

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

January 18, 2011

U.S. Nuclear Regulatory Commission ATTN: Document Control Desk 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 WBN 2 Pre-op Test Instruction (PTI) is enclosed:

PTI NUMBER	PTI NUMBER Rev. TITLE	
2-PTI-030G-01	0	Upper Compartment Coolers

NRK

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 January 18, 2011

cc (Enclosure):

U. S. Nuclear Regulatory Commission Region II Marquis One Tower 245 Peachtree Center Ave., NE Suite 1200 Atlanta, Georgia 30303-1257

NRC Resident Inspector Unit 2 Watts Bar Nuclear Plant 1260 Nuclear Plant Road Spring City, Tennessee 37381

· · · · ·	WATTS BAR NUCLEAR PLAN UNIT 2 PREOPERATIONAL TES	т ST
		·······
. · · · ·	TITLE: Upper Compartment Coolers	
	Instruction No: <u>2-PTI-030G-01</u>	
	Revision No: <u>0000</u>	
	11.11.00	
PREPARED BY: _	Keith Jones Kork Smo	DATE: 10-29-10
		1. 70 1.
REVIEWED BY:	Bethany Merriman BUMD	DATE: 10-29-10
	PRINT NAME / SIGNATURE	
INSTRUCTION AP	PROVAL	
	2 10 215	
JIG MEETINGINO	$\sim 00$	1ha
JTG CHAIRMAN	WORK	DATE: $\frac{\eta(\lambda)}{\eta(\lambda)}$
APPROVED BY	VICK	DATE: 113/11
	PREOPERATIONAL STARTUP MANAGER	
TEST RESULTS A	PPROVAL	•
JTG MEETING No	·	
JTG CHAIRMAN:		DATE:
APPROVED BY		DATE
	PREOPERATIONAL STARTUP MANAGER	

SMP-8.0 R5 Administration of Preoperational Test instructions, Appendix B

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# **Revision Log**

Revision or Change Number	Effective Date	Affected Page Numbers	Description of Revision/Change
0000	1/13/11	ALL	This procedure is written using the Unit 1 PTI-030J-02 Rev 1 as a guide. Handswitches are not allowed to be placed in PULL A-P AUTO. The auto start features enabled by this switch position are disabled and are not tested in this PTI.

Δ.

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#### 1.0 INTRODUCTION

#### 1.1 Test Objectives

- A. Demonstrate the proper operation of the Reactor Containment Building Upper Compartment Cooling Units.
- B. Demonstrate the proper operation of the Essential Raw Cooling Water (ERCW) control valves associated with each Upper Compartment Cooler.

#### 1.2 Scope

#### NOTES

- 1) 2-PTI-030L-01, HFT Containment Temperature Survey, will demonstrate the Upper Compartment Coolers' ability to maintain design temperatures.
- 2) ERCW flowrates are verified during performance of 2-PTI-067-02, ERCW System Flow Balance.
- 3) System vibration testing will be performed during performance of GTM-05, HVAC Air Balance, for this system.
  - A. This test demonstrates the operability of the Unit 2 Upper Compartment Coolers (UCCs) to ensure the following:
    - 1. Each UCC unit stops on a simulated Phase B Containment Isolation Signal and remains off when the signal is reset.
    - 2. The air inlet and outlet temperatures for each UCC can be monitored on the Plant Computer System
    - 3. Each UCC unit maintains desired air flows.
    - 4. Each ERCW control valve opens and closes upon start/stop of its associated UCC.

Date \_\_\_\_\_

#### 2.0 **REFERENCES**

- 2.1 Performance References
  - A. SMP-9.0, Conduct of Test
  - B. GTM-05, HVAC Air Balance (Draft)
  - C. 0-SOI-67.01, Essential Raw Cooling Water System (Draft)
  - D. 2-SOI-30.03, Containment HVAC and Pressure Control (Draft)

#### 2.2 Developmental References

- A. Final Safety Analysis Report, Amendment 101
  - 1. Section 9.2.1, Essential Raw Cooling Water (ERCW)
  - 2. Section 9.4.7 Containment Air Cooling System
  - 3. Table 14.2-1, Sheets 4 & 5, Essential Raw Cooling Water System Test Summary
  - 4. Table 14.2-1, Sheets 38 & 39, Containment Ventilation System Test Summary

#### B. Drawings

- 1. Flow Diagram
  - a. 2-47W866-1, Rev 2, HEATING AND VENTILATION AIR FLOW
  - b. 2-47W845-3, Rev 1, ESSENTIAL RAW COOLING WATER
- 2. Electrical
  - a. 2-45W760-30-15, Rev 0, VENTILATION SYSTEM SCHEMATIC DIAGRAMS
  - b. 2-45W600-57-10, Rev 0, SEPARATION & MISC AUX RELAYS SCHEMATIC DIAGRAMS
  - c. 2-45W755-1, Rev 1, 480V REACTOR VENT BD 2A-A SINGLE LINE
  - d. 2-45W755-3, Rev 0, 480V REACTOR VENT BD 2B-B SINGLE LINE

Date \_\_\_\_\_

#### 2.2 Developmental References (continued)

- e. 45N2676-4, Rev 16, SOLID STATE PROTECTION SYS TRAIN A CONNECTION DIAGRAM
- f. 45N2677-4, Rev 18, SOLID STATE PROTECTION SYS TRAIN B CONNECTION DIAGRAM
- g. 45N2691-3, Rev 8, SEPARATION AUX RELAY PANEL 2-R-76 CONNECTION DIAGRAM
- 3. Logic/Control
  - a. 2-47W610-30-2, Rev 1, CONTROL DIAGRAM VENTILATION SYSTEM
  - b. 2-47W611-30-3, Rev 0, LOGIC DIAGRAM VENTILATION SYSTEM
- 4. Other
  - a. 2-47W600-159, Rev 0, ELECTRICAL INSTRUMENTS AND CONTROLS DRA 54643-02, Rev 1 DRA 54643-14, Rev 1
  - b. 2-47B601-55-1, ELECTRICAL INSTRUMENT TABULATION, [Later] DRA 52453-04, Rev 0
  - c. 2-47B601-55-2, ELECTRICAL INSTRUMENT TABULATION, [Later] DRA 52453-05, Rev 0
  - d. 47B601-55-25 (AC), Rev D, ELECTRICAL INSTRUMENT TABULATION
  - e. 2-45B655-5C, Rev 0, MAIN CONTROL ROOM ANNUNCIATOR INPUTS WINDOW BOX XA-55-5C
  - f. 2-45B655-E5C, Rev 0, ANNUNCIATOR WINDOW BOX XA-55-5C ENGRAVING
  - g. 2-47A615-0, Rev 1, INTEGRATED COMPUTER SYSTEM TERMINATIONS AND I/O LIST. (Page 19 of 30)

Date \_\_\_\_\_

#### 2.2 Developmental References (continued)

- C. Vendor Manuals
  - 1. VTD-F180-5340, (located in EDCR 53643, Rev A)
- D. Documents
  - 1. GTM-05, HVAC Air Balance (Draft)
  - 2. WBN2-30RB-4002, Rev 1, Reactor Building Ventilation System
  - 3. G-37, Rev 4, Testing and Balancing of HVAC Systems During Installation, Modification, and Maintenance
  - 4. 2-TSD-30G-1, Rev 0, Containment Air Cooling System Upper Compartment Coolers
  - 5. 2-PTI-030L-01, HFT Containment Temperature Survey (Draft)
  - 6. 2-PTI-067-02, ERCW System Flow Balance (Draft)

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Date \_

#### 3.0 PRECAUTIONS AND LIMITATIONS

- A. Standard precautions shall be followed for working around energized electrical equipment in accordance with TVA Safety 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 open problems are to be tracked by a corrective action document and entered on the appropriate system punchlist.
- E. Problems identified during the test shall be annotated on the 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.
- F. Observe all Radiation Protection requirements when working in or near contaminated areas.
- G. 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.
- 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. Ensure there are no adverse effects to the operation of Unit 1 structures, systems or components.
- K. Test personnel will coordinate with Unit 1 Operations when manipulation Unit 1 equipment, if required.

Date \_\_\_\_\_

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

- L. During performance of this procedure, visual observation of air handling units is required. This includes steady-state and transient operations (fan starts and stops) with visual confirmation that vibration is not excessive.
- M. To verify that transient conditions are not causing excessive vibration, observe components (air handlers, etc) during the transient, as practical. If not practical to observe during the transient, verify after the transient that no damage has occurred.
- N. If the vibration is determined to be excessive, the Test Engineer shall initiate a Test Deficiency Notice.
- O. UCC control switches may NOT be placed in PULL A-P AUTO. Auto start features enabled by this switch position are disabled.

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#### 4.0 PREREQUISITE ACTIONS

NOTE

Prerequisite steps may be performed in any order unless otherwise stated and should be completed as close in time as practicable to the start of the instruction subsection to which they apply.

#### 4.1 **Preliminary Actions**

- [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 Appendix A have been reviewed, and determined NOT to adversely affect the test results.
- [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 the current drawing revision numbers and change papers that were reviewed to the data package.

[5] **ENSURE** components contained within the boundaries of this test are under the jurisdictional control of Preoperational Startup Engineering (PSE) and/or Plant Operations.

	WBN Unit 2	Upper Compartment Coolers	2-PTI-030G-01 Rev. 0000 Page 12 of 56
	Data	Package: Page of	Date
.1	Preli	minary Actions (continued)	
	[6]	<b>EVALUATE</b> open items in Watts Bar Inte Equipment List (WITEL), <b>AND</b>	egrated Task
		<b>ENSURE</b> that they will NOT adversely af performance.	fect the test
		A. SubSection 6.1	
		B. SubSection 6.2	
		C. SubSection 6.3	
		D. SubSection 6.4	·
·		E. SubSection 6.5	·
	[7]	<b>ENSURE</b> required Component Testing h prior to start of test.	as been completed
		A. SubSection 6.1	
		B. SubSection 6.2	
		C. SubSection 6.3	
		D. SubSection 6.4	
		E. SubSection 6.5	
	[8]	<b>ENSURE</b> outstanding Design Change Ne Engineering Document Construction Rel Temporary Alterations (TAs) do NOT adv AND	otices (DCNs), eases (EDCRs) or versely impact testing,
		<b>ATTACH</b> documentation of DCNs, EDCI reviewed to the data package.	Rs, and TAs that were
		A. SubSection 6.1	
		B. SubSection 6.2	·
		C. SubSection 6.3	
		D. SubSection 6.4	
		E. SubSection 6.5	

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	Data	Pack	kage: Page of	Dat	e _
	Preli	nina	ry Actions (continued)		
	[9]	EN the req	<b>SURE</b> GTM-05, HVAC Air Balance, has to JTG for concurrence that it adequately so uirements of this instruction.	been submitted to atisfies the	
		JIC			_
	[10]	AT sys	<b>TACH</b> completed GTM-05 HVAC Air Bala tem 30G to this instruction.	ance package for	_
	[11]	EN coc per	<b>SURE</b> a review of outstanding Clearance ordinated with Unit 2 Operations for impac formance, <b>AND</b>	s has been t to the test	
		RE	CORD in Appendix B, Temporary Conditi	on Log if required.	_
	[12]	VE Pla the	<b>RIFY</b> plant instruments listed on Appendiz nt Instrumentation Log, are placed in serv ir calibration interval.	x C, Permanent vice and are within	
		Α.	SubSection 6.1		_
		В.	SubSection 6.2		_
		C.	SubSection 6.3		_
		D.	SubSection 6.4		_
	[13]	RE sco	<b>VIEW</b> preventive maintenance for compo ope of this test, <b>AND</b>	nents within the	
× .		VE	RIFY no conditions exist that will impact t	est performance.	
		Α.	SubSection 6.1		_
•		В.	SubSection 6.2		_
		C.	SubSection 6.3		_
		П	SubSection 6.4		,

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D	ata P	ackage: Page of	Date
1 Pi	relim	nary Actions (continued)	
[1	4]	<b>PERFORM</b> a pretest walkdown on equiprensure no conditions exist that will impact	ment to be tested to test performance.
		A. SubSection 6.1	· •
		3. SubSection 6.2	
		C. SubSection 6.3	
	I	D. SubSection 6.4	
[1	5]	<b>CONDUCT</b> a pretest briefing with Test an personnel in accordance with SMP-9.0.	nd Operations
[1	6]	ENSURE that communications are availa esting is to be conducted.	ble for areas where

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

NONE

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Date \_\_\_\_\_

#### 4.3 Field Preparations

- [1] **ENSURE** the following systems are operable and have been placed in service to the extent necessary to perform this test:
  - A. System 32, Control Air
  - B. System 232, 480V Reactor Vent Boards
  - C. System 55, Annunciator and Sequential Events Recording System
  - D. System 67, Essential Raw Cooling Water System

E. System 99, Reactor Protection System

F. System 261, Plant Process Computer System (ICS)

#### NOTES

- 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.
- 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.
  - [2] **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:
    - 2-XA-55-5C-103A, UPR CNTMT CLR FLOW LO

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	Data	Pac	age: Page of	Date
4.3	Field	Prep	parations (continued)	
	[3]	EN	SURE the following ICS points are in scan:	
		Α.	T1118A (SubSection 6.1)	
		В.	T1119A (SubSection 6.2)	
		C.	T1120A (SubSection 6.3)	
		D.	T1121A (SubSection 6.4)	
		E.	T1122A (SubSection 6.1)	
		F.	T1123A (SubSection 6.2)	
		G.	T1124A (SubSection 6.3)	
		H.	T1125A (SubSection 6.4)	
	[4]	EN: to s	<b>SURE</b> the following system 67, ERCW Valve support test activities.	es are available
		A.	2-TCV-67-129, UPPER CNTMT VENT CL RET TEMP CNTL (SubSection 6.1)	R 2A ERCW
		В.	2-TCV-67-137, UPPER CNTMT VENT CL RET TEMP CNTL (SubSection 6.2)	R 2B ERCW
		C.	2-TCV-67-132, UPPER CNTMT VENT CL RET TEMP CNTL (SubSection 6.3)	R 2C ERCW
		D.	2-TCV-67-140, UPPER CNTMT VENT CL RET TEMP CNTL (SubSection 6.4)	R 2D ERCW
	[5]	<b>EN</b> 2-S	<b>SURE</b> ERCW system is aligned per 0-SOI-6 OI-30.03 as applicable to support test perfo	7.01 and/or rmance.

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Data	Pacl	kage: Page of	Date
Field	Pre	parations (continued)	
[6]	<b>RE</b> Ter Ou	<b>CORD</b> the As-Found position of the follow mperature Indicating Controllers' Auto/Mattputs on Panel 2-L-336, [A13U/713 (Pent	ving ERCW nual Switches and Rm)]:
	A.	2-TIC-67-129, UPPER CNTMT VENT C RET TEMP CNTL, [2-L-336A] (SubSect	LR 2A ERCW ion 6.1)
		Auto/Manual Switch Position:	
		Indicated Controller Output:	
	В.	2-TIC-67-137, UPPER CNTMT VENT C RET TEMP CNTL, [2-L-336B] (SubSect	LR 2B ERCW ion 6.2)
		Auto/Manual Switch Position:	
		Indicated Controller Output:	
	C.	2-TIC-67-132, UPPER CNTMT VENT C RET TEMP CNTL, [2-L-336A] (SubSect	LR 2C ERCW ion 6.3)
		Auto/Manual Switch Position:	
		Indicated Controller Output:	
	D.	2-TIC-67-140, UPPER CNTMT VENT C RET TEMP CNTL, [2-L-336B] (SubSect	LR 2D ERCW ion 6.4)
		Auto/Manual Switch Position:	
		Indicated Controller Output:	

Date \_\_\_\_

#### 4.3 Field Preparations (continued)

- [7] **ENSURE** the following system 67, ERCW Temperature Indicating Controllers on Panel 2-L-336, Auto/Manual Switches are in MAN and outputs are adjusted for maximum cooling (for Full Open status indication):
  - A. 2-TIC-67-129, UPPER CNTMT VENT CLR 2A ERCW RET TEMP CNTL, [2-L-336A] (SubSection 6.1)
  - B. 2-TIC-67-137, UPPER CNTMT VENT CLR 2B ERCW RET TEMP CNTL, [2-L-336B] (SubSection 6.2)
  - C. 2-TIC-67-132, UPPER CNTMT VENT CLR 2C ERCW RET TEMP CNTL, [2-L-336A] (SubSection 6.3)
  - D. 2-TIC-67-140, UPPER CNTMT VENT CLR 2D ERCW RET TEMP CNTL, [2-L-336B] (SubSection 6.4)
- [8] **ENSURE** system switches are configured in accordance with Appendix D, Switch Lineup.
- [9] **ENSURE** system breakers are configured in accordance with Appendix E, Electrical Lineup.

#### 4.4 Approvals and Notifications

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

Preoperational Startup Manager Signature Date

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

U-2 US/SRO/SM Signature

Date

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#### 5.0 ACCEPTANCE CRITERIA

	Upper Compartment Cooler 2A	Upper Compartment Cooler 2B	Upper Compartment Cooler 2C	Upper Compartment Cooler 2D
Controls, Annunciations, Alarms, and Indications operate correctly.	SubSection 6.1	SubSection 6.2	SubSection 6.3	SubSection 6.4
Stops on Phase B Containment Isolation Signal, and Remains stopped when signal is reset	6.1[16] 6.1[20]	6.2[16] 6.2[20]	6.3[16] 6.3[20]	6.4[16] 6.4[20]
Intake and Exhaust Air Temperatures output to the Plant Computer (ICS) properly	6.1[5]	6.2[5]	6.3[5]	6.4[5]
Associated ERCW control valve opens/closes when UCC Unit starts/stops.	(2-TCV-67-129) 6.1[4]F 6.1[7]E	(2-TCV-67-137) 6.2[4]F 6.2[7]E	(2-TCV-67-132) 6.3[4]F 6.3[7]E	(2-TCV-67-140) 6.4[4]F 6.4[7]E
Maintains design air flow of 16,000 CFM (14,400 CFM minimum) <sup>1,2</sup>	6.5[4]	6.5[8]	6.5[12]	6.5[16]
Motor Current and KVA are within the allowable motor nameplate values. <sup>1,2</sup>	6.5[6] 6.5[7]	6.5[10] 6.5[11]	6.5[14] 6.5[15]	6.5[18] 6.5[19]

<sup>1</sup> Air flow Acceptance Criteria has been adjusted to account for at least 90% of design/rated flow provided motor current and KVA are within limits for non-ducted, freestanding air coolers as delineated in G-37, section 4.4.4.4.

<sup>2</sup> This instruction does not perform any air flow, current, or voltage measurements; these are done in GTM-05, HVAC Air Balance. The uncertainties associated with taking these measurements will be handled within GTM-05 and will not be calculated in this instruction.

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### 6.0 **PERFORMANCE**

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	NOTES
1)	The Subsections of this test may be performed in any order, provided the steps within each Subsection are performed in the order written.
2)	All verifications (fan starts, fan stops, valve position, etc) are to be done by local observation unless otherwise noted.
3)	Upper Compartment Cooler (UCC) Handswitches in the Main Control Room spring return to A AUTO from START and STOP positions.
4)	UCC Units are located on top of the Steam Generator (S/G) enclosures ("doghouses") in Upper Containment.
	<ul> <li>UCC 2A and 2D are located together on the south S/G enclosure (above S/G #1 and #4).</li> </ul>
	<ul> <li>UCC 2B and 2C are located together on the north S/G enclosure (above S/G #2 and #3).</li> </ul>
5)	UCC fans require approximately two minutes to coast down.

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Date

#### 6.1 Upper Compartment Cooler 2A Logic

- [1] **ENSURE** prerequisites listed in Section 4.0 for SubSection 6.1 have been completed.
- [2] **VERIFY** the following:
  - A. 2-XA-55-5C-103A, UPR CNTMT CLR FLOW LO, is CLEAR.
  - B. Unit 2 Alarm Events Display Screen indicates
     103-A UPR CNTMT CLR FLOW LO, is NORMAL (Green).
  - C. On Panel 2-M-6, Train A MASTER ISOL SIGNAL STATUS PNL, 2-XX-55-6C, Window 3, ØB, is CLEAR.
- [3] **PLACE** Handswitch 2-HS-30-95A, UPR CNTMT CLR A, [2-M-9], to A AUTO, **AND**

#### **VERIFY** the following:

A. On Handswitch 2-HS-30-95A:

- Green Light ON
- Red Light OFF
- B. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 4, TCV-67-129 UPPER CNTMT CLR 2A OPEN, is OFF.
- C. Breaker 2-BKR-30-95, 480V REACTOR VENT BD 2A-A, Compartment 9B, Red Light is OFF.
- D. Cooler 2-CCU-30-95, CNTMT UPPER COMPARTMENT COOLER 2A, [EL 802 AZ 37° (above S/G #1)], is OFF.
- E. Valve 2-TCV-67-129, UPPER CNTMT VENT CLR 2A ERCW RET TEMP CNTL, [A13V/713 (Pent Rm)], is CLOSED.

WI Un	BN it 2		Upper C	Compartment Coolers	2-PTI-030G-01 Rev. 0000 Page 22 of 56	
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1 I	Uppe	er Coi	mpartment Co	ooler 2A Logic (contir	nued)	
[	[4]	<b>PLA</b> [2-N	ACE Handswite 1-9], to START	ch 2-HS-30-95А, UPR Г, <b>AND</b>	CNTMT CLR A,	
		VEF	RIFY the follow	ving:		
		Α.	On Handswit	ch 2-HS-30-95A:		
· ··· ·			• Green L	ight OFF		
			Red Ligh	ht ON		
		В.	On Panel 0-N Window 4, T( is ON.	M-27A, CLRS ERCW S CV-67-129 UPPER CN	UP, 0-XX-55-27B, TMT CLR 2A OPEN,	
		C.	2-XA-55-5C- CLEAR (after	103A, UPR CNTMT CL r approximately 45 sec	R FLOW LO, remains onds).	
		D.	Breaker 2-Bk Compartmen	KR-30-95, 480V REAC <sup>-</sup> nt 9B, Red Light is ON.	TOR VENT BD 2A-A,	
		E.	Cooler 2-CC COOLER 2A	U-30-95, CNTMT UPPI , is ON.	ER COMPARTMENT	
		F.	Valve 2-TCV ERCW RET	-67-129, UPPER CNTN TEMP CNTL, is OPEN	MT VENT CLR 2A . <b>(Acc Crit)</b>	
[	[5]	VEF	<b>RIFY</b> that the L Point Qualitie	UCC 2A intake and exh es are GOOD. <b>(Acc Cr</b>	aust air temperature <b>it)</b>	
			<ul> <li>Point T1 UPPER</li> </ul>	I118A, COMPT COOL UNIT A		
			<ul> <li>ICS Poir UPPER</li> </ul>	nt T1122A COMPT COOL UNIT A	A EXHAUST	
[	[6]	<b>RE(</b> indi	CORD UCC 2/ cated by Plant	A intake and exhaust a transfer to the second se	ir temperature as pints:	
		IC UI	S Point T1118 PPER COMPT	3A F COOL UNIT A INTAK	E°F	
		IC UI	S Point T1122 PPER COMPT	2A F COOL UNIT A EXHA	UST°F	

.

	WBN Unit 2		Upper Compartme	nt Coolers	2-PTI-030G-01 Rev. 0000 Page 23 of 56	
	Dat	a Pack	age: Page of		Date	
1	Upp	oer Co	mpartment Cooler 2A Lo	gic (continued	(1	
	[7]	<b>PL/</b> [2-N	ACE Handswitch 2-HS-30- 1-9], to STOP, AND	95A, UPR CN1	MT CLR A,	
		VE	RIFY the following:			
		A.	On Handswitch 2-HS-30-	-95A:		
			Green Light ON			
			Red Light OFF			
		В.	On Panel 0-M-27A, CLR Window 4, TCV-67-129 I is OFF.	S ERCW SUP, JPPER CNTM	0-XX-55-27В, Г CLR 2A OPEN, 	
		C.	Breaker 2-BKR-30-95, 4 Compartment 9B, Red L	30V REACTOR	VENT BD 2A-A,	
		D.	Cooler 2-CCU-30-95, CN COOLER 2A, is OFF.	ITMT UPPER (		
		E.	Valve 2-TCV-67-129, UF ERCW RET TEMP CNT	PER CNTMT \ _, is CLOSED.	/ENT CLR 2A (Acc Crit)	
	[8]	PRES COM [EL 8	<b>S</b> START Pushbutton, 2- PARTMENT COOLER 2A 03 AZ 30°], <b>AND</b>	HS-30-95B, CN , at 2-JB-293-3	ITMT UPPER 33,	
		VERI	FY the following:			
		A.	Cooler 2-CCU-30-95, CN COOLER 2A, is ON.	ITMT UPPER (		
		В.	2-XA-55-5C-103A, UPR CLEAR (after approxima	CNTMT CLR F tely 45 seconds	LOW LO, remains s).	
		C.	On Handswitch 2-HS-30 [2-M-9]:	-95A UPR CNT	MT CLR A,	
			Green Light OFF			
			Red Light ON			

	WBN Unit 2		Upper Compartment Coolers	2-PTI-030G-01 Rev. 0000 Page 24 of 56			
	Data	Packa	ige: Page of	Date	e		
6.1	Upper Compartment Cooler 2A Logic (continued)						
	[9]	DISC 2-FS UCC UCC	<b>CONNECT</b> the "Low Side" tubing of Flow -30-95, UPPER COMPT VENT UNIT A F 2A inlet plenum to simulate a Low Air Fl 2A.	Switch LOW ALM, at ow condition for	1st		
					CV		
	[10]	VER	IFY the following:				
		Α.	2-XA-55-5C-103A, UPR CNTMT CLR FL ALARMS.	OW LO,			
		В.	Unit 2 Alarm Events Display Screen indic 103-A UPR CNTMT CLR FLOW LO, is ir	ates ALARM (Red).			
	[11]	REC 2-FS UCC	<b>ONNECT</b> the "Low Side" tubing of Flow -30-95, UPPER COMPT VENT UNIT A F 2A inlet plenum.	Switch FLOW ALM, at			
					1st		
					CV		
i.	[12]	VER	IFY the following:				
		A.	2-XA-55-5C-103A, UPR CNTMT CLR FL CLEARS.	.OW LO,			
		В.	Unit 2 Alarm Events Display Screen indic 103-A UPR CNTMT CLR FLOW LO is N	cates ORMAL (Green).			
	[13]	PRE COM	<b>SS</b> STOP Pushbutton, 2-HS-30-95B, CN IPARTMENT COOLER 2A, at 2-JB-293-	TMT UPPER 333, <b>AND</b>			
		VER	IFY the following:				
		A.	Cooler 2-CCU-30-95, CNTMT UPPER C COOLER 2A, is OFF.	OMPARTMENT			
		В.	On Handswitch 2-HS-30-95AUPR CNTM [2-M-9]:	IT CLR A,			
			Green Light ON				
			Red Light OFF				

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#### 6.1 Upper Compartment Cooler 2A Logic (continued)

[14] **PLACE** Handswitch 2-HS-30-95A, UPR CNTMT CLR A, [2-M-9], to START, **AND** 

**VERIFY** the following on Handswitch 2-HS-30-95A:

- Green Light OFF
- Red Light ON

#### NOTE

The following steps will simulate a Train A Phase B Containment Isolation Signal and Phase B signal reset by lifting and landing a wire in SSPS Train-A Output Cabinet 2-R-48.

1st

CV

- [15] **LIFT** wire 9B5 from TB615, point 7 in Panel 2-R-48 (45N2676-4).
- [16] **VERIFY** the following on Handswitch 2-HS-30-95A, UPR CNTMT CLR A, [2-M-9]:
  - Green Light ON (Acc Crit)
  - Red Light OFF (Acc Crit)
- [17] **PRESS** and **HOLD** START Pushbutton, 2-HS-30-95B, CNTMT UPPER COMPARTMENT COOLER 2A, at 2-JB-293-333, **AND**

**VERIFY** Cooler 2-CCU-30-95, CNTMT UPPER COMPARTMENT COOLER 2A, is ON.

[18] **RELEASE** START Pushbutton, 2-HS-30-95B, CNTMT UPPER COMPARTMENT COOLER 2A, **AND** 

**VERIFY** Cooler 2-CCU-30-95, CNTMT UPPER COMPARTMENT COOLER 2A, is OFF.

	WBN Unit 2	Upper Compartment Coolers 2-PTI-030 Rev. 0000 Page 26 o	G-01 ) of 56
	Data	Package: Page of	Date
6.1	Uppe	r Compartment Cooler 2A Logic (continued)	
	[19]	LAND wire 9B5 on TB615, point 7 in Panel 2-R-48.	
		(451N2676-4)	1st
			CV
	[20]	<b>VERIFY</b> the following on Handswitch 2-HS-30-95A, UPR CNTMT CLR A, [2-M-9]:	
		Green Light ON (Acc Crit)	
		• Red Light OFF (Acc Crit)	
	[21]	<b>PLACE</b> Handswitch 2-HS-30-95A, UPR CNTMT CLR A, [2-M-9], to STOP PULL TO LOCK.	
	[22]	<b>ENSURE</b> ERCW Temperature Indicating Controller 2-TIC-67-129, UPPER CNTMT VENT CLR 2A ERCW RE TEMP CNTL, is returned to its As-Found positions recorde Step 4.3[6]A.	T ed in
		Auto/Manual Switch Position:	
		Indicated Controller Output:	
			1st
			CV

[23] VERIFY successful completion of this SubSection 6.1. (Acc Crit)

Date

#### 6.2 Upper Compartment Cooler 2B Logic

- [1] **ENSURE** prerequisites listed in Section 4.0 for SubSection 6.2 have been completed.
- [2] **VERIFY** the following:
  - A. 2-XA-55-5C-103A, UPR CNTMT CLR FLOW LO, is CLEAR.
  - B. Unit 2 Alarm Events Display Screen indicates 103-A UPR CNTMT CLR FLOW LO, is NORMAL (Green).
  - C. On Panel 2-M-6, Train B MASTER ISOL SIGNAL STATUS PNL, 2-XX-55-6D, Window 3, ØB, is CLEAR.
- [3] **PLACE** Handswitch 2-HS-30-97A, UPR CNTMT CLR B, [2-M-9], to A AUTO, **AND**

#### **VERIFY** the following:

- A. On Handswitch 2-HS-30-97A:
  - Green Light ON
  - Red Light OFF
- B. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 6, TCV-67-137 UPPER CNTMT CLR 2B OPEN, is OFF.
- C. Breaker 2-BKR-30-97, 480V REACTOR VENT BD 2B-B, Compartment 9B, Red Light is OFF.
- D. Cooler 2-CCU-30-97, CNTMT UPPER COMPARTMENT COOLER 2B, [EL 802 AZ 149° (above S/G #2)], is OFF
- E. Valve 2-TCV-67-137, UPPER CNTMT VENT CLR 2B ERCW RET TEMP CNTL, [A13V/713 (Pent Rm)], is CLOSED.

	WBN Unit 2		Upper C	Compartment	Coolers	2-PTI-030G-01 Rev. 0000 Page 28 of 56	
	Data P	ackage:	Page	of		Date	
6.2	Upper	Compa	rtment Co	ooler 2B Logic	c (continued)		
	[4]	<b>PLACE</b> [ [2-M-9],	Handswite to START	ch 2-HS-30-97 , <b>AND</b>	A, UPR CNTM	T CLR B,	
	,	VERIFY	the follow	/ing:			
		A. On	Handswite	ch 2-HS-30-97	A:		
		•	Green Li	ight OFF			
		•	Red Ligh	nt ON			
	l	B. On Win is O	Panel 0-M dow 6, T( N.	1-27A, CLRS E CV-67-137 UP	ERCW SUP, 0- PER CNTMT C	XX-55-27B, CLR 2B OPEN,	
		C. 2-X. CLE	A-55-5C- <sup>2</sup> EAR (after	103A, UPR CN approximately	ITMT CLR FLC / 45 seconds).	W LO, remains	
		D. Brea Cor	aker 2-BK npartmen	(R-30-97, 480\ t 9B, Red Ligh	/ REACTOR V t is ON.	ENT BD 2B-B,	
		E. Coo CO	oler 2-CCl OLER 2B,	J-30-97, CNTN , is ON.	AT UPPER CO	MPARTMENT	
		F. Valv ER(	ve 2-TCV- CW RET	-67-137, UPPE TEMP CNTL, i	R CNTMT VE s OPEN. <b>(Acc</b>	NT CLR 2B Crit)	
	[5]	VERIFY ICS Poir	that the L nt Qualitie	JCC 2B intake s are GOOD.	and exhaust a (Acc Crit)	ir temperature	
v		•	ICS Poir UPPER	nt T1119A COMPT COO	L UNIT B INTA	KE	
		٠	ICS Poir UPPER	nt T1123A COMPT COOI	L UNIT B EXH	AUST	
	[6]	RECOR	<b>D</b> UCC 2E d by Plant	3 intake and ex Computer (IC	khaust air temp S) log points:	erature as	
		ICS Po UPPEF	oint T1119 R COMPT	A COOL UNIT I	B INTAKE	°F	
		ICS Po UPPEF	oint T1123 R COMPT	a ' cool unit e	B EXHAUST	°F	

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	WBN Unit 2		Upper Compartment Coolers	2-PTI-030G-01 Rev. 0000 Page 29 of 56	
	Data	a Pacl	kage: Page of	Date	
<b>.2</b>	Upp	oer Co	mpartment Cooler 2B Logic (continued)		
	[7]	<b>PL/</b> [2-N	ACE Handswitch 2-HS-30-97A, UPR CNTM M-9], to STOP, <b>AND</b>	IT CLR B,	
		VE	RIFY the following:		
		Α.	On Handswitch 2-HS-30-97A:		
).			Green Light ON		
			Red Light OFF		
		В.	On Panel 0-M-27A, CLRS ERCW SUP, 0 Window 6, TCV-67-137 UPPER CNTMT ( is OFF.	-XX-55-27B, CLR 2B OPEN,	
		C.	Breaker 2-BKR-30-97, 480V REACTOR \ Compartment 9B, Red Light is OFF.	/ENT BD 2B-B,	
		D.	Cooler 2-CCU-30-97, CNTMT UPPER CC COOLER 2B, is OFF.	OMPARTMENT	
		E.	Valve 2-TCV-67-137, UPPER CNTMT VE ERCW RET TEMP CNTL, is CLOSED. (/	NT CLR 2B Acc Crit)	
	[8]	PRES COM [EL 8	<b>SS</b> START Pushbutton, 2-HS-30-97B, CNT PARTMENT COOLER 2B, at 2-JB-293-317 03 AZ 143°], <b>AND</b>	MT UPPER 7,	
		VERI	FY the following:		
		Α.	Cooler 2-CCU-30-97, CNTMT UPPER CO COOLER 2B, is ON.	OMPARTMENT	
		В.	2-XA-55-5C-103A, UPR CNTMT CLR FL CLEAR (after approximately 45 seconds)	OW LO, remains	
		C.	On Handswitch 2-HS-30-97A UPR CNTM [2-M-9]:	IT CLR B,	
			Green Light OFF		
			Red Light ON		

	WBN Unit 2		Upper Compartment Coolers	2-PTI-030G-01 Rev. 0000 Page 30 of 56
	Data	Pacl	(age: Page of	Date
6.2	Uppe	r Co	mpartment Cooler 2B Logic (continued)	
	[9]	DIS 2-F UC UC	<b>CONNECT</b> the "Low Side" tubing of Flow S S-30-97, UPPER COMPT VENT UNIT B FL C 2B inlet plenum to simulate a Low Air Flow C 2B.	witch OW ALM, at w condition for
				1st
				CV
	[10]	VE	RIFY the following:	
		A.	2-XA-55-5C-103A, UPR CNTMT CLR FLC ALARMS.	DW LO,
		В.	Unit 2 Alarm Events Display Screen indica 103-A UPR CNTMT CLR FLOW LO, is in .	ites ALARM (Red).
	[11]	<b>RE</b> 2-F	CONNECT the "Low Side" tubing of Flow Side" S-30-97, UPPER COMPT VENT UNIT B FL	witch <sub>-</sub> OW ALM, at
		00	C 26 met pienum.	1st
				CV
	[12]	VE	<b>RIFY</b> the following:	
		A.	2-XA-55-5C-103A, UPR CNTMT CLR FLC CLEARS.	DW LO,
		Β.	Unit 2 Alarm Events Display Screen indica 103-A UPR CNTMT CLR FLOW LO is NO	ites RMAL (Green).
	[13]	PR CO	ESS STOP Pushbutton, 2-HS-30-97B, CNT MPARTMENT COOLER 2B at 2-JB-293-31	MT UPPER 7, <b>AND</b>
		VE	<b>RIFY</b> the following:	
		A.	Cooler 2-CCU-30-97, CNTMT UPPER CC COOLER 2B, is OFF.	
		В.	On Handswitch 2-HS-30-97A UPR CNTM [2-M-9]:	T CLR B,
			Green Light ON	
			Red Light OFF	

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WBN Unit 2	Upper Compartment Coolers	2-PTI-030G-01 Rev. 0000 Page 31 of 56	
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#### 6.2 Upper Compartment Cooler 2B Logic (continued)

[14] **PLACE** Handswitch 2-HS-30-97A, UPR CNTMT CLR B, [2-M-9], to START, **AND** 

**VERIFY** the following on Handswitch 2-HS-30-97A:

- Green Light OFF
- Red Light ON

#### NOTE

The following steps will simulate a Train B Phase B Containment Isolation Signal and Phase B signal reset by lifting and landing a wire in SSPS Train-B Output Cabinet 2-R-51.

1st

CV

- [15] **LIFT** wire 9B5 from TB615, point 7 in Panel 2-R-51 (45N2677-4).
- [16] **VERIFY** the following on Handswitch 2-HS-30-97A, UPR CNTMT CLR B, [2-M-9]:
  - Green Light ON (Acc Crit)
  - Red Light OFF (Acc Crit)
- [17] **PRESS** and **HOLD** START Pushbutton, 2-HS-30-97B, CNTMT UPPER COMPARTMENT COOLER 2B, at 2-JB-293-317, **AND**

**VERIFY** Cooler 2-CCU-30-97, CNTMT UPPER COMPARTMENT COOLER 2B, is ON.

[18] **RELEASE** START Pushbutton, 2-HS-30-97B, CNTMT UPPER COMPARTMENT COOLER 2B, **AND** 

**VERIFY** Cooler 2-CCU-30-97, CNTMT UPPER COMPARTMENT COOLER 2B, is OFF.

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5.2	Uppe	er Coi	mpartment Cooler 2B Logic (continue	d)
	[19]	<b>LAN</b> (451	<b>ID</b> wire 9B5 on TB615, point 7 in Panel 2 N2677-4)	2-R-51.
		·		1st
		÷		CV
	[20]	VEF CN	<b>RIFY</b> the following on Handswitch 2-HS-3 TMT CLR B, [2-M-9]:	30-97A, UPR
			• Green Light ON (Acc Crit)	
			• Red Light OFF (Acc Crit)	
	[21]	<b>PL/</b> [2-N	<b>\CE</b> Handswitch 2-HS-30-97A, UPR CN /-9], to STOP PULL TO LOCK.	ТМТ CLR B,
	[22]	ENS 2-TI TEN Stel	<b>SURE</b> ERCW Temperature Indicating Co IC-67-137, UPPER CNTMT VENT CLR 2 MP CNTL, is returned to its As-Found po p 4.3[6]B.	ontroller 2B ERCW RET sition recorded in
			Auto/Manual Switch Position:	
			Indicated Controller Output:	
				1st
				CV
	[23]	VEF	RIFY successful completion of this SubS	ection 6.2. (Acc Crit)

,

.

Date

#### 6.3 Upper Compartment Cooler 2C Logic

- [1] **ENSURE** prerequisites listed in Section 4.0 for SubSection 6.3 have been completed.
- [2] **VERIFY** the following:
  - A. 2-XA-55-5C-103A, UPR CNTMT CLR FLOW LO, is CLEAR.
  - B. Unit 2 Alarm Events Display Screen indicates
     103-A UPR CNTMT CLR FLOW LO, is NORMAL (Green).
  - C. On Panel 2-M-6, Train A MASTER ISOL SIGNAL STATUS PNL, 2-XX-55-6C, Window 3, ØB, is CLEAR.
- [3] **PLACE** Handswitch 2-HS-30-99A, UPR CNTMT CLR C, [2-M-9], to A AUTO, **AND**

#### **VERIFY** the following:

A. On Handswitch 2-HS-30-99A:

- Green Light ON
- Red Light OFF
- B. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 5, TCV-67-132 UPPER CNTMT CLR 2C OPEN, is OFF.
- C. Breaker 2-BKR-30-99, 480V REACTOR VENT BD 2A-A, Compartment 10B, Red Light is OFF.
- D. Cooler 2-CCU-30-99, CNTMT UPPER COMPARTMENT COOLER 2C, [EL 802 AZ 215° (above S/G #3)], is OFF.
- E. Valve 2-TCV-67-132, UPPER CNTMT VENT CLR 2C ERCW RET TEMP CNTL, [A13V/713 (Pent Rm)], is CLOSED.

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Dat	ta Paci	kage: Page of	Date	
.3 Up	per Co	ompartment Cooler 2C Logic (continued	d)	
[4]	<b>PL</b> [2-I	<b>ACE</b> Handswitch 2-HS-30-99A, UPR CNT M-9], to START, <b>AND</b>	TMT CLR C,	
	VE	<b>RIFY</b> the following:		`
	A.	On Handswitch 2-HS-30-99A:		
		Green Light OFF		
		Red Light ON		
	B.	On Panel 0-M-27A, CLRS ERCW SUP, Window 5, TCV-67-132 UPPER CNTM is ON.	0-XX-55-27B, T CLR 2C OPEN,	
	C.	2-XA-55-5C-103A, UPR CNTMT CLR F CLEAR (after approximately 45 seconds	LOW LO, remains s).	
	D.	Breaker 2-BKR-30-99, 480V REACTOR Compartment 10B, Red Light is ON.	R VENT BD 2A-A,	
	E.	Cooler 2-CCU-30-99, CNTMT UPPER ( COOLER 2C, is ON.	COMPARTMENT	
	F.	Valve 2-TCV-67-132, UPPER CNTMT V ERCW RET TEMP CNTL, is OPEN. <b>(A</b>	VENT CLR 2C Acc Crit)	
[5]	VE ICS	<b>RIFY</b> that the UCC 2C intake and exhaus S Point Qualities are GOOD. (Acc Crit)	st air temperature	
		ICS Point T1120A     UPPER COMPT COOL UNIT C IN	TAKE	
		<ul> <li>ICS Point T1124A UPPER COMPT COOL UNIT C EX</li> </ul>	KHAUST	
[6]	<b>RE</b> ind	<b>CORD</b> UCC 2C intake and exhaust air te icated by Plant Computer (ICS) log points	mperature as	
	10 U 10	CS Point T1120A IPPER COMPT COOL UNIT C INTAKE CS Point T1124A IPPER COMPT COOL UNIT C EXHAUST	°F	

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	Data	a Pack	age: Page of	Date
6.3	Upp	er Co	npartment Cooler 2C Logic (continue	ed)
	[7]	<b>PL</b> [2-N	<b>CE</b> Handswitch 2-HS-30-99A, UPR CN 1-9], to STOP, <b>AND</b>	ITMT CLR C,
		VE	RIFY the following:	
		Α.	On Handswitch 2-HS-30-99A:	
			Green Light ON	
			Red Light OFF	
		В.	On Panel 0-M-27A, CLRS ERCW SUP Window 5, TCV-67-132 UPPER CNTM is OFF.	P, 0-XX-55-27B, 1T CLR 2C OPEN, 
		C.	Breaker 2-BKR-30-99, 480V REACTO Compartment 10B, Red Light is OFF.	R VENT BD 2A-A,
		D.	Cooler 2-CCU-30-99, CNTMT UPPER COOLER 2C, is OFF.	COMPARTMENT
		E.	Valve 2-TCV-67-132, UPPER CNTMT ERCW RET TEMP CNTL, is CLOSED	VENT CLR 2C . <b>(Acc Crit)</b>
	[8]	PRES COM [EL 8	<b>S</b> START Pushbutton, 2-HS-30-99B, C PARTMENT COOLER 2C, at 2-JB-293- )3 AZ 207°], <b>AND</b>	NTMT UPPER 316,
		VERI	<b>Y</b> the following:	
		A.	Cooler 2-CCU-30-99, CNTMT UPPER COOLER 2C, is ON.	COMPARTMENT
		В.	2-XA-55-5C-103A, UPR CNTMT CLR CLEAR (after approximately 45 second	FLOW LO, remains ds).
		C.	On Handswitch 2-HS-30-99A UPR CN [2-M-9]:	TMT CLR C,
			Green Light OFF	
			Red Light ON	

	WBN Unit 2		Upper Compartment Coolers	2-PTI-030G-01 Rev. 0000 Page 36 of 56	
	Data	Pacl	kage: Page of	Dat	e
.3	Uppe	er Co	mpartment Cooler 2C Logic (continued	)	
	[9]	DIS 2-F UC UC	<b>SCONNECT</b> the "Low Side" tubing of Flow S-30-99, UPPER COMPT VENT UNIT C I C 2C inlet plenum to simulate a Low Air Fl C 2C.	Switch FLOW ALM, at low condition for	
					1st
				•	CV
	[10]	VE	<b>RIFY</b> the following:		
		A.	2-XA-55-5C-103A, UPR CNTMT CLR FL ALARMS.	LOW LO,	<u></u>
		Β.	Unit 2 Alarm Events Display Screen indic 103-A UPR CNTMT CLR FLOW LO, is in	cates n ALARM (Red).	
	[11]	RE 2-F UC	<b>CONNECT</b> the "Low Side" tubing of Flow S-30-99, UPPER COMPT VENT UNIT C I C 2C inlet plenum.	Switch FLOW ALM, at	
					1st
					CV
	[12]	VE	<b>RIFY</b> the following:		
		Α.	2-XA-55-5C-103A, UPR CNTMT CLR FL CLEARS.	LOW LO,	
		В.	Unit 2 Alarm Events Display Screen indic 103-A UPR CNTMT CLR FLOW LO is N	cates IORMAL (Green).	
	[13]	PR CO	<b>ESS</b> STOP Pushbutton, 2-HS-30-99B, CN MPARTMENT COOLER 2C, at 2-JB-293-	ITMT UPPER 316, <b>AND</b>	
		VE	<b>RIFY</b> the following:		
		A.	Cooler 2-CCU-30-99, CNTMT UPPER C COOLER 2C, is OFF.	OMPARTMENT	:
		В.	On Handswitch 2-HS-30-99A UPR CNTI [2-M-9]:	MT CLR C,	
			Green Light ON		-
			Red Light OFF		

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	Data	Package: Page of	Date
6.3	Uppe	er Compartment Cooler 2C Logic (continued)	
	[14]	<b>PLACE</b> Handswitch 2-HS-30-99A, UPR CNTM [2-M-9], to START, <b>AND</b>	T CLR C,
		VERIFY the following on Handswitch 2-HS-30-	99A:
		Green Light OFF	
		Red Light ON	
		NOTE	
The for Phase	ollowing e B sign	steps will simulate a Train A Phase B Containm al reset by lifting and landing a wire in SSPS Tra	ent Isolation Signal and in-A Output Cabinet 2-R-48.
	[15]	LIFT wire 10B5 from TB615, point 9 in Panel 2-	-R-18
		(45N2676-4).	-1(-+0
		(45N2676-4).	
		(45N2676-4).	-13t 
	[16]	(45N2676-4). VERIFY the following on Handswitch 2-HS-30-4 CNTMT CLR C, [2-M-9]:	1st CV 99A, UPR
	[16]	<ul> <li>(45N2676-4).</li> <li>VERIFY the following on Handswitch 2-HS-30-4 CNTMT CLR C, [2-M-9]:</li> <li>Green Light ON (Acc Crit)</li> </ul>	-1st 
	[16]	<ul> <li>(45N2676-4).</li> <li>VERIFY the following on Handswitch 2-HS-30-5</li> <li>CNTMT CLR C, [2-M-9]:</li> <li>Green Light ON (Acc Crit)</li> <li>Red Light OFF (Acc Crit)</li> </ul>	-1st 
·	[16]	<ul> <li>(45N2676-4).</li> <li>VERIFY the following on Handswitch 2-HS-30-5 CNTMT CLR C, [2-M-9]: <ul> <li>Green Light ON (Acc Crit)</li> <li>Red Light OFF (Acc Crit)</li> </ul> </li> <li>PRESS and HOLD START Pushbutton, 2-HS-3 UPPER COMPARTMENT COOLER 2C, at 2-JI AND</li> </ul>	1st 
	[16]	<ul> <li>(45N2676-4).</li> <li>VERIFY the following on Handswitch 2-HS-30-4 CNTMT CLR C, [2-M-9]: <ul> <li>Green Light ON (Acc Crit)</li> <li>Red Light OFF (Acc Crit)</li> </ul> </li> <li>PRESS and HOLD START Pushbutton, 2-HS-3 UPPER COMPARTMENT COOLER 2C, at 2-J AND</li> <li>VERIFY Cooler 2-CCU-30-99, CNTMT UPPER COMPARTMENT COOLER 2C, is ON.</li> </ul>	
· ·	[16] [17]	<ul> <li>(45N2676-4).</li> <li>VERIFY the following on Handswitch 2-HS-30-9 CNTMT CLR C, [2-M-9]: <ul> <li>Green Light ON (Acc Crit)</li> <li>Red Light OFF (Acc Crit)</li> </ul> </li> <li>PRESS and HOLD START Pushbutton, 2-HS-3 UPPER COMPARTMENT COOLER 2C, at 2-JI AND</li> <li>VERIFY Cooler 2-CCU-30-99, CNTMT UPPER COMPARTMENT COOLER 2C, is ON.</li> <li>RELEASE START Pushbutton, 2-HS-30-99B, COMPARTMENT COOLER 2C, AND</li> </ul>	-1st 

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	WBN Unit 2		Upper Compartment Coolers	2-PTI-030G-01 Rev. 0000 Page 38 of 56	
	Data	Pacl	kage: Page of	Date	
6.3	Uppe	er Co	ompartment Cooler 2C Logic (continued	d)	
	[19]	<b>LA</b> (45	<b>ND</b> wire 10B5 on TB615, point 9 in Panel N2676-4)	2-R-48.	1st
			· · · · · · · · · · · · · · · · · · ·		CV
e	[20]	<b>VE</b> CN	<b>RIFY</b> the following on Handswitch 2-HS-3 TMT CLR C, [2-M-9]:	0-99A, UPR	
			• Green Light ON (Acc Crit)	,	
			• Red Light OFF (Acc Crit)		
	[21]	<b>PL</b> / [2-1	<b>ACE</b> Handswitch 2-HS-30-99A, UPR CN1 M-9], to STOP PULL TO LOCK.	TMT CLR C,	
	[22]	<b>EN</b> 2-T TEI Ste	<b>SURE</b> ERCW Temperature Indicating Co IC-67-132, UPPER CNTMT VENT CLR 2 MP CNTL, is returned to its As-Found pose p 4.3[6]C.	ntroller CERCW RET sition recorded in	
×			Auto/Manual Switch Position:		
			Indicated Controller Output:	·	
					1st
					CV

[23] VERIFY successful completion of this SubSection 6.3. (Acc Crit)\_\_\_\_\_

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WBN U Unit 2	oper Compartment Coolers	2-PTI-030G-01 Rev. 0000 Page 39 of 56	
Unit 2		Rev. 0000 Page 39 of 56	

	Data	Package: Page of Da	te
6.4	Uppe	er Compartment Cooler 2D Logic	
	[1]	<b>ENSURE</b> prerequisites listed in Section 4.0 for SubSection 6.4 have been completed.	
	[2]	VERIFY the following:	
		A. 2-XA-55-5C-103A, UPR CNTMT CLR FLOW LO, is CLEAR.	
		<ul> <li>B. Unit 2 Alarm Events Display Screen indicates</li> <li>103-A UPR CNTMT CLR FLOW LO, is NORMAL (Green).</li> </ul>	
		C. On Panel 2-M-6, Train B MASTER ISOL SIGNAL STATUS PNL, 2-XX-55-6D, Window 3, ØB, is CLEAR.	
	[3]	PLACE Handswitch 2-HS-30-100A, UPR CNTMT CLR D, [2-M-9], to A AUTO, AND	
		VERIFY the following:	
		A. On Handswitch 2-HS-30-100A:	
		Green Light ON	
		Red Light OFF	<u></u>
		<ul> <li>B. On Panel 0-M-27A, CLRS ERCW SUP, 0-XX-55-27B, Window 7, TCV-67-140 UPPER CNTMT CLR 2D OPEN, is OFF.</li> </ul>	
		C. Breaker 2-BKR-30-100, 480V REACTOR VENT BD 2B-B, Compartment 10B, Red Light is OFF.	
		D. Cooler 2-CCU-30-100, CNTMT UPPER COMPARTMENT COOLER 2D, [EL 802 AZ 325° (above S/G #4)], is OFF.	
		E. Valve 2-TCV-67-140, UPPER CNTMT VENT CLR 2D ERCW RET TEMP CNTL, [A13V/713 (Pent Rm)], is CLOSED.	

	WBN Unit 2		Upper Compartment Coolers	2-PTI-030G-01 Rev. 0000 Page 40 of 56
	Data	Pack	age: Page of	Date
6.4	Uppe	er Co	mpartment Cooler 2D Logic (continued)	
	[4]	<b>PL/</b> [2-N	<b>\CE</b> Handswitch 2-HS-30-100A, UPR CNT /-9], to START, <b>AND</b>	MT CLR D,
		VE	RIFY the following:	
		Α.	On Handswitch 2-HS-30-100A:	
			Green Light OFF	·
			Red Light ON	
		В.	On Panel 0-M-27A, CLRS ERCW SUP, 0- Window 7, TCV-67-140 UPPER CNTMT ( is ON.	-XX-55-27B, CLR 2D OPEN,
		C.	2-XA-55-5C-103A, UPR CNTMT CLR FLC CLEAR (after approximately 45 seconds).	DW LO, remains
		D.	Breaker 2-BKR-30-100, 480V REACTOR Compartment 10B, Red Light is ON.	VENT BD 2B-B,
		E.	Cooler 2-CCU-30-100, CNTMT UPPER C COOLER 2D, is ON.	
		F.	Valve 2-TCV-67-140, UPPER CNTMT VE ERCW RET TEMP CNTL, is OPEN. <b>(Acc</b>	NT CLR 2D : Crit)
	[5]	<b>VE</b> I ICS	<b>RIFY</b> that the UCC 2D intake and exhaust a Point Qualities are GOOD. (Acc Crit)	ir temperature
			ICS Point T1121A     UPPER COMPT COOL UNIT D INTA	\KE
			ICS Point T1125A     UPPER COMPT COOL UNIT D EXH	AUST
	[6]	<b>RE</b> indi	<b>CORD</b> UCC 2D intake and exhaust air temp cated by Plant Computer (ICS) log points:	perature as
		IC U	S Point T1121A PPER COMPT COOL UNIT D INTAKE	°F
		IC U	S Point T1125A PPER COMPT COOL UNIT D EXHAUST	°F

WBN Unit 2	l 2	Upper Compartment Coolers	2-PTI-030G-01 Rev. 0000 Page 41 of 56
Da	ta Pacl	kage: Page of	Date
Up	per Co	ompartment Cooler 2D Logic (continued	d)
[7]	<b>PL</b> [2-	<b>ACE</b> Handswitch 2-HS-30-100A, UPR CN M-9], to STOP, <b>AND</b>	NTMT CLR D,
	VE	RIFY the following:	
	Α.	On Handswitch 2-HS-30-100A:	
		Green Light ON	
		Red Light OFF	
	В.	On Panel 0-M-27A, CLRS ERCW SUP, Window 7, TCV-67-140 UPPER CNTM is OFF.	0-XX-55-27B, T CLR 2D OPEN,
	C.	Breaker 2-BKR-30-100, 480V REACTO Compartment 10B, Red Light is OFF.	R VENT BD 2B-B,
	D.	Cooler 2-CCU-30-100, CNTMT UPPER COOLER 2D, is OFF.	COMPARTMENT
	E.	Valve 2-TCV-67-140, UPPER CNTMT ERCW RET TEMP CNTL, is CLOSED.	VENT CLR 2D (Acc Crit)
[8]	PRES COM [EL 8	<b>SS</b> START Pushbutton, 2-HS-30-100B, C IPARTMENT COOLER 2D, at 2-JB-293-3 303 AZ 332°], <b>AND</b>	NTMT UPPER 336,
	VER	IFY the following:	
	Α.	Cooler 2-CCU-30-100, CNTMT UPPER COOLER 2D, is ON.	COMPARTMENT
	В.	2-XA-55-5C-103A, UPR CNTMT CLR F CLEAR (after approximately 45 second	LOW LO, remains s).
-	C.	On Handswitch 2-HS-30-100A UPR CN [2-M-9]:	ITMT CLR D,
		Green Light OFF	
		Red Light ON	

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	WBN Unit 2	Upper Compartment Coolers 2-PTI-030G-01 Rev. 0000 Page 42 of 56	
	Data	Package: Page of Da	ate
6.4	Uppe	Compartment Cooler 2D Logic (continued)	
	[9]	<b>DISCONNECT</b> the "Low Side" tubing of Flow Switch 2-FS-30-100, UPPER COMPT VENT UNIT D FLOW ALM, at UCC 2D inlet plenum to simulate a Low Air Flow condition for UCC 2D	
			1st
			CV
	[10]	VERIFY the following:	
		A. 2-XA-55-5C-103A, UPR CNTMT CLR FLOW LO, ALARMS.	
		<ul> <li>B. Unit 2 Alarm Events Display Screen indicates</li> <li>103-A UPR CNTMT CLR FLOW LO, is in ALARM (Red).</li> </ul>	
	[11]	<b>RECONNECT</b> the "Low Side" tubing of Flow Switch 2-FS-30-100, UPPER COMPT VENT UNIT B FLOW ALM, at	
			1st
			CV
	[12]	VERIFY the following:	•
		A. 2-XA-55-5C–103A, UPR CNTMT CLR FLOW LO, CLEARS.	
		<ul> <li>B. Unit 2 Alarm Events Display Screen indicates</li> <li>103-A UPR CNTMT CLR FLOW LO is NORMAL (Green).</li> </ul>	
	[13]	<b>PRESS</b> STOP Pushbutton, 2-HS-30-100B, CNTMT UPPER COMPARTMENT COOLER 2D, at 2-JB-293-336, <b>AND</b>	
		VERIFY the following:	
		A. Cooler 2-CCU-30-100, CNTMT UPPER COMPARTMENT COOLER 2D, is OFF.	
·		B. On Handswitch 2-HS-30-100A UPR CNTMT CLR D, [2-M-9]:	
		Green Light ON	
		Red Light OFF	

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		Page 43 of 56

Date \_\_\_\_

1st

CV

#### 6.4 Upper Compartment Cooler 2D Logic (continued)

[14] **PLACE** Handswitch 2-HS-30-100A, UPR CNTMT CLR D, [2-M-9], to START, **AND** 

VERIFY the following on Handswitch 2-HS-30-100A:

- Green Light OFF
- Red Light ON

#### NOTE

The following steps will simulate a Train B Phase B Containment Isolation Signal and Phase B signal reset by lifting and landing a wire in SSPS Train-B Output Cabinet 2-R-51.

- [15] **LIFT** wire 10B5 from TB615, point 9 in Panel 2-R-51 (45N2677-4).
- [16] **VERIFY** the following on Handswitch 2-HS-30-100A, UPR CNTMT CLR D, [2-M-9]:
  - Green Light ON (Acc Crit)
  - Red Light OFF (Acc Crit)
- [17] PRESS and HOLD START Pushbutton, 2-HS-30-100B, CNTMT UPPER COMPARTMENT COOLER 2D, at 2-JB-293-336, AND

**VERIFY** Cooler 2-CCU-30-100, CNTMT UPPER COMPARTMENT COOLER 2D is ON.

[18] **RELEASE** START Pushbutton, 2-HS-30-100B, CNTMT UPPER COMPARTMENT COOLER 2D, **AND** 

> **VERIFY** Cooler 2-CCU-30-100, CNTMT UPPER COMPARTMENT COOLER 2D, is OFF.

	WBN Unit 2	Upper Compartment Cooler	s 2-PTI-030G-01 Rev. 0000 Page 44 of 56
	Data	ackage: Page of	Date
6.4	Uppe	Compartment Cooler 2D Logic (cont	inued)
	[19]	LAND wire 10B5 on TB615, point 9 in F (45N2677-4)	Panel 2-R-51.
			1st
			CV
	[20]	VERIFY the following on Handswitch 2- CNTMT CLR D, [2-M-9]:	-HS-30-100A, UPR
		• Green Light ON (Acc Crit)	
		• Red Light OFF (Acc Crit)	
	[21]	PLACE Handswitch 2-HS-30-100A, UP [2-M-9], to STOP PULL TO LOCK.	PR CNTMT CLR D,
	[22]	ENSURE ERCW Temperature Indicatir 2-TIC-67-140, UPPER CNTMT VENT ( TEMP CNTL, is returned to its As-Foun Step 4.3[6]D.	ng Controller CLR 2D ERCW RET nd position recorded in
		Auto/Manual Switch Position:	
		Indicated Controller Output:	
			1st
			CV
	[23]	VERIFY successful completion of this S	SubSection 6.4. (Acc Crit)

WBN	Upper Compartment Coolers	2-PTI-030G-01	
Unit 2		Rev. 0000	
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Date

#### 6.5 Upper Compartment Cooler Air Flows

- [1] **VERIFY** prerequisites listed in Section 4.0 for SubSection 6.5 have been completed.
- [2] **ENSURE** motor operating data and air flow measurement for the following have been performed using GTM-05, HVAC Air Balance:
  - A. Cooler 2-CCU-30-95, CNTMT UPPER COMPARTMENT COOLER 2A
  - B. Cooler 2-CCU-30-97, CNTMT UPPER COMPARTMENT COOLER 2B
  - C. Cooler 2-CCU-30-99, CNTMT UPPER COMPARTMENT COOLER 2C
  - D. Cooler 2-CCU-30-100, CNTMT UPPER COMPARTMENT COOLER 2D
- [3] **ENSURE** completed GTM-05 data sheets are attached to this instruction.

#### NOTE

The remaining steps in Section 6.5 record and verify data from the completed GTM-05, HVAC Air Balance Package for system 30G and may be completed in any order unless otherwise specified.

	WBN Unit 2		Upper Compartme	nt Coolers	2-PTI-030G-01 Rev. 0000 Page 46 of 56	
	Data	Pack	age: Page of		Date	
.5	Uppe	er Co	mpartment Cooler Air Fl	ows (continued)		
	[4]	RE CN	CORD the air flow measur TMT UPPER COMPARTN	rement for Cooler /IENT COOLER 2	2-CCU-30-95, A below, <b>AND</b>	
		VE	RIFY it meets acceptance	criteria.		
			CF	M		
		A	cc Crit: 14,400 CFM minim	um		
	[5]	<b>RE</b> CO	<b>CORD</b> the following for Me MPARTMENT COOLING	otor 2-MTR-30-95 UNIT 2A:	, UPPER	
		Α.	Corrected maximum mo	tor current:		
			A	MPS		
		В.	Maximum nameplate KV	Ά:		
			K\	/A		
	[6]	<b>RE</b> 2-N belo	<b>CORD</b> average motor cur ITR-30-95, UPPER COMI ow, <b>AND</b>	rent reading for M PARTMENT COO	otor LING UNIT 2A,	
		<b>VE</b> mo	<b>RIFY</b> it is less than or equ tor current recorded in ste	al to the corrected p 6.5[5]A. <b>(Acc C</b>	l maximum F <b>rit)</b>	
			AM	MPS		
	[7]	RE CO	CORD actual KVA for Mot MPARTMENT COOLING	or 2-MTR-30-95, UNIT 2A, below, <i>i</i>	UPPER AND	
		<b>VE</b> nar	<b>RIFY</b> it is less than or equ neplate KVA recorded in s	al to the corrected step 6.5[5]B. <b>(Acc</b>	l maximum <b>: Crit)</b>	
			K١	/A		

	WBN Unit 2		Upper Compartment Coolers	2-PTI-030G-01 Rev. 0000 Page 47 of 56
	Data	Pack	age: Page of	Date
6.5	Uppe	er Co	mpartment Cooler Air Flows (continued)	
	[8]	RE CN	<b>CORD</b> the air flow measurement for Cooler TMT UPPER COMPARTMENT COOLER 2	2-CCU-30-97, B below, <b>AND</b>
	Ň	VE	<b>RIFY</b> it meets acceptance criteria.	
			CFM	
		Ac	cc Crit: 14,400 CFM minimum	
	[9]	RE( CO	<b>CORD</b> the following for Motor 2-MTR-30-97 MPARTMENT COOLING UNIT 2B:	, UPPER
		Α.	Corrected maximum motor current:	
			AMPS	
		В.	Maximum nameplate KVA:	
			KVA	
	[10]	RE 2-M belo	<b>CORD</b> average motor current reading for M ITR-30-97, UPPER COMPARTMENT COO ow, <b>AND</b>	lotor ILING UNIT 2B,
Ņ		<b>VEI</b> mot	<b>RIFY</b> it is less than or equal to the corrected tor current recorded in step 6.5[9]A. (Acc C	d maximum C <b>rit)</b>
			AMPS	
	[11]	<b>RE</b> CO	<b>CORD</b> actual KVA for Motor 2-MTR-30-97, MPARTMENT COOLING UNIT 2B, below,	UPPER AND
		<b>VEI</b> nan	<b>RIFY</b> it is less than or equal to the corrected neplate KVA recorded in step 6.5[9]B. <b>(Ac</b>	d maximum c Crit)
			KVA	

WBN Unit 2		Upper Compartment Coolers	2-PTI-030G-01 Rev. 0000 Page 48 of 56
	Data	Package: Page of	Date
6.5	Uppe	ued)	
	[12]	<b>RECORD</b> the air flow measurement for C CNTMT UPPER COMPARTMENT COOL	ooler 2-CCU-30-99, FR 2C below, <b>AND</b>

**VERIFY** it meets acceptance criteria.

CFM

Acc Crit: 14,400 CFM minimum

- [13] **RECORD** the following for Motor 2-MTR-30-99, UPPER COMPARTMENT COOLING UNIT 2C:
  - A. Corrected maximum motor current:

AMPS

B. Maximum nameplate KVA:

KVA

[14] **RECORD** average motor current reading for Motor 2-MTR-30-99, UPPER COMPARTMENT COOLING UNIT 2C, below, **AND** 

**VERIFY** it is less than or equal to the corrected maximum motor current recorded in step 6.5[13]A. (Acc Crit)

AMPS

[15] **RECORD** actual KVA for Motor 2-MTR-30-99, UPPER COMPARTMENT COOLING UNIT 2C, below, **AND** 

**VERIFY** it is less than or equal to the corrected maximum nameplate KVA recorded in step 6.5[13]B. (Acc Crit)

KVA

Date \_\_\_\_

#### 6.5 Upper Compartment Cooler Air Flows (continued)

[16] **RECORD** the air flow measurement for Cooler 2-CCU-30-100, CNTMT UPPER COMPARTMENT COOLER 2D below, **AND** 

**VERIFY** it meets acceptance criteria.

CFM

Acc Crit: 14,400 CFM minimum

- [17] **RECORD** the following for Motor 2-MTR-30-100, UPPER COMPARTMENT COOLING UNIT 2D:
  - A. Corrected maximum motor current:

AMPS

B. Maximum nameplate KVA:

.

KVA

[18] **RECORD** average motor current reading for Motor 2-MTR-30-100, UPPER COMPARTMENT COOLING UNIT 2D, below, **AND** 

**VERIFY** it is less than or equal to the corrected maximum motor current recorded in step 6.5[17]A. (Acc Crit)

AMPS

[19] **RECORD** actual KVA for Motor 2-MTR-30-100, UPPER COMPARTMENT COOLING UNIT 2D, below, **AND** 

**VERIFY** it is less than or equal to the corrected maximum nameplate KVA recorded in step 6.5[17]B. (Acc Crit)

KVA

Date \_\_\_\_\_

### 7.0 POST PERFORMANCE ACTIVITY

[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

#### Appendix A (Page 1 of 1)

### **TEST PROCEDURES/INSTRUCTIONS REFERENCE REVIEW**

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

Date \_\_\_\_\_

### NOTES

1) Additional copies of this table may be made as necessary.

2) Initial and date indicates review has been completed for impact.

PROCEDURE/ INSTRUCTION	REVISION/ CHANGES	IMPACT Yes/No	INITIAL AND DATE. (N/A for no change)
GTM-05			
FSAR			
Section 9.2.1			
Section 9.4.7			
Table 14.2-1, Sh 4 & 5			
Table 14.2-1, Sh 38 & 39			
WBN2-30RB-4002			x
G-37			
2-TSD-30G-1			
2-PTI-030L-01			,
2-PTI-067-02			

#### Appendix B (Page 1 of 1)

### **TEMPORARY CONDITION LOG**

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

Date \_\_\_\_\_

### NOTES

1) Additional copies of this table may be made as necessary.

2) These steps will be N/A'd if no temporary condition existed.

ITEM	M TEMPORARY CONDITION		PERFORMED		RETURNED TO NORMAL		
No.		Step No.	Performed By/Date CV By/Date	Step No.	Returned By/Date CV By/Date		
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### Appendix C (Page 1 of 2)

### PERMANENT PLANT INSTRUMENTATION LOG

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

Date \_\_\_\_\_

INSTRUMENT OR INSTRUMENT	CAL DUE DATE	FILLED AND VENTED1PLACED IN SERVICE1		USED FOR QUANTITATIVE ACC CRIT		POST-TEST CAL DATE <sup>2</sup>	POST-TEST CALIBRATION ACCEPTABLE <sup>2</sup>	
LOOP #			ATE INIT/DATE YES NO					
2-TE-30-211O		N/A	N/A		NO	N/A	N/A	
2-TE-30-211P		N/A	N/A		NO	N/A	N/A	
2-TE-30-211Q		N/A	N/A		NO	N/A	N/A	
2-TE-30-211R		N/A	N/A		NO	N/A	N/A	
2-TE-30-211S		N/A	N/A		NO	N/A	N/A	
2-TE-30-211T		· N/A	N/A		NO	N/A	N/A	
2-TE-30-211U		N/A	N/A		NO	N/A	N/A	
2-TE-30-211V		N/A	N/A		NO	N/A	N/A	
2-FS-30-95		N/A	N/A		NO	N/A	N/A	
2-FS-30-97		N/A	N/A		NO	N/A	N/A	
2-FS-30-99		N/A	N/A		NO	N/A	N/A	
2-FS-30-100		N/A	N/A		NO	N/A	N/A	

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### Appendix C (Page 2 of 2)

### 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>	
		INIT/DATE	INIT/DATE	YES	NO	1	INITIAL/DATE	
2-LPT-67-129		N/A	N/A		NO	N/A	N/A	
2-LPT-67-137		N/A	N/A		NO	N/A	N/A	
2-LPT-67-132		N/A	N/A		NO	N/A	N/A	
2-LPT-67-140		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.

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### Appendix D (Page 1 of 1) SWITCH LINEUP

Data Package: Page of			Date		
SWITCH NUMBER	SWITCH LOCATION	NOMENCLATURE	POSITION	VERIFIED BY INITIAL	
2-HS-30-95A	2-M-9	UPR CNTMT CLR A	STOP-PULL TO LOCK		
2-HS-30-97A	2-M-9	UPR CNTMT CLR B	STOP-PULL TO LOCK		
2-HS-30-99A	2-M-9	UPR CNTMT CLR C	STOP-PULL TO LOCK		
2-HS-30-100A	2-M-9	UPR CNTMT CLR D	STOP-PULL TO LOCK		

### Appendix E (Page 1 of 1)

## ELECTRICAL LINEUP

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

Date \_\_\_\_\_

IDENTIFICATION	LOCATION	NOMENCLATURE	POSITION	VERIFIED BY INITIAL
2-BKR-30-95	480V RX VT BD 2A-A, COMPT 9B	CNTMT UPPER COMPARTMENT CLR 2A (2-CCU-30-95)	ON	
2-BKR-30-97	480V RX VT BD 2B-B, COMPT 9B	CNTMT UPPER COMPARTMENT CLR 2B (2-CCU-30-97)	ON	
2-BKR-30-99	480V RX VT BD 2A-A, COMPT 10B	CNTMT UPPER COMPARTMENT CLR 2C (2-CCU-30-99)	ON	
2-BKR-30-100	480V RX VT BD 2B-B, COMPT 10B	CNTMT UPPER COMPARTMENT CLR 2D (2-CCU-30-100)	ON	