2B-B ROOM COOLER AIR FLOW.....	98
6.19	2-PMCL-30-180, SIS PUMP 2A-A ROOM COOLER AIR FLOW.....	100
6.20	2-PMCL-30-179, SIS PUMP 2B-B ROOM COOLER AIR FLOW.....	102
6.21	2-PMCL-30-183, CENT CHARGING PUMP 2A-A ROOM COOLER AIR FLOW .....	104
6.22	2-PMCL-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER AIR FLOW .....	106
6.23	2-PMCL-30-186, PENETRATION ROOM EL 692 COOLER 2A-A AIR FLOW .....	108
6.24	2-PMCL-30-187, PENETRATION ROOM EL 692 COOLER 2B-B AIR FLOW .....	110
6.25	2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A AIR FLOW .....	112
6.26	2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B AIR FLOW .....	114
6.27	2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A AIR FLOW .....	116
6.28	2-CLR-30-202, AB EL 692 PIPE CHASE COOLER 2B-B AIR FLOW .....	118
6.29	HIGH ENERGY LINE BREAK (HELB) DETECTION. ....	120
6.29.2	CVCS LETDOWN HEAT EXCHANGER ROOM HELB DETECTION .....	122
6.29.3	RHR PUMP ROOM 2A HELB DETECTION .....	125
6.29.4	RHR PUMP ROOM 2B HELB DETECTION .....	127
6.29.5	RHR HEAT EXCHANGER ROOM 2A HELB DETECTION .....	129
6.29.6	RHR HEAT EXCHANGER ROOM 2B HELB DETECTION .....	131
<b>7.0</b>	<b>POST PERFORMANCE ACTIVITIES .....</b>	<b>133</b>
<b>8.0</b>	<b>RECORDS.....</b>	<b>133</b>

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 5 of 144</b>
-----------------------	--	--

**Table of Contents (continued)**

**Appendix A: TEST PROCEDURES/INSTRUCTIONS REFERENCE REVIEW ..... 134**

**Appendix B: TEMPORARY CONDITION LOG ..... 138**

**Appendix C: PERMANENT PLANT INSTRUMENTATION LOG ..... 139**

**Appendix D: ELECTRICAL LINEUP ..... 142**

**Appendix E: SWITCH LINEUP ..... 144**

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 6 of 144</b>
-----------------------	--	--

**Data Package: Page \_\_\_\_ of \_\_\_\_**

**Date \_\_\_\_\_**

## **1.0 INTRODUCTION**

### **1.1 Test Objectives**

- A. Demonstrate the proper operation of the Unit 2 Auxiliary Building Engineered Safety Features (ESF) Room/Area Coolers.
- B. Demonstrate the proper operation of the Essential Raw Cooling Water (ERCW) Flow Control Valves associated with their respective ESF Room/Area Coolers.
- C. Demonstrate the proper operation of the High Energy Line Break (HELB) detection equipment and alarms.

### **1.2 Scope**

- A. This test demonstrates the operability of the Unit 2 Auxiliary Building ESF Room/Area Coolers and Fans to ensure the following:
  - 1. The required ESF coolers start upon receipt of their associated room/area Hi-Temperature signal.
  - 2. The required Unit 2 ESF coolers start upon receipt of a simulated Auxiliary Building Isolation (ABI) signal and stop upon reset of ABI signal. (See also 1.2D)
  - 3. The ESF coolers can be controlled manually by local handswitch.
  - 4. The ESF room/area coolers maintain desired air flows.
  - 5. The required Unit 2 Auxiliary Building ESF cooler ERCW supply valves open in a maximum of 10 seconds upon start of their associated cooler.

#### **NOTE**

ERCW flowrates are verified during performance of 2-PTI-067-02, ERCW System Flow Balance.

- B. The required HELB indications and annunciations respond appropriately upon receipt of their associated room/area Hi-Temperature signal.



<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 7 of 144</b>
-----------------------	--	--

**Data Package: Page \_\_\_\_ of \_\_\_\_**

**Date \_\_\_\_\_**

**1.2 Scope (continued)**

- C. ESF pump room cooler start upon associated Pump Start signal logic is verified when each associated ESF pump is tested as shown below:

<b>Pump Room Cooler</b>	<b>Instruction Testing Cooler Auto Start upon Pump Start</b>
RHR Pump 2A-A Room Cooler RHR Pump 2B-B Room Cooler	2-PTI-074-01 RESIDUAL HEAT REMOVAL SYSTEM
SIS Pump 2A-A Room Cooler	2-PTI-063-5A SAFETY INJECTION SYSTEM PUMP/VALVE LOGIC TEST
SIS Pump 2B-B Room Cooler	2-PTI-063-5B SAFETY INJECTION SYSTEM PUMP/VALVE LOGIC TEST
CCP 2A-A Room Cooler CCP 2B-B Room Cooler	2-PTI-062-01 CHARGING AND LETDOWN LOGIC TEST
CS Pump 2A-A Room Cooler CS Pump 2B-B Room Cooler	2-PTI-072-01 CONTAINMENT SPRAY PUMP/VALVE LOGIC TEST

- D. To ensure sufficient test overlap, ESF cooler start upon Auxiliary Building Isolation signal is performed in the Integrated Safeguards Tests as shown below:

<b>Room Cooler</b>	<b>Instruction Testing Cooler Auto Start upon ABI</b>
692 Penetration Room Cooler 2A-A 713 Penetration Room Cooler 2A-A Pipe Chase Cooler 2A-A	2-PTI-262-01 INTEGRATED SAFEGUARDS TEST
692 Penetration Room Cooler 2B-B 713 Penetration Room Cooler 2B-B Pipe Chase Cooler 2B-B	2-PTI-262-02 INTEGRATED SAFEGUARDS TEST

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 8 of 144</b>
-----------------------	--	--

**Data Package: Page \_\_\_\_ of \_\_\_\_**

**Date \_\_\_\_\_**

## **2.0 REFERENCES**

### **2.1 Performance References**

- A. SMP-9.0, Rev 0, Conduct of Test
- B. GTM-05, HVAC Air Balance (Draft)
- C. 0-SOI-67.01, Essential Raw Cooling Water System (Draft)

### **2.2 Developmental References**

- A. Final Safety Analysis Report, Amendment 99
  - 1. FSAR Section 9.2.1, Essential Raw Cooling Water (ERCW)
  - 2. FSAR Section 9.4.5.3, Auxiliary Building Safety Features (ESF) Equipment Coolers
  - 3. FSAR Table 14.2-1, Sheets 4 & 5, Essential Raw Cooling Water System Test Summary
  - 4. FSAR Table 14.2-1, Sheets 36 & 37, Auxiliary Building Ventilation System
- B. Drawings
  - 1. Flow Diagrams
    - a. 2-47W866-8, Rev 0, HEATING, COOLING & VENTILATING AIR FLOW  
DRA 54923-070, Rev 0  
DRA 54923-071, Rev 0
    - b. 1-47W845-7, Rev 14, FLOW DIAGRAM - ESSENTIAL RAW COOLING WATER SYSTEM
    - c. 2-47W845-7, Rev 0, FLOW DIAGRAM - ESSENTIAL RAW COOLING WATER SYSTEM

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 9 of 144</b>
-----------------------	--	--

**Data Package: Page \_\_\_\_ of \_\_\_\_**

**Date \_\_\_\_\_**

## **2.2 Developmental References (continued)**

### 2. Electrical

- a. 1-45W600-30-4, Rev 26, VENTILATING SYSTEM SCHEMATIC DIAGRAM
- b. 2-45W600-57-37, SEPERATION & MISC AUX RELAYS SCHEMATIC DIAGRAM, [Later]  
DRA 54172-177, Rev 0  
DRA 54172-178, Rev 0  
DRA 54172-179, Rev 0  
DRA 54172-464, Rev 0  
DRA 54172-465, Rev 0  
DRA 54172-466, Rev 0  
FCR 55967-A, Rev 0
- c. 2-45W756-1, Rev 0, 480V CONT & AUX BLDG VT BD 2A1-A SINGLE LINE
- d. 2-45W756-5, Rev 0, 480V CONT & AUX BLDG VT BD 2B1-A SINGLE LINE
- e. 2-45W760-30-17, Rev 0, VENTILATION SYSTEM SCHEMATIC DIAGRAM
- f. 2-45W760-30-18, Rev 0, VENTILATION SYSTEM SCHEMATIC DIAGRAM  
DRA 53290-049, Rev 0  
DRA 53290-066, Rev 0
- g. 2-45W760-30-19, Rev 0, VENTILATION SYSTEM SCHEMATIC DIAGRAM
- h. 2-45W760-30-20, Rev 0, VENTILATION SYSTEM SCHEMATIC DIAGRAM  
DRA 53290-051, Rev 0  
DRA 53290-067, Rev 0
- i. 45N1688-1 (AC), Rev MM, SEPERATION AUX RELAY PNL 1-R-73 CONNECTION DIAGRAM
- j. 45N1688-4 (AC), Rev AAD, SEPERATION AUX RELAY PNL 1-R-73 CONNECTION DIAGRAM
- k. 45N1693-1 (AC), Rev SS, SEPERATION AUX RELAY PNL 1-R-78 CONNECITON DIAGRAM

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 10 of 144</b>
-----------------------	--	---

**Data Package: Page \_\_\_\_ of \_\_\_\_**

**Date \_\_\_\_\_**

**2.2 Developmental References (continued)**

- i. 45N1693-4 (AC), Rev, AAB, SEPERATION AUX RELAY PNL 1-R-78 CONNECTION DIAGRAM
- m. 45W2770-1, Rev 18, 480V CONT. & AUX BLDG VENT BD 2A1-A CONNECTION DIAGRAM
- n. 45W2770-2, Rev 6, 480V CONT. & AUX BLDG VENT BD 2A1-A CONNECTION DIAGRAM
- o. 45W2772-2, Rev 13, 480V CONT. & AUX BLDG VENT BD 2B1-B CONNECTION DIAGRAM
- p. 45W2772-3, Rev 14, 480V CONT. & AUX BLDG VENT BD 2B1-B CONNECTION DIAGRAM

**3. Mechanical**

- a. 2-47W600-188, Rev 0, INSTRUMENTS AND CONTROLS  
DRA 53788-041, Rev 0  
DRA 53788-042, Rev 0  
DRA 53788-043, Rev 0  
DRA 53788-044, Rev 0  
DRA 53788-045, Rev 0  
DRA 53788-046, Rev 0  
DRA 53788-047, Rev 0
- b. 47W920-1 (AC), Rev Y, HEATING, VENTILATING AND AIR CONDITIONING
- c. 47W920-2 (AC), Rev R, HEATING, VENTILATING AND AIR CONDITIONING
- d. 47W920-4 (AC), Rev S, HEATING VENTILATING AND AIR CONDITIONING

**4. Logic/Control**

- a. 2-47W611-65-1, Rev 2, ELECTRICAL LOGIG DIAGRAM EMERGENCY GAS TREATMENT SYSTEM

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 11 of 144</b>
-----------------------	--	---

**Data Package: Page \_\_\_\_ of \_\_\_\_**

**Date \_\_\_\_\_**

## **2.2 Developmental References (continued)**

### 5. Other

- a. 47B601-55-25 (AC), Rev D, ELECTRICAL INSTRUMENT TABULATION
- b. 2-45B655-6A, Rev 0, MAIN CONTROL ROOM ANNUNCIATOR INPUTS WINDOW BOX XA-55-6A
- c. 2-45B655-E6A, Rev 0, ANNUNCIATOR WINDOW BOX XA-55-6A ENGRAVING

### C. Documents

- a. SMP-4.0, Rev 2, System Completion and Turnover
- b. SMP-8.0, Rev 3, Administration of Preoperational Test Procedures
- c. GTM-03, HVAC Gravity Dampers, Fire Dampers, and Fire Doors, (Draft)
- d. WBN2-30AB-4001, Rev 1, Auxiliary Building Heating, Ventilation, Air Conditioning System (30, 31, 44)
- e. WBN2-67-4002, Rev 1, Essential Raw Cooling Water System, System 67
- f. G-37, Rev 4, Testing and Balancing of HVAC Systems During Installation, Modification, and Maintenance
- g. 2-TSD-030A-01, Rev 1, Select Auxiliary Building ESF Coolers and HELB Detection
- h. 0-PI-OPS-1.1, Rev 3, Jumper Control Process
- i. 2-PTI-067-02, ERCW System Flow Balance (Draft)
- j. 2-PTI-074-01, Residual Heat Removal System (Draft)
- k. 2-PTI-063-5A, Safety Injection System Pump/Valve Logic Test (Draft)
- l. 2-PTI-063-5B, Safety Injection System Pump/Valve Logic Test (Draft)
- m. 2-PTI-062-01, Charging and Letdown Logic Test (Draft)
- n. 2-PTI-072-01, Containment Spray Pump/Valve Logic Test (Draft)

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 12 of 144</b>
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**Data Package: Page \_\_\_\_ of \_\_\_\_**

**Date \_\_\_\_\_**

**2.2 Developmental References (continued)**

- o. 2-PTI-262-01, Integrated Safeguards Test (Draft)
- p. 2-PTI-262-02, Integrated Safeguards Test (Draft)
- q. Scaling and Setpoint Documents
  - (1) SSD-2-TS-30-175, RHR Pump Room Cooler Fan A-A, [Later]
  - (2) SSD-2-TS-30-176, RHR Pump Room Cooler Fan B-B, [Later]
  - (3) SSD-2-TS-30-177, CS Pump Room Cooler Fan A-A, [Later]
  - (4) SSD-2-TS-30-178, CS Pump Room Cooler Fan B-B, [Later]
  - (5) SSD-2-TS-30-179, SIS Pump Room Cooler Fan B-B, [Later]
  - (6) SSD-2-TS-30-180, SIS Pump Room Cooler Fan A-A, [Later]
  - (7) SSD-2-TS-30-182, Charging Pump Room Cooler Fan B-B, [Later]
  - (8) SSD-2-TS-30-183, Charging Pump Room Cooler Fan A-A, [Later]
  - (9) SSD-2-TS-30-186A, Penetration Room Cooler, EI 692, Fan A-A, [Later]
  - (10) SSD-2-TS-30-186B, Penetration Room Cooler, EI 692, Fan A-A, [Later]
  - (11) SSD-2-TS-30-187A, Penetration Room Cooler, EI 692, Fan B-B, [Later]
  - (12) SSD-2-TS-30-187B, Penetration Room Cooler, EI 692, Fan B-B, [Later]
  - (13) SSD-2-TS-30-196A, Penetration Room Cooler, EI 713, Fan A-A, [Later]
  - (14) SSD-2-TS-30-196B, Penetration Room Cooler, EI 713, Fan A-A, [Later]
  - (15) SSD-2-TS-30-197A, Penetration Room Cooler, EI 713, Fan B-B, [Later]
  - (16) SSD-2-TS-30-197B, Penetration Room Cooler, EI 713, Fan B-B, [Later]

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 13 of 144</b>
-----------------------	--	---

**Data Package: Page \_\_\_\_ of \_\_\_\_**

**Date \_\_\_\_\_**

**2.2 Developmental References (continued)**

- (17) SSD-2-TS-30-201A, Pipe Chase Coolers Fan 2A-A, [Later]
- (18) SSD-2-TS-30-201B, Pipe Chase Coolers Fan 2A-A, [Later]
- (19) SSD-2-TS-30-202A, Pipe Chase Coolers Fan 2B-B, [Later]
- (20) SSD-2-TS-30-202B, Pipe Chase Coolers Fan 2B-B, [Later]
- (21) SSD-2-TS-30-5235A, CVCS Letdown Heat Exchanger Room Hi Temperature, [Later]
- (22) SSD-2-TS-30-5235B, CVCS Letdown Heat Exchanger Room Hi Temperature, [Later]
- (23) SSD-2-TS-30-5236A, RHR Pump Room A Hi Temperature, [Later]
- (24) SSD-2-TS-30-5236B, RHR Pump Room A Hi Temperature, [Later]
- (25) SSD-2-TS-30-5237A, RHR Pump Room B Hi Temperature, [Later]
- (26) SSD-2-TS-30-5237B, RHR Pump Room B Hi Temperature, [Later]
- (27) SSD-2-TS-30-5238A, RHR Heat Exchanger Room A Hi Temperature, [Later]
- (28) SSD-2-TS-30-5238B, RHR Heat Exchanger Room A Hi Temperature, [Later]
- (29) SSD-2-TS-30-5239A, RHR Heat Exchanger Room B Hi Temperature, [Later]
- (30) SSD-2-TS-30-5239B, RHR Heat Exchanger Room B Hi Temperature, [Later]

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 14 of 144</b>
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**Data Package: Page \_\_\_\_ of \_\_\_\_**

**Date \_\_\_\_\_**

### **3.0 PRECAUTIONS AND LIMITATIONS**

- A. Standard precautions shall be followed for working around energized electrical equipment in accordance with TVA Safety Manual Procedure 1021.
- B. Steps may be repeated if all components cannot be tested in a step. However, if the test has been exited, prerequisite steps must be re-verified and a Chronological Test Log (CTL) entry made.
- C. Component tags and labels may differ slightly (abbreviations, punctuation, letter case, etc.) from the description given in this test. If this situation occurs, it shall NOT be considered a test deficiency or procedure deviation. It shall be documented in the CTL and reconciled by way of a plant labeling request or drawing discrepancy or single-line date typo change in the procedure as appropriate.
- D. All wires removed/lifted from a terminal shall be identified and taped or covered with an insulator to prevent personnel or equipment hazard and possible spurious initiations. The wires should be grouped together and labeled with the work implementing document number that required them to be lifted if left unattended.
- E. All open problems are to be tracked by a corrective action document and entered on the appropriate system punchlist.
- F. Problems identified during the test shall be annotated on the Chronological Test Log (CTL) from SMP-9.0 including a description of the problem, the procedure step when/where the problem was identified, corrective action steps taken to resolve the problem, and the number of the corrective action document, if one was required.
- G. Observe all Radiation Protection (RP) requirements when working in or near contaminated areas.
- H. All terminal points and connections are to be considered energized. Instrumentation must be used to determine if the circuits are de-energized.
- I. Retermination of lifted leads requires that their restored bend radius is equal to or greater than the as found condition.
- J. Vibration testing will be performed during performance of GTM-05, HVAC Air Balance.
- K. Backdraft damper testing will be performed during performance of GTM-03, HVAC Gravity Dampers, Fire Dampers, and Fire Doors.



<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 15 of 144</b>
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**Data Package: Page \_\_\_\_ of \_\_\_\_**

**Date \_\_\_\_\_**

### **3.0 PRECAUTIONS AND LIMITATIONS (continued)**

- L. During the performance of this procedure visual observation of air handlers and ductwork is required. This includes steady-state and transient operations with visual confirmation that vibration and motor temperatures are not excessive.
- M. Transients include fan starts and stops, water hammers or other fluid transients. Verification that transient conditions are not causing excessive vibration may be accomplished by observation during the transient or verification subsequent to the transient that resultant damage has not occurred.
- N. If the vibration is determined to be excessive the Test Engineer shall initiate a Test Deficiency Notice (TDN) and notify Nuclear Engineering (NE).
- O. Portions of this test will simulate a high ambient room temperature using an electric heatgun. This activity shall be performed slowly to prevent damage to the temperature switch sensing bulb.
- P. Test personnel should exercise caution to prevent damage to the cooling coil fins.
- Q. Portions of this test will require valve stroke timing locally at the valve. Local stroke valve timing begins with the initiating signal and is concluded with the completion of valve stem movement.

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 16 of 144</b>
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Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

#### 4.0 PREREQUISITE ACTIONS

##### 4.1 Preliminary Actions

**NOTE**

Prerequisite action steps may be performed in any order with Test Director approval.

- [1] **VERIFY** the test/performance copy of this Preoperational Test Instruction (PTI) is the current revision and as needed, each test person assisting in this test has the current revision. \_\_\_\_\_
- [2] **OBTAIN** copies of the applicable forms from the latest revision of SMP-9.0, **AND**  
  
**ATTACH** to this PTI for use during the performance of this PTI. \_\_\_\_\_
- [3] **ENSURE** changes to the references listed on "Test Procedures/Instructions Reference Review," Appendix A, have been reviewed and determined NOT to adversely affect the test performance. \_\_\_\_\_
- [4] **VERIFY** current revisions and change paper for referenced drawings have been reviewed and determined NOT to adversely affect the test performance, **AND**  
  
**ATTACH** documentation of current drawing revision numbers and change paper that were reviewed to the data package. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 17 of 144</b>
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**Data Package: Page \_\_\_\_ of \_\_\_\_**

**Date \_\_\_\_\_**

**4.1 Preliminary Actions (continued)**

[5] **EVALUATE** open punch list items on Watts Bar Integrated Task Equipment List (WITEL), **AND**

**ENSURE** that they will NOT adversely affect the test performance.

- SubSection 6.1 \_\_\_\_\_
- SubSection 6.2 \_\_\_\_\_
- SubSection 6.3 \_\_\_\_\_
- SubSection 6.4 \_\_\_\_\_
- SubSection 6.5 \_\_\_\_\_
- SubSection 6.6 \_\_\_\_\_
- SubSection 6.7 \_\_\_\_\_
- SubSection 6.8 \_\_\_\_\_
- SubSection 6.9 \_\_\_\_\_
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- SubSection 6.11 \_\_\_\_\_
- SubSection 6.12 \_\_\_\_\_
- SubSection 6.13 \_\_\_\_\_
- SubSection 6.14 \_\_\_\_\_
- SubSection 6.15 \_\_\_\_\_
- SubSection 6.16 \_\_\_\_\_
- SubSection 6.17 \_\_\_\_\_
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- SubSection 6.19 \_\_\_\_\_
- SubSection 6.20 \_\_\_\_\_
- SubSection 6.21 \_\_\_\_\_
- SubSection 6.22 \_\_\_\_\_
- SubSection 6.23 \_\_\_\_\_
- SubSection 6.24 \_\_\_\_\_
- SubSection 6.25 \_\_\_\_\_
- SubSection 6.26 \_\_\_\_\_
- SubSection 6.27 \_\_\_\_\_
- SubSection 6.28 \_\_\_\_\_
- SubSection 6.29 \_\_\_\_\_

**Data Package: Page \_\_\_\_ of \_\_\_\_**

**Date \_\_\_\_\_**

**4.1 Preliminary Actions (continued)**

[6] **ENSURE** required Component Testing has been completed prior to start of test.

- SubSection 6.1 \_\_\_\_\_
- SubSection 6.2 \_\_\_\_\_
- SubSection 6.3 \_\_\_\_\_
- SubSection 6.4 \_\_\_\_\_
- SubSection 6.5 \_\_\_\_\_
- SubSection 6.6 \_\_\_\_\_
- SubSection 6.7 \_\_\_\_\_
- SubSection 6.8 \_\_\_\_\_
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- SubSection 6.12 \_\_\_\_\_
- SubSection 6.13 \_\_\_\_\_
- SubSection 6.14 \_\_\_\_\_
- SubSection 6.15 \_\_\_\_\_
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- SubSection 6.28 \_\_\_\_\_
- SubSection 6.29 \_\_\_\_\_

**Data Package: Page \_\_\_\_ of \_\_\_\_**

**Date \_\_\_\_\_**

**4.1 Preliminary Actions (continued)**

[7] **ENSURE** outstanding Design Change Notices (DCNs), Engineering Document Construction Releases (EDCRs) or Temporary Alterations (TAs) do NOT adversely impact testing.

- SubSection 6.1 \_\_\_\_\_
- SubSection 6.2 \_\_\_\_\_
- SubSection 6.3 \_\_\_\_\_
- SubSection 6.4 \_\_\_\_\_
- SubSection 6.5 \_\_\_\_\_
- SubSection 6.6 \_\_\_\_\_
- SubSection 6.7 \_\_\_\_\_
- SubSection 6.8 \_\_\_\_\_
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- SubSection 6.28 \_\_\_\_\_
- SubSection 6.29 \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 20 of 144</b>
-----------------------	--	---

**Data Package: Page \_\_\_\_ of \_\_\_\_**

**Date \_\_\_\_\_**

**4.1 Preliminary Actions (continued)**

[8] **ENSURE** a review of outstanding Clearances has been coordinated with Operations for impact to the test performance, **AND**

**RECORD** in Appendix B, Temporary Condition Log, if required.

\_\_\_\_\_

[9] **ENSURE** GTM-05, HVAC Air Balance, has been submitted to the JTG for concurrence that it adequately satisfies the requirements of this instruction.

JTG Meeting: \_\_\_\_\_

\_\_\_\_\_

[10] **ATTACH** completed GTM-05 HVAC Air Balance package for system 30A.

\_\_\_\_\_

[11] **ENSURE** plant instruments required for test performance, listed on Appendix C, Permanent Plant Instrumentation Log, have been placed in service and are within their calibration interval.

- SubSection 6.1
- SubSection 6.2
- SubSection 6.3
- SubSection 6.4
- SubSection 6.5
- SubSection 6.6
- SubSection 6.7
- SubSection 6.8
- SubSection 6.9
- SubSection 6.10
- SubSection 6.11
- SubSection 6.12
- SubSection 6.13
- SubSection 6.14
- SubSection 6.29

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[12] **ENSURE** components contained within the boundaries of this test are under the jurisdictional control of Preoperational Startup Engineering (PSE) in accordance with SMP-4.0.

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**Data Package: Page \_\_\_\_ of \_\_\_\_**

**Date \_\_\_\_\_**

**4.1 Preliminary Actions (continued)**

[13] **PERFORM** a pretest walkdown on equipment to be tested to ensure no conditions exist that will impact test performance.

- SubSection 6.1 \_\_\_\_\_
- SubSection 6.2 \_\_\_\_\_
- SubSection 6.3 \_\_\_\_\_
- SubSection 6.4 \_\_\_\_\_
- SubSection 6.5 \_\_\_\_\_
- SubSection 6.6 \_\_\_\_\_
- SubSection 6.7 \_\_\_\_\_
- SubSection 6.8 \_\_\_\_\_
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- SubSection 6.26 \_\_\_\_\_
- SubSection 6.27 \_\_\_\_\_
- SubSection 6.28 \_\_\_\_\_
- SubSection 6.29 \_\_\_\_\_

[14] **CONDUCT** a pretest briefing with Test and Operations personnel in accordance with SMP-9.0. \_\_\_\_\_

[15] **ENSURE** that communications are available for areas where testing is to be conducted. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 22 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**4.2 Special Tools, Measuring and Test Equipment, Parts, and Supplies**

[1] **OBTAIN** the following M&TE or equivalent, **AND**

**COMPLETE** the following table:

DESCRIPTION	MINIMUM RANGE	ACTUAL RANGE	REQUIRED ACCURACY	M&TE ID NUMBER	CALIBRATION DUE DATE
Digital Thermometer with surface Temperature Probe	0-200°F		±3°F		
Stopwatch	N/A		±0.5 seconds		

[2] **ENSURE** the following are available:

A. Handheld Jumper \_\_\_\_\_

B. Clean cloth soaked in cool water (to cool temperature elements) \_\_\_\_\_

C. Electric heat gun (to heat temperature elements) \_\_\_\_\_



Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**4.2 Special Tools, Measuring and Test Equipment, Parts, and Supplies (continued)**

[3] **ENSURE** M&TE calibration due dates will support the completion of this test performance.

- SubSection 6.1 \_\_\_\_\_
- SubSection 6.2 \_\_\_\_\_
- SubSection 6.3 \_\_\_\_\_
- SubSection 6.4 \_\_\_\_\_
- SubSection 6.5 \_\_\_\_\_
- SubSection 6.6 \_\_\_\_\_
- SubSection 6.7 \_\_\_\_\_
- SubSection 6.8 \_\_\_\_\_
- SubSection 6.9 \_\_\_\_\_
- SubSection 6.10 \_\_\_\_\_
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- SubSection 6.15 \_\_\_\_\_
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- SubSection 6.29 \_\_\_\_\_

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**4.3 Field Preparations**

[1] **ENSURE** applicable portions of Appendix D, Electrical Lineup, have been performed.

- SubSection 6.1 \_\_\_\_\_
- SubSection 6.2 \_\_\_\_\_
- SubSection 6.3 \_\_\_\_\_
- SubSection 6.4 \_\_\_\_\_
- SubSection 6.5 \_\_\_\_\_
- SubSection 6.6 \_\_\_\_\_
- SubSection 6.7 \_\_\_\_\_
- SubSection 6.8 \_\_\_\_\_
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- SubSection 6.27 \_\_\_\_\_
- SubSection 6.28 \_\_\_\_\_
- SubSection 6.29 \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 25 of 144</b>
-----------------------	--	---

**Data Package: Page \_\_\_\_ of \_\_\_\_**

**Date \_\_\_\_\_**

**4.3 Field Preparations (continued)**

[2] **ENSURE** applicable portions of Appendix E, Switch Lineup, have been performed:

- SubSection 6.1 \_\_\_\_\_
- SubSection 6.2 \_\_\_\_\_
- SubSection 6.3 \_\_\_\_\_
- SubSection 6.4 \_\_\_\_\_
- SubSection 6.5 \_\_\_\_\_
- SubSection 6.6 \_\_\_\_\_
- SubSection 6.7 \_\_\_\_\_
- SubSection 6.8 \_\_\_\_\_
- SubSection 6.9 \_\_\_\_\_
- SubSection 6.10 \_\_\_\_\_
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- SubSection 6.12 \_\_\_\_\_
- SubSection 6.13 \_\_\_\_\_
- SubSection 6.14 \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 26 of 144</b>
-----------------------	--	---

**Data Package: Page \_\_\_\_ of \_\_\_\_**

**Date \_\_\_\_\_**

**4.3 Field Preparations (continued)**

[3] **VERIFY** there is no Auxiliary Building Isolation (ABI) or High Radiation in Refuel Area Signals present by:

A. The ABI window **NOT** lit on either the TR-A or TR-B Master Isolation Signal Status Panels (Window 5 on 1-XX-55-6C and 1-XX-55-6D) on 1-M-6.

- SubSection 6.9 \_\_\_\_\_
- SubSection 6.10 \_\_\_\_\_
- SubSection 6.11 \_\_\_\_\_
- SubSection 6.12 \_\_\_\_\_
- SubSection 6.13 \_\_\_\_\_
- SubSection 6.14 \_\_\_\_\_

B. No high rad alarm for 0-RM-90-102 and -103, annunciator window 184B on 0-M-12.

- SubSection 6.9 \_\_\_\_\_
- SubSection 6.10 \_\_\_\_\_
- SubSection 6.11 \_\_\_\_\_
- SubSection 6.12 \_\_\_\_\_
- SubSection 6.13 \_\_\_\_\_
- SubSection 6.14 \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 27 of 144</b>
-----------------------	--	---

**Data Package: Page \_\_\_\_ of \_\_\_\_**

**Date \_\_\_\_\_**

**4.3 Field Preparations (continued)**

<b>NOTES</b>
<p>1) Any Annunciator points associated with 2-MUX-55-12 and 2-MUX-55-13 ONLY have master switches at the bottom of each terminal strip.</p> <p>2) All points associated with 2-TBK-55-25, 2-TBK-55-26, 2-TBK-55-27, and 2-TBK-55-28 will not have individual switches or a master switch.</p>

[4] **ENSURE** System 55, Annunciator and Sequential Events Recording System, applicable TBK switches are ON, the applicable Master switches are ON, and window software input(s) are ENABLED for the following Annunciator windows:

A. 2-XA-55-6A-113B, RHR/CVCS HI TEMP PIPE BREAK  
(SubSection 6.29) \_\_\_\_\_

[5] **VERIFY** the following systems are operational and have been placed in service to the extent necessary to perform this test:

A. System 214, C & A Bldg Vent Boards (480V AC). \_\_\_\_\_

B. System 032, Control Air \_\_\_\_\_

C. System 235, 120V AC Vital Instrument Power Boards \_\_\_\_\_

D. System 55, Annunciator and Sequential Events Recording System \_\_\_\_\_

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**4.3 Field Preparations (continued)**

**NOTE**

The following ERCW valves are electrically disconnected and locked open:

- 2-FCV-67-188, RHRP ROOM COOLER 2A-A ERCW SUP FLOW CNTL
- 2-FCV-67-190, RHRP ROOM COOLER 2B-B ERCW SUP FLOW CNTL
- 2-FCV-67-168, CCP ROOM COOLER 2A-A ERCW SUP FLOW CNTL
- 2-FCV-67-170, CCP ROOM COOLER 2B-B ERCW SUP FLOW CNTL

[6] **VERIFY** the following system 67 ERCW valves are available to support test activities:

- 2-FCV-67-188, RHRP ROOM COOLER 2A-A ERCW SUP FLOW CNTL (SubSection 6.1) \_\_\_\_\_
- 2-FCV-67-190, RHRP ROOM COOLER 2B-B ERCW SUP FLOW CNTL (SubSection 6.2) \_\_\_\_\_
- 2-FCV-67-184, CSP ROOM COOLER 2A-A ERCW SUP FLOW CNTRL (SubSection 6.3) \_\_\_\_\_
- 2-FCV-67-186, CSP ROOM COOLER 2B-B ERCW SUP FLOW CNTRL (SubSection 6.4) \_\_\_\_\_
- 2-FCV-67-176, SIP ROOM COOLER 2A-A ERCW SUP FLOW CNTRL (SubSection 6.5) \_\_\_\_\_
- 2-FCV-67-182, SIP ROOM COOLER 2B-B ERCW SUP FLOW CNTRL (SubSection 6.6) \_\_\_\_\_
- 2-FCV-67-168, CCP ROOM COOLER 2A-A ERCW SUP FLOW CNTRL (SubSection 6.7) \_\_\_\_\_
- 2-FCV-67-170, CCP ROOM COOLER 2B-B ERCW SUP FLOW CNTRL (SubSection 6.8) \_\_\_\_\_
- 2-FCV-67-346, PENT ROOM COOLER 2A-A ERCW SUP FLOW CNTRL (SubSection 6.9) \_\_\_\_\_
- 2-FCV-67-348, PENT ROOM COOLER 2B-B ERCW SUP FLOW CNTRL (SubSection 6.10) \_\_\_\_\_
- 2-FCV-67-350, PENT ROOM COOLER 2A-A ERCW SUP FLOW CNTRL (SubSection 6.11) \_\_\_\_\_
- 2-FCV-67-352, PENT ROOM COOLER 2B-B ERCW SUP FLOW CNTRL (SubSection 6.12) \_\_\_\_\_
- 2-FCV-67-342, PIPE CHASE COOLER 2A-A ERCW SUP FLOW CNTRL (SubSection 6.13) \_\_\_\_\_
- 2-FCV-67-344, PIPE CHASE COOLER 2B-B ERCW SUP FLOW CNTRL (SubSection 6.14) \_\_\_\_\_

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**4.3 Field Preparations (continued)**

- [7] **ENSURE** ERCW system is aligned per 0-SOI-67.01 as applicable to support test performance. \_\_\_\_\_
- [8] **VERIFY** no other work or test activities are in progress on or near ESF pumps which could cause unexpected pump room cooler starts.
  - SubSection 6.1 \_\_\_\_\_
  - SubSection 6.2 \_\_\_\_\_
  - SubSection 6.3 \_\_\_\_\_
  - SubSection 6.4 \_\_\_\_\_
  - SubSection 6.5 \_\_\_\_\_
  - SubSection 6.6 \_\_\_\_\_
  - SubSection 6.7 \_\_\_\_\_
  - SubSection 6.8 \_\_\_\_\_
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  - SubSection 6.12 \_\_\_\_\_
  - SubSection 6.13 \_\_\_\_\_
  - SubSection 6.14 \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 30 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**4.4 Approvals and Notifications**

[1] **OBTAIN** permission of the Preoperational Startup Manager to start the test.

\_\_\_\_\_  
 Preoperational Startup Manager          Date  
 Signature

[2] **OBTAIN** the Unit 2 Supervisor's (US/SRO) or Shift Manager's (SM) authorization.

\_\_\_\_\_  
 U-2 US/SRO/SM Signature          Date

[3] **NOTIFY** Unit 1 Operations that performance of the following sections requires access into the Unit 1 R-panels for placement of handheld jumpers.

SubSection 6.9	_____
SubSection 6.10	_____
SubSection 6.11	_____
SubSection 6.12	_____
SubSection 6.13	_____
SubSection 6.14	_____



<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 31 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

## 5.0 ACCEPTANCE CRITERIA

A. Auxiliary Building Engineered Safety Features (ESF) Room/Area Coolers function in accordance with design requirements.

[1] The controls and interlocks for the ESF Coolers function properly.

[1.1] Each ESF Cooler STARTS automatically upon receipt of an associated room Hi-Temperature signal.

2-PMCL-30-175, RHR PUMP 2A-A ROOM COOLER (Step 6.1[8])

2-PMCL-30-176, RHR PUMP 2B-B ROOM COOLER (Step 6.2[8])

2-PMCL-30-177, CS PUMP 2A-A ROOM COOLER (Step 6.3[8])

2-PMCL-30-178, CS PUMP 2B-B ROOM COOLER (Step 6.4[8])

2-PMCL-30-180, SIS PUMP 2A-A ROOM COOLER (Step 6.5[8])

2-PMCL-30-179, SIS PUMP 2B-B ROOM COOLER (Step 6.6[8])

2-PMCL-30-183, CENT CHARGING PUMP 2A-A ROOM COOLER (Step 6.7[8])

2-PMCL-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER (Step 6.8[8])

2-CLR-30-186, PENETRATION ROOM EL 692 COOLER 2A-A (Step 6.9[8], 6.9[14])

2-CLR-30-187, PENETRATION ROOM EL 692 COOLER 2B-B (Step 6.10[8], 6.10[14])

2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A (Step 6.11[8], 6.11[14])

2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B (Step 6.12[8], 6.12[14])

2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A (Step 6.13[8], 6.13[14])

2-CLR-30-202, AB EL 692 PIPE CHASE COOLER 2B-B (Step 6.14[8], 6.14[14])

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 32 of 144</b>
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**Data Package: Page \_\_\_\_ of \_\_\_\_**

**Date \_\_\_\_\_**

**5.0 ACCEPTANCE CRITERIA (continued)**

[1.2] The following ESF Coolers START automatically upon receipt of a simulated Auxiliary Building Isolation (ABI) signal AND stop when the ABI signal is reset.

2-CLR-30-186, PENETRATION ROOM EL 692 COOLER 2A-A  
(Step 6.9[20], 6.9[22])

2-CLR-30-187, PENETRATION ROOM EL 692 COOLER 2B-B  
(Step 6.10[20], 6.10[22])

2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A  
(Step 6.11[20], 6.11[22])

2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B  
(Step 6.12[20], 6.12[22])

2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A  
(Step 6.13[20], 6.13[22])

2-CLR-30-202, AB EL 692 PIPE CHASE COOLER 2B-B  
(Step 6.14[20], 6.14[22])

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 33 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**5.0 ACCEPTANCE CRITERIA (continued)**

[1.3] Each ESF Cooler can be controlled manually by local handswitch.

2-PMCL-30-175, RHR PUMP 2A-A ROOM COOLER  
(Step 6.1[4]A, 6.1[5]A,V6.1[10.1])

2-PMCL-30-176, RHR PUMP 2B-B ROOM COOLER  
(Step 6.2[4]A, 6.2[5]A,V6.2[10.1])

2-PMCL-30-177, CS PUMP 2A-A ROOM COOLER  
(Step 6.3[4]A, 6.3[5]A, 6.3[10.1])

2-PMCL-30-178, CS PUMP 2B-B ROOM COOLER  
(Step 6.4[4]A, 6.4[5]A, 6.4[10.1])

2-PMCL-30-180, SIS PUMP 2A-A ROOM COOLER  
(Step 6.5[4]A, 6.5[5]A, 6.5[10.1])

2-PMCL-30-179, SIS PUMP 2B-B ROOM COOLER  
(Step 6.6[4]A 6.6[5]A, 6.6[10.1])

2-PMCL-30-183, CENT CHARGING PUMP 2A-A ROOM COOLER  
(Step 6.7[4]A, 6.7[5]A, 6.7[10.1])

2-PMCL-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER  
(Step 6.8[4]A, 6.8[5]A, 6.8[10.1])

2-CLR-30-186, PENETRATION ROOM EL 692 COOLER 2A-A  
(Step 6.9[4]A, 6.9[5]A, 6.9[10.1], 6.9[16.1])

2-CLR-30-187, PENETRATION ROOM EL 692 COOLER 2B-B  
(Step 6.10[4]A, 6.10[5]A, 6.10[10.1], 6.10[16.1])

2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A  
(Step 6.11[4]A, 6.11[5]A, 6.11[10.1], 6.11[16.1])

2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B  
(Step 6.12[4]A, 6.12[5]A, 6.12[10.1], 6.12[16.1])

2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A  
(Step 6.13[4]A, 6.13[5]A, 6.13[10.1], 6.13[16.1])

2-CLR-30-202, AB EL 692 PIPE CHASE COOLER 2B-B  
(Step 6.14[4]A, 6.14[5]A, 6.14[10.1], 6.14[16.1])

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 34 of 144</b>
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Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

## 5.0 ACCEPTANCE CRITERIA (continued)

### NOTE

The Acceptance Criteria in the following steps have been adjusted to account for  $\pm 10\%$  of design/rated flow for nonducted, freestanding air coolers as delineated in G-37.

[2] Each ESF Room Cooler maintains design air flow:

2-PMCL-30-175, RHR PUMP 2A-A ROOM COOLER (Step 6.15[5])  
6,925 CFM (6,233 - 7,617)

2-PMCL-30-176, RHR PUMP 2B-B ROOM COOLER (Step 6.16[5])  
6,925 CFM (6,233 - 7,617)

2-PMCL-30-177, CS PUMP 2A-A ROOM COOLER (Step 6.17[7])  
12,200 CFM (10,980 - 13,420)

2-PMCL-30-178, CS PUMP 2B-B ROOM COOLER (Step 6.18[7])  
12,200 CFM (10,980 - 13,420)

2-PMCL-30-180, SIS PUMP 2A-A ROOM COOLER (Step 6.19[7])  
7,850 CFM (7,065 - 8,635)

2-PMCL-30-179, SIS PUMP 2B-B ROOM COOLER (Step 6.20[7])  
7,850 CFM (7,065 - 8,635)

2-PMCL-30-183, CENT CHARGING PUMP 2A-A ROOM COOLER  
(Step 6.21[5])  
9,200 CFM (8,280 - 10,120)

2-PMCL-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER  
(Step 6.22[5])  
9,200 CFM (8,280 - 10,120)

2-CLR-30-186, PENETRATION ROOM EL 692 COOLER 2A-A (Step 6.23[7])  
4,250 CFM (3,825 - 4,675)

2-CLR-30-187, PENETRATION ROOM EL 692 COOLER 2B-B (Step 6.24[7])  
4,250 CFM (3,825 - 4,675)

2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A (Step 6.25[7])  
3,950 CFM (3,555 - 4,345)

2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B (Step 6.26[7])  
3,950 CFM (3,555 - 4,345)

2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A (Step 6.27[7])  
5,400 CFM (4,860 - 5,940)

2-CLR-30-202, AB EL 692 PIPE CHASE COOLER 2B-B (Step 6.28[7])  
5,400 CFM (4,860 - 5,940)

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 35 of 144</b>
-----------------------	--	---

**Data Package: Page \_\_\_\_ of \_\_\_\_**

**Date \_\_\_\_\_**

**5.0 ACCEPTANCE CRITERIA (continued)**

[3] Essential Raw Cooling Water System Valves.

[3.1] The following ERCW valves OPEN upon start of their associated ESF Cooler:

2-FCV-67-184, CSP ROOM COOLER 2A-A ERCW SUP FLOW CNTL  
(Step 6.3[4]C)

2-FCV-67-186, CSP ROOM COOLER 2B-B ERCW SUP FLOW CNTL  
(Step 6.4[4]C)

2-FCV-67-176, SIP ROOM COOLER 2A-A ERCW SUP FLOW CNTL  
(Step 6.5[4]C)

2-FCV-67-182, SIP ROOM COOLER 2B-B ERCW SUP FLOW CNTL  
(Step 6.6[4]C)

2-FCV-67-346, PENT ROOM COOLER 2A-A ERCW SUP FLOW CNTL  
(Step 6.9[4]C)

2-FCV-67-348, PENT ROOM COOLER 2B-B ERCW SUP FLOW CNTL  
(Step 6.10[4]C)

2-FCV-67-350, PENT ROOM COOLER 2A-A ERCW SUP FLOW CNTL  
(Step 6.11[4]C)

2-FCV-67-352, PENT ROOM COOLER 2B-B ERCW SUP FLOW CNTL  
(Step 6.12[4]C)

2-FCV-67-342, PIPE CHASE COOLER 2A-A ERCW SUP FLOW CNTL  
(Step 6.13[4]C)

2-FCV-67-344, PIPE CHASE COOLER 2B-B ERCW SUP FLOW CNTL  
(Step 6.14[4]C)

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 36 of 144</b>
-----------------------	--	---

**Data Package: Page \_\_\_\_ of \_\_\_\_**

**Date \_\_\_\_\_**

**5.0 ACCEPTANCE CRITERIA (continued)**

[3.2] The following ERCW valves OPEN in  $\leq 10$  seconds:

2-FCV-67-184, CSP ROOM COOLER 2A-A ERCW SUP FLOW CNTL  
(Step 6.17[4])

2-FCV-67-186, CSP ROOM COOLER 2B-B ERCW SUP FLOW CNTL  
(Step 6.18[4])

2-FCV-67-176, SIP ROOM COOLER 2A-A ERCW SUP FLOW CNTL  
(Step 6.19[4])

2-FCV-67-182, SIP ROOM COOLER 2B-B ERCW SUP FLOW CNTL  
(Step 6.20[4])

2-FCV-67-346, PENT ROOM COOLER 2A-A ERCW SUP FLOW CNTL  
(Step 6.23[4])

2-FCV-67-348, PENT ROOM COOLER 2B-B ERCW SUP FLOW CNTL  
(Step 6.24[4])

2-FCV-67-350, PENT ROOM COOLER 2A-A ERCW SUP FLOW CNTL  
(Step 6.25[4])

2-FCV-67-352, PENT ROOM COOLER 2B-B ERCW SUP FLOW CNTL  
(Step 6.26[4])

2-FCV-67-342, PIPE CHASE COOLER 2A-A ERCW SUP FLOW CNTL  
(Step 6.27[4])

2-FCV-67-344, PIPE CHASE COOLER 2B-B ERCW SUP FLOW CNTL  
(Step 6.28[4])

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 37 of 144</b>
-----------------------	--	---

**Data Package: Page \_\_\_\_ of \_\_\_\_**

**Date \_\_\_\_\_**

**5.0 ACCEPTANCE CRITERIA (continued)**

[4] High Energy Line Break (HELB) Detection

[4.1] The following HELB Indicator Lights come ON upon receipt of an associated room Hi-Temperature signal.

2-XI-30-5235A, LETDOWN HX PIPE BREAK (Step 6.29.2[3]C)

2-XI-30-5235B, LETDOWN HX PIPE BREAK (Step 6.29.2[7]C)

2-XI-30-5236A, RHR PMP RM A PIPE BREAK (Step 6.29.3[3]C)

2-XI-30-5236B, RHR PMP RM A PIPE BREAK (Step 6.29.3[7]C)

2-XI-30-5237A, RHR PMP RM B PIPE BREAK (Step 6.29.4[3]C)

2-XI-30-5237B, RHR PMP RM B PIPE BREAK (Step 6.29.4[7]C)

2-XI-30-5238A, RHR HX A ROOM PIPE BREAK (Step 6.29.5[3]C)

2-XI-30-5238B, RHR HX A ROOM PIPE BREAK (Step 6.29.5[7]C)

2-XI-30-5239A, RHR HX B ROOM PIPE BREAK (Step 6.29.6[3]C)

2-XI-30-5239B, RHR HX B ROOM PIPE BREAK (Step 6.29.6[7]C)

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 38 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**5.0 ACCEPTANCE CRITERIA (continued)**

[4.2] Annunciator window 2-XA-55-6A-113B, RHR/CVCS PIPE BREAK, ALARMS upon receipt of any HELB room Hi-Temperature signal.

2-TS-30-5235A, CVCS LETDOWN HT EXCH RM HI TEMP SW  
(Step 6.29.2[3]A)

2-TS-30-5235B, CVCS LETDOWN HT EXCH RM HI TEMP SW  
(Step 6.29.2[7]A)

2-TS-30-5236A, RHR PUMP RM A HI TEMP SW (Step 6.29.3[3]A)

2-TS-30-5236B, RHR PUMP RM A HI TEMP SW (Step 6.29.3[7]A)

2-TS-30-5237A, RHR PUMP RM B HI TEMP SW (Step 6.29.4[3]A)

2-TS-30-5237B, RHR PUMP RM B HI TEMP SW (Step 6.29.4[7]A)

2-TS-30-5238A, RHR HT EXCH A ROOM HI TEMP SW (Step 6.29.5[3]A)

2-TS-30-5238B, RHR HT EXCH A ROOM HI TEMP SW (Step 6.29.5[7]A)

2-TS-30-5239A, RHR HT EXCH B ROOM HI TEMP SW (Step 6.29.6[3]A)

2-TS-30-5239B, RHR HT EXCH B ROOM HI TEMP SW (Step 6.29.6[7]A)

[4.3] Unit 2 Alarm Events Display Screen indicates the correct alarm upon receipt of each HELB room Hi-Temperature signal.

2-TS-30-5235A, CVCS LETDOWN HT EXCH RM HI TEMP SW  
(Step 6.29.2[3]B)

2-TS-30-5235B, CVCS LETDOWN HT EXCH RM HI TEMP SW  
(Step 6.29.2[7]B)

2-TS-30-5236A, RHR PUMP RM A HI TEMP SW (Step 6.29.3[3]B)

2-TS-30-5236B, RHR PUMP RM A HI TEMP SW (Step 6.29.3[7]B)

2-TS-30-5237A, RHR PUMP RM B HI TEMP SW (Step 6.29.4[3]B)

2-TS-30-5237B, RHR PUMP RM B HI TEMP SW (Step 6.29.4[7]B)

2-TS-30-5238A, RHR HT EXCH A ROOM HI TEMP SW (Step 6.29.5[3]B)

2-TS-30-5238B, RHR HT EXCH A ROOM HI TEMP SW (Step 6.29.5[7]B)

2-TS-30-5239A, RHR HT EXCH B ROOM HI TEMP SW (Step 6.29.6[3]B)

2-TS-30-5239B, RHR HT EXCH B ROOM HI TEMP SW (Step 6.29.6[7]B)



<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 39 of 144</b>
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Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

## 6.0 PERFORMANCE

### NOTES

- 1) SubSections 6.1 through 6.29 may be performed in any order or in parallel provided the steps within are performed in the order written unless otherwise noted.
- 2) All verifications (fan starts, fan stops, valve position, etc) are to be done by local observation unless otherwise noted.
- 3) IF/THEN steps may be marked N/A if stated condition does not exist.

### 6.1 2-PMCL-30-175, RHR PUMP 2A-A ROOM COOLER LOGIC

[1] **ENSURE** prerequisites listed in Section 4.0 for SubSection 6.1 have been completed. \_\_\_\_\_

[2] **ENSURE** Handswitch 2-HS-30-175, RHR PUMP 2A-A ROOM COOLER, at 2-JB-292-2506-A, [A11W/676], is in AUTO, **AND**

**ENSURE** Cooler 2-PMCL-30-175, RHR PUMP 2A-A ROOM COOLER, is OFF. \_\_\_\_\_

[3] **VERIFY** the following:

A. Breaker 2-BKR-30-175, 480V C&A BUILDING VENT BD 2A1-A, Compartment 9A, Red Light is OFF. \_\_\_\_\_

B. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 13, FCV-67-188 RHR PMP 2A-A ROOM CLR OPEN, is ON. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 40 of 144</b>
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**Data Package: Page \_\_\_\_ of \_\_\_\_**

**Date \_\_\_\_\_**

**6.1 2-PMCL-30-175, RHR PUMP 2A-A ROOM COOLER LOGIC  
(continued)**

[4] **PLACE** Handswitch 2-HS-30-175, RHR PUMP 2A-A ROOM COOLER, to START, **AND**

**VERIFY** the following:

A. Cooler 2-PMCL-30-175, RHR PUMP 2A-A ROOM COOLER, STARTS. (**Acc Crit**) \_\_\_\_\_

B. Breaker 2-BKR-30-175-A, 480V C&A BUILDING VENT BD 2A1-A, Compartment 9A, Red Light is ON. \_\_\_\_\_

[5] **PLACE** Handswitch 2-HS-30-175, RHR PUMP 2A-A ROOM COOLER, to STOP, **AND**

**VERIFY** the following:

A. Cooler 2-PMCL-30-175, RHR PUMP 2A-A ROOM COOLER 2A-A, STOPS. (**Acc Crit**) \_\_\_\_\_

B. Breaker 2-BKR-30-175, 480V C&A BUILDING VENT BD 2A1-A, Compartment 9A, Red Light is OFF. \_\_\_\_\_

[6] **PLACE** Handswitch 2-HS-30-175, RHR PUMP 2A-A ROOM COOLER, to AUTO, **AND**

**VERIFY** Cooler 2-PMCL-30-175, RHR PUMP 2A-A ROOM COOLER 2A-A, remains OFF. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 41 of 144</b>
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Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.1 2-PMCL-30-175, RHR PUMP 2A-A ROOM COOLER LOGIC  
(continued)**

**CAUTION**

**The following steps will simulate a high ambient room temperature using an electric heatgun. Heat the temperature switch sensing bulb SLOWLY while monitoring the bulb temperature with a surface temperature probe.**

[7] **HEAT** Temperature Switch 2-TS-30-175, RHR PUMP 2A-A ROOM COOLER TEMP, [A11W/676], sensing bulb to a temperature greater than 95°F.

