

JUN 24 1999

ENGINEERING DATA TRANSMITTAL

1. EDT 140129

2. To: (Receiving Organization) GJ Gauck, SST Engineering		3. From: (Originating Organization) AM Ermi, COGEMA Engineering		4. Related EDT No.: N/A	
5. Proj./Prog./Dept./Div.: SST Engineering		6. Design Authority/Design Agent/Cog. Engr.: GJ Gauck		7. Purchase Order No.: N/A	
8. Originator Remarks: Operational Test Report (OTR) for the DACS remote portion of the Upgrade System. This OTR reports the results of the OTP that was performed on the final system following successful Dual-Mode operation in the DACS Trailer.					
11. Receiver Remarks: 11A. Design Baseline Document? <input checked="" type="radio"/> Yes <input type="radio"/> No					
A USQ was generated to upgrade the DACS software to be Y2K compliant. The USQ number is TF-98-1059.					
13. Permit/Permit Application No.:					
14. Required Response Date: June 16, 1999					

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	HNE-3687		0	DACS Remote Interface OTR	SQ	1	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
1	/	Design Authority RE Larson	<i>RE Larson</i>	6/21/99	T4-07						
1	/	Design Agent AM Ermi	<i>AM Ermi</i>	6-16-99	L6-37						
1	/	Cog. Eng. GJ Gauck	<i>GJ Gauck</i>	6/17/99	T4-07						
1	/	Cog. Mgr. RE Larson	<i>RE Larson</i>	6/21/99	T4-07						
1	/	RR True	<i>RR True</i>	6-18-99	T4-07						
1	/	Safety LS Krogsrud	<i>LS Krogsrud</i>	6/21/99	T4-07						
		Env.									

18. <i>AM Ermi</i> 6-16-99 AM Ermi Date Signature of EDT Originator		19. <i>RE Larson</i> 6/21/99 RE Larson Date Authorized Representative for Receiving Organization		20. <i>RE Larson</i> 6/21/99 RE Larson Date Design Authority/Cognizant Manager		21. DOE APPROVAL (if required) Ctrl No. _____ <input type="radio"/> Approved <input type="radio"/> Approved w/comments <input type="radio"/> Disapproved w/comments	
---	--	--	--	--	--	---	--

S

# 241-SY-101 Data Acquisition and Control System (DACS) Remote Operator Interface Operational Test Report

A. M. Ermