Jan 5 DEC 06 1999	<div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 0 auto;">12</div>	ENGINEERING DATA TRANSMITTAL	Page 1 of 1 1. EDT 623543
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2. To: (Receiving Organization) Engineering Files	3. From: (Originating Organization) WRAP Engineering	4. Related EDT No.: N/A
5. Proj./Prog./Dept./Div.: WRAP/WMH	6. Design Authority/Design Agent/Cog. Engr.: ME Palmer	7. Purchase Order No.: N/A
8. Originator Remarks: This EDT is to release supporting documentation for the WRAP Plant Management System to Engineering Files.		9. Equip./Component No.: N/A
11. Receiver Remarks:		10. System/Bldg./Facility: 2336-W
11A. Design Baseline Document? ☒ Yes ☐ No		12. Major Assm. Dwg. No.: N/A
		13. Permit/Permit Application No.: N/A
		14. Required Response Date: N/A

15. DATA TRANSMITTED					(F)	(G)	(H)	(I)
(A) Item No.	(B) Document/Drawing No.	(C) Sheet No.	(D) Rev. No.	(E) Title or Description of Data Transmitted	Approval Designator	Reason for Transmittal	Originator Disposition	Receiver Disposition
1	HNF-5463	N/A	0	PMS Test Report	Q	2	1	

16. KEY		
Approval Designator (F)	Reason for Transmittal (G)	Disposition (H) & (I)
E, S, Q, D OR N/A (See WHC-CM-3-5, Sec. 12.7)	1. Approval 2. Release 3. Information 4. Review 5. Post-Review 6. Dist. (Receipt Acknow. Required)	1. Approved 2. Approved w/comment 3. Disapproved w/comment 4. Reviewed no/comment 5. Reviewed w/comment 6. Receipt acknowledged

17. SIGNATURE/DISTRIBUTION (See Approval Designator for required signatures)											
(G) Reason	(H) Disp.	(J) Name	(K) Signature	(L) Date	(M) MSIN	(G) Reason	(H) Disp.	(J) Name	(K) Signature	(L) Date	(M) MSIN
2	1	Design Authority ME Palmer		11/23/99	T4-52	2	1	JE Geary			T4-51
		Design Agent									
2	1	Cog. Eng. ME Palmer		11/23/99	T4-52						
2	1	Cog. Mgr. JR Weidert		12-3-99	T4-52						
2	1	QA WR Thackaberry		11/23/99	T4-52						
		Safety									
		Env.									

18. JK Kersten Signature of EDT Originator	19. Authorized Representative for Receiving Organization	20. JR Weidert Design Authority/Cognizant Manager	21. DOE APPROVAL (if required) Ctrl No. _____ ☐ Approved ☐ Approved w/comments ☐ Disapproved w/comments
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WASTE RECEIVING AND PROCESSING FACILITY PLANT MANAGEMENT SYSTEM TEST REPORT

ME Palmer

Waste Management Federal Services of Hanford, Inc., Richland, WA 99352
U.S. Department of Energy Contract DE-AC06-96RL13200

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Key Words: WRAP, PMS, PMS-01

Abstract: This document contains the testing results for installation
of a new server in the WRAP facility.

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Release Approval

12/6/99
Date

Approved for Public Release

**PLANT MANAGEMENT SYSTEM
TEST REPORT**

November, 1999

Test plan HNF-4351 defines testing required for installation of a new server in the WRAP facility. Test Procedure PMS-01 was issued as HNF-4622, Rev. 0 based on this test plan. The Test Procedure was later revised and issued as Rev. 1. This document is the completed test report for Test Procedure PMS-01.

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PMS TEST PROCEDURE PMS-01	
Revision: 0	Execution: 1
Title: NETCOM, RTAP and System Tests	

Date/Time: Start: 8/18/99 - 1630 End: 11/22/99 - 1130

Test Operator: JOHN BERGER Witness: MARK PALMER

Test Exceptions Recorded?	Yes	No
COMMENTS:		
This test procedure was run as marked and reissued with corrections as Rev 2.		