[8] **VERIFY** Cooler 2-PMCL-30-175, RHR PUMP 2A-A ROOM COOLER, STARTS. (**Acc Crit**) \_\_\_\_\_

[9] **IF** temperature of the sensing bulb reaches 115°F, **THEN STOP** applying heat to the sensing bulb. \_\_\_\_\_

[10] **MAINTAIN** Temperature Switch 2-TS-30-175, RHR PUMP 2A-A ROOM COOLER TEMP, sensing bulb at a temperature greater than 95°F. \_\_\_\_\_

[10.1] **PLACE** Handswitch 2-HS-30-175, RHR PUMP 2A-A ROOM COOLER, to STOP, **AND** \_\_\_\_\_

**VERIFY** Cooler 2-PMCL-30-175, RHR PUMP 2A-A ROOM COOLER, STOPS. (**Acc Crit**) \_\_\_\_\_

[10.2] **PLACE** Handswitch 2-HS-30-175, RHR PUMP 2A-A ROOM COOLER, to AUTO, **AND** \_\_\_\_\_

**VERIFY** Cooler 2-PMCL-30-175, RHR PUMP 2A-A ROOM COOLER, STARTS. \_\_\_\_\_

[11] **COOL** Temperature Switch 2-TS-30-175, RHR PUMP 2A-A ROOM COOLER TEMP, sensing bulb to a temperature less than 90°F. \_\_\_\_\_

[12] **VERIFY** Cooler 2-PMCL-30-175, RHR PUMP 2A-A ROOM COOLER, STOPS. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 42 of 144</b>
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Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.1 2-PMCL-30-175, RHR PUMP 2A-A ROOM COOLER LOGIC  
(continued)**

[13] **IF** no further testing is to be performed on Cooler  
2-PMCL-30-175, RHR PUMP 2A-A ROOM COOLER, **THEN**

**SECURE** Cooler 2-PMCL-30-175, RHR PUMP 2A-A ROOM  
COOLER. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 43 of 144</b>
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Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.2 2-PMCL-30-176, RHR PUMP 2B-B ROOM COOLER LOGIC**

[1] **ENSURE** prerequisites listed in Section 4.0 for SubSection 6.2 have been completed. \_\_\_\_\_

[2] **ENSURE** Handswitch 2-HS-30-176, RHR PUMP 2B-B ROOM COOLER, at 2-JB-292-2505-B, [A11V/676], is in AUTO, **AND**  
  
**ENSURE** Cooler 2-PMCL-30-176, RHR PUMP 2B-B ROOM COOLER, is OFF. \_\_\_\_\_

[3] **VERIFY** the following:  
  
A. Breaker 2-BKR-30-176, 480V C&A BUILDING VENT BD 2B1-B, Compartment 9A, Red Light is OFF. \_\_\_\_\_  
  
B. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 18, FCV-67-190 RHR PMP 2B-B ROOM CLR OPEN, is ON. \_\_\_\_\_

[4] **PLACE** Handswitch 2-HS-30-176, RHR PUMP 2B-B ROOM COOLER, to START, **AND**  
  
**VERIFY** the following:  
  
A. Cooler 2-PMCL-30-176, RHR PUMP 2B-B ROOM COOLER, STARTS. (**Acc Crit**) \_\_\_\_\_  
  
B. Breaker 2-BKR-30-176, 480V C&A BUILDING VENT BD 2B1-B, Compartment 9A, Red Light is ON. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 44 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.2 2-PMCL-30-176, RHR PUMP 2B-B ROOM COOLER LOGIC  
(continued)**

[5] **PLACE** Handswitch 2-HS-30-176, RHR PUMP 2B-B ROOM COOLER, to STOP, **AND**

**VERIFY** the following:

A. Cooler 2-PMCL-30-176, RHR PUMP 2B-B ROOM COOLER, STOPS. (**Acc Crit**) \_\_\_\_\_

B. Breaker 2-BKR-30-176, 480V C&A BUILDING VENT BD 2B1-B, Compartment 9A, Red Light is OFF. \_\_\_\_\_

[6] **PLACE** Handswitch 2-HS-30-176, RHR PUMP 2B-B ROOM COOLER, to AUTO, **AND**

**VERIFY** Cooler 2-PMCL-30-176, RHR PUMP 2B-B ROOM COOLER, remains OFF. \_\_\_\_\_

**CAUTION**

**The following steps will simulate a high ambient room temperature using an electric heatgun. Heat the temperature switch sensing bulb SLOWLY while monitoring the bulb temperature with a surface temperature probe.**

[7] **HEAT** Temperature Switch 2-TS-30-176, RHR PUMP 2B-B ROOM COOLER TEMP [A11V/676], sensing bulb to a temperature greater than 95°F. \_\_\_\_\_

[8] **VERIFY** Cooler 2-PMCL-30-176, RHR PUMP 2B-B ROOM COOLER, STARTS. (**Acc Crit**) \_\_\_\_\_

[9] **IF** temperature of the sensing bulb reaches 115°F, **THEN STOP** applying heat to the sensing bulb. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 45 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.2 2-PMCL-30-176, RHR PUMP 2B-B ROOM COOLER LOGIC  
(continued)**

[10] **MAINTAIN** Temperature Switch 2-TS-30-176, RHR PUMP 2B-B ROOM COOLER TEMP, sensing bulb at a temperature greater than 95°F. \_\_\_\_\_

[10.1] **PLACE** Handswitch 2-HS-30-176, RHR PUMP 2B-B ROOM COOLER, to STOP, **AND**

**VERIFY** Cooler 2-PMCL-30-176, RHR PUMP 2B-B ROOM COOLER, STOPS. (**Acc Crit**) \_\_\_\_\_

[10.2] **PLACE** Handswitch 2-HS-30-176, RHR PUMP 2B-B ROOM COOLER, to AUTO, **AND**

**VERIFY** Cooler 2-PMCL-30-176, RHR PUMP 2B-B ROOM COOLER, STARTS. \_\_\_\_\_

[11] **COOL** Temperature Switch 2-TS-30-176, RHR PUMP 2B-B ROOM COOLER TEMP, sensing bulb to a temperature less than 90°F. \_\_\_\_\_

[12] **VERIFY** Cooler 2-PMCL-30-176, RHR PUMP 2B-B ROOM COOLER STOPS. \_\_\_\_\_

[13] **IF** no further testing is to be performed on Cooler 2-PMCL-30-176, RHR PUMP 2B-B ROOM COOLER, **THEN**

**SECURE** Cooler 2-PMCL-30-176, RHR PUMP 2B-B ROOM COOLER. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 46 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.3 2-PMCL-30-177, CS PUMP 2A-A ROOM COOLER LOGIC**

[1] **ENSURE** prerequisites listed in Section 4.0 for SubSection 6.3 have been completed. \_\_\_\_\_

[2] **ENSURE** Handswitch 2-HS-30-177, CS PUMP 2A-A ROOM COOLER, at 2-JB-292-2502-A, [A10U/676], is in AUTO, **AND**  
  
**ENSURE** Cooler 2-PMCL-30-177, CS PUMP 2A-A ROOM COOLER, is OFF. \_\_\_\_\_

[3] **VERIFY** the following:  
  
A. Breaker 2-BKR-30-177, 480V C&A BUILDING VENT BD 2A1-A, Compartment 3C, Red Light is OFF. \_\_\_\_\_  
  
B. Valve 2-FCV-67-184, CSP ROOM COOLER 2A-A ERCW SUP FLOW CNTL, [A10U/676], is CLOSED. \_\_\_\_\_  
  
C. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 12, FCV-67-184 CS PMP 2A-A ROOM CLR OPEN, is OFF. \_\_\_\_\_

[4] **PLACE** Handswitch 2-HS-30-177, CS PUMP 2A-A ROOM COOLER, to START, **AND**  
  
**VERIFY** the following:  
  
A. Cooler 2-PMCL-30-177, CS PUMP 2A-A ROOM COOLER, STARTS. (**Acc Crit**) \_\_\_\_\_  
  
B. Breaker 2-BKR-30-177, 480V C&A BUILDING VENT BD 2A1-A, Compartment 3C, Red Light is ON. \_\_\_\_\_  
  
C. Valve 2-FCV-67-184, CSP ROOM COOLER 2A-A ERCW SUP FLOW CNTL, is OPEN. (**Acc Crit**) \_\_\_\_\_  
  
D. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 12, FCV-67-184 CS PMP 2A-A ROOM CLR OPEN, is ON. \_\_\_\_\_



<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 47 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.3 2-PMCL-30-177, CS PUMP 2A-A ROOM COOLER LOGIC  
(continued)**

[5] **PLACE** Handswitch 2-HS-30-177, CS PUMP 2A-A ROOM COOLER, to STOP, **AND**

**VERIFY** the following:

- A. Cooler 2-PMCL-30-177, CS PUMP 2A-A ROOM COOLER, STOPS. (**Acc Crit**) \_\_\_\_\_
- B. Breaker 2-BKR-30-177, 480V C&A BUILDING VENT BD 2A1-A, Compartment 3C, Red Light is OFF. \_\_\_\_\_
- C. Valve 2-FCV-67-184, CSP ROOM COOLER 2A-A ERCW SUP FLOW CNTL, is CLOSED. \_\_\_\_\_
- D. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 12, FCV-67-184 CS PMP 2A-A ROOM CLR OPEN, is OFF. \_\_\_\_\_

[6] **PLACE** Handswitch 2-HS-30-177, CS PUMP 2A-A ROOM COOLER, to AUTO, **AND**

**VERIFY** Cooler 2-PMCL-30-177, CS PUMP 2A-A ROOM COOLER, remains OFF. \_\_\_\_\_

**CAUTION**

**The following steps will simulate a high ambient room temperature using an electric heatgun. Heat the temperature switch sensing bulb SLOWLY while monitoring the bulb temperature with a surface temperature probe.**

[7] **HEAT** Temperature Switch 2-TS-30-177, CS PUMP 2A-A ROOM COOLER TEMP, [A11U/676], sensing bulb to a temperature greater than 95°F. \_\_\_\_\_

[8] **VERIFY** Cooler 2-PMCL-30-177, CS PUMP 2A-A ROOM COOLER, STARTS. (**Acc Crit**) \_\_\_\_\_

[9] **IF** temperature of the sensing bulb reaches 115°F, **THEN STOP** applying heat to the sensing bulb. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 48 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.3 2-PMCL-30-177, CS PUMP 2A-A ROOM COOLER LOGIC  
(continued)**

[10] **MAINTAIN** Temperature Switch 2-TS-30-177, CS PUMP 2A-A ROOM COOLER TEMP, sensing bulb at a temperature greater than 95°F. \_\_\_\_\_

[10.1] **PLACE** Handswitch 2-HS-30-177, CS PUMP 2A-A ROOM COOLER, to STOP, **AND**

**VERIFY** Cooler 2-PMCL-30-177, CS PUMP 2A-A ROOM COOLER, STOPS. (**Acc Crit**) \_\_\_\_\_

[10.2] **PLACE** Handswitch 2-HS-30-177, CS PUMP 2A-A ROOM COOLER, to AUTO, **AND**

**VERIFY** Cooler 2-PMCL-30-177, CS PUMP 2A-A ROOM COOLER, STARTS. \_\_\_\_\_

[11] **COOL** Temperature Switch 2-TS-30-177, CS PUMP 2A-A ROOM COOLER TEMP, sensing bulb to a temperature less than 90°F. \_\_\_\_\_

[12] **VERIFY** Cooler 2-PMCL-30-177, CS PUMP 2A-A ROOM COOLER, STOPS.

[13] **IF** no further testing is to be performed on Cooler 2-PMCL-30-177, CS PUMP 2A-A ROOM COOLER, **THEN**

**SECURE** Cooler 2-PMCL-30-177, CS PUMP 2A-A ROOM COOLER. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 49 of 144</b>
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Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.4 2-PMCL-30-178, CS PUMP 2B-B ROOM COOLER LOGIC**

[1] **ENSURE** prerequisites listed in Section 4.0 for SubSection 6.4 have been completed. \_\_\_\_\_

[2] **ENSURE** Handswitch 2-HS-30-178, CS PUMP 2B-B ROOM COOLER, at 2-JB-292-2501-B, [A11U/676], is in AUTO, **AND**  
  
**ENSURE** Cooler 2-PMCL-30-178, CS PUMP 2B-B ROOM COOLER, is OFF. \_\_\_\_\_

[3] **VERIFY** the following:  
  
A. Breaker 2-BKR-30-178, 480V C&A BUILDING VENT BD 2B1-B, Compartment 3C, Red Light is OFF. \_\_\_\_\_  
  
B. Valve 2-FCV-67-186, CSP ROOM COOLER 2B-B ERCW SUP FLOW CNTL, [A10U/676], is CLOSED. \_\_\_\_\_  
  
C. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 19, FCV-67-186 CS PMP 2B-B ROOM CLR OPEN, is OFF. \_\_\_\_\_

[4] **PLACE** Handswitch 2-HS-30-178, CS PUMP 2B-B ROOM COOLER, to START, **AND**  
  
**VERIFY** the following:  
  
A. Cooler 2-PMCL-30-17B, CS PUMP 2B-B ROOM COOLER, STARTS. (**Acc Crit**) \_\_\_\_\_  
  
B. Breaker 2-BKR-30-178, 480V C&A BUILDING VENT BD 2B1-B, Compartment 3C, Red Light is ON. \_\_\_\_\_  
  
C. Valve 2-FCV-67-186, CSP ROOM COOLER 2B-B ERCW SUP FLOW CNTL, is OPEN. (**Acc Crit**) \_\_\_\_\_  
  
D. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 19, FCV-67-186 CS PMP 2B-B ROOM CLR OPEN, is ON. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 50 of 144</b>
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Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.4 2-PMCL-30-178, CS PUMP 2B-B ROOM COOLER LOGIC  
(continued)**

[5] **PLACE** Handswitch 2-HS-30-178, CS PUMP 2B-B ROOM COOLER, to STOP, **AND**

**VERIFY** the following:

- A. Cooler 2-PMCL-30-178, CS PUMP 2B-B ROOM COOLER, STOPS. (**Acc Crit**) \_\_\_\_\_
- B. Breaker 2-BKR-30-178, 480V C&A BUILDING VENT BD 2B1-B, Compartment 3C, Red Light is OFF. \_\_\_\_\_
- C. Valve 2-FCV-67-186, CSP ROOM COOLER 2B-B ERCW SUP FLOW CNTL, is CLOSED. \_\_\_\_\_
- D. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 19, FCV-67-186 CS PMP 2B-B ROOM CLR OPEN, is OFF. \_\_\_\_\_

[6] **PLACE** Handswitch 2-HS-30-178, CS PUMP 2B-B ROOM COOLER to AUTO, **AND**

**VERIFY** Cooler 2-PMCL-30-178, CS PUMP 2B-B ROOM COOLER remains OFF. \_\_\_\_\_

**CAUTION**

**The following steps will simulate a high ambient room temperature using an electric heatgun. Heat the temperature switch sensing bulb SLOWLY while monitoring the bulb temperature with a surface temperature probe.**

[7] **HEAT** Temperature Switch 2-TS-30-178, CS PUMP 2B-B ROOM COOLER TEMP, [A11T/676], to a temperature greater than 95°F. \_\_\_\_\_

[8] **VERIFY** Cooler 2-PMCL-30-178, CS PUMP 2B-B ROOM COOLER, STARTS. (**Acc Crit**) \_\_\_\_\_

[9] **IF** temperature of the sensing bulb reaches 115°F, **THEN STOP** applying heat to the sensing bulb. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 51 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.4 2-PMCL-30-178, CS PUMP 2B-B ROOM COOLER LOGIC  
(continued)**

[10] **MAINTAIN** Temperature Switch 2-TS-30-178, CS PUMP 2B-B ROOM COOLER TEMP, sensing bulb at a temperature greater than 95°F. \_\_\_\_\_

[10.1] **PLACE** Handswitch 2-HS-30-178, CS PUMP 2B-B ROOM COOLER, to STOP, **AND**

**VERIFY** Cooler 2-PMCL-30-178, CS PUMP 2B-B ROOM COOLER, STOPS. (**Acc Crit**) \_\_\_\_\_

[10.2] **PLACE** Handswitch 2-HS-30-178, CS PUMP 2B-B ROOM COOLER, to AUTO, **AND**

**VERIFY** Cooler 2-PMCL-30-178, CS PUMP 2B-B ROOM COOLER, STARTS. \_\_\_\_\_

[11] **COOL** Temperature Switch 2-TS-30-178, CS PUMP 2B-B ROOM COOLER TEMP, sensing bulb to a temperature less than 90°F. \_\_\_\_\_

[12] **VERIFY** Cooler 2-PMCL-30-178, CS PUMP 2B-B ROOM COOLER, STOPS. \_\_\_\_\_

[13] **IF** no further testing is to be performed on Cooler 2-PMCL-30-178, CS PUMP 2B-B ROOM COOLER, **THEN**

**SECURE** Cooler 2-PMCL-30-178, CS PUMP 2B-B ROOM COOLER. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 52 of 144</b>
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Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.5 2-PMCL-30-180, SIS PUMP 2A-A ROOM COOLER LOGIC**

[1] **ENSURE** prerequisites listed in Section 4.0 for SubSection 6.5 have been completed. \_\_\_\_\_

[2] **ENSURE** Handswitch 2-HS-30-180, SIS PUMP 2A-A ROOM COOLER, at 2-JB-292-1197-A, [A10V/692], is in AUTO, **AND**  
  
**ENSURE** Cooler 2-PMCL-30-180, SIS PUMP 2A-A ROOM COOLER, is OFF. \_\_\_\_\_

[3] **VERIFY** the following:  
  
A. Breaker 2-BKR-30-180, 480V C&A BUILDING VENT BD 2A1-A, Compartment 8A, Red Light is OFF. \_\_\_\_\_  
  
B. Valve 2-FCV-67-176, SIP ROOM COOLER 2A-A ERCW SUP FLOW CNTL, [A9V/692], is CLOSED. \_\_\_\_\_  
  
C. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 1, FCV-67-176 SIP 2A-A ROOM CLR OPEN, is OFF. \_\_\_\_\_

[4] **PLACE** Handswitch 2-HS-30-180, SIS PUMP 2A-A ROOM COOLER, to START, **AND**  
  
**VERIFY** the following:  
  
A. Cooler 2-PMCL-30-180, SIS PUMP 2A-A ROOM COOLER, STARTS. (**Acc Crit**) \_\_\_\_\_  
  
B. Breaker 2-BKR-30-180, 480V C&A BUILDING VENT BD 2A1-A, Compartment 8A, Red Light is ON. \_\_\_\_\_  
  
C. Valve 2-FCV-67-176, SIP ROOM COOLER 2A-A ERCW SUP FLOW CNTL, is OPEN. (**Acc Crit**) \_\_\_\_\_  
  
D. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 1, FCV-67-176 SIP 2A-A ROOM CLR OPEN, is ON. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 53 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.5 2-PMCL-30-180, SIS PUMP 2A-A ROOM COOLER LOGIC  
(continued)**

[5] **PLACE** Handswitch 2-HS-30-180, SIS PUMP 2A-A ROOM COOLER, to STOP, **AND**

**VERIFY** the following:

- A. Cooler 2-PMCL-30-180, SIS PUMP 2A-A ROOM COOLER, STOPS. (**Acc Crit**) \_\_\_\_\_
- B. Breaker 2-BKR-30-180, 480V C&A BUILDING VENT BD 2A1-A, Compartment 8A, Red Light is OFF. \_\_\_\_\_
- C. Valve 2-FCV-67-176, SIP ROOM COOLER 2A-A ERCW SUP FLOW CNTL, is CLOSED. \_\_\_\_\_
- D. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 1, FCV-67-176 SIP 2A-A ROOM CLR OPEN, is OFF. \_\_\_\_\_

[6] **PLACE** Handswitch 2-HS-30-180, SIS PUMP 2A-A ROOM COOLER, to AUTO, **AND**

**VERIFY** Cooler 2-PMCL-30-180, SIS PUMP 2A-A ROOM COOLER, remains OFF. \_\_\_\_\_

**CAUTION**

**The following steps will simulate a high ambient room temperature using an electric heatgun. Heat the temperature switch sensing bulb SLOWLY while monitoring the bulb temperature with a surface temperature probe.**

[7] **HEAT** Temperature Switch 2-TS-30-180, SIS PUMP 2A-A ROOM COOLER TEMP, [A10V/692], sensing bulb to a temperature greater than 95°F. \_\_\_\_\_

[8] **VERIFY** Cooler 2-PMCL-30-180, SIS PUMP 2A-A ROOM COOLER, STARTS. (**Acc Crit**) \_\_\_\_\_

[9] **IF** temperature of the sensing bulb reaches 115°F, **THEN STOP** applying heat to the sensing bulb. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 54 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.5 2-PMCL-30-180, SIS PUMP 2A-A ROOM COOLER LOGIC  
(continued)**

[10] **MAINTAIN** Temperature Switch 2-TS-30-180, SIS PUMP 2A-A ROOM COOLER TEMP, sensing bulb at a temperature greater than 95°F. \_\_\_\_\_

[10.1] **PLACE** Handswitch 2-HS-30-180, SIS PUMP 2A-A ROOM COOLER, to STOP, **AND**

**VERIFY** Cooler 2-PMCL-30-180, SIS PUMP 2A-A ROOM COOLER, STOPS. (**Acc Crit**) \_\_\_\_\_

[10.2] **PLACE** Handswitch 2-HS-30-180, SIS PUMP 2A-A ROOM COOLER, to AUTO, **AND**

**VERIFY** Cooler 2-PMCL-30-180, SIS PUMP 2A-A ROOM COOLER, STARTS. \_\_\_\_\_

[11] **COOL** Temperature Switch 2-TS-30-180, SIS PUMP 2A-A ROOM COOLER TEMP, sensing bulb to a temperature less than 90°F. \_\_\_\_\_

[12] **VERIFY** Cooler 2-PMCL-30-180, SIS PUMP 2A-A ROOM COOLER, STOPS. \_\_\_\_\_

[13] **IF** no further testing is to be performed on Cooler 2-PMCL-30-180, SIS PUMP 2A-A ROOM COOLER, **THEN**

**SECURE** Cooler 2-PMCL-30-180, SIS PUMP 2A-A ROOM COOLER. \_\_\_\_\_



<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 55 of 144</b>
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Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.6 2-PMCL-30-179-B, SIS PUMP 2B-B ROOM COOLER LOGIC**

[1] **ENSURE** prerequisites listed in Section 4.0 for SubSection 6.6 have been completed. \_\_\_\_\_

[2] **ENSURE** Handswitch 2-HS-30-179, SIS PUMP 2B-B ROOM COOLER, at 2-JB-292-1198-B, [A10U/692], is in AUTO, **AND**  
  
**ENSURE** Cooler 2-PMCL-30-179, SIS PUMP 2B-B ROOM COOLER, is OFF. \_\_\_\_\_

[3] **VERIFY** the following:  
  
A. Breaker 2-BKR-30-179, 480V C&A BUILDING VENT BD 2B1-B, Compartment 8A, Red Light is OFF. \_\_\_\_\_  
  
B. Valve 2-FCV-67-182, SIP ROOM COOLER 2B-B ERCW SUP FLOW CNTL, [A9V/692], is CLOSED. \_\_\_\_\_  
  
C. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 10, FCV-67-182 SIP 2B-B ROOM CLR OPEN, is OFF. \_\_\_\_\_

[4] **PLACE** Handswitch 2-HS-30-179, SIS PUMP 2B-B ROOM COOLER, to START, **AND**  
  
**VERIFY** the following: \_\_\_\_\_  
  
A. Cooler 2-PMCL-30-179, SIS PUMP 2B-B ROOM COOLER, STARTS. (**Acc Crit**) \_\_\_\_\_  
  
B. Breaker 2-BKR-30-179, 480V C&A BUILDING VENT BD 2B1-B, Compartment 8A, Red Light is ON. \_\_\_\_\_  
  
C. Valve 2-FCV-67-182, SIP ROOM COOLER 2B-B ERCW SUP FLOW CNTL, is OPEN. (**Acc Crit**) \_\_\_\_\_  
  
D. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 10, FCV-67-182 SIP 2B-B ROOM CLR OPEN, is ON. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 56 of 144</b>
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Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.6 2-PMCL-30-179-B, SIS PUMP 2B-B ROOM COOLER LOGIC  
(continued)**

[5] **PLACE** Handswitch 2-HS-30-179, SIS PUMP 2B-B ROOM COOLER, to STOP, **AND**

**VERIFY** the following:

- A. Cooler 2-PMCL-30-179, SIS PUMP 2B-B ROOM COOLER, STOPS. (**Acc Crit**) \_\_\_\_\_
- B. Breaker 2-BKR-30-179, 480V C&A BUILDING VENT BD 2B1-B, Compartment 8A, Red Light is OFF. \_\_\_\_\_
- C. Valve 2-FCV-67-182, SIP ROOM COOLER 2B-B ERCW SUP FLOW CNTRL, is CLOSED. \_\_\_\_\_
- D. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 10, FCV-67-182 SIP 2B-B ROOM CLR OPEN, is OFF. \_\_\_\_\_

[6] **PLACE** Handswitch 2-HS-30-179, SIS PUMP 2B-B ROOM COOLER, to AUTO, **AND**

**VERIFY** Cooler 2-PMCL-30-179, SIS PUMP 2B-B ROOM COOLER, remains OFF. \_\_\_\_\_

**CAUTION**

**The following steps will simulate a high ambient room temperature using an electric heatgun. Heat the temperature switch sensing bulb SLOWLY while monitoring the bulb temperature with a surface temperature probe.**

[7] **HEAT** Temperature Switch 2-TS-30-179, SIS PUMP 2B-B ROOM COOLER TEMP, [A9U/692], sensing bulb to a temperature greater than 95°F. \_\_\_\_\_

[8] **VERIFY** Cooler 2-PMCL-30-179, SIS PUMP 2B-B ROOM COOLER, STARTS. (**Acc Crit**) \_\_\_\_\_

[9] **IF** temperature of the sensing bulb reaches 115°F, **THEN STOP** applying heat to the sensing bulb. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 57 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.6 2-PMCL-30-179-B, SIS PUMP 2B-B ROOM COOLER LOGIC  
(continued)**

[10] **MAINTAIN** Temperature Switch 2-TS-30-179, SIS PUMP 2B-B ROOM COOLER TEMP, sensing bulb at a temperature greater than 95°F.

[10.1] **PLACE** Handswitch 2-HS-30-179, SIS PUMP 2B-B ROOM COOLER, to STOP, **AND**

**VERIFY** Cooler 2-PMCL-30-179, SIS PUMP 2B-B ROOM COOLER, STOPS. (**Acc Crit**) \_\_\_\_\_

[10.2] **PLACE** Handswitch 2-HS-30-179, SIS PUMP 2B-B ROOM COOLER, to AUTO, **AND**

**VERIFY** Cooler 2-PMCL-30-179, SIS PUMP 2B-B ROOM COOLER, STARTS. \_\_\_\_\_

[11] **COOL** Temperature Switch 2-TS-30-179, SIS PUMP 2B-B ROOM COOLER TEMP, sensing bulb to a temperature less than 90°F. \_\_\_\_\_

[12] **VERIFY** Cooler 2-PMCL-30-179, SIS PUMP 2B-B ROOM COOLER, STOPS.

[13] **IF** no further testing is to be performed on Cooler 2-PMCL-30-179, SIS PUMP 2B-B ROOM COOLER, **THEN**

**SECURE** Cooler 2-PMCL-30-179, SIS PUMP 2B-B ROOM COOLER. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 58 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.7 2-PMCL-30-183, CENT CHARGING PUMP 2A-A ROOM COOLER LOGIC**

[1] **ENSURE** prerequisites listed in Section 4.0 for SubSection 6.7 have been completed. \_\_\_\_\_

[2] **ENSURE** Handswitch 2-HS-30-183, CENT CHARGING PUMP 2A-A ROOM COOLER, at 2-JB-292-1191-A, [A12T/692], is in AUTO, **AND**

**ENSURE** Cooler 2-PMCL-30-183, CENT CHARGING PUMP 2A-A ROOM COOLER, is OFF. \_\_\_\_\_

[3] **VERIFY** the following: \_\_\_\_\_

A. Breaker 2-BKR-30-183, 480V C&A BUILDING VENT BD 2A1-A, Compartment 10A, Red Light is OFF. \_\_\_\_\_

B. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 3, FCV-67-168 CCP 2A-A ROOM CLR OPEN, is ON. \_\_\_\_\_

[4] **PLACE** Handswitch 2-HS-30-183, CENT CHARGING PUMP 2A-A ROOM COOLER, to START, **AND**

**VERIFY** the following:

A. Cooler 2-PMCL-30-183, CENT CHARGING PUMP 2A-A ROOM COOLER, STARTS. (**Acc Crit**) \_\_\_\_\_

B. Breaker 2-BKR-30-183, 480V C&A BUILDING VENT BD 2A1-A, Compartment 10A, Red Light is ON. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 59 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.7 2-PMCL-30-183, CENT CHARGING PUMP 2A-A ROOM COOLER LOGIC (continued)**

[5] **PLACE** Handswitch 2-HS-30-183, CENT CHARGING PUMP 2A-A ROOM COOLER, to STOP **AND**

**VERIFY:**

A. Cooler 2-PMCL-30-183, CENT CHARGING PUMP 2A-A ROOM COOLER, STOPS. (**Acc Crit**) \_\_\_\_\_

B. Breaker 2-BKR-30-183, 480V C&A BUILDING VENT BD 2A1-A, Compartment 10A, Red Light is OFF. \_\_\_\_\_

[6] **PLACE** Handswitch 2-HS-30-183, CENT CHARGING PUMP 2A-A ROOM COOLER, to AUTO, **AND**

**VERIFY** Cooler 2-PMCL-30-183, CENT CHARGING PUMP 2A-A ROOM COOLER, remains OFF. \_\_\_\_\_

**CAUTION**

**The following steps will simulate a high ambient room temperature using an electric heatgun. Heat the temperature switch sensing bulb SLOWLY while monitoring the bulb temperature with a surface temperature probe.**

[7] **HEAT** Temperature Switch 2-TS-30-183, CENT CHARGING PUMP 2A-A RM COOLER TEMP, [A12T/692], sensing bulb to a temperature greater than 95°F. \_\_\_\_\_

[8] **VERIFY** Cooler 2-PMCL-30-183, CENT CHARGING PUMP 2A-A ROOM COOLER, STARTS. (**Acc Crit**) \_\_\_\_\_

[9] **IF** temperature of the sensing bulb reaches 115°F, **THEN STOP** applying heat to the sensing bulb. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 60 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.7 2-PMCL-30-183, CENT CHARGING PUMP 2A-A ROOM COOLER LOGIC (continued)**

[10] **MAINTAIN** Temperature Switch 2-TS-30-183, CENT CHARGING PUMP 2A-A RM COOLER TEMP, sensing bulb at a temperature greater than 95°F. \_\_\_\_\_

[10.1] **PLACE** Handswitch 2-HS-30-183, CENT CHARGING PUMP 2A-A ROOM COOLER, to STOP, **AND**

**VERIFY** Cooler 2-PMCL-30-183, CENT CHARGING PUMP 2A-A ROOM COOLER, STOPS. (**Acc Crit**) \_\_\_\_\_

[10.2] **PLACE** Handswitch 2-HS-30-183, CENT CHARGING PUMP 2A-A ROOM COOLER, to AUTO, **AND**

**VERIFY** Cooler 2-PMCL-30-183, CENT CHARGING PUMP 2A-A ROOM COOLER, STARTS. \_\_\_\_\_

[11] **COOL** Temperature Switch 2-TS-30-183, CENT CHARGING PUMP 2A-A RM COOLER TEMP, sensing bulb to a temperature less than 90°F. \_\_\_\_\_

[12] **VERIFY** Cooler 2-PMCL-30-183, CENT CHARGING PUMP 2A-A ROOM COOLER, STOPS. \_\_\_\_\_

[13] **IF** no further testing is to be performed on Cooler 2-PMCL-30-183, CENT CHARGING PUMP 2A-A ROOM COOLER, **THEN**

**SECURE** Cooler 2-PMCL-30-183, CENT CHARGING PUMP 2A-A ROOM COOLER. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 61 of 144</b>
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Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.8 2-PMCL-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER LOGIC**

[1] **ENSURE** prerequisites listed in Section 4.0 for SubSection 6.8 have been completed. \_\_\_\_\_

[2] **ENSURE** Handswitch 2-HS-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER, at 2-JB-292-1192-B, [A11U/692], is in AUTO, **AND**

**ENSURE** Cooler 2-PMCL-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER is OFF. \_\_\_\_\_

[3] **VERIFY** the following:

A. Breaker 2-BKR-30-182, 480V C&A BUILDING VENT BD 2B1-B, Compartment 10A, Red Light is OFF. \_\_\_\_\_

B. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 8, FCV-67-170 CCP 2B-B ROOM CLR OPEN, is ON. \_\_\_\_\_

[4] **PLACE** Handswitch 2-HS-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER, to START, **AND**

**VERIFY** the following:

A. Cooler 2-PMCL-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER, STARTS. (**Acc Crit**) \_\_\_\_\_

B. Breaker 2-BKR-30-182, 480V C&A BUILDING VENT BD 2B1-B, Compartment 10A, Red Light is ON. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 62 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.8 2-PMCL-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER LOGIC (continued)**

[5] **PLACE** Handswitch 2-HS-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER, to STOP, **AND**

**VERIFY** the following:

A. Cooler 2-PMCL-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER, STOPS. (**Acc Crit**) \_\_\_\_\_

B. Breaker 2-BKR-30-182, 480V C&A BUILDING VENT BD 2B1-B, Compartment 10A, Red Light is OFF. \_\_\_\_\_

[6] **PLACE** Handswitch 2-HS-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER, to AUTO, **AND**

**VERIFY** Cooler 2-PMCL-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER, remains OFF. \_\_\_\_\_

**CAUTION**

The following steps will simulate a high ambient room temperature using an electric heatgun. Heat the temperature switch sensing bulb **SLOWLY** while monitoring the bulb temperature with a surface temperature probe.

[7] **HEAT** Temperature Switch 2-TS-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER TEMP, [A11U/692], sensing bulb to a temperature greater than 95°F. \_\_\_\_\_

[8] **VERIFY** Cooler 2-PMCL-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER, STARTS. (**Acc Crit**) \_\_\_\_\_

[9] **IF** temperature of the sensing bulb reaches 115°F, **THEN STOP** applying heat to the sensing bulb. \_\_\_\_\_



<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 63 of 144</b>
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Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.8 2-PMCL-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER LOGIC (continued)**

[10] **MAINTAIN** Temperature Switch 2-TS-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER TEMP, sensing bulb at a temperature greater than 95°F. \_\_\_\_\_

[10.1] **PLACE** Handswitch 2-HS-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER, to STOP, **AND**

**VERIFY** Cooler 2-PMCL-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER, STOPS. (**Acc Crit**) \_\_\_\_\_

[10.2] **PLACE** Handswitch 2-HS-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER, to AUTO, **AND**

**VERIFY** Cooler 2-PMCL-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER, STARTS. \_\_\_\_\_

[11] **COOL** Temperature Switch 2-TS-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER TEMP, sensing bulb to a temperature less than 90°F. \_\_\_\_\_

[12] **VERIFY** Cooler 2-PMCL-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER, STOPS. \_\_\_\_\_

[13] **IF** no further testing is to be performed on Cooler 2-PMCL-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER, **THEN**

**SECURE** Cooler 2-PMCL-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 64 of 144</b>
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Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.9 2-CLR-30-186, PENETRATION ROOM EL 692 COOLER 2A-A LOGIC**

[1] **ENSURE** prerequisites listed in Section 4.0 for SubSection 6.9 have been completed. \_\_\_\_\_

[2] **ENSURE** Handswitch 2-HS-30-186, PENETRATION ROOM EL 692 COOLER 2A-A, at 2-JB-292-1553-A, [A12U/693], is in AUTO, **AND**

**ENSURE** Cooler 2-CLR-30-186, PENETRATION ROOM EL 692 COOLER 2A-A, is OFF. \_\_\_\_\_

[3] **VERIFY** the following:

A. Breaker 2-BKR-30-186, 480V C&A BUILDING VENT BD 2A1-A, Compartment 2C, Red Light is OFF. \_\_\_\_\_

B. Valve 2-FCV-67-346, PENT ROOM COOLER 2A-A ERCW SUP FLOW CNTL, [A12U/692], is CLOSED. \_\_\_\_\_

C. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 23, FCV-67-346 PENT ROOM CLR 2 A1 OPEN, is OFF. \_\_\_\_\_

[4] **PLACE** Handswitch 2-HS-30-186, PENETRATION ROOM EL 692 COOLER 2A-A, to START, **AND**

**VERIFY** the following:

A. Cooler 2-CLR-30-186, PENETRATION ROOM EL 692 COOLER 2A-A, STARTS. (**Acc Crit**) \_\_\_\_\_

B. Breaker 2-BKR-30-186, 480V C&A BUILDING VENT BD 2A1-A, Red Light is ON. \_\_\_\_\_

C. Valve 2-FCV-67-346, PENT ROOM COOLER 2A-A ERCW SUP FLOW CNTL, is OPEN. (**Acc Crit**) \_\_\_\_\_

D. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 23, FCV-67-346 PENT ROOM CLR 2 A1 OPEN, is ON. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 65 of 144</b>
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Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.9 2-CLR-30-186, PENETRATION ROOM EL 692 COOLER 2A-A LOGIC (continued)**

[5] **PLACE** Handswitch 2-HS-30-186, PENETRATION ROOM EL 692 COOLER 2A-A, to STOP, **AND**

**VERIFY** the following:

A. Cooler 2-CLR-30-186, PENETRATION ROOM EL 692 COOLER 2A-A, STOPS. (**Acc Crit**) \_\_\_\_\_

B. Breaker 2-BKR-30-186, 480V C&A BUILDING VENT BD 2A1-A, Red Light is OFF. \_\_\_\_\_

C. Valve 2-FCV-67-346, PENT ROOM COOLER 2A-A ERCW SUP FLOW CNTL, is CLOSED. \_\_\_\_\_

D. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 23, FCV-67-346 PENT ROOM CLR 2 A1 OPEN, is OFF. \_\_\_\_\_

[6] **PLACE** Handswitch 2-HS-30-186, PENETRATION ROOM EL 692 COOLER 2A-A, to AUTO, **AND**

**VERIFY** Cooler 2-CLR-30-186, PENETRATION ROOM EL 692 COOLER 2A-A, remains OFF. \_\_\_\_\_

**CAUTION**

**The following steps will simulate a high ambient room temperature using an electric heatgun. Heat the temperature switch sensing bulb SLOWLY while monitoring the bulb temperature with a surface temperature probe.**

[7] **HEAT** Temperature Switch 2-TS-30-186A, PENETRATION ROOM EL 692 COOLER 2A-A TEMP, [A12U/692], sensing bulb to a temperature greater than 85°F. \_\_\_\_\_

[8] **VERIFY** Cooler 2-CLR-30-186, PENETRATION ROOM EL 692 COOLER 2A-A, STARTS. (**Acc Crit**) \_\_\_\_\_

[9] **IF** temperature of the sensing bulb reaches 105°F, **THEN**

**STOP** applying heat to the sensing bulb. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 66 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.9 2-CLR-30-186, PENETRATION ROOM EL 692 COOLER 2A-A LOGIC (continued)**

[10] **MAINTAIN** Temperature Switch 2-TS-30-186A, PENETRATION ROOM EL 692 COOLER 2A-A TEMP, sensing bulb at a temperature greater than 85°F. \_\_\_\_\_

[10.1] **PLACE** Handswitch 2-HS-30-186, PENETRATION ROOM EL 692 COOLER 2A-A, to STOP, **AND**  
  
**VERIFY** Cooler 2-CLR-30-186, PENETRATION ROOM EL 692 COOLER 2A-A, STOPS. (**Acc Crit**) \_\_\_\_\_

[10.2] **PLACE** Handswitch 2-HS-30-186, PENETRATION ROOM EL 692 COOLER 2A-A, to AUTO, **AND**  
  
**VERIFY** Cooler 2-CLR-30-186-A, PENETRATION ROOM EL 692 COOLER 2A-A, STARTS. \_\_\_\_\_

[11] **COOL** Temperature Switch 2-TS-30-186A, PENETRATION ROOM EL 692 COOLER 2A-A TEMP, sensing bulb, until it resets, **AND**  
  
**VERIFY** Cooler 2-CLR-30-186, PENETRATION ROOM EL 692 COOLER 2A-A, STOPS. \_\_\_\_\_

[12] **PLACE** Handswitch 2-HS-30-186, PENETRATION ROOM EL 692 COOLER 2A-A, to STANDBY, **AND**  
  
**VERIFY** Cooler 2-CLR-30-186, PENETRATION ROOM EL 692 COOLER 2A-A, remains OFF. \_\_\_\_\_

**CAUTION**

**The following steps will simulate a high ambient room temperature using an electric heatgun. Heat the temperature switch sensing bulb SLOWLY while monitoring the bulb temperature with a surface temperature probe.**

[13] **HEAT** Temperature Switch 2-TS-30-186B, PENETRATION ROOM EL 692 COOLER 2A-A TEMP, [A12U/692], sensing bulb to a temperature greater than 90°F. \_\_\_\_\_

[14] **VERIFY** Cooler 2-CLR-30-186, PENETRATION ROOM EL 692 COOLER 2A-A, STARTS. (**Acc Crit**) \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 67 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.9 2-CLR-30-186, PENETRATION ROOM EL 692 COOLER 2A-A LOGIC (continued)**

[15] **IF** temperature of the sensing bulb reaches 110°F, **THEN**  
**STOP** applying heat to the sensing bulb. \_\_\_\_\_

[16] **MAINTAIN** Temperature Switch 2-TS-30-186B, PENETRATION ROOM EL 692 COOLER 2A-A TEMP, sensing bulb at a temperature greater than 90°F. \_\_\_\_\_

[16.1] **PLACE** Handswitch 2-HS-30-186, PENETRATION ROOM EL 692 COOLER 2A-A to STOP, **AND**

**VERIFY** Cooler 2-CLR-30-186, PENETRATION ROOM EL 692 COOLER 2A-A, STOPS. (**Acc Crit**) \_\_\_\_\_

[16.2] **PLACE** Handswitch 2-HS-30-186, PENETRATION ROOM EL 692 COOLER 2A-A, to STANDBY, **AND**

**VERIFY** Cooler 2-CLR-30-186, PENETRATION ROOM EL 692 COOLER 2A-A, STARTS. \_\_\_\_\_

[17] **COOL** Temperature Switch 2-TS-30-186B, PENETRATION ROOM EL 692 COOLER 2A-A TEMP, sensing bulb until it resets, **AND**

**VERIFY** Cooler 2-CLR-30-186, PENETRATION ROOM EL 692 COOLER 2A-A, STOPS. \_\_\_\_\_

[18] **PLACE** Handswitch 2-HS-30-186, PENETRATION ROOM EL 692 COOLER 2A-A, to AUTO, **AND**

**VERIFY** Cooler 2-CLR-30-186, PENETRATION ROOM EL 692 COOLER 2A-A, remains OFF. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 68 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.9 2-CLR-30-186, PENETRATION ROOM EL 692 COOLER 2A-A  
LOGIC (continued)**

**NOTE**

The following step will simulate an Auxiliary Building Isolation (ABI) Signal by placing a jumper across terminal points in Auxiliary Relay panel 1-R-73.

[19] **PLACE** and **HOLD** a handheld jumper at TB 339, between Pt. 10 and Pt. 11 in Auxiliary Relay Panel 1-R-73.

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[20] **VERIFY** Cooler 2-CLR-30-186, PENETRATION ROOM EL 692 COOLER 2A-A, STARTS. (**Acc Crit**)

[21] **REMOVE** handheld jumper at TB 339 between Pt. 10 and Pt. 11 in Auxiliary Relay Panel 1-R-73.

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[22] **VERIFY** Cooler 2-CLR-30-186, PENETRATION ROOM EL 692 COOLER 2A-A, STOPS. (**Acc Crit**)

[23] **IF** no further testing is to be performed on Cooler 2-CLR-30-186, PENETRATION ROOM EL 692 COOLER 2A-A, **THEN**

**SECURE** Cooler 2-CLR-30-186, PENETRATION ROOM EL 692 COOLER 2A-A.

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<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 69 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.10 2-CLR-30-187, PENETRATION ROOM EL 692 COOLER 2B-B LOGIC**

[1] **ENSURE** prerequisites listed in Section 4.0 for SubSection 6.10 have been completed. \_\_\_\_\_

[2] **ENSURE** Handswitch 2-HS-30-187, PENETRATION ROOM EL 692 COOLER 2B-B at, 2-JB-292-1554-B, [A12V/692], is in AUTO, **AND**

**ENSURE** Cooler 2-CLR-30-187, PENETRATION ROOM EL 692 COOLER 2B-B, is OFF. \_\_\_\_\_

[3] **VERIFY** the following:

A. Breaker 2-BKR-30-187, 480V C&A BUILDING VENT BD 2B1-B, Compartment 8B, Red Light is OFF. \_\_\_\_\_

B. Valve 2-FCV-67-348, PENT ROOM COOLER 2B-B ERCW SUP FLOW CNTL, [A12V/692], is CLOSED. \_\_\_\_\_

C. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 26, FCV-67-348 PENT ROOM CLR 2 B1 OPEN, is OFF. \_\_\_\_\_

[4] **PLACE** Handswitch 2-HS-30-187, PENETRATION ROOM EL 692 COOLER 2B-B, to START, **AND**

**VERIFY** the following:

A. Cooler 2-CLR-30-187, PENETRATION ROOM EL 692 COOLER 2B-B, STARTS. (**Acc Crit**) \_\_\_\_\_

B. Breaker 2-BKR-30-187, 480V C&A BUILDING VENT BD 2B1-B, Compartment 8B, Red Light is ON. \_\_\_\_\_

C. Valve 2-FCV-67-348, PENT ROOM COOLER 2B-B ERCW SUP FLOW CNTL, is OPEN. (**Acc Crit**) \_\_\_\_\_

D. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 26, FCV-67-348 PENT ROOM CLR 2 B1 OPEN, is ON. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 70 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.10 2-CLR-30-187, PENETRATION ROOM EL 692 COOLER 2B-B LOGIC (continued)**

[5] **PLACE** Handswitch 2-HS-30-187, PENETRATION ROOM EL 692 COOLER 2B-B, to STOP, **AND**

**VERIFY** the following:

A. Cooler 2-CLR-30-187, PENETRATION ROOM EL 692 COOLER 2B-B, STOPS. (**Acc Crit**) \_\_\_\_\_

B. Breaker 2-BKR-30-187, 480V C&A BUILDING VENT BD 2B1-B, Red Light is OFF. \_\_\_\_\_

C. Valve 2-FCV-67-348, PENT ROOM COOLER 2B-B ERCW SUP FLOW CNTL, is CLOSED. \_\_\_\_\_

D. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 26, FCV-67-348 PENT ROOM CLR 2 B1 OPEN, is OFF. \_\_\_\_\_

[6] **PLACE** Handswitch 2-HS-30-187, PENETRATION ROOM EL 692 COOLER 2B-B, to AUTO, **AND**

**VERIFY** Cooler 2-CLR-30-187, PENETRATION ROOM EL 692 COOLER 2B-B, remains OFF. \_\_\_\_\_

**CAUTION**

**The following steps will simulate a high ambient room temperature using an electric heatgun. Heat the temperature switch sensing bulb SLOWLY while monitoring the bulb temperature with a surface temperature probe.**

[7] **HEAT** Temperature Switch 2-TS-30-187A, PENETRATION ROOM EL 692 COOLER 2B-B TEMP, [A12V/692], sensing bulb to a temperature greater than 85°F. \_\_\_\_\_

[8] **VERIFY** Cooler 2-CLR-30-187, PENETRATION ROOM EL 692 COOLER 2B-B, STARTS. (**Acc Crit**) \_\_\_\_\_

[9] **IF** temperature of the sensing bulb reaches 105°F, **THEN**

**STOP** applying heat to the sensing bulb. \_\_\_\_\_



<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 71 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.10 2-CLR-30-187, PENETRATION ROOM EL 692 COOLER 2B-B LOGIC (continued)**

[10] **MAINTAIN** Temperature Switch 2-TS-30-187A, PENETRATION ROOM EL 692 COOLER 2B-B TEMP, sensing bulb at a temperature greater than 85°F. \_\_\_\_\_

[10.1] **PLACE** Handswitch 2-HS-30-187, PENETRATION ROOM EL 692 COOLER 2B-B to STOP, **AND**

**VERIFY** Cooler 2-CLR-30-187, PENETRATION ROOM EL 692 COOLER 2B-B, STOPS. (**Acc Crit**) \_\_\_\_\_

[10.2] **PLACE** Handswitch 2-HS-30-187-B, PENETRATION ROOM EL 692 COOLER 2B-B, to AUTO, **AND**

**VERIFY** Cooler 2-CLR-30-187, PENETRATION ROOM EL 692 COOLER 2B-B, STARTS. \_\_\_\_\_

[11] **COOL** Temperature Switch 2-TS-30-187A, PENETRATION ROOM EL 692 COOLER 2B-B TEMP, sensing bulb until it resets, **AND**

**VERIFY** Cooler 2-CLR-30-187, PENETRATION ROOM EL 692 COOLER 2B-B, STOPS. \_\_\_\_\_

[12] **PLACE** Handswitch 2-HS-30-187, PENETRATION ROOM EL 692 COOLER 2B-B, to STANDBY, **AND**

**VERIFY** Cooler 2-CLR-30-187, PENETRATION ROOM EL 692 COOLER 2B-B, remains OFF. \_\_\_\_\_

**CAUTION**

**The following steps will simulate a high ambient room temperature using an electric heatgun. Heat the temperature switch sensing bulb SLOWLY while monitoring the bulb temperature with a surface temperature probe.**

[13] **HEAT** Temperature Switch 2-TS-30-187B, PENETRATION ROOM EL 692 COOLER 2B-B TEMP, [A12V/692], sensing bulb to a temperature greater than 90°F. \_\_\_\_\_

[14] **VERIFY** Cooler 2-CLR-30-187, PENETRATION ROOM EL 692 COOLER 2B-B, STARTS. (**Acc Crit**) \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 72 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.10 2-CLR-30-187, PENETRATION ROOM EL 692 COOLER 2B-B LOGIC (continued)**

[15] **IF** temperature of the sensing bulb reaches 110°F, **THEN**  
**STOP** applying heat to the sensing bulb. \_\_\_\_\_

[16] **MAINTAIN** Temperature Switch 2-TS-30-187B, PENETRATION ROOM EL 692 COOLER 2B-B TEMP, sensing bulb at a temperature greater than 90°F. \_\_\_\_\_

[16.1] **PLACE** Handswitch 2-HS-30-187, PENETRATION ROOM EL 692 COOLER 2B-B, to STOP, **AND**

**VERIFY** Cooler 2-CLR-30-187, PENETRATION ROOM EL 692 COOLER 2B-B, STOPS. (**Acc Crit**) \_\_\_\_\_

[16.2] **PLACE** Handswitch 2-HS-30-187, PENETRATION ROOM EL 692 COOLER 2B-B, to STANDBY, **AND**

**VERIFY** Cooler 2-CLR-30-187, PENETRATION ROOM EL 692 COOLER 2B-B, STARTS. \_\_\_\_\_

[17] **COOL** Temperature Switch 2-TS-30-187B, PENETRATION ROOM EL 692 COOLER 2B-B TEMP, sensing bulb until it resets, **AND**

**VERIFY** Cooler 2-CLR-30-187, PENETRATION ROOM EL 692 COOLER 2B-B, STOPS. \_\_\_\_\_

[18] **PLACE** Handswitch 2-HS-30-187, PENETRATION ROOM EL 692 COOLER 2B-B, to AUTO, **AND**

**VERIFY** Cooler 2-CLR-30-187, PENETRATION ROOM EL 692 COOLER 2B-B, remains OFF. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 73 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.10 2-CLR-30-187, PENETRATION ROOM EL 692 COOLER 2B-B  
LOGIC (continued)**

**NOTE**

The following step will simulate an Auxiliary Building Isolation (ABI) Signal by placing a jumper across terminal points in Auxiliary Relay panel 1-R-78.

- [19] **PLACE** and **HOLD** a handheld jumper at TB 838, between Pt. 1 and Pt. 2 in Auxiliary Relay Panel 1-R-78.

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- [20] **VERIFY** Cooler 2-CLR-30-187, PENETRATION ROOM EL 692 COOLER 2B-B, STARTS. (**Acc Crit**)

- [21] **REMOVE** handheld jumper at TB 838 between Pt. 1 and Pt. 2 in Auxiliary Relay Panel 1-R-78.

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- [22] **VERIFY** Cooler 2-CLR-30-187, PENETRATION ROOM EL 692 COOLER 2B-B, STOPS. (**Acc Crit**)

- [23] **IF** no further testing is to be performed on Cooler 2-CLR-30-187, PENETRATION ROOM EL 692 COOLER 2B-B, **THEN**

**SECURE** Cooler 2-CLR-30-187, PENETRATION ROOM EL 692 COOLER 2B-B.

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<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 74 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.11 2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A LOGIC**

[1] **ENSURE** prerequisites listed in Section 4.0 for SubSection 6.11 have been completed. \_\_\_\_\_

[2] **ENSURE** Handswitch 2-HS-30-196, PENETRATION ROOM EL 713 COOLER 2A-A, at 2-JB-292-1503-A, [A14V/713], is in AUTO, **AND**

**ENSURE** Cooler 2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A, is OFF. \_\_\_\_\_

[3] **VERIFY** the following:

A. Breaker 2-BKR-30-196, 480V C&A BUILDING VENT BD 2A1-A, Compartment 10B, Red Light is OFF. \_\_\_\_\_

B. Valve 2-FCV-67-350, PENT ROOM COOLER 2A-A ERCW SUP FLOW CNTL, [A14V/713], is CLOSED. \_\_\_\_\_

C. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 24, FCV-67-350 PENT ROOM CLR 2 A2 OPEN, is OFF. \_\_\_\_\_

[4] **PLACE** Handswitch 2-HS-30-196, PENETRATION ROOM EL 713 COOLER 2A-A, to START, **AND**

**VERIFY** the following:

A. Cooler 2-CLR-30-196, PENETRATION ROOM EL 713 2A-A, STARTS. (**Acc Crit**) \_\_\_\_\_

B. Breaker 2-BKR-30-196, 480V C&A BUILDING VENT BD 2A1-A, Compartment 10B, Red Light is ON. \_\_\_\_\_

C. Valve 2-FCV-67-350, PENT ROOM COOLER 2A-A ERCW SUP FLOW CNTL, is OPEN. (**Acc Crit**) \_\_\_\_\_

D. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 24, FCV-67-350 PENT ROOM CLR 2 A2 OPEN, is ON. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 75 of 144</b>
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Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.11 2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A LOGIC (continued)**

[5] **PLACE** Handswitch 2-HS-30-196, PENETRATION ROOM EL 713 COOLER 2A-A, to STOP, **AND**

**VERIFY** the following:

- A. Cooler 2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A, STOPS. (**Acc Crit**) \_\_\_\_\_
- B. Breaker 2-BKR-30-196, 480V C&A BUILDING VENT BD 2A1-A, Compartment 10B, Red Light is OFF. \_\_\_\_\_
- C. Valve 2-FCV-67-350, PENT ROOM COOLER 2A-A ERCW SUP FLOW CNTL, is CLOSED. \_\_\_\_\_
- D. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 24, FCV-67-350 PENT ROOM CLR 2 A2 OPEN, is OFF. \_\_\_\_\_

[6] **PLACE** Handswitch 2-HS-30-19A, PENETRATION ROOM EL 713 COOLER 2A-A, to AUTO **AND**

**VERIFY** Cooler 2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A, remains OFF. \_\_\_\_\_

**CAUTION**

**The following steps will simulate a high ambient room temperature using an electric heatgun. Heat the temperature switch sensing bulb SLOWLY while monitoring the bulb temperature with a surface temperature probe.**

[7] **HEAT** Temperature Switch 2-TS-30-196A, PENETRATION ROOM EL 713 COOLER 2A-A TEMP SWITCH, [A14V/713], sensing bulb to a temperature greater than 90°F. \_\_\_\_\_

[8] **VERIFY** Cooler 2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A, STARTS. (**Acc Crit**) \_\_\_\_\_

[9] **IF** temperature of the sensing bulb reaches 110°F, **THEN STOP** applying heat to the sensing bulb. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 76 of 144</b>
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Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.11 2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A LOGIC (continued)**

[10] **MAINTAIN** Temperature Switch 2-TS-30-196A, PENETRATION ROOM EL 713 COOLER 2A-A TEMP SWITCH, sensing bulb at a temperature greater than 90°F. \_\_\_\_\_

[10.1] **PLACE** Handswitch 2-HS-30-196, PENETRATION ROOM EL 713 COOLER 2A-A, to STOP, **AND**

**VERIFY** Cooler 2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A, STOPS. (**Acc Crit**) \_\_\_\_\_

[10.2] **PLACE** Handswitch 2-HS-30-196, PENETRATION ROOM EL 713 COOLER 2A-A, to AUTO, **AND**

**VERIFY** Cooler 2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A, STARTS. \_\_\_\_\_

[11] **COOL** Temperature Switch 2-TS-30-196A, PENETRATION ROOM EL 713 COOLER 2A-A TEMP SWITCH, sensing bulb until it resets, **AND**

**VERIFY** Cooler 2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A, STOPS. \_\_\_\_\_

[12] **PLACE** Handswitch 2-HS-30-196, PENETRATION ROOM EL 713 COOLER 2A-A, to STANDBY, **AND**

**VERIFY** Cooler 2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A, remains OFF. \_\_\_\_\_

**CAUTION**

**The following steps will simulate a high ambient room temperature using an electric heatgun. Heat the temperature switch sensing bulb SLOWLY while monitoring the bulb temperature with a surface temperature probe.**

[13] **HEAT** Temperature Switch 2-TS-30-196B, PENETRATION ROOM EL 713 COOLER 2A-A TEMP SWITCH, [A14V/713], sensing bulb to a temperature greater than 95°F. \_\_\_\_\_

[14] **VERIFY** Cooler 2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A, STARTS. (**Acc Crit**) \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 77 of 144</b>
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Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.11 2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A LOGIC (continued)**

[15] **IF** temperature of the sensing bulb reaches 115°F, **THEN**  
**STOP** applying heat to the sensing bulb. \_\_\_\_\_

[16] **MAINTAIN** Temperature Switch 2-TS-30-196B, PENETRATION ROOM EL 713 COOLER 2A-A TEMP SWITCH, sensing bulb at a temperature greater than 95°F. \_\_\_\_\_

[16.1] **PLACE** Handswitch 2-HS-30-196, EL 713 PENT ROOM COOLER 2A-A, to STOP, **AND**

**VERIFY** Cooler 2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A, STOPS. (**Acc Crit**) \_\_\_\_\_

[16.2] **PLACE** Handswitch 2-HS-30-196, PENETRATION ROOM EL 713 COOLER 2A-A, to STANDBY, **AND**

**VERIFY** Cooler 2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A, STARTS. \_\_\_\_\_

[17] **COOL** Temperature Switch 2-TS-30-196B, PENETRATION ROOM EL 713 COOLER 2A-A TEMP SWITCH, sensing bulb until it resets, **AND**

**VERIFY** Cooler 2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A, STOPS. \_\_\_\_\_

[18] **PLACE** Handswitch 2-HS-30-196, PENETRATION ROOM EL 713 COOLER 2A-A, to AUTO, **AND**

**VERIFY** Cooler 2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A, remains OFF. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 78 of 144</b>
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Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.11 2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A  
LOGIC (continued)**

**NOTE**

The following step will simulate an Auxiliary Building Isolation (ABI) Signal by placing a jumper across terminal points in Auxiliary Relay panel 1-R-73.

[19] **PLACE** and **HOLD** a handheld jumper at TB 340, between Pt. 11 and Pt. 12 in Auxiliary Relay Panel 1-R-73.

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[20] **VERIFY** Cooler 2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A, STARTS. (**Acc Crit**)

[21] **REMOVE** handheld jumper at TB 340 between Pt. 11 and Pt. 12 in Auxiliary Relay Panel 1-R-73.

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[22] **VERIFY** Cooler 2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A, STOPS. (**Acc Crit**)

[23] **IF** no further testing is to be performed on Cooler 2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A, **THEN**

**SECURE** Cooler 2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A.

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<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 79 of 144</b>
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Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.12 2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B LOGIC**

[1] **ENSURE** prerequisites listed in Section 4.0 for SubSection 6.12 have been completed. \_\_\_\_\_

[2] **ENSURE** Handswitch 2-HS-30-197, PENETRATION ROOM EL 713 COOLER 2B-B, at 2-JB-292-1505-B, [A14V/713], is in AUTO, **AND**

**ENSURE** Cooler 2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B, is OFF. \_\_\_\_\_

[3] **VERIFY** the following:

A. Breaker 2-BKR-30-197, 480V C&A BUILDING VENT BD 2B1-B, Compartment 2C, Red Light is OFF. \_\_\_\_\_

B. Valve 2-FCV-67-352, PENT ROOM COOLER 2B-B ERCW SUP FLOW CNTL, [A14V/713], is CLOSED. \_\_\_\_\_

C. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 27, FCV-67-352 PENT ROOM CLR 2 B2 OPEN, is OFF. \_\_\_\_\_

[4] **PLACE** Handswitch 2-HS-30-197, PENETRATION ROOM EL 713 COOLER 2B-B, to START, **AND**

**VERIFY** the following:

A. Cooler 2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B, STARTS. (**Acc Crit**) \_\_\_\_\_

B. Breaker 2-BKR-30-197, 480V C&A BUILDING VENT BD 2B1-B Compartment 2C, Red Light is ON. \_\_\_\_\_

C. Valve 2-FCV-67-352, PENT ROOM COOLER 2B-B ERCW SUP FLOW CNTL, is OPEN. (**Acc Crit**) \_\_\_\_\_

D. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 27, FCV-67-352 PENT ROOM CLR 2 B2 OPEN, is ON. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 80 of 144</b>
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Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.12 2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B LOGIC (continued)**

[5] **PLACE** Handswitch 2-HS-30-197, PENETRATION ROOM EL 713 COOLER 2B-B, to STOP, **AND**

**VERIFY** the following:

A. Cooler 2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B, STOPS. (**Acc Crit**) \_\_\_\_\_

B. Breaker 2-BKR-30-197, 480V C&A BUILDING VENT BD 2B1-B, Compartment 2C, Red Light is OFF. \_\_\_\_\_

C. Valve 2-FCV-67-352, PENT ROOM COOLER 2B-B ERCW SUP FLOW CNTL, is CLOSED. \_\_\_\_\_

D. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 27, FCV-67-352 PENT ROOM CLR 2 B2 OPEN, is OFF. \_\_\_\_\_

[6] **PLACE** Handswitch 2-HS-30-197, PENETRATION ROOM EL 713 COOLER 2B-B, to AUTO, **AND**

**VERIFY** Cooler 2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B, remains OFF. \_\_\_\_\_

**CAUTION**

**The following steps will simulate a high ambient room temperature using an electric heatgun. Heat the temperature switch sensing bulb SLOWLY while monitoring the bulb temperature with a surface temperature probe.**

[7] **HEAT** Temperature Switch 2-TS-30-197A, PENETRATION ROOM EL 713 COOLER 2B-B TEMP SWITCH, [A14V/713], sensing bulb to a temperature greater than 90°F. \_\_\_\_\_

[8] **VERIFY** Cooler 2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B, STARTS. (**Acc Crit**) \_\_\_\_\_

[9] **IF** temperature of the sensing bulb reaches 110°F, **THEN**

**STOP** applying heat to the sensing bulb. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 81 of 144</b>
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Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.12 2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B LOGIC (continued)**

[10] **MAINTAIN** Temperature Switch 2-TS-30-197A, PENETRATION ROOM EL 713 COOLER 2B-B TEMP SWITCH, sensing bulb at a temperature greater than 90°F. \_\_\_\_\_

[10.1] **PLACE** Handswitch 2-HS-30-197, PENETRATION ROOM EL 713 COOLER 2B-B, to STOP, **AND**

**VERIFY** Cooler 2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B, STOPS. (**Acc Crit**) \_\_\_\_\_

[10.2] **PLACE** Handswitch 2-HS-30-197, PENETRATION ROOM EL 713 COOLER 2B-B, to AUTO, **AND**

**VERIFY** Cooler 2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B, STARTS. \_\_\_\_\_

[11] **COOL** Temperature Switch 2-TS-30-197A, PENETRATION ROOM EL 713 COOLER 2B-B TEMP SWITCH, sensing bulb until it resets, **AND**

**VERIFY** Cooler 2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B, STOPS. \_\_\_\_\_

[12] **PLACE** Handswitch 2-HS-30-197, PENETRATION ROOM EL 713 COOLER 2B-B, to STANDBY, **AND**

**VERIFY** Cooler 2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B, remains OFF. \_\_\_\_\_

**CAUTION**

**The following steps will simulate a high ambient room temperature using an electric heatgun. Heat the temperature switch sensing bulb SLOWLY while monitoring the bulb temperature with a surface temperature probe.**

[13] **HEAT** Temperature Switch 2-TS-30-197B, PENETRATION ROOM EL 713 COOLER 2B-B TEMP SWITCH, [A14V/713], sensing bulb to a temperature greater than 95°F. \_\_\_\_\_

[14] **VERIFY** Cooler 2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B, STARTS. (**Acc Crit**) \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 82 of 144</b>
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Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.12 2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B LOGIC (continued)**

[15] **IF** temperature of the sensing bulb reaches 115°F, **THEN**  
**STOP** applying heat to the sensing bulb. \_\_\_\_\_

[16] **MAINTAIN** Temperature Switch 2-TS-30-197B, PENETRATION ROOM EL 713 COOLER 2B-B TEMP SWITCH, sensing bulb at a temperature greater than 95°F. \_\_\_\_\_

[16.1] **PLACE** Handswitch 2-HS-30-197, PENETRATION ROOM EL 713 COOLER 2B-B, to STOP, **AND**  
**VERIFY** Cooler 2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B, STOPS. (**Acc Crit**) \_\_\_\_\_

[16.2] **PLACE** Handswitch 2-HS-30-197, PENETRATION ROOM EL 713 COOLER 2B-B, to STANDBY, **AND**  
**VERIFY** Cooler 2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B, STARTS. \_\_\_\_\_

[17] **COOL** Temperature Switch 2-TS-30-197B, PENETRATION ROOM EL 713 COOLER 2B-B TEMP SWITCH, sensing bulb until it resets, **AND**  
**VERIFY** Cooler 2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B, STOPS. \_\_\_\_\_

[18] **PLACE** Handswitch 2-HS-30-197, PENETRATION ROOM EL 713 COOLER 2B-B, to AUTO, **AND**  
**VERIFY** Cooler 2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B, remains OFF. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 83 of 144</b>
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Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.12 2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B  
LOGIC (continued)**

**NOTE**

The following step will simulate an Auxiliary Building Isolation (ABI) Signal by placing a jumper across terminal points in Auxiliary Relay panel 1-R-78.

- [19] **PLACE** and **HOLD** a handheld jumper at TB 838, between Pt. 3 and Pt. 4 in Auxiliary Relay Panel 1-R-78.

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- [20] **VERIFY** Cooler 2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B, STARTS. (**Acc Crit**)

- [21] **REMOVE** handheld jumper at TB 838 between Pt. 3 and Pt. 4 in Auxiliary Relay Panel 1-R-78.

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- [22] **VERIFY** Cooler 2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B, STOPS. (**Acc Crit**)

- [23] **IF** no further testing is to be performed on Cooler 2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B, **THEN**

**SECURE** Cooler 2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B.

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<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 84 of 144</b>
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Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.13 2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A LOGIC**

[1] **ENSURE** prerequisites listed in Section 4.0 for SubSection 6.13 have been completed. \_\_\_\_\_

[2] **ENSURE** Handswitch 2-HS-30-201, AB EL 692 PIPE CHASE COOLER 2A-A at 2-JB-292-1555-A, [A15U/692], is in AUTO, **AND**

**ENSURE** Cooler 2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A, is OFF. \_\_\_\_\_

[3] **VERIFY** the following:

A. Breaker 2-BKR-30-201, 480V C&A BUILDING VENT BD 2A1-A, Compartment 10C, Red Light is OFF. \_\_\_\_\_

B. Valve 2-FCV-67-342, PIPE CHASE COOLER 2A-A ERCW SUP FLOW CNTL, [A15U/692], is CLOSED. \_\_\_\_\_

C. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27A, Window 22, FCV-67-342 PIPE CHASE CLR 2 A OPEN, is OFF. \_\_\_\_\_

[4] **PLACE** Handswitch 2-HS-30-201, AB EL 692 PIPE CHASE COOLER 2A-A, to START, **AND**

**VERIFY** the following:

A. Cooler 2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A, STARTS. (**Acc Crit**) \_\_\_\_\_

B. Breaker 2-BKR-30-201, 480V C&A BUILDING VENT BD 2A1-A, Compartment 10C, Red Light is ON. \_\_\_\_\_

C. Valve 2-FCV-67-342, PIPE CHASE COOLER 2A-A ERCW SUP FLOW CNTL, is OPEN. (**Acc Crit**) \_\_\_\_\_

D. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27A, Window 22, FCV-67-342 PIPE CHASE CLR 2 A OPEN, is ON. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 85 of 144</b>
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Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.13 2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A LOGIC  
(continued)**

[5] **PLACE** Handswitch 2-HS-30-201, AB EL 692 PIPE CHASE COOLER 2A-A, to STOP, **AND**

**VERIFY** the following:

A. Cooler 2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A, STOPS. (**Acc Crit**) \_\_\_\_\_

B. Breaker 2-BKR-30-201, 480V C&A BUILDING VENT BD 2A1-A, Compartment 10C, Red Light is OFF. \_\_\_\_\_

C. Valve 2-FCV-67-342, PIPE CHASE COOLER 2A-A ERCW SUP FLOW CNTL, is CLOSED. \_\_\_\_\_

D. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27A, Window 22, FCV-67-342 PIPE CHASE CLR 2 A OPEN, is OFF. \_\_\_\_\_

[6] **PLACE** Handswitch 2-HS-30-201, AB EL 692 PIPE CHASE COOLER 2A-A, to AUTO, **AND**

**VERIFY** Cooler 2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A, remains OFF. \_\_\_\_\_

**CAUTION**

**The following steps will simulate a high ambient room temperature using an electric heatgun. Heat the temperature switch sensing bulb SLOWLY while monitoring the bulb temperature with a surface temperature probe.**

[7] **HEAT** Temperature Switch 2-TS-30-201A, AB EL 692 PIPE CHASE COOLER 2A-A TEMP, [A12U/692], sensing bulb to a temperature greater than 95°F. \_\_\_\_\_

[8] **VERIFY** Cooler 2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A, STARTS. (**Acc Crit**) \_\_\_\_\_

[9] **IF** temperature of the sensing bulb reaches 115°F, **THEN**

**STOP** applying heat to the sensing bulb. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 86 of 144</b>
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Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.13 2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A LOGIC (continued)**

[10] **MAINTAIN** Temperature Switch 2-TS-30-201A, AB EL 692 PIPE CHASE COOLER 2A-A TEMP, sensing bulb at a temperature greater than 95°F. \_\_\_\_\_

[10.1] **PLACE** Handswitch 2-HS-30-201, AB EL 692 PIPE CHASE COOLER 2A-A, to STOP, **AND**

**VERIFY** Cooler 2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A, STOPS. (**Acc Crit**) \_\_\_\_\_

[10.2] **PLACE** Handswitch 2-HS-30-201, AB EL 692 PIPE CHASE COOLER 2A-A, to AUTO, **AND**

**VERIFY** Cooler 2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A, STARTS. \_\_\_\_\_

[11] **COOL** Temperature Switch 2-TS-30-201A, AB EL 692 PIPE CHASE COOLER 2A-A TEMP, sensing bulb until it resets, **AND**

**VERIFY** Cooler 2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A, STOPS. \_\_\_\_\_

[12] **PLACE** Handswitch 2-HS-30-201, AB EL 692 PIPE CHASE COOLER 2A-A, to STANDBY, **AND**

**VERIFY** Cooler 2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A, remains OFF. \_\_\_\_\_

**CAUTION**

**The following steps will simulate a high ambient room temperature using an electric heatgun. Heat the temperature switch sensing bulb SLOWLY while monitoring the bulb temperature with a surface temperature probe.**

[13] **HEAT** Temperature Switch 2-TS-30-201B, AB EL 692 PIPE CHASE COOLER 2A-A TEMP, [A12U/692], sensing bulb to a temperature greater than 100°F. \_\_\_\_\_

[14] **VERIFY** Cooler 2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A, STARTS. (**Acc Crit**) \_\_\_\_\_



<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 87 of 144</b>
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Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.13 2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A LOGIC  
(continued)**

[15] **IF** temperature of the sensing bulb reaches 120°F, **THEN**

**STOP** applying heat to the sensing bulb. \_\_\_\_\_

[16] **MAINTAIN** Temperature Switch 2-TS-30-201B, AB EL 692 PIPE CHASE COOLER 2A-A TEMP, sensing bulb at a temperature greater than 100°F. \_\_\_\_\_

[16.1] **PLACE** Handswitch 2-HS-30-201, AB EL 692 PIPE CHASE COOLER 2A-A, to STOP, **AND**

**VERIFY** Cooler 2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A, STOPS. (**Acc Crit**) \_\_\_\_\_

[16.2] **PLACE** Handswitch 2-HS-30-201, AB EL 692 PIPE CHASE COOLER 2A-A, to STANDBY, **AND**

**VERIFY** Cooler 2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A, STARTS. \_\_\_\_\_

[17] **COOL** Temperature Switch 2-TS-30-201B, AB EL 692 PIPE CHASE COOLER 2A-A TEMP, sensing bulb until it resets, **AND**

**VERIFY** Cooler 2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A, STOPS. \_\_\_\_\_

[18] **PLACE** Handswitch 2-HS-30-201, AB EL 692 PIPE CHASE COOLER 2A-A, to AUTO, **AND**

**VERIFY** Cooler 2-CLR-30-201-A, AB EL 692 PIPE CHASE COOLER 2A-A, remains OFF. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 88 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.13 2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A LOGIC  
(continued)**

**NOTE**

The following step will simulate an Auxiliary Building Isolation (ABI) Signal by placing a jumper across terminal points in Auxiliary Relay panel 1-R-73.

[19] **PLACE** and **HOLD** a handheld jumper at TB 340, between Pt. 9 and Pt. 10 in Auxiliary Relay Panel 1-R-73.

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1st

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CV

[20] **VERIFY** Cooler 2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A, STARTS. (**Acc Crit**)

[21] **REMOVE** handheld jumper at TB 340 between Pt. 9 and Pt. 10 in Auxiliary Relay Panel 1-R-73.

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1st

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CV

[22] **VERIFY** Cooler 2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A, STOPS. (**Acc Crit**)

[23] **IF** no further testing is to be performed on Cooler 2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A, **THEN**

**SECURE** Cooler 2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A..

\_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 89 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.14 2-CLR-30-202, AB EL 692 PIPE CHASE COOLER 2B-B LOGIC**

[1] **ENSURE** prerequisites listed in Section 4.0 for SubSection 6.14 have been completed. \_\_\_\_\_

[2] **ENSURE** Handswitch 2-HS-30-202, AB EL 692 PIPE CHASE COOLER 2B-B, at 2-JB-292-1556-B, [A14U/692], is in AUTO, **AND**

**ENSURE** cooler 2-CLR-30-202, AB EL 692 PIPE CHASE COOLER 2B-B, is OFF. \_\_\_\_\_

[3] **VERIFY** the following:

A. Breaker 2-BKR-30-202, 480V C&A BUILDING VENT BD 2B1-B, Compartment 3B, Red Light is OFF. \_\_\_\_\_

B. Valve 2-FCV-67-344, PIPE CHASE COOLER 2B-B ERCW SUP FLOW CNTL, [A14U/692], is CLOSED. \_\_\_\_\_

C. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 29, FCV-67-344 PIPE CHASE CLR 2 B OPEN, is OFF. \_\_\_\_\_

[4] **PLACE** Handswitch 2-HS-30-202, AB EL 692 PIPE CHASE COOLER 2B-B, to START, **AND**

**VERIFY** the following:

A. 2-CLR-30-202, AB EL 692 PIPE CHASE COOLER 2B-B, STARTS. (**Acc Crit**) \_\_\_\_\_

B. Breaker 2-BKR-30-202, 480V C&A BUILDING VENT BD 2B1-B, Compartment 3B, Red Light is ON. \_\_\_\_\_

C. Valve 2-FCV-67-344, PIPE CHASE COOLER 2B-B ERCW SUP FLOW CNTL, is OPEN. (**Acc Crit**) \_\_\_\_\_

D. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 29, FCV-67-344 PIPE CHASE CLR 2 B OPEN, is ON. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 90 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.14 2-CLR-30-202, AB EL 692 PIPE CHASE COOLER 2B-B LOGIC  
(continued)**

[5] **PLACE** Handswitch 2-HS-30-202, AB EL 692 PIPE CHASE COOLER 2B-B, to STOP, **AND**

**VERIFY** the following:

A. Cooler 2-CLR-30-202, AB EL 692 PIPE CHASE COOLER 2B-B, STOPS. (**Acc Crit**) \_\_\_\_\_

B. Breaker 2-BKR-30-202, 480V C&A BUILDING VENT BD 2B1-B, Compartment 3B, Red Light is OFF. \_\_\_\_\_

C. Valve 2-FCV-67-344, PIPE CHASE COOLER 2B-B ERCW SUP FLOW CNTL, is CLOSED. \_\_\_\_\_

D. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 29, FCV-67-344 PIPE CHASE CLR 2 B OPEN, is OFF. \_\_\_\_\_

[6] **PLACE** Handswitch 2-HS-30-202, AB EL 692 PIPE CHASE COOLER 2B-B, to AUTO, **AND**

**VERIFY** Cooler 2-CLR-30-202, AB EL 692 PIPE CHASE COOLER 2B-B, remains OFF. \_\_\_\_\_

**CAUTION**

**The following steps will simulate a high ambient room temperature using an electric heatgun. Heat the temperature switch sensing bulb SLOWLY while monitoring the bulb temperature with a surface temperature probe.**

[7] **HEAT** Temperature Switch 2-TS-30-202A, AB EL 692 PIPE CHASE COOLER 2B-B TEMP, [A12U/692], sensing bulb to a temperature greater than 95°F. \_\_\_\_\_

[8] **VERIFY** Cooler 2-CLR-30-202, AB EL 692 PIPE CHASE COOLER 2B-B, STARTS. (**Acc Crit**) \_\_\_\_\_

[9] **IF** temperature of the sensing bulb reaches 115°F, **THEN**

**STOP** applying heat to the sensing bulb. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 91 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.14 2-CLR-30-202, AB EL 692 PIPE CHASE COOLER 2B-B LOGIC  
(continued)**

[10] **MAINTIAN** Temperature Switch 2-TS-30-202A, AB EL 692  
PIPE CHASE COOLER 2B-B TEMP, sensing bulb at a  
temperature greater than 95°F. \_\_\_\_\_

[10.1] **PLACE** Handswitch 2-HS-30-20B, AB EL 692 PIPE  
CHASE COOLER 2B-B, to STOP, **AND**

**VERIFY** Cooler 2-CLR-30-202, AB EL 692 PIPE CHASE  
COOLER 2B-B, STOPS. (**Acc Crit**) \_\_\_\_\_

[10.2] **PLACE** Handswitch 2-HS-30-202, AB EL 692 PIPE  
CHASE COOLER 2B-B, to AUTO, **AND**

**VERIFY** Cooler 2-CLR-30-202, AB EL 692 PIPE CHASE  
COOLER 2B-B, STARTS. \_\_\_\_\_

[11] **COOL** Temperature Switch 2-TS-30-202A, AB EL 692 PIPE  
CHASE COOLER 2B-B TEMP, sensing bulb until it resets,  
**AND**

**VERIFY** Cooler 2-CLR-30-202, AB EL 692 PIPE CHASE  
COOLER 2B-B, STOPS. \_\_\_\_\_

[12] **PLACE** Handswitch 2-HS-30-202, AB EL 692 PIPE CHASE  
COOLER 2B-B, to STANDBY, **AND**

**VERIFY** Cooler 2-CLR-30-202, AB EL 692 PIPE CHASE  
COOLER 2B-B, remains OFF. \_\_\_\_\_

**CAUTION**

**The following steps will simulate a high ambient room temperature using an electric heatgun. Heat the temperature switch sensing bulb SLOWLY while monitoring the bulb temperature with a surface temperature probe.**

[13] **HEAT** Temperature Switch 2-TS-30-202B, AB EL 692 PIPE  
CHASE COOLER 2B-B TEMP, [A12U/692], sensing bulb to a  
temperature greater than 100°F. \_\_\_\_\_

[14] **VERIFY** Cooler 2-CLR-30-202, AB EL 692 PIPE CHASE  
COOLER 2B-B, STARTS. (**Acc Crit**) \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 92 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.14 2-CLR-30-202, AB EL 692 PIPE CHASE COOLER 2B-B LOGIC  
(continued)**

[15] **IF** temperature of the sensing bulb reaches 120°F, **THEN**

**STOP** applying heat to the sensing bulb. \_\_\_\_\_

[16] **MAINTAIN** Temperature Switch 2-TS-30-202B, AB EL 692 PIPE CHASE COOLER 2B-B TEMP, sensing bulb at a temperature greater than 100°F. \_\_\_\_\_

[16.1] **PLACE** Handswitch 2-HS-30-202, AB EL 692 PIPE CHASE COOLER 2B-B, to STOP, **AND**

**VERIFY** Cooler 2-CLR-30-202, AB EL 692 PIPE CHASE COOLER 2B-B, STOPS. (**Acc Crit**) \_\_\_\_\_

[16.2] **PLACE** Handswitch 2-HS-30-202, AB EL 692 PIPE CHASE COOLER 2B-B, to STANDBY, **AND**

**VERIFY** Cooler 2-CLR-30-202, AB EL 692 PIPE CHASE COOLER 2B-B, STARTS. \_\_\_\_\_

[17] **COOL** Temperature Switch 2-TS-30-202B, AB EL 692 PIPE CHASE COOLER 2B-B TEMP, sensing bulb until it resets, **AND**

**VERIFY** Cooler 2-CLR-30-202, AB EL 692 PIPE CHASE COOLER 2B-B, STOPS. \_\_\_\_\_

[18] **PLACE** Handswitch 2-HS-30-202, AB EL 692 PIPE CHASE COOLER 2B-B, to AUTO, **AND**

**VERIFY** Cooler 2-CLR-30-202, AB EL 692 PIPE CHASE COOLER 2B-B, remains OFF. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 93 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.14 2-CLR-30-202, AB EL 692 PIPE CHASE COOLER 2B-B LOGIC  
(continued)**

**NOTE**

The following step will simulate an Auxiliary Building Isolation (ABI) Signal by placing a jumper across terminal points in Auxiliary Relay panel 1-R-78.

[19] **PLACE** and **HOLD** a handheld jumper at TB 837, between Pt. 9 and Pt. 10 in Auxiliary Relay Panel 1-R-78.

\_\_\_\_\_

1st

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CV

[20] **VERIFY** Cooler 2-CLR-30-202, AB EL 692 PIPE CHASE COOLER 2B-B, STARTS. (**Acc Crit**)

[21] **REMOVE** handheld jumper at TB 837 between Pt. 9 and Pt. 10 in Auxiliary Relay Panel 1-R-78.

\_\_\_\_\_

1st

\_\_\_\_\_

CV

[22] **VERIFY** Cooler 2-CLR-30-202, AB EL 692 PIPE CHASE COOLER 2B-B, STOPS. (**Acc Crit**)

[23] **IF** no further testing is to be performed on Cooler 2-CLR-30-202, AB EL 692 PIPE CHASE COOLER 2B-B,  
**THEN**

**SECURE** Cooler 2-CLR-30-202, AB EL 692 PIPE CHASE COOLER 2B-B.

\_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 94 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.15 2-PMCL-30-175, RHR PUMP 2A-A ROOM COOLER AIR FLOW**

[1] **ENSURE** prerequisites listed in Section 4.0 for SubSection 6.15 have been completed. \_\_\_\_\_

[2] **ENSURE** Handswitch 2-HS-30-175, RHR PUMP 2A-A ROOM COOLER, at 2-JB-292-2506-A [A11W/676], is in START, **AND**  
  
**ENSURE** Cooler 2-PMCL-30-175, RHR PUMP 2A-A ROOM COOLER, is ON. \_\_\_\_\_

[3] **OBSERVE** operation of Cooler 2-PMCL-30-175, RHR PUMP 2A-A ROOM COOLER, **AND**  
  
**VERIFY** that it is in a steady state condition. \_\_\_\_\_

[4] **ENSURE** Cooler 2-PMCL-30-175, RHR PUMP 2A-A ROOM COOLER, air flow measurement has been performed using GTM-05, **AND**  
  
**ENSURE** completed GTM-05 data sheets are attached. \_\_\_\_\_

[5] **RECORD** the air flow measurement below, **AND**  
  
**VERIFY** it meets acceptance criteria.

\_\_\_\_\_ CFM  
**Acc Crit:** 6,925 CFM (6,233 - 7,617)

[6] **PLACE** Handswitch 2-HS-30-175, RHR PUMP 2A-A ROOM COOLER to STOP, **AND**  
  
**VERIFY** that Cooler 2-PMCL-30-175, RHR PUMP 2A-A ROOM COOLER STOPS. \_\_\_\_\_

[7] **IF** no further testing is to be performed on Cooler 2-PMCL-30-175, RHR PUMP 2A-A ROOM COOLER, **THEN**  
  
**SECURE** Cooler 2-PMCL-30-175, RHR PUMP 2A-A ROOM COOLER. \_\_\_\_\_



<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 95 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.16 2-PMCL-30-176, RHR PUMP 2B-B ROOM COOLER AIR FLOW**

[1] **ENSURE** prerequisites listed in Section 4.0 for SubSection 6.16 have been completed. \_\_\_\_\_

[2] **ENSURE** Handswitch 2-HS-30-176, RHR PUMP 2B-B ROOM COOLER, at 2-JB-292-2505-B, [A11V/676], is in START, **AND**  
  
**ENSURE** Cooler 2-PMCL-30-176, RHR PUMP 2B-B ROOM COOLER, is ON. \_\_\_\_\_

[3] **OBSERVE** operation of Cooler 2-PMCL-30-176, RHR PUMP 2B-B ROOM COOLER, **AND**  
  
**VERIFY** that it is in a steady state condition. \_\_\_\_\_

[4] **ENSURE** Cooler 2-PMCL-30-176, RHR PUMP 2B-B ROOM COOLER, air flow measurement has been performed using GTM-05, **AND**  
  
**ENSURE** completed GTM-05 data sheets are attached. \_\_\_\_\_

[5] **RECORD** the air flow measurement below, **AND**  
  
**VERIFY** it meets acceptance criteria.

\_\_\_\_\_ CFM  
**Acc Crit:** 6,925 CFM (6,233 - 7,617)

[6] **PLACE** Handswitch 2-HS-30-176, RHR PUMP 2B-B ROOM COOLER, to STOP, **AND**  
  
**VERIFY** that Cooler 2-PMCL-30-176, RHR PUMP 2B-B ROOM COOLER, STOPS. \_\_\_\_\_

[7] **IF** no further testing is to be performed on Cooler 2-PMCL-30-176, RHR PUMP 2B-B ROOM COOLER, **THEN**  
  
**SECURE** Cooler 2-PMCL-30-176, RHR PUMP 2B-B ROOM COOLER. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 96 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.17 2-PMCL-30-177, CS PUMP 2A-A ROOM COOLER AIR FLOW**

[1] **ENSURE** prerequisites listed in Section 4.0 for SubSection 6.17 have been completed. \_\_\_\_\_

[2] **ENSURE** Cooler 2-PMCL-30-177, CS PUMP 2A-A ROOM COOLER, is OFF, **AND**

**ENSURE** Valve 2-FCV-67-184, CSP ROOM COOLER 2A-A ERCW SUP FLOW CNTL, [A10U/676], is CLOSED. \_\_\_\_\_

**NOTE**

The following steps require valve stroke timing locally at the valve. Local valve stroke timing begins with the initiating signal and is concluded with the completion of valve stem movement.

[3] **PLACE** Handswitch 2-HS-30-177, CS PUMP 2A-A ROOM COOLER, at 2-JB-292-2502-A, [A10U/676], to START, **AND**

**MEASURE** the stroke OPEN time of Valve 2-FCV-67-184, CSP ROOM COOLER 2A-A ERCW SUP FLOW CNTL. \_\_\_\_\_

[4] **RECORD** stroke OPEN time of Valve 2-FCV-67-184, CSP ROOM COOLER 2A-A ERCW SUP FLOW CNTL, **AND**

**VERIFY** it meets acceptance criteria.

\_\_\_\_\_ seconds M&TE: \_\_\_\_\_

**Acc Crit:** 10 seconds maximum

[5] **OBSERVE** operation of Cooler 2-PMCL-30-177, CS PUMP 2A-A ROOM COOLER, **AND**

**VERIFY** that it is in a steady state condition. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 97 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.17 2-PMCL-30-177, CS PUMP 2A-A ROOM COOLER AIR FLOW  
(continued)**

[6] **ENSURE** Cooler 2-PMCL-30-177, CS PUMP 2A-A ROOM COOLER, air flow measurement has been performed using GTM-05, **AND**

**ENSURE** completed GTM-05 data sheets are attached. \_\_\_\_\_

[7] **RECORD** the air flow measurement below, **AND**

**VERIFY** it meets acceptance criteria.

\_\_\_\_\_ CFM  
**Acc Crit:** 12,200 CFM (10,980 - 13,420)

[8] **PLACE** Handswitch 2-HS-30-177, CS PUMP 2A-A ROOM COOLER, to STOP, **AND**

**VERIFY** the following:

A. Cooler 2-PMCL-30-177, CS PUMP 2A-A ROOM COOLER, STOPS. \_\_\_\_\_

B. Valve 2-FCV-67-184, CSP ROOM COOLER 2A-A ERCW SUP FLOW CNTL, is CLOSED. \_\_\_\_\_

[9] **IF** no further testing is to be performed on Cooler 2-PMCL-30-177, CS PUMP 2A-A ROOM COOLER, **THEN**

**SECURE** Cooler 2-PMCL-30-177, CS PUMP 2A-A ROOM COOLER. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 98 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.18 2-PMCL-30-178, CS PUMP 2B-B ROOM COOLER AIR FLOW**

[1] **ENSURE** prerequisites listed in Section 4.0 for SubSection 6.18 have been completed. \_\_\_\_\_

[2] **ENSURE** Cooler 2-PMCL-30-178, CS PUMP 2B-B ROOM COOLER, is OFF, **AND**

**ENSURE** Valve 2-FCV-67-186, CSP ROOM COOLER 2B-B ERCW SUP FLOW CNTL, [A10U/676], is CLOSED. \_\_\_\_\_

**NOTE**

The following steps require valve stroke timing locally at the valve. Local valve stroke timing begins with the initiating signal and is concluded with the completion of valve stem movement.

[3] **PLACE** Handswitch 2-HS-30-178, CS PUMP 2B-B ROOM COOLER, at 2-JB-292-2501-B, [A11U/676], to START, **AND**

**MEASURE** the stroke OPEN time of Valve 2-FCV-67-186, CSP ROOM COOLER 2B-B ERCW SUP FLOW CNTL. \_\_\_\_\_

[4] **RECORD** stroke OPEN time of Valve 2-FCV-67-186, CSP ROOM COOLER 2B-B ERCW SUP FLOW CNTL, **AND**

**VERIFY** it meets acceptance criteria.

\_\_\_\_\_ seconds M&TE: \_\_\_\_\_  
**Acc Crit:** 10 seconds maximum

[5] **OBSERVE** operation of Cooler 2-PMCL-30-178, CS PUMP 2B-B ROOM COOLER, **AND**

**VERIFY** that it is in a steady state condition. \_\_\_\_\_

[6] **ENSURE** Cooler 2-PMCL-30-178, CS PUMP 2B-B ROOM COOLER, air flow measurement has been performed using GTM-05, **AND**

**ENSURE** completed GTM-05 data sheets are attached. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 99 of 144</b>
-----------------------	--	---

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.18 2-PMCL-30-178, CS PUMP 2B-B ROOM COOLER AIR FLOW  
(continued)**

[7] **RECORD** the air flow measurement below, **AND**

**VERIFY** it meets acceptance criteria.

\_\_\_\_\_ CFM  
**Acc Crit:** 12,200 CFM (10,980 - 13,420)

[8] **PLACE** Handswitch 2-HS-30-178, CS PUMP 2B-B ROOM COOLER, to STOP, **AND**

**VERIFY** the following:

- A. Cooler 2-PMCL-30-178, CS PUMP 2B-B ROOM COOLER, STOPS.
- B. Valve 2-FCV-67-186, CSP ROOM COOLER 2B-B ERCW SUP FLOW CNTL, is CLOSED

[9] **IF** no further testing is to be performed on Cooler 2-PMCL-30-178, CS PUMP 2B-B ROOM COOLER, **THEN**

**SECURE** Cooler 2-PMCL-30-178, CS PUMP 2B-B ROOM COOLER.

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 100 of 144</b>
-----------------------	--	--

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.19 2-PMCL-30-180, SIS PUMP 2A-A ROOM COOLER AIR FLOW**

[1] **ENSURE** prerequisites listed in Section 4.0 for SubSection 6.19 have been completed. \_\_\_\_\_

[2] **ENSURE** Cooler 2-PMCL-30-180, SIS PUMP 2A-A ROOM COOLER, is OFF, **AND**

**ENSURE** Valve 2-FCV-67-176, SIP ROOM COOLER 2A-A ERCW SUP FLOW CNTL, [A9V/692], is CLOSED. \_\_\_\_\_

**NOTE**

The following steps require valve stroke timing locally at the valve. Local valve stroke timing begins with the initiating signal and is concluded with the completion of valve stem movement.

[3] **PLACE** Handswitch 2-HS-30-180, SIS PUMP 2A-A ROOM COOLER, at 2-JB-292-1197-A, [A10V/692], to START, **AND**

**MEASURE** the stroke OPEN time of Valve 2-FCV-67-176, SIP ROOM COOLER 2A-A ERCW SUP FLOW CNTL. \_\_\_\_\_

[4] **RECORD** stroke OPEN time of Valve 2-FCV-67-176, SIP ROOM COOLER 2A-A ERCW SUP FLOW CNTL, **AND**

**VERIFY** it meets acceptance criteria.

\_\_\_\_\_ seconds M&TE: \_\_\_\_\_  
**Acc Crit:** 10 seconds maximum

[5] **OBSERVE** operation of Cooler 2-PMCL-30-180, SIS PUMP 2A-A ROOM COOLER, **AND**

**VERIFY** that it is in a steady state condition. \_\_\_\_\_

[6] **ENSURE** Cooler 2-PMCL-30-180, SIS PUMP 2A-A ROOM COOLER, air flow measurement has been performed using GTM-05, **AND**

**ENSURE** completed GTM-05 data sheets are attached. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 101 of 144</b>
-----------------------	--	--

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.19 2-PMCL-30-180, SIS PUMP 2A-A ROOM COOLER AIR FLOW  
(continued)**

[7] **RECORD** the air flow measurement below, **AND**

**VERIFY** it meets acceptance criteria.

\_\_\_\_\_ CFM  
**Acc Crit:** 7,850 CFM (7,065 - 8,635)

[8] **PLACE** Handswitch 2-HS-30-180, SIS PUMP 2A-A ROOM COOLER, to STOP, **AND**

**VERIFY** the following:

- A. Cooler 2-PMCL-30-180, SIS PUMP 2A-A ROOM COOLER, STOPS.
- B. Valve 2-FCV-67-176, SIP ROOM COOLER 2A-A ERCW SUP FLOW CNTL, is CLOSED.

[9] **IF** no further testing is to be performed on Cooler 2-PMCL-30-180, SIS PUMP 2A-A ROOM COOLER, **THEN**

**SECURE** Cooler 2-PMCL-30-180, SIS PUMP 2A-A ROOM COOLER.

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 102 of 144</b>
-----------------------	--	--

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.20 2-PMCL-30-179, SIS PUMP 2B-B ROOM COOLER AIR FLOW**

[1] **ENSURE** prerequisites listed in Section 4.0 for SubSection 6.20 have been completed. \_\_\_\_\_

[2] **ENSURE** Cooler 2-PMCL-30-179, SIS PUMP 2B-B ROOM COOLER, is OFF, **AND**

**ENSURE** Valve 2-FCV-67-182, SIP ROOM COOLER 2B-B ERCW SUP FLOW CNTL, [A9V/692], is CLOSED. \_\_\_\_\_

**NOTE**

The following steps require valve stroke timing locally at the valve. Local valve stroke timing begins with the initiating signal and is concluded with the completion of valve stem movement.

[3] **PLACE** Handswitch 2-HS-30-179, SIS PUMP 2B-B ROOM COOLER, at 2-JB-292-1198-B, [A10U/692], to START, **AND**

**MEASURE** the stroke OPEN time of Valve 2-FCV-67-182, SIP ROOM COOLER 2B-B ERCW SUP FLOW CNTL. \_\_\_\_\_

[4] **RECORD** stroke OPEN time of Valve 2-FCV-67-182, SIP ROOM COOLER 2B-B ERCW SUP FLOW CNTL, **AND**

**VERIFY** it meets acceptance criteria.

\_\_\_\_\_ seconds M&TE: \_\_\_\_\_  
**Acc Crit:** 10 seconds maximum

[5] **OBSERVE** operation of Cooler 2-PMCL-30-179, SIS PUMP 2B-B ROOM COOLER, **AND**

**VERIFY** that it is in a steady state condition. \_\_\_\_\_

[6] **ENSURE** Cooler 2-PMCL-30-179, SIS PUMP 2B-B ROOM COOLER, air flow measurement has been performed using GTM-05, **AND**

**ENSURE** completed GTM-05 data sheets are attached. \_\_\_\_\_



<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 103 of 144</b>
-----------------------	--	--

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.20 2-PMCL-30-179, SIS PUMP 2B-B ROOM COOLER AIR FLOW  
(continued)**

[7] **RECORD** the air flow measurement below, **AND**

**VERIFY** it meets acceptance criteria.

\_\_\_\_\_ CFM  
**Acc Crit:** 7,850 CFM (7,065 - 8,635)

[8] **PLACE** Handswitch 2-HS-30-179, SIS PUMP 2B-B ROOM COOLER, to STOP, **AND**

**VERIFY** the following:

- A. Cooler 2-PMCL-30-179, SIS PUMP 2B-B ROOM COOLER STOPS.
- B. Valve 2-FCV-67-182, SIP ROOM COOLER 2B-B ERCW SUP FLOW CNTL, is CLOSED.

[9] **IF** no further testing is to be performed on Cooler 2-PMCL-30-179, SIS PUMP 2B-B ROOM COOLER, **THEN**

**SECURE** Cooler 2-PMCL-30-179, SIS PUMP 2B-B ROOM COOLER.

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 104 of 144</b>
-----------------------	--	--

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.21 2-PMCL-30-183, CENT CHARGING PUMP 2A-A ROOM COOLER AIR FLOW**

[1] **ENSURE** prerequisites listed in Section 4.0 for SubSection 6.21 have been completed. \_\_\_\_\_

[2] **ENSURE** Handswitch 2-HS-30-183, CENT CHARGING PUMP 2A-A ROOM COOLER, at 2-JB-292-1191-A, [A12T/692], is in START, **AND**

**ENSURE** Cooler 2-PMCL-30-183, CENT CHARGING PUMP 2A-A ROOM COOLER, is ON. \_\_\_\_\_

[3] **OBSERVE** operation of Cooler 2-PMCL-30-183-A, CENT CHARGING PUMP 2A-A ROOM COOLER, **AND**

**VERIFY** that it is in a steady state condition. \_\_\_\_\_

[4] **ENSURE** Cooler 2-PMCL-30-183, CENT CHARGING PUMP 2A-A ROOM COOLER, air flow measurement has been performed using GTM-05, **AND**

**ENSURE** completed GTM-05 data sheets are attached. \_\_\_\_\_

[5] **RECORD** the air flow measurement below, **AND**

**VERIFY** it meets acceptance criteria.

\_\_\_\_\_ CFM  
**Acc Crit:** 9,200 CFM (8,280 - 10,120)

[6] **PLACE** Handswitch 2-HS-30-183, CENT CHARGING PUMP 2A-A ROOM COOLER, to STOP, **AND**

**VERIFY** Cooler 2-PMCL-30-183, CENT CHARGING PUMP 2A-A ROOM COOLER, STOPS. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 105 of 144</b>
-----------------------	--	--

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.21 2-PMCL-30-183, CENT CHARGING PUMP 2A-A ROOM COOLER  
AIR FLOW (continued)**

[7] **IF** no further testing is to be performed on Cooler  
2-PMCL-30-183, CENT CHARGING PUMP 2A-A ROOM  
COOLER, **THEN**

**SECURE** Cooler 2-PMCL-30-183, CENT CHARGING  
PUMP 2A-A ROOM COOLER. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 106 of 144</b>
-----------------------	--	--

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.22 2-PMCL-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER  
AIR FLOW**

[1] **VERIFY** prerequisites listed in Section 4.0 for SubSection 6.22 have been completed. \_\_\_\_\_

[2] **ENSURE** Handswitch 2-HS-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER, at 2-JB-292-1192-B, [A11U/692], is in START, **AND**

**ENSURE** Cooler 2-PMCL-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER, is ON. \_\_\_\_\_

[3] **OBSERVE** operation of Cooler 2-PMCL-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER, **AND**

**VERIFY** that it is in a steady state condition. \_\_\_\_\_

[4] **ENSURE** Cooler 2-PMCL-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER, air flow measurement has been performed using GTM-05, **AND**

**ENSURE** completed GTM-05 data sheets are attached. \_\_\_\_\_

[5] **RECORD** the air flow measurement below, **AND**

**VERIFY** it meets acceptance criteria.

\_\_\_\_\_ CFM  
**Acc Crit:** 9,200 CFM (8,280 - 10,120)

[6] **PLACE** Handswitch 2-HS-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER, to STOP, **AND**

**VERIFY** Cooler 2-PMCL-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER, STOPS. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 107 of 144</b>
-----------------------	--	--

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.22 2-PMCL-30-182, CENT CHARGING PUMP 2B-B ROOM COOLER  
AIR FLOW (continued)**

[7] **IF** no further testing is to be performed on Cooler  
2-PMCL-30-182, CENT CHARGING PUMP 2B-B ROOM  
COOLER, **THEN**

**SECURE** Cooler 2-PMCL-30-182, CENT CHARGING  
PUMP 2B-B ROOM COOLER. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 108 of 144</b>
-----------------------	--	--

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.23 2-PMCL-30-186, PENETRATION ROOM EL 692 COOLER 2A-A  
AIR FLOW**

[1] **ENSURE** prerequisites listed in Section 4.0 for SubSection 6.23 have been completed. \_\_\_\_\_

[2] **ENSURE** Cooler 2-CLR-30-186, PENETRATION ROOM EL 692 COOLER 2A-A is OFF, **AND**

**ENSURE** Valve 2-FCV-67-346, PENT ROOM COOLER 2A-A ERCW SUP FLOW CNTL, [A12U/692], is CLOSED. \_\_\_\_\_

**NOTE**

The following steps require valve stroke timing locally at the valve. Local valve stroke timing begins with the initiating signal and is concluded with the completion of valve stem movement.

[3] **PLACE** Handswitch 2-HS-30-186, PENETRATION ROOM EL 692 COOLER 2A-A, at 2-JB-292-1553-A, [A12U/692], to START, **AND**

**MEASURE** the stroke OPEN time of Valve 2-FCV-67-346, PENT ROOM COOLER 2A-A ERCW SUP FLOW CNTL. \_\_\_\_\_

[4] **RECORD** stroke OPEN time of Valve 2-FCV-67-346, PENT ROOM COOLER 2A-A ERCW SUP FLOW CNTL, **AND**

**VERIFY** it meets acceptance criteria.

\_\_\_\_\_ seconds                      M&TE: \_\_\_\_\_  
**Acc Crit:** 10 seconds maximum

\_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 109 of 144</b>
-----------------------	--	--

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.23 2-PMCL-30-186, PENETRATION ROOM EL 692 COOLER 2A-A  
AIR FLOW (continued)**

[5] **OBSERVE** operation of Cooler 2-CLR-30-186,  
PENETRATION ROOM EL 692 COOLER 2A-A, **AND**

**VERIFY** that it is in a steady state condition. \_\_\_\_\_

[6] **ENSURE** Cooler 2-CLR-30-186, PENETRATION ROOM  
EL 692 COOLER 2A-A, air flow measurement has been  
performed using GTM-05, **AND**

**ENSURE** completed GTM-05 data sheets are attached. \_\_\_\_\_

[7] **RECORD** the air flow measurement below, **AND**

**VERIFY** it meets acceptance criteria.

\_\_\_\_\_ CFM

**Acc Crit:** 4,250 CFM (3,825 - 4,675)

[8] **PLACE** Handswitch 2-HS-30-186, PENETRATION ROOM  
EL 692 COOLER 2A-A, to STOP, **AND**

**VERIFY** the following:

A. Cooler 2-CLR-30-186, PENETRATION ROOM EL 692  
COOLER 2A-A, STOPS. \_\_\_\_\_

B. Valve 2-FCV-67-346, PENT ROOM COOLER 2A-A  
ERCW SUP FLOW CNTL, is CLOSED. \_\_\_\_\_

[9] **IF** no further testing is to be performed on Cooler  
2-CLR-30-186, PENETRATION ROOM EL 692 COOLER  
2A-A, **THEN**

**SECURE** Cooler 2-CLR-30-186, PENETRATION ROOM  
EL 692 COOLER 2A-A. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 110 of 144</b>
-----------------------	--	--

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.24 2-PMCL-30-187, PENETRATION ROOM EL 692 COOLER 2B-B AIR FLOW**

[1] **ENSURE** prerequisites listed in Section 4.0 for SubSection 6.24 have been completed. \_\_\_\_\_

[2] **ENSURE** Cooler 2-CLR-30-187, PENETRATION ROOM EL 692 COOLER 2B-B is OFF, **AND**

**ENSURE** Valve 2-FCV-67-348, PENT ROOM COOLER 2B-B ERCW SUP FLOW CNTL, [A12V/692], is CLOSED. \_\_\_\_\_

**NOTE**

The following steps require valve stroke timing locally at the valve. Local valve stroke timing begins with the initiating signal and is concluded with the completion of valve stem movement.

[3] **PLACE** Handswitch 2-HS-30-187, PENETRATION ROOM EL 692 COOLER 2B-B, at 2-JB-292-1554-B, [A12V/692], to START, **AND**

**MEASURE** the stroke OPEN time of Valve 2-FCV-67-348, PENT ROOM COOLER 2B-B ERCW SUP FLOW CNTL. \_\_\_\_\_

[4] **RECORD** stroke OPEN time of Valve 2-FCV-67-348, PENT ROOM COOLER 2B-B ERCW SUP FLOW CNTL, **AND**

**VERIFY** it meets acceptance criteria.

\_\_\_\_\_ seconds M&TE: \_\_\_\_\_  
**Acc Crit:** 10 seconds maximum

[5] **OBSERVE** operation of Cooler 2-CLR-30-187, PENETRATION ROOM EL 692 COOLER 2B-B, **AND**

**VERIFY** that it is in a steady state condition. \_\_\_\_\_



<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 111 of 144</b>
-----------------------	--	--

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.24 2-PMCL-30-187, PENETRATION ROOM EL 692 COOLER 2B-B  
AIR FLOW (continued)**

[6] **ENSURE** Cooler 2-CLR-30-187, PENETRATION ROOM EL 692 COOLER 2B-B, air flow measurement has been performed using GTM-05, **AND**

**ENSURE** completed GTM-05 data sheets are attached. \_\_\_\_\_

[7] **RECORD** the air flow measurement below, **AND**

**VERIFY** it meets acceptance criteria.

\_\_\_\_\_ CFM

**Acc Crit:** 4,250 CFM (3,825 - 4,675)

[8] **PLACE** Handswitch 2-HS-30-187, PENETRATION ROOM EL 692 COOLER 2B-B, to STOP, **AND**

**VERIFY** the following

A. Cooler 2-CLR-30-187, PENETRATION ROOM EL 692 COOLER 2B-B, STOPS. \_\_\_\_\_

B. Valve 2-FCV-67-348, PENT ROOM COOLER 2B-B ERCW SUP FLOW CNTL, is CLOSED. \_\_\_\_\_

[9] **IF** no further testing is to be performed on Cooler 2-CLR-30-187, PENETRATION ROOM EL 692 COOLER 2B-B, **THEN**

**SECURE** Cooler 2-CLR-30-187, PENETRATION ROOM EL 692 COOLER 2B-B. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 112 of 144</b>
-----------------------	--	--

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.25 2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A AIR FLOW**

[1] **ENSURE** prerequisites listed in Section 4.0 for SubSection 6.25 have been completed. \_\_\_\_\_

[2] **ENSURE** Cooler 2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A, is OFF, **AND**

**ENSURE** Valve 2-FCV-67-350, PENT ROOM COOLER 2A-A ERCW SUP FLOW CNTL, [A14V/713], is CLOSED. \_\_\_\_\_

**NOTE**

The following steps require valve stroke timing locally at the valve. Local valve stroke timing begins with the initiating signal and is concluded with the completion of valve stem movement.

[3] **PLACE** Handswitch 2-HS-30-196, PENETRATION ROOM EL 713 COOLER 2A-A, at 2-JB-292-1503-A, [A14V/713], to START, **AND**

**MEASURE** the stroke OPEN time of Valve 2-FCV-67-350, PENT ROOM COOLER 2A-A ERCW SUP FLOW CNTL. \_\_\_\_\_

[4] **RECORD** stroke OPEN time of Valve 2-FCV-67-350, PENT ROOM COOLER 2A-A ERCW SUP FLOW CNTL, **AND**

**VERIFY** it meets acceptance criteria.

\_\_\_\_\_ seconds M&TE: \_\_\_\_\_  
**Acc Crit:** 10 seconds maximum

[5] **OBSERVE** operation of Cooler 2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A, **AND**

**VERIFY** that it is in a steady state condition. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 113 of 144</b>
-----------------------	--	--

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.25 2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A AIR FLOW (continued)**

[6] **ENSURE** Cooler 2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A, air flow measurement has been performed using GTM-05, **AND**

**ENSURE** completed GTM-05 data sheets are attached. \_\_\_\_\_

[7] **RECORD** the air flow measurement below, **AND**

**VERIFY** it meets acceptance criteria.

\_\_\_\_\_ CFM  
**Acc Crit:** 3,950 CFM (3,555 - 4,345)

[8] **PLACE** Handswitch 2-HS-30-196, PENETRATION ROOM EL 713 COOLER 2A-A, to STOP, **AND**

**VERIFY** the following:

A. Cooler 2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A, STOPS. \_\_\_\_\_

B. Valve 2-FCV-67-350, PENT ROOM COOLER 2A-A ERCW SUP FLOW CNTL, is CLOSED. \_\_\_\_\_

[9] **IF** no further testing is to be performed on Cooler 2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A, **THEN**

**SECURE** Cooler 2-CLR-30-196, PENETRATION ROOM EL 713 COOLER 2A-A. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 114 of 144</b>
-----------------------	--	--

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.26 2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B AIR FLOW**

[1] **ENSURE** prerequisites listed in Section 4.0 for SubSection 6.26 have been completed. \_\_\_\_\_

[2] **ENSURE** Cooler 2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B, is OFF, **AND**

**ENSURE** Valve 2-FCV-67-352, PENT ROOM COOLER 2B-B ERCW SUP FLOW CNTL, [A14V/713], is CLOSED. \_\_\_\_\_

**NOTE**

The following steps require valve stroke timing locally at the valve. Local valve stroke timing begins with the initiating signal and is concluded with the completion of valve stem movement.

[3] **PLACE** Handswitch 2-HS-30-197, PENETRATION ROOM EL 713 COOLER 2B-B, at 2-JB-292-1505-B, [A14V/713], to START, **AND**

**MEASURE** the stroke OPEN time of Valve 2-FCV-67-352, PENT ROOM COOLER 2B-B ERCW SUP FLOW CNTL. \_\_\_\_\_

[4] **RECORD** stroke OPEN time of Valve 2-FCV-67-352, PENT ROOM COOLER 2B-B ERCW SUP FLOW CNTL, **AND**

**VERIFY** it meets acceptance criteria.

\_\_\_\_\_ seconds M&TE: \_\_\_\_\_  
**Acc Crit:** 10 seconds maximum

[5] **OBSERVE** operation of Cooler 2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B, **AND**

**VERIFY** that it is in a steady state condition. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 115 of 144</b>
-----------------------	--	--

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.26 2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B AIR FLOW (continued)**

[6] **ENSURE** Cooler 2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B, air flow measurement has been performed using GTM-05, **AND**

**ENSURE** completed GTM-05 data sheets are attached. \_\_\_\_\_

[7] **RECORD** the air flow measurement below, **AND**

**VERIFY** it meets acceptance criteria.

\_\_\_\_\_ CFM  
**Acc Crit:** 3,950 CFM (3,555 - 4,345)

[8] **PLACE** Handswitch 2-HS-30-197, PENETRATION ROOM EL 713 COOLER 2B-B, to STOP, **AND**

**VERIFY** the following:

A. Cooler 2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B, STOPS. \_\_\_\_\_

B. Valve 2-FCV-67-352, PENT ROOM COOLER 2B-B ERCW SUP FLOW CNTL, is CLOSED. \_\_\_\_\_

[9] **IF** no further testing is to be performed on Cooler 2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B, **THEN**

**SECURE** Cooler 2-CLR-30-197, PENETRATION ROOM EL 713 COOLER 2B-B. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 116 of 144</b>
-----------------------	--	--

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.27 2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A AIR FLOW**

[1] **ENSURE** prerequisites listed in Section 4.0 for SubSection 6.27 have been completed. \_\_\_\_\_

[2] **ENSURE** Cooler 2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A, is OFF, **AND**

**ENSURE** Valve 2-FCV-67-342, PIPE CHASE COOLER 2A-A ERCW SUP FLOW CNTL, [A15U/692], is CLOSED. \_\_\_\_\_

**NOTE**

The following steps require valve stroke timing locally at the valve. Local valve stroke timing begins with the initiating signal and is concluded with the completion of valve stem movement.

[3] **PLACE** Handswitch 2-HS-30-201, AB EL 692 PIPE CHASE COOLER 2A-A, at 2-JB-292-1555-A, [A15U/692], to START, **AND**

**MEASURE** the stroke OPEN time of Valve 2-FCV-67-342, PIPE CHASE COOLER 2A-A ERCW SUP FLOW CNTL. \_\_\_\_\_

[4] **RECORD** stroke OPEN time of Valve 2-FCV-67-342, PIPE CHASE COOLER 2A-A ERCW SUP FLOW CNTL, **AND**

**VERIFY** it meets acceptance criteria.

\_\_\_\_\_ seconds M&TE: \_\_\_\_\_  
**Acc Crit:** 10 seconds maximum

[5] **OBSERVE** operation of Cooler 2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A, **AND**

**VERIFY** that it is in a steady state condition. \_\_\_\_\_

[6] **ENSURE** Cooler 2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A, air flow measurement has been performed using GTM-05, **AND**

**ENSURE** completed GTM-05 data sheets are attached. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 117 of 144</b>
-----------------------	--	--

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.27 2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A AIR FLOW  
(continued)**

[7] **RECORD** the air flow measurement below, **AND**

**VERIFY** it meets acceptance criteria.

\_\_\_\_\_ CFM  
**Acc Crit:** 5,400 CFM (4,860 - 5,940)

[8] **PLACE** Handswitch 2-HS-30-201, AB EL 692 PIPE CHASE COOLER 2A-A, to STOP, **AND**

**VERIFY** the following:

A. Cooler 2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A, STOPS.

B. Valve 2-FCV-67-342, PIPE CHASE COOLER 2A-A ERCW SUP FLOW CNTL, is CLOSED.

[9] **IF** no further testing is to be performed on Cooler 2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A, **THEN**

**SECURE** Cooler 2-CLR-30-201, AB EL 692 PIPE CHASE COOLER 2A-A.

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 118 of 144</b>
-----------------------	--	--

Data Package: Page \_\_\_\_ of \_\_\_\_ Date \_\_\_\_\_

**6.28 2-CLR-30-202, AB EL 692 PIPE CHASE COOLER 2B-B AIR FLOW**

[1] **ENSURE** prerequisites listed in Section 4.0 for SubSection 6.28 have been completed. \_\_\_\_\_

[2] **ENSURE** Cooler 2-CLR-30-202, AB EL 692 PIPE CHASE COOLER 2B-B, is OFF, **AND**

**ENSURE** Valve 2-FCV-67-344, PIPE CHASE COOLER 2B-B ERCW SUP FLOW CNTL, [A14U/692], is CLOSED. \_\_\_\_\_

**NOTE**

The following steps require valve stroke timing locally at the valve. Local valve stroke timing begins with the initiating signal and is concluded with the completion of valve stem movement.

[3] **PLACE** Handswitch 2-HS-30-202, AB EL 692 PIPE CHASE COOLER 2B-B, at 2-JB-292-1556-B, [A14U/692], to START, **AND**

**MEASURE** the stroke OPEN time of Valve 2-FCV-67-344, PIPE CHASE COOLER 2B-B ERCW SUP FLOW CNTL. \_\_\_\_\_

[4] **RECORD** stroke OPEN time of Valve 2-FCV-67-344, PIPE CHASE COOLER 2B-B ERCW SUP FLOW CNTL, **AND**

**VERIFY** it meets acceptance criteria.

\_\_\_\_\_ seconds M&TE: \_\_\_\_\_  
**Acc Crit:** 10 seconds maximum

[5] **OBSERVE** operation of Cooler 2-CLR-30-202, AB EL 692 PIPE CHASE COOLER 2B-B, **AND**

**VERIFY** it is in a steady state condition. \_\_\_\_\_

[6] **ENSURE** Cooler 2-CLR-30-202, AB EL 692 PIPE CHASE COOLER 2B-B, air flow measurement has been performed using GTM-05, **AND**

**ENSURE** completed GTM-05 data sheets are attached. \_\_\_\_\_



<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 119 of 144</b>
-----------------------	--	--

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.28 2-CLR-30-202, AB EL 692 PIPE CHASE COOLER 2B-B AIR FLOW  
(continued)**

[7] **RECORD** the air flow measurement below, **AND**

**VERIFY** it meets acceptance criteria.

\_\_\_\_\_ CFM  
**Acc Crit:** 5,400 CFM (4,860 - 5,940)

[8] **PLACE** Handswitch 2-HS-30-202, AB EL 692 PIPE CHASE COOLER 2B-B, to STOP, **AND**

**VERIFY** the following:

- A. Cooler 2-CLR-30-202, AB EL 692 PIPE CHASE COOLER 2B-B, STOPS.
- B. Valve 2-FCV-67-344, PIPE CHASE COOLER 2B-B ERCW SUP FLOW CNTL, is CLOSED.

[9] **IF** no further testing is to be performed on Cooler 2-CLR-30-202, AB EL 692 PIPE CHASE COOLER 2B-B, **THEN**

**SECURE** Cooler 2-CLR-30-202, AB EL 692 PIPE CHASE COOLER 2B-B.

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 120 of 144</b>
-----------------------	--	--

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.29 HIGH ENERGY LINE BREAK (HELB) DETECTION.**

- [1] **ENSURE** prerequisites listed in Section 4.0 for SubSection 6.29 have been completed. \_\_\_\_\_
- [2] **VERIFY** 2-XA-55-6A-113B, RHR/CVCS HI TEMP PIPE BREAK, is CLEAR (**NOT** LIT). \_\_\_\_\_
- [3] **VERIFY** the Unit 2 Alarm Events Display Screen on Panel 2-M-16A indicates the following inputs are in NORMAL (Green):

  - A. 113-B CVC LTDN HX RM HI TEMP PIPE BREAK (TS-30-5235 A/B) \_\_\_\_\_
  - B. 113-B RHR PUMP RM A HI TEMP PIPE BREAK (TS-30-5236 A/B) \_\_\_\_\_
  - C. 113-B RHR PUMP RM B HI TEMP PIPE BREAK (TS-30-5237 A/B) \_\_\_\_\_
  - D. 113-B RHR HX RM A HI TEMP PIPE BREAK (TS-30-5238 A/B) \_\_\_\_\_
  - E. 113-B RHR HX RM B HI TEMP PIPE BREAK (TS-30-5239 A/B) \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 121 of 144</b>
-----------------------	--	--

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.29 HIGH ENERGY LINE BREAK (HELB) DETECTION. (continued)**

[4] **VERIFY** The following Indicating Lights on Panel 2-M-6, are OFF:

- A. 2-XI-30-5235A, LETDOWN HX PIPE BREAK \_\_\_\_\_
- B. 2-XI-30-5235B, LETDOWN HX PIPE BREAK \_\_\_\_\_
- C. 2-XI-30-5236A, RHR PMP RM A PIPE BREAK \_\_\_\_\_
- D. 2-XI-30-5236B, RHR PMP RM A PIPE BREAK \_\_\_\_\_
- E. 2-XI-30-5237A, RHR PMP RM B PIPE BREAK \_\_\_\_\_
- F. 2-XI-30-5237B, RHR PMP RM B PIPE BREAK \_\_\_\_\_
- G. 2-XI-30-5238A, RHR HX A RM PIPE BREAK \_\_\_\_\_
- H. 2-XI-30-5238B, RHR HX A RM PIPE BREAK \_\_\_\_\_
- I. 2-XI-30-5239A, RHR HX B RM PIPE BREAK \_\_\_\_\_
- J. 2-XI-30-5239B, RHR HX B RM PIPE BREAK \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 122 of 144</b>
-----------------------	--	--

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**NOTE**

SubSections 6.29.2 through 6.29.6 may be performed in any order provided the steps within are performed in the order written.

**6.29.2 CVCS LETDOWN HEAT EXCHANGER ROOM HELB DETECTION**

**CAUTION**

The following step will simulate a high ambient room temperature using an electric heatgun. Heat the temperature switch sensing bulb **SLOWLY** while monitoring the bulb temperature with a surface temperature probe.

- [1] **HEAT** Temperature Switch 2-TS-30-5235A, CVCS LETDOWN HT EXCH RM HI TEMP SW, on Panel 2-L-730A, [A10U/737], sensing bulb to a temperature greater than 144°F. \_\_\_\_\_
- [2] **IF** temperature of the sensing bulb reaches 165°F, **THEN**  
**STOP** applying heat to the sensing bulb. \_\_\_\_\_
- [3] **VERIFY** the following
  - A. 2-XA-55-6A-113B, RHR/CVCS HI TEMP PIPE BREAK, ALARMS. (**Acc Crit**) \_\_\_\_\_
  - B. Unit 2 Alarm Events Display Screen indicates 113-B CVC LTDN HX RM HI TEMP PIPE BREAK (TS-30-5235 A/B), is in ALARM (Red). (**Acc Crit**) \_\_\_\_\_
  - C. Indicating Light 2-XI-30-5235A, LETDOWN HX PIPE BREAK, is ON. (**Acc Crit**) \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 123 of 144</b>
-----------------------	--	--

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.29.2 CVCS LETDOWN HEAT EXCHANGER ROOM HELB DETECTION  
(continued)**

[4] **COOL** Temperature Switch 2-TS-30-5235A, CVCS LETDOWN HT EXCH RM HI TEMP SW, sensing bulb until it resets, **AND**

**VERIFY** the following:

A. 2-XA-55-6A-113B, RHR/CVCS HI TEMP PIPE BREAK, CLEARS. \_\_\_\_\_

B. Unit 2 Alarm Events Display Screen indicates 113-B CVC LTDN HX RM HI TEMP PIPE BREAK (TS-30-5235 A/B), is NORMAL (Green). \_\_\_\_\_

C. Indicating Light 2-XI-30-5235A, LETDOWN HX PIPE BREAK, is OFF. \_\_\_\_\_

**CAUTION**

**The following step will simulate a high ambient room temperature using an electric heatgun. Heat the temperature switch sensing bulb SLOWLY while monitoring the bulb temperature with a surface temperature probe.**

[5] **HEAT** Temperature Switch 2-TS-30-5235B, CVCS LETDOWN HT EXCH RM HI TEMP SW, on Panel 2-L-730B, [A10U/737], sensing bulb to a temperature greater than 144°F. \_\_\_\_\_

[6] **IF** temperature of the sensing bulb reaches 165°F, **THEN**

**STOP** applying heat to the sensing bulb. \_\_\_\_\_

[7] **VERIFY** the following

A. 2-XA-55-6A-113B, RHR/CVCS HI TEMP PIPE BREAK, ALARMS. (**Acc Crit**) \_\_\_\_\_

B. Unit 2 Alarm Events Display Screen indicates 113-B CVC LTDN HX RM HI TEMP PIPE BREAK (TS-30-5235 A/B), is in ALARM (Red). (**Acc Crit**) \_\_\_\_\_

C. Indicating Light 2-XI-30-5235B, LETDOWN HX PIPE BREAK, is ON. (**Acc Crit**) \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 124 of 144</b>
-----------------------	--	--

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.29.2 CVCS LETDOWN HEAT EXCHANGER ROOM HELB DETECTION  
(continued)**

[8] **COOL** Temperature Switch 2-TS-30-5235A, CVCS LETDOWN HT EXCH RM HI TEMP SW, sensing bulb until resets, **AND**

**VERIFY** the following:

- A. 2-XA-55-6A-113B, RHR/CVCS HI TEMP PIPE BREAK, CLEARS. \_\_\_\_\_
- B. Unit 2 Alarm Events Display Screen indicates 113-B CVC LTDN HX RM HI TEMP PIPE BREAK (TS-30-5235 A/B), is NORMAL (Green). \_\_\_\_\_
- C. Indicating Light 2-XI-30-5235B, LETDOWN HX PIPE BREAK, is OFF. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 125 of 144</b>
-----------------------	--	--

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.29.3 RHR PUMP ROOM 2A HELB DETECTION**

**CAUTION**

The following step will simulate a high ambient room temperature using an electric heatgun. Heat the temperature switch sensing bulb **SLOWLY** while monitoring the bulb temperature with a surface temperature probe.

- [1] **HEAT** Temperature Switch 2-TS-30-5236A, RHR PUMP RM A HI TEMP SW, on Panel 2-L-731A, [A10W/676], sensing bulb to a temperature greater than 144°F. \_\_\_\_\_
  
- [2] **IF** temperature of the sensing bulb reaches 165°F, **THEN**  
**STOP** applying heat to the sensing bulb. \_\_\_\_\_
  
- [3] **VERIFY** the following
  - A. 2-XA-55-6A-113B, RHR/CVCS HI TEMP PIPE BREAK, ALARMS. (**Acc Crit**) \_\_\_\_\_
  - B. Unit 2 Alarm Events Display Screen indicates 113-B RHR PUMP ROOM A HI TEMP PIPE BREAK (TS-30-5236 A/B), is in ALARM (Red). (**Acc Crit**) \_\_\_\_\_
  - C. Indicating Light 2-XI-30-5236A, RHR PMP RM A PIPE BREAK, is ON. (**Acc Crit**) \_\_\_\_\_
  
- [4] **COOL** Temperature Switch 2-TS-30-5236A, RHR PUMP RM A HI TEMP SW, sensing bulb until it resets, **AND**  
**VERIFY** the following:
  - A. 2-XA-55-6A-113B, RHR/CVCS HI TEMP PIPE BREAK, CLEARS. \_\_\_\_\_
  - B. Unit 2 Alarm Events Display Screen indicates 113-B RHR PUMP ROOM A HI TEMP PIPE BREAK (TS-30-5236 A/B), is NORMAL (Green). \_\_\_\_\_
  - C. Indicating Light 2-XI-30-5236A, RHR PMP RM A PIPE BREAK, is OFF. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 126 of 144</b>
-----------------------	--	--

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.29.3 RHR PUMP ROOM 2A HELB DETECTION (continued)**

**CAUTION**

**The following step will simulate a high ambient room temperature using an electric heatgun. Heat the temperature switch sensing bulb SLOWLY while monitoring the bulb temperature with a surface temperature probe..**

- [5] **HEAT** Temperature Switch 2-TS-30-5236B, RHR PUMP RM A HI TEMP SW, on Panel 2-L-731B, [A10W/676], sensing bulb to a temperature greater than 144°F. \_\_\_\_\_
  
- [6] **IF** temperature of the sensing bulb reaches 165°F, **THEN**  
**STOP** applying heat to the sensing bulb. \_\_\_\_\_
  
- [7] **VERIFY** the following
  - A. 2-XA-55-6A-113B, RHR/CVCS HI TEMP PIPE BREAK, ALARMS. (**Acc Crit**) \_\_\_\_\_
  - B. Unit 2 Alarm Events Display Screen indicates 113-B RHR PUMP ROOM A HI TEMP PIPE BREAK (TS-30-5236 A/B), is in ALARM (Red). (**Acc Crit**) \_\_\_\_\_
  - C. Indicating Light 2-XI-30-5236B, RHR PMP RM A PIPE BREAK, is ON. (**Acc Crit**) \_\_\_\_\_
  
- [8] **COOL** Temperature Switch 2-TS-30-5236B, RHR PUMP RM A HI TEMP SW, sensing bulb until it resets, **AND**  
**VERIFY** the following:
  - A. 2-XA-55-6A-113B, RHR/CVCS HI TEMP PIPE BREAK, CLEARS. \_\_\_\_\_
  - B. Unit 2 Alarm Events Display Screen indicates 113-B RHR PUMP ROOM A HI TEMP PIPE BREAK (TS-30-5236 A/B), is NORMAL (Green). \_\_\_\_\_
  - C. Indicating Light 2-XI-30-5236B, RHR PMP RM A PIPE BREAK, is OFF. \_\_\_\_\_



<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 127 of 144</b>
-----------------------	--	--

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.29.4 RHR PUMP ROOM 2B HELB DETECTION**

**CAUTION**

The following step will simulate a high ambient room temperature using an electric heatgun. Heat the temperature switch sensing bulb **SLOWLY** while monitoring the bulb temperature with a surface temperature probe.

- [1] **HEAT** Temperature Switch 2-TS-30-5237A, RHR PUMP RM B HI TEMP SW, on Panel 2-L-732A, [A10V/676], sensing bulb to a temperature greater than 144°F. \_\_\_\_\_
  
- [2] **IF** temperature of the sensing bulb reaches 165°F, **THEN**  
**STOP** applying heat to the sensing bulb. \_\_\_\_\_
  
- [3] **VERIFY** the following
  - A. 2-XA-55-6A-113B, RHR/CVCS HI TEMP PIPE BREAK, ALARMS. (**Acc Crit**) \_\_\_\_\_
  - B. Unit 2 Alarm Events Display Screen indicates 113-B RHR PUMP ROOM B HI TEMP PIPE BREAK (TS-30-5237 A/B), is in ALARM (Red). (**Acc Crit**) \_\_\_\_\_
  - C. Indicating Light 2-XI-30-5237A, RHR PMP RM B PIPE BREAK, is ON. (**Acc Crit**) \_\_\_\_\_
  
- [4] **COOL** Temperature Switch 2-TS-30-5236A, RHR PUMP RM B HI TEMP SW, sensing bulb until it resets, **AND**  
**VERIFY** the following:
  - A. 2-XA-55-6A-113B, RHR/CVCS HI TEMP PIPE BREAK, CLEARS. \_\_\_\_\_
  - B. Unit 2 Alarm Events Display Screen indicates 113-B RHR PUMP ROOM B HI TEMP PIPE BREAK (TS-30-5237 A/B), is NORMAL (Green). \_\_\_\_\_
  - C. Indicating Light 2-XI-30-5237A, RHR PMP RM B PIPE BREAK, is OFF. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 128 of 144</b>
-----------------------	--	--

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.29.4 RHR PUMP ROOM 2B HELB DETECTION (continued)**

**CAUTION**

**The following step will simulate a high ambient room temperature using an electric heatgun. Heat the temperature switch sensing bulb SLOWLY while monitoring the bulb temperature with a surface temperature probe.**

- [5] **HEAT** Temperature Switch 2-TS-30-5237B, RHR PUMP RM B HI TEMP SW, on Panel 2-L-732B, [A10V/676], sensing bulb to a temperature greater than 144°F. \_\_\_\_\_
  
- [6] **IF** temperature of the sensing bulb reaches 165°F, **THEN**  
**STOP** applying heat to the sensing bulb. \_\_\_\_\_
  
- [7] **VERIFY** the following
  - A. 2-XA-55-6A-113B, RHR/CVCS HI TEMP PIPE BREAK, ALARMS. (**Acc Crit**) \_\_\_\_\_
  - B. Unit 2 Alarm Events Display Screen indicates 113-B RHR PUMP ROOM B HI TEMP PIPE BREAK (TS-30-5237 A/B), is in ALARM (Red). (**Acc Crit**) \_\_\_\_\_
  - C. Indicating Light 2-XI-30-5237B, RHR PMP RM B PIPE BREAK, is ON. (**Acc Crit**) \_\_\_\_\_
  
- [8] **COOL** Temperature Switch 2-TS-30-5237B, RHR PUMP RM B HI TEMP SW, sensing bulb until it resets, **AND**  
**VERIFY** the following:
  - A. 2-XA-55-6A-113B, RHR/CVCS HI TEMP PIPE BREAK, CLEARS. \_\_\_\_\_
  - B. Unit 2 Alarm Events Display Screen indicates 113-B RHR PUMP ROOM B HI TEMP PIPE BREAK (TS-30-5237 A/B), is NORMAL (Green). \_\_\_\_\_
  - C. Indicating Light 2-XI-30-5237B, RHR PMP RM B PIPE BREAK, is OFF. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 129 of 144</b>
-----------------------	--	--

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.29.5 RHR HEAT EXCHANGER ROOM 2A HELB DETECTION**

**CAUTION**

**The following step will simulate a high ambient room temperature using an electric heatgun. Heat the temperature switch sensing bulb SLOWLY while monitoring the bulb temperature with a surface temperature probe.**

- [1] **HEAT** Temperature Switch 2-TS-30-5238A, RHR HEAT EXCH A ROOM HI TEMP SW, on 2-L-733A, [A10V/713], sensing bulb to greater than 134°F. \_\_\_\_\_
  
- [2] **IF** temperature of the sensing bulb reaches 155°F, **THEN**  
**STOP** applying heat to the sensing bulb. \_\_\_\_\_
  
- [3] **VERIFY** the following
  - A. 2-XA-55-6A-113B, RHR/CVCS HI TEMP PIPE BREAK, ALARMS. (**Acc Crit**) \_\_\_\_\_
  - B. Unit 2 Alarm Events Display Screen indicates 113-B RHR HX ROOM A HI TEMP PIPE BREAK (TS-30-5238 A/B), is in ALARM (Red). (**Acc Crit**) \_\_\_\_\_
  - C. Indicating Light 2-XI-30-5238A, RHR HX A RM PIPE BREAK, is ON. (**Acc Crit**) \_\_\_\_\_
  
- [4] **COOL** Temperature Switch 2-TS-30-5238A, RHR HEAT EXCH A ROOM HI TEMP SW, sensing bulb until it resets, **AND**  
**VERIFY** the following:
  - A. 2-XA-55-6A-113B, RHR/CVCS HI TEMP PIPE BREAK, CLEARS. \_\_\_\_\_
  - B. Unit 2 Alarm Events Display Screen indicates 113-B RHR HX ROOM A HI TEMP PIPE BREAK (TS-30-5238 A/B), is NORMAL (Green). \_\_\_\_\_
  - C. Indicating Light 2-XI-30-5238A, RHR HX A RM PIPE BREAK, is OFF. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 130 of 144</b>
-----------------------	--	--

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.29.5 RHR HEAT EXCHANGER ROOM 2A HELB DETECTION  
(continued)**

**CAUTION**

**The following step will simulate a high ambient room temperature using an electric heatgun. Heat the temperature switch sensing bulb SLOWLY while monitoring the bulb temperature with a surface temperature probe.**

- [5] **HEAT** Temperature Switch 2-TS-30-5238B, RHR HEAT EXCH A ROOM HI TEMP SW, on 2-L-733B, [A10W/713], sensing bulb to greater than 134°F. \_\_\_\_\_
  
- [6] **IF** temperature of the sensing bulb reaches 155°F, **THEN STOP** applying heat to the sensing bulb. \_\_\_\_\_
  
- [7] **VERIFY** the following
  - A. 2-XA-55-6A-113B, RHR/CVCS HI TEMP PIPE BREAK, ALARMS. (**Acc Crit**) \_\_\_\_\_
  - B. Unit 2 Alarm Events Display Screen indicates 113-B RHR HX ROOM A HI TEMP PIPE BREAK (TS-30-5238 A/B), is in ALARM (Red). (**Acc Crit**) \_\_\_\_\_
  - C. Indicating Light 2-XI-30-5238B, RHR HX A RM PIPE BREAK, is ON. (**Acc Crit**) \_\_\_\_\_
  
- [8] **COOL** Temperature Switch 2-TS-30-5238B, RHR HEAT EXCH A ROOM HI TEMP SW, sensing bulb until it resets, **AND VERIFY** the following:
  - A. 2-XA-55-6A-113B, RHR/CVCS HI TEMP PIPE BREAK, CLEARS. \_\_\_\_\_
  - B. Unit 2 Alarm Events Display Screen indicates 113-B RHR HX ROOM A HI TEMP PIPE BREAK (TS-30-5238 A/B), is NORMAL (Green). \_\_\_\_\_
  - C. Indicating Light 2-XI-30-5238B, RHR HX A RM PIPE BREAK, is OFF. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 131 of 144</b>
-----------------------	--	--

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.29.6 RHR HEAT EXCHANGER ROOM 2B HELB DETECTION**

**CAUTION**

The following step will simulate a high ambient room temperature using an electric heatgun. Heat the temperature switch sensing bulb **SLOWLY** while monitoring the bulb temperature with a surface temperature probe.

- [1] **HEAT** Temperature Switch 2-TS-30-5239A, RHR HEAT EXCH B ROOM HI TEMP SW, on 2-L-734A, [A10V/713], sensing bulb to greater than 134°F. \_\_\_\_\_
  
- [2] **IF** temperature of the sensing bulb reaches 155°F, **THEN**  
**STOP** applying heat to the sensing bulb. \_\_\_\_\_
  
- [3] **VERIFY** the following
  - A. 2-XA-55-6A-113B, RHR/CVCS HI TEMP PIPE BREAK, ALARMS. (**Acc Crit**) \_\_\_\_\_
  - B. Unit 2 Alarm Events Display Screen indicates 113-B RHR HX ROOM B HI TEMP PIPE BREAK (TS-30-5239 A/B), is in ALARM (Red). (**Acc Crit**) \_\_\_\_\_
  - C. Indicating Light 2-XI-30-5239A, RHR HX B RM PIPE BREAK, is ON. (**Acc Crit**) \_\_\_\_\_
  
- [4] **COOL** Temperature Switch 2-TS-30-5239A, RHR HEAT EXCH B ROOM HI TEMP SW, sensing bulb until it resets, **AND**  
**VERIFY** the following:
  - A. 2-XA-55-6A-113B, RHR/CVCS HI TEMP PIPE BREAK, CLEARS. \_\_\_\_\_
  - B. Unit 2 Alarm Events Display Screen indicates 113-B RHR HX ROOM B HI TEMP PIPE BREAK (TS-30-5239 A/B), is NORMAL (Green). \_\_\_\_\_
  - C. Indicating Light 2-XI-30-5239A, RHR HX B RM PIPE BREAK, is OFF. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 132 of 144</b>
-----------------------	--	--

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

**6.29.6 RHR HEAT EXCHANGER ROOM 2B HELB DETECTION  
(continued)**

**CAUTION**

**The following step will simulate a high ambient room temperature using an electric heatgun. Heat the temperature switch sensing bulb SLOWLY while monitoring the bulb temperature with a surface temperature probe.**

- [5] **HEAT** Temperature Switch 2-TS-30-5239B, RHR HEAT EXCH B ROOM HI TEMP SW, on 2-L-734B, [A10U/713], sensing bulb to greater than 134°F. \_\_\_\_\_
  
- [6] **IF** temperature of the sensing bulb reaches 155°F, **THEN STOP** applying heat to the sensing bulb. \_\_\_\_\_
  
- [7] **VERIFY** the following
  - A. 2-XA-55-6A-113B, RHR/CVCS HI TEMP PIPE BREAK, ALARMS. (**Acc Crit**) \_\_\_\_\_
  - B. Unit 2 Alarm Events Display Screen indicates 113-B RHR HX ROOM B HI TEMP PIPE BREAK (TS-30-5239 A/B), is in ALARM (Red). (**Acc Crit**) \_\_\_\_\_
  - C. Indicating Light 2-XI-30-5239B, RHR HX B RM PIPE BREAK, is ON. (**Acc Crit**) \_\_\_\_\_
  
- [8] **COOL** Temperature Switch 2-TS-30-5239B, RHR HEAT EXCH B ROOM HI TEMP SW, sensing bulb until it resets, **AND VERIFY** the following:
  - A. 2-XA-55-6A-113B, RHR/CVCS HI TEMP PIPE BREAK, CLEARS. \_\_\_\_\_
  - B. Unit 2 Alarm Events Display Screen indicates 113-B RHR HX ROOM B HI TEMP PIPE BREAK (TS-30-5239 A/B), is NORMAL (Green). \_\_\_\_\_
  - C. Indicating Light 2-XI-30-5239B, RHR HX B RM PIPE BREAK, is OFF. \_\_\_\_\_

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 133 of 144</b>
-----------------------	--	--

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

## 7.0 POST PERFORMANCE ACTIVITIES

[1] **NOTIFY** the Unit 2 US/SRO of the test completion and system alignment. \_\_\_\_\_

## 8.0 RECORDS

A. QA Records

Completed Test Package.

B. Non-QA Records

None

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 134 of 144</b>
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**Appendix A  
(Page 1 of 4)**

**TEST PROCEDURES/INSTRUCTIONS REFERENCE REVIEW**

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

<b>NOTES</b>
<p>1) Additional copies of this table may be made as necessary.</p> <p>2) Initial and date indicates review has been completed for impact</p>

PROCEDURE/ INSTRUCTION	REVISION/CHANGES	IMPACT Yes/No	INITIAL AND DATE (N/A for no change)
SMP-4.0			
SMP-8.0			
SMP-9.0			
0-SOI-67.01			
GTM-05			
GTM-03			
2-TSD-030A-01			
FSAR Section 9.2.1 Section 9.4.5.3 Table 14.2-1 Shts 4 & 5, 36 & 37 of 90			
2-PTI-067-02			
2-PTI-062-01			
2-PTI-063-5A			
2-PTI-063-05B			
2-PTI-072-01			
2-PTI-074-01			
2-PTI-262-01			
2-PTI-262-02			
G-37			
0-PI-OPS-1.1			



<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 135 of 144</b>
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**Appendix A  
(Page 2 of 4)**

**TEST PROCEDURES/INSTRUCTIONS REFERENCE REVIEW**

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

<b>PROCEDURE/ INSTRUCTION</b>	<b>REVISION/CHANGES</b>	<b>IMPACT Yes/No</b>	<b>INITIAL AND DATE (N/A for no change)</b>
WBN2-30AB-4001			
WBN2-67-4002			

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 136 of 144</b>
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**Appendix A  
(Page 3 of 4)**

**TEST PROCEDURES/INSTRUCTIONS REFERENCE REVIEW**

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

<b>PROCEDURE/ INSTRUCTION</b>	<b>REVISION/CHANGES</b>	<b>IMPACT Yes/No</b>	<b>INITIAL AND DATE (N/A for no change)</b>
SSD-2-TS-30-175			
SSD-2-TS-30-176			
SSD-2-TS-30-177			
SSD-2-TS-30-178			
SSD-2-TS-30-179			
SSD-2-TS-30-180			
SSD-2-TS-30-182			
SSD-2-TS-30-183			
SSD-2-TS-30-186A			
SSD-2-TS-30-186B			
SSD-2-TS-30-187A			
SSD-2-TS-30-187B			
SSD-2-TS-30-196A			
SSD-2-TS-30-196B			
SSD-2-TS-30-197A			
SSD-2-TS-30-197B			
SSD-2-TS-30-201A			
SSD-2-TS-30-201B			
SSD-2-TS-30-202A			
SSD-2-TS-30-202B			

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 137 of 144</b>
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**Appendix A  
(Page 4 of 4)**

**TEST PROCEDURES/INSTRUCTIONS REFERENCE REVIEW**

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

<b>PROCEDURE/ INSTRUCTION</b>	<b>REVISION/CHANGES</b>	<b>IMPACT Yes/No</b>	<b>INITIAL AND DATE (N/A for no change)</b>
SSD-2-TS-30-5235A			
SSD-2-TS-30-5235B			
SSD-2-TS-30-5236A			
SSD-2-TS-30-5236B			
SSD-2-TS-30-5237A			
SSD-2-TS-30-5237B			
SSD-2-TS-30-5238A			
SSD-2-TS-30-5238B			
SSD-2-TS-30-5239A			
SSD-2-TS-30-5239B			



<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 139 of 144</b>
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**Appendix C  
(Page 1 of 3)**

**PERMANENT PLANT INSTRUMENTATION LOG**

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

INSTRUMENT OR INSTRUMENT LOOP #	CAL DUE DATE	FILLED AND VENTED <sup>1</sup>	PLACED IN SERVICE <sup>1</sup>	USED FOR QUANTITATIVE ACC CRIT		POST-TEST CAL DATE <sup>2</sup>	POST-TEST CALIBRATION ACCEPTABLE <sup>2</sup> INITIAL/DATE
		INIT/DATE	INIT/DATE	YES	NO		
2-TS-30-175		N/A	N/A		NO	N/A	N/A
2-TS-30-176		N/A	N/A		NO	N/A	N/A
2-TS-30-177		N/A	N/A		NO	N/A	N/A
2-TS-30-178		N/A	N/A		NO	N/A	N/A
2-TS-30-179		N/A	N/A		NO	N/A	N/A
2-TS-30-180		N/A	N/A		NO	N/A	N/A
2-TS-30-182		N/A	N/A		NO	N/A	N/A
2-TS-30-183		N/A	N/A		NO	N/A	N/A

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 140 of 144</b>
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**Appendix C  
(Page 2 of 3)**

**PERMANENT PLANT INSTRUMENTATION LOG**

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

INSTRUMENT OR INSTRUMENT LOOP #	CAL DUE DATE	FILLED AND VENTED <sup>1</sup>	PLACED IN SERVICE <sup>1</sup>	USED FOR QUANTITATIVE ACC CRIT		POST-TEST CAL DATE <sup>2</sup>	POST-TEST CALIBRATION ACCEPTABLE <sup>2</sup> INITIAL/DATE
		INIT/DATE	INIT/DATE	YES	NO		
2-TS-30-186A		N/A	N/A		NO	N/A	N/A
2-TS-30-186B		N/A	N/A		NO	N/A	N/A
2-TS-30-187A		N/A	N/A		NO	N/A	N/A
2-TS-30-187B		N/A	N/A		NO	N/A	N/A
2-TS-30-196A		N/A	N/A		NO	N/A	N/A
2-TS-30-196B		N/A	N/A		NO	N/A	N/A
2-TS-30-197A		N/A	N/A		NO	N/A	N/A
2-TS-30-197B		N/A	N/A		NO	N/A	N/A
2-TS-30-201A		N/A	N/A		NO	N/A	N/A
2-TS-30-201B		N/A	N/A		NO	N/A	N/A
2-TS-30-202A		N/A	N/A		NO	N/A	N/A
2-TS-30-202B		N/A	N/A		NO	N/A	N/A

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 141 of 144</b>
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**Appendix C  
(Page 3 of 3)**

**PERMANENT PLANT INSTRUMENTATION LOG**

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

INSTRUMENT OR INSTRUMENT LOOP #	CAL DUE DATE	FILLED AND VENTED <sup>1</sup>	PLACED IN SERVICE <sup>1</sup>	USED FOR QUANTITATIVE ACC CRIT		POST-TEST CAL DATE <sup>2</sup>	POST-TEST CALIBRATION ACCEPTABLE <sup>2</sup> INITIAL/DATE
		INIT/DATE	INIT/DATE	YES	NO		
2-TS-30-5235A		N/A	N/A		NO	N/A	N/A
2-TS-30-5235B		N/A	N/A		NO	N/A	N/A
2-TS-30-5236A		N/A	N/A		NO	N/A	N/A
2-TS-30-5236B		N/A	N/A		NO	N/A	N/A
2-TS-30-5237A		N/A	N/A		NO	N/A	N/A
2-TS-30-5237B		N/A	N/A		NO	N/A	N/A
2-TS-30-5238A		N/A	N/A		NO	N/A	N/A
2-TS-30-5238B		N/A	N/A		NO	N/A	N/A
2-TS-30-5239A		N/A	N/A		NO	N/A	N/A
2-TS-30-5239B		N/A	N/A		NO	N/A	N/A

<sup>1</sup> These items may be initialed and dated by personnel performing the task. Instrumentation not required to be filled and vented may be identified as Not Applicable. (N/A)

<sup>2</sup> May be identified as Not Applicable (N/A) if instrument was not used to verify/record quantitative acceptance criteria data.

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 142 of 144</b>
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**Appendix D  
(Page 1 of 2)  
ELECTRICAL LINEUP**

**Data Package: Page \_\_\_\_ of \_\_\_\_**

**Date \_\_\_\_\_**

<b>SECTIONS</b>	<b>IDENTIFICATION</b>	<b>DESCRIPTION</b>	<b>LOCATION</b>	<b>POSITION</b>	<b>INIT</b>
6.1, 6.15	2-BKR-30-175	RHR PUMP 2A-A RM COOLER	C&A Building Vent BD 2A1-A Compartment 9A	ON (CLOSED)	
6.2, 6.16	2-BKR-30-176	RHR PUMP 2B-B RM COOLER	C&A Building Vent BD 2B1-B Compartment 9A	ON (CLOSED)	
6.3, 6.17	2-BKR-30-177	CS PUMP 2A-A RM COOLER	C&A Building Vent BD 2A1-A Compartment 3C	ON (CLOSED)	
6.4, 6.18	2-BKR-30-178	CS PUMP 2B-B RM COOLER	C&A Building Vent BD 2B1-B Compartment 3C	ON (CLOSED)	
6.5, 6.19	2-BKR-30-180	SIS PUMP 2A-A RM COOLER	C&A Building Vent BD 2A1-A Compartment 8A	ON (CLOSED)	
6.6, 6.20	2-BKR-30-179	SIS PUMP 2B-B RM COOLER	C&A Building Vent BD 2B1-B Compartment 8A	ON (CLOSED)	
6.7, 6.21	2-BKR-30-183	CENT CHG PUMP 2A-A RM COOLER	C&A Building Vent BD 2A1-A Compartment 10A	ON (CLOSED)	
6.8, 6.22	2-BKR-30-182	CENT CHG PUMP 2B-B RM COOLER	C&A Building Vent BD 2B1-B Compartment 10A	ON (CLOSED)	
6.9, 6.23	2-BKR-30-186	PENT RM EL 692 CLR 2A-A	C&A Building Vent BD 2A1-A Compartment 2C	ON (CLOSED)	
6.10, 6.24	2-BKR-30-187	PENT RM EL 692 CLR 2B-B	C&A Building Vent BD 2B1-B Compartment 8B	ON (CLOSED)	



<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 143 of 144</b>
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**Appendix D  
(Page 2 of 2)  
ELECTRICAL LINEUP**

**Data Package: Page \_\_\_\_ of \_\_\_\_**

**Date \_\_\_\_\_**

<b>SECTIONS</b>	<b>IDENTIFICATION</b>	<b>DESCRIPTION</b>	<b>LOCATION</b>	<b>POSITION</b>	<b>INIT</b>
6.11, 6.25	2-BKR-30-196	PENT RM EL 713 CLR 2A-A	C&A Building Vent BD 2A1-A Compartment 10B	ON (CLOSED)	
6.12, 6.26	2-BKR-30-197	PENT RM EL 713 CLR 2B-B	C&A Building Vent BD 2B1-B Compartment 2C	ON (CLOSED)	
6.13, 6.27	2-BKR-30-201	AB EL 692 PIPE CHASE CLR 2A-A	C&A Building Vent BD 2A1-A Compartment 10C	ON (CLOSED)	
6.14, 6.28	2-BKR-30-202	AB EL 692 PIPE CHASE CLR 2B-B	C&A Building Vent BD 2B1-B Compartment 3B	ON (CLOSED)	
6.29	2-BKR-235-1/11-D	AUX RELAY RACK A BUS TO PANEL 2-R-75	120V AC Vital Inst Pwr BD 2-I	ON (CLOSED)	
6.29	2-BKR-235-2/9-E	AUX RELAY RACK B BUS TO PANEL 2-R-75	120V AC Vital Inst Pwr BD 2-II	ON (CLOSED)	
6.29	2-BKR-235-2/10-E	AUX RELAY RACK 2-R-75 BUS C	120V AC Vital Inst Pwr BD 2-II	ON (CLOSED)	
6.29	2-BKR-235-3/30-F	SEPERATION AUX RELAY PANELS 2-R-73/2-R-74	120V AC Vital Inst Pwr BD 2-III	ON (CLOSED)	
6.29	2-BKR-235-4/39-G	SEPERATION AUX RELAY PANELS 2-R-77/2-R-78	120V AC Vital Inst Pwr BD 2-IV	ON (CLOSED)	

<b>WBN Unit 2</b>	<b>Unit 2 Auxiliary Building ESF Coolers</b>	<b>2-PTI-030A-01 Rev. 0000 Page 144 of 144</b>
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**Appendix E  
(Page 1 of 1)**

**SWITCH LINEUP**

Data Package: Page \_\_\_\_ of \_\_\_\_

Date \_\_\_\_\_

<b>SECTION</b>	<b>SWITCH NUMBER</b>	<b>SWITCH LOCATION</b>	<b>NOMENCLATURE</b>	<b>POSITION</b>	<b>VERIFIED BY INITIALS</b>
6.1	2-HS-30-175	2-JB-292-2506-A [A11W/676]	RHR PUMP 2A-A ROOM COOLER	AUTO after STOP	
6.2	2-HS-30-176	2-JB-292-2505-B [A11V/676]	RHR PUMP 2B-B ROOM COOLER	AUTO after STOP	
6.3	2-HS-30-177	2-JB-292-2502-A [A10U/676]	CS PUMP 2A-A ROOM COOLER	AUTO after STOP	
6.4	2-HS-30-178	2-JB-292-2501-B [A11U/676]	CS PUMP 2B-B ROOM COOLER	AUTO after STOP	
6.5	2-HS-30-180	2-JB-292-1197-A [A10V/692]	SIS PUMP 2A-A ROOM COOLER	AUTO after STOP	
6.6	2-HS-30-179	2-JB-292-1198-B [A10U/692]	SIS PUMP 2B-B ROOM COOLER	AUTO after STOP	
6.7	2-HS-30-183	2-JB-292-1191-A [A12T/692]	CENT CHARGING PUMP 2A-A ROOM COOLER	AUTO after STOP	
6.8	2-HS-30-182	2-JB-292-1192-B [A11U/692]	CENT CHARGING PUMP 2B-B ROOM COOLER	AUTO after STOP	
6.9	2-HS-30-186	2-JB-292-1553-A [A12U/692]	PENETRATION ROOM EL 692 COOLER 2A-A	AUTO after STOP	
6.10	2-HS-30-187	2-JB-292-1554-B [A12V/692]	PENETRATION ROOM EL 692 COOLER 2B-B	AUTO after STOP	
6.11	2-HS-30-196	2-JB-292-1503-A [A14V/713]	PENETRATION ROOM EL 713 COOLER 2A-A	AUTO after STOP	
6.12	2-HS-30-197	2-JB-292-1505-B [A14V/713]	PENETRATION ROOM EL 713 COOLER 2B-B	AUTO after STOP	
6.13	2-HS-30-201	2-JB-292-1555-A [A15U/692]	AB EL 692 PIPE CASE COOLER 2A-A	AUTO after STOP	
6.14	2-HS-30-202	2-JB-292-1556-B [A14U/692]	AB EL 692 PIPE CASE COOLER 2B-B FLOW	AUTO after STOP	