TEST PROCEDURE COMPLETION APPROVAL:

Successful	Unsuccessful
MICHAEL P. LAURE	
Michael P. Laure	11/22/99
Computer Engineer	Date
Mark E. Palmer	11/22/99
Witness	Date
Mark E. Palmer	11/22/99

Validation & Verification	Date
W. R. Thackaberry	11/22/99
QA W. R. Thackaberry	Date

Test Procedure	Revision 0	TITLE: PMS-01
<u>REVISION STATUS</u>		
<p>This test procedure incorporates all the testing requirements for complete testing of NETCOM, RTAP, and PMS Server testing as specified in PMS Test Plan, HNF-4351, Rev. 0.</p>		
<u>TEST OBJECTIVES</u>		
<p>This procedure will verify that the PMS system is a functional replacement for the DMS and PCS.</p> <p>Test Case 1 –NETCOM and DMSCOM TESTING Test Case 2 – SYSTEM TESTING Test Case 3 – NON-HVACOM ALARM TESTING Test Case 4 – HVACOM ALARM TESTING</p>		
<u>BASIS FOR A SUCCESSFUL TEST</u>		
<p>The basis of a successful test shall be the completion of the test cases listed above and resolution of all test exceptions.</p>		
<u>ITEMS TESTED</u>		
<p>See PMS Test Plan, Sections 7.1, 7.3, and 7.4 for a list of items tested. Each test step includes a reference to the Test Plan section that covers this test requirement.</p>		
<u>RESOURCE REQUIREMENTS</u>		
<p>PMS Server PC Terminal:</p>		

Test Procedure	Revision 0	TITLE: PMS-01
WLAN access for all test hardware components listed above		
<p><u>REFERENCE(S)</u></p> <ol style="list-style-type: none"> 1. PMS Test Plan, HNF-4351, Rev. 0. 2. Letter, J. R. Weidert to Distribution, 11/3/98, Cognizant Engineer Designations for WRAP 3. Letter, J. R. Weidert to D. P. Powell, 11/4/98, Design Authority for WRAP 		
<p><u>QUALIFICATIONS</u></p> <p>Witness and WMH Computer Engineer all must be a Cognizant Engineer or Design Authority. See references section for relevant letters defining WRAP cog. engineers and design authorities.</p>		
<p><u>SAFETY PRECAUTIONS</u></p> <ol style="list-style-type: none"> 1. There are no personal safety concerns associated with the running of this test. 		

Step #	TEST PROCEDURE STEPS	EXPECTED OUTPUT	Pass	Fail	WITNESS
TEST PROCEDURE PMS-01 SETUP					
1	Verify that all resource requirements listed above are available to support testing.	Resources available.	✓		MP
2	Swap IP address for new server to PCS IP address.	System rebooted with new address.	✓		MP
3	PCS communications disabled.	PCS disabled.	✓		MP
4	DOS notified.	DOS notified.	✓		MP
TEST PROCEDURE SETUP COMPLETE					

Step #	TEST PROCEDURE STEPS PMS-01	EXPECTED OUTPUT	Pass	Fail	WITNESS
Test Case 1 –NETCOM and DMSCOM TESTING					
1	Verify NETCOM can read from PLC 101, 7.1.2, 7.1.5: Scan a drum to one of the background locations.	Verify that CL message 5.3.1 is sent to DMS for correct location and PIN.	✓		MSD
2	Verify NETCOM can read from PLC 102, 7.1.2, 7.1.5: Scan a drum to one of the LLW lift tables.	Verify that CL message 5.3.1 is sent to DMS for correct location and PIN.	✓		MSD
3	Verify NETCOM can read from PLC 103, 7.1.2, 7.1.5: Scan a drum to one of the TRU lift tables.	Verify that CL message 5.3.1 is sent to DMS for correct location and PIN.	✓		MSD
4	Verify NETCOM can read from PLC 104, 7.1.2, 7.1.5: Scan a drum to PSTND. Cancel operation	Verify that scanner prompts for PIN or command. Bar code scanner displays starting prompt (Location Undefined).	✓		MSD
5	Test NETCOM regeneration of TELNET session, 7.1.5: Terminate TELNET session to scanner 1.	Verify that TELNET session to scanner 1 is automatically reestablished.	✓		MSD
6	Test NETCOM regeneration of TELNET session, 7.1.5: Terminate TELNET session to scanner 2.	Verify that TELNET session to scanner 2 is automatically reestablished.	✓		MSD

Step #	TEST PROCEDURE STEPS PMS-01	EXPECTED OUTPUT	Pass	Fail	WITNESS
7	Test NETCOM regeneration of TELNET session, 7.1.5: Terminate TELNET session to scanner 3.	Verify that TELNET session to scanner 3 is automatically reestablished.	✓		af
8	Test NETCOM regeneration of TELNET session, 7.1.5: Terminate TELNET session to scanner 4.	Verify that TELNET session to scanner 4 is automatically reestablished.	✓		af
9	Test NETCOM regeneration of TELNET session: Terminate TELNET session to scanner 5.	Verify that TELNET session to scanner 5 is automatically reestablished.	✓		af
10	Test NETCOM regeneration of TELNET session: Terminate TELNET session to scanner 6.	Verify that TELNET session to scanner 6 is automatically reestablished.	✓		af
11	Test AGVCS Write, 7.1.3: Tail NETCOM message log.	Verify that AGVCS status of 00190010 with Error Code 2000 is logged.	✓		af
12	Test AGVCS Read, 7.1.3: Scan a to/from vault location with scanner 1 or 2.	Verify that the AGVCS shows a pick/up and drop/off command in it's queue for the vaults scanned.	✓		af
13	Test ASRS Read, 7.1.4: Tail NETCOM message log.	Verify that ASRS status of 00100010 with Error Code 4001 is logged.	✓		af
14	Test ASRS Write, 7.1.4: Store or retrieve a pallet from ASRS or use MAN_OP to send a 5.7.16 message.	Verify ASRS sends database and verify database with RTAP popup.	✓		af
15	NETCOM mlog logging test, 7.1.6: Tail NETCOM log. If there is no message traffic use MAN_OP to force some messaging.	Verify mlog trace logs network traffic observed.	✓		af
16	NETCOM slog logging test, 7.1.6:	Verify slog trace logs network traffic observed.	✓		af

Step #	TEST PROCEDURE STEPS PMS-01	EXPECTED OUTPUT	Pass	Fail	WITNESS
	Tail NETCOM log. If there is no message traffic use MAN_OP to force some messaging.		✓		ms
17	MAN_OP PLC message test, 7.1.7: Send a PCSDMS 5.3.1 message.	Verify with DMSCOM logging that DMS has received message.	✓		ms
18	MAN_OP NETCOM message test, 7.1.7: Send a DMSPCS 5.4.1 message.	Verify with mlog that netcom has received 5.4.1 message.	✓		ms
19	DMSCOM logging test: Use MAN_OP to send a PCSDMS message.	Verify that message is logged.	✓		ms
20	Logging auto-compression test, 7.1.6, 7.2.3: List contents of logging directory after mlog has been running for at least 24 hours.	Verify that all message log files are present and compressed.	✓		ms
21	NETCOM to RTAP write test, 7.3: Open RTAP network screen.	Verify that AGVCS and ASRS and DMS connections are green.			
	Unplug network cable from AGVCS	Verify that AGVCS connection turns red.	✓		ms
	Plug AGVCS cable back in.	Verify that NETCOM reconnects to AGVCS and RTAP display goes back to green.			
22	RTAP to PLC 104 write test: , 7.3.1: Stop air handler 101 or 401 via manual control in RTAP.	Verify that fan stops and RTAP indicates fan is stopped.	✓		ms
	Restart stopped fan.	Verify in RTAP that fan is restarted.			

Step #	TEST PROCEDURE STEPS PMS-01	EXPECTED OUTPUT	Pass	Fail	WITNESS
23	RTAP to PLC 102 write test, 7.3.1: Change a pin for a LLW lift table in RTAP.	Verify that PIN changes on lift table display.	✓		mp
	Return RTAP display to original PIN.	Verify original PIN is displayed.			
24	RTAP to PLC 103 write test, 7.3.1: Change a pin for a TRU lift table in RTAP.	Verify that PIN changes on lift table display.	✓		mp
	Return RTAP display to original PIN.	Verify original PIN is displayed.			
25	RTAP to PLC 101 write test, 7.3.1: Change a pin for a drum on the infeed conveyor in RTAP.	Verify that PIN changes on lift table display.	✓		mp
	Return RTAP display to original PIN.	Verify original PIN is displayed.			
26	RTAP screen display test: Display all RTAP screens.	Verify that each screen displayed is consistent with current plant conditions.	✓		mp
Test Case 2 – SYSTEM TESTING					
1	NETCOM trace restart test, 7.4.1: Restart the server.	Verify that NETCOM and DMSCOM restart and mlog and slog restart.	✓		mp
2	RTAP restart test, 7.4.1: Restart the server and log in as a captive account.	Verify that RTAP is up and running.	✓		mp
3	Alarm printer restart test, 7.4.1: Restart the server and force an alarm or event such as airlock local/remote status.	Verify that alarm or event is logged on alarm printer.	✓		mp
4	Network NETCOM restart test, 7.4.1: Restart the server.	Verify using mlog or RTAP network screen that NETCOM has reconnected to WLAN devices.	✓		mp

Step #	TEST PROCEDURE STEPS PMS-01	EXPECTED OUTPUT	Pass	Fail	WITNESS
5	Server file backup/recovery test: Delete a file from the server and restore it from backup.	Verify file is recovered.	✓
6	Oracle backup/recovery test. Drop the WRAPMISC table and restore it from backup.	Verify that table is restored.	✓
Test Case 3 -- NON-HVACOM ALARM TESTING					
1	Facility Curie Alarm: Use MAN_OP to send message 5.4.17 with current curie value and flag = "TRUE". Send same message with value "FALSE".	Verify RTAP alarms. Verify RTAP alarm returns to normal.	✓
2	Fissile Alarm: Use MAN_OP to send message 5.4.2 with current gram value and flag = "TRUE". Send same message with value "FALSE".	Verify RTAP alarms. Verify RTAP alarm returns to normal.	✓
3	Empty Drum Infeed Rope Switch Alarm: Force PLC 101 bit I:016/04 Acknowledge alarm. Remove force from PLC 101 bit I: 016/04.	Verify RTAP alarms red. Alarm turns to white. Verify RTAP alarm returns to normal.	✓
4	Infeed Conveyor A Rope Switch: Force PLC 101 bit I:014/00. Acknowledge alarm. Remove force from PLC 101 bit I: 014/00.	Verify RTAP alarms red. Alarm turns to white. Verify RTAP alarm returns to normal.	✓

Step #	TEST PROCEDURE STEPS PMS-01	EXPECTED OUTPUT	Pass	Fail	WITNESS
5	Infeed Conveyor B Rope Switch:				
	Force PLC 101 bit I:014/06	Verify RTAP alarms.	✓		nd
	Acknowledge alarm.	Alarm turns to white.			
6	Remove force from PLC 101 bit I: 014/06.	Verify RTAP alarm returns to normal.			
	Airlock 104-CV-09-103 Rope Switch Alarm:		✓		nd
	Force PLC 102 bit I:010/01	Verify RTAP alarms red.			
7	Acknowledge alarm.	Alarm turns to white.			
	Remove force from PLC 102 bit I:010/01.	Verify RTAP alarm returns to normal.	✓		nd
	Airlock 104-CV-09-104 Rope Switch Alarm:	Verify RTAP alarms red.			
8	Force PLC 102 bit I:011/01				
	Acknowledge alarm.	Alarm turns to white.	✓		nd
	Remove force from PLC 102 bit I:011/01.	Verify RTAP alarm returns to normal.			
9	TRU Entry rope switch alarm:				
	Force PLC 103 bit I:014/3.	Verify RTAP alarms red.	✓		nd
	Acknowledge alarm.	Alarm turns to white.			
9	Remove force from PLC 103 bit I:014/3.	Alarm turns to green.			
	TRU compact rope switch alarm:		✓		nd
	Force PLC 103 bit I:016/07.	Verify RTAP alarms red.			
9	Acknowledge alarm.	Alarm turns to white.			
	Remove force from PLC 103 bit I: 016/07.	Alarm turns to green.			

Step #	TEST PROCEDURE STEPS PMS-01	EXPECTED OUTPUT	Pass	Fail	WITNESS
10	TRU RWM XFR rope switch alarm:		✓		<i>mf</i>
	Force PLC 103 bit I:015/17.	Verify RTAP alarms red.			
	Acknowledge alarm.	Alarm turns to white.			
	Remove force from PLC 103 bit I: 015/17.	Alarm turns to green.			
11	TRU loadout 1 rope switch alarm:		✓		<i>mf</i>
	Force PLC 103 bit I:014/15.	Verify RTAP alarms red.			
	Acknowledge alarm.	Alarm turns to white.			
	Remove force from PLC 103 bit I:014/15.	Alarm turns to green.			
12	TRU loadout 2 rope switch alarm:		✓		<i>mf</i>
	Force PLC 103 bit I:014/5.	Verify RTAP alarms red.			
	Acknowledge alarm.	Alarm turns to white.			
	Remove force from PLC 103 bit I:014/5.	Alarm turns to green.			
13	TRU RWM XFR rope switch alarm:		✓		<i>mf</i>
	Force PLC 103 bit I:013/12.	Verify RTAP alarms red.			
	Acknowledge alarm.	Alarm turns to white.			
	Remove force from PLC 103 bit I: 013/12.	Alarm turns to green.			
14	TRU RWM compliant loadout rope switch alarm:		✓		<i>mf</i>
	Force PLC 103 bit I:012/15.	Verify RTAP alarms red.			
	Acknowledge alarm.	Alarm turns to white.			
	Remove force from PLC 103 bit I: 012/15.	Alarm turns to green.			
15	TRU RWM exit rope switch alarm:		✓		<i>mf</i>
	Force PLC 103 bit I:011/17.	Verify RTAP alarms red.			
	Acknowledge alarm.	Alarm turns to white.			
	Remove force from PLC 103 bit I: 011/17.	Alarm turns to green.			

Step #	TEST PROCEDURE STEPS PMS-01	EXPECTED OUTPUT	Pass	Fail	WITNESS
16	LLW entry rope switch alarm:				
	Force PLC 102 bit I:016/07.	Verify RTAP alarms red.	✓		ms
	Acknowledge alarm.	Alarm turns to white.			
	Remove force from PLC 102 bit I: 016/07.	Alarm turns to green.			
17	LLW exit rope switch alarm:				
	Force PLC 102 bit I:017/07.	Verify RTAP alarms red.	✓		ms
	Acknowledge alarm.	Alarm turns to white.			
	Remove force from PLC 102 bit I: 017/07.	Alarm turns to green.			
18	LLW entry rope switch alarm:				
	Force PLC 102 bit I:016/07.	Verify RTAP alarms red.	✓		ms
	Acknowledge alarm.	Alarm turns to white.			
	Remove force from PLC 102 bit I: 016/07.	Alarm turns to green.			
19	LLW XFER rope switch alarm:				
	Force PLC 102 bit I:020/07.	Verify RTAP alarms red.	✓		ms
	Acknowledge alarm.	Alarm turns to white.			
	Remove force from PLC 102 bit I: 020/07.	Alarm turns to green.			
20	LLW RWM XFER rope switch alarm:				
	Force PLC 102 bit I:015/07.	Verify RTAP alarms red.	✓		ms
	Acknowledge alarm.	Alarm turns to white.			
	Remove force from PLC 102 bit I: 014/07.	Alarm turns to green.			
21	LLW RWM compliant rope switch alarm:				
	Force PLC 102 bit I:016/07.	Verify RTAP alarms red.	✓		ms
	Acknowledge alarm.	Alarm turns to white.			
	Remove force from PLC 102 bit I: 014/07.	Alarm turns to green.			

Step #	TEST PROCEDURE STEPS PMS-01	EXPECTED OUTPUT	Pass	Fail	WITNESS
22	LLW RWM exit rope switch alarm:		✓
	Force PLC 102 bit I:013/10.	Verify RTAP alarms red.			
	Acknowledge alarm.	Alarm turns to white.			
	Remove force from PLC 102 bit I: 013/10.	Alarm turns to green.			
23	12-RSH-505 Process area high gamma rad. Alarm:		✓
	Force PLC 104 bit I:011/14.	Verify RTAP alarms red.			
	Acknowledge alarm.	Alarm turns to white.			
	Remove force from PLC 104 bit I: 011/14.	Alarm turns to green.			
24	12-RSH-508 Process area high gamma rad. Alarm:		✓
	Force PLC 104 bit I:011/04.	Verify RTAP alarms red.			
	Acknowledge alarm.	Alarm turns to white.			
	Remove force from PLC 104 bit I: 011/04.	Alarm turns to green.			
25	12-RSH-509 Process area alpha cam rad. Alarm:		✓
	Force PLC 104 bit I:011/05.	Verify RTAP alarms red.			
	Acknowledge alarm.	Alarm turns to white.			
	Remove force from PLC 104 bit I: 011/05.	Alarm turns to green.			
26	12-RSH-545 Process area alpha cam rad. Alarm:		✓
	Force PLC 104 bit I:012/00.	Verify RTAP alarms red.			
	Acknowledge alarm.	Alarm turns to white.			
	Remove force from PLC 104 bit I: 012/00.	Alarm turns to green.			
27	12-RSH-544 Process area beta cam rad. Alarm:		✓
	Force PLC 104 bit I:011/16.	Verify RTAP alarms red.			
	Acknowledge alarm.	Alarm turns to white.			
	Remove force from PLC 104 bit I: 011/16.	Alarm turns to green.			

Step #	TEST PROCEDURE STEPS PMS-01	EXPECTED OUTPUT	Pass	Fail	WITNESS
28	12-RSH-513 Process area beta cam rad. Alarm:		✓		h8
	Force PLC 104 bit I:011/15.	Verify RTAP alarms red.			
	Acknowledge alarm.	Alarm turns to white.			
	Remove force from PLC 104 bit I: 011/15.	Alarm turns to green.			
Test Case 4 – HVACOM ALARM TESTING					
1	Disable HVACOM.	Program is halted.	✓		h2
2	LLW RWM GB DP alarm:	RTAP alarms red.	✓		h2
	Change N630:93 to -5.				
	Acknowledge alarm.	Alarm turns to white.			
3	Change N630:93 to -1.	Alarm turns to green.	✓		h2
	LLW GB DP alarm:	RTAP alarms red.			
	Change N630:85 to -5.				
4	Acknowledge alarm.	Alarm turns to white.	✓		h2
	Change N630:85 to -1.	Alarm turns to green.			
	TRU RWM GB DP alarm:	RTAP alarms red.			
5	Change N630:89 to -5.		✓		h2
	Acknowledge alarm.	Alarm turns to white.			
	Change N630:89 to -1.	Alarm turns to green.			
5	TRU GB DP alarm:	RTAP alarms red.	✓		h2
	Change N630:81 to -5.				
	Acknowledge alarm.	Alarm turns to white.			
	Change N630:81 to -1.	Alarm turns to green.			

Step #	TEST PROCEDURE STEPS PMS-01	EXPECTED OUTPUT	Pass	Fail	WITNESS
6	AH-11-201A prefilter dirty alarm:	RTAP alarms red . <i>Y2 11-201A 3/1/20</i>	✓		<i>MD</i>
	Change N630:329 to 1.				
	Acknowledge alarm.	Alarm turns to white.			
7	Change N630:329 to 0.	Alarm turns to green.	✓		<i>MD</i>
	AH-11-201A final filter dirty alarm:	RTAP alarms red . <i>Y2 11-201A 3/1/20</i>			
	Change N630:333 to 1.				
8	Acknowledge alarm.	Alarm turns to white.	✓		<i>MD</i>
	Change N630:333 to 0.	Alarm turns to green.			
	AH-11-201B final filter dirty alarm:	RTAP alarms red . <i>Y2 11-201B 3/1/20</i>			
9	Change N630:345 to 1.		✓		<i>MD</i>
	Acknowledge alarm.	Alarm turns to white.			
	Change N630:345 to 0.	Alarm turns to green.			
10	AH-11-201B final filter dirty alarm:	RTAP alarms red . <i>Y2 11-201B 3/1/20</i>	✓		<i>MD</i>
	Change N630:349 to 1.				
	Acknowledge alarm.	Alarm turns to white.			
11	Change N630:349 to 0.	Alarm turns to green.	✓		<i>MD</i>
	Process exhaust A Pre-Filter High DP alarm:	RTAP alarms red . <i>Y2 11-201A 3/1/20</i>			
	Change N630:361 to 1.				
11	Acknowledge alarm.	Alarm turns to white.	✓		<i>MD</i>
	Change N630:361 to 0.	Alarm turns to green.			
	Process exhaust B Pre-Filter High DP alarm:	RTAP alarms red . <i>Y2 11-201B 3/1/20</i>			
11	Change N630:381 to 1.		✓		<i>MD</i>
	Acknowledge alarm.	Alarm turns to white.			
	Change N630:381 to 0.	Alarm turns to green.			

Step #	TEST PROCEDURE STEPS PMS-01	EXPECTED OUTPUT	Pass	Fail	WITNESS
12	FT-11-202A first HEPA filter dirty alarm:	RTAP alarms red.	✓		12
	Change N630:365 to 1.				
	Acknowledge alarm.	Alarm turns to white.			
13	Change N630:365 to 0.	Alarm turns to green.	✓		13
	FT-11-202B first HEPA filter dirty alarm:	RTAP alarms red.			
	Change N630:385 to 1.				
14	Acknowledge alarm.	Alarm turns to white.	✓		14
	Change N630:385 to 0.	Alarm turns to green.			
	FT-11-202A second HEPA filter dirty alarm:	RTAP alarms red.			
15	Change N630:368 to 1.		✓		15
	Acknowledge alarm.	Alarm turns to white.			
	Change N630:368 to 0.	Alarm turns to green.			
16	FT-11-202B second HEPA filter dirty alarm:	RTAP alarms red.	✓		16
	Change N630:389 to 1.				
	Acknowledge alarm.	Alarm turns to white.			
17	Change N630:389 to 0.	Alarm turns to green.	✓		17
	11-TI-109A process area high temp. alarm:	RTAP alarms red.			
	Change N630:293 to 101.				
18	Acknowledge alarm.	Alarm turns to white.	✓		18
	Change N630:293 to 71.	Alarm turns to green.			
	11-TI-109B process area high temp. alarm:	RTAP alarms red.			
19	Change N630:309 to 101.		✓		19
	Acknowledge alarm.	Alarm turns to white.			
	Change N630:309 to 71.	Alarm turns to green.			

Step #	TEST PROCEDURE STEPS PMS-01	EXPECTED OUTPUT	Pass	Fail	WITNESS
18	11-PDISH-661 pre filter dirty alarm:				
	Change N630:801 to 1.	RTAP alarms red <i>yellow</i> <i>2.3.0</i>	✓		<i>mf</i>
	Acknowledge alarm.	Alarm turns to white.			
19	Change N630:801 to 0.	Alarm turns to green.			
	11-PDISH-662 final filter dirty alarm:				
	Change N630:805 to 1.	RTAP alarms red <i>yellow</i> <i>2.3.0</i>	✓		<i>mf</i>
	Acknowledge alarm.	Alarm turns to white.			
20	Change N630:805 to 0.	Alarm turns to green.			
	Re-enable HVACOM	Values modified previously are overwritten with current values.	✓		<i>mf</i>
TEST PROCEDURE COMPLETE					

```
pmstest% cat backup_test_initial
Script started on Mon Nov 22 09:55:09 1999
pmstest% s
```

```
SQL*Plus: Release 8.0.5.0.0 - Production on Mon Nov 22 9:55:12 1999
```

```
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```

```
Connected to:
Oracle8 Enterprise Edition Release 8.0.5.0.0 - Production
With the Partitioning and Objects options
PL/SQL Release 8.0.5.0.0 - Production
```

```
SQL> select count(*) from testwaste;
```

```
  COUNT(*)
-----
       502
```

```
SQL> select count(*) from testconloc;
```

```
  COUNT(*)
-----
      1120
```

```
SQL> exit
Disconnected from Oracle8 Enterprise Edition Release 8.0.5.0.0 - Production
With the Partitioning and Objects options
PL/SQL Release 8.0.5.0.0 - Production
pmstest%
```

```
pmstest% cat backup_test_during
Script started on Mon Nov 22 11:08:37 1999
pmstest% s
```

```
SQL*Plus: Release 8.0.5.0.0 - Production on Mon Nov 22 11:8:41 1999
```

```
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```

```
Connected to:
Oracle8 Enterprise Edition Release 8.0.5.0.0 - Production
With the Partitioning and Objects options
PL/SQL Release 8.0.5.0.0 - Production
```

```
SQL> select * count(*) from testwaste;
select count(*) from testwaste
*
```

```
ERROR at line 1:
ORA-01115: IO error reading block from file 5 (block # 96)
ORA-01110: data file 5: '/oral/pmstest/users.1'
ORA-27041: unable to open file
HP-UX Error: 2: No such file or directory
Additional information: 3
```

```
SQL> select count(*) from testconloc;
select count(*) from testconloc
*
```

```
ERROR at line 1:
ORA-01115: IO error reading block from file 5 (block # 196)
ORA-01110: data file 5: '/oral/pmstest/users.1'
ORA-27041: unable to open file
HP-UX Error: 2: No such file or directory
Additional information: 3
```

```
SQL> exit
Disconnected from Oracle8 Enterprise Edition Release 8.0.5.0.0 - Production
With the Partitioning and Objects options
PL/SQL Release 8.0.5.0.0 - Production
pmstest%
script done on Mon Nov 22 11:09:13 1999
```

```
pmstest% cat backup_test_final
Script started on Mon Nov 22 11:15:27 1999
pmstest% s
```

```
SQL*Plus: Release 8.0.5.0.0 - Production on Mon Nov 22 11:15:29 1999
```

```
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```

```
Connected to:
Oracle8 Enterprise Edition Release 8.0.5.0.0 - Production
With the Partitioning and Objects options
PL/SQL Release 8.0.5.0.0 - Production
```

```
SQL> select count(*) from testwaste;
```

```
  COUNT(*)
-----
       502
```

```
SQL> select count(*) from testconloc;
```

```
  COUNT(*)
-----
      1120
```

```
SQL> exit
Disconnected from Oracle8 Enterprise Edition Release 8.0.5.0.0 - Production
With the Partitioning and Objects options
PL/SQL Release 8.0.5.0.0 - Production
pmstest%
```


[illegible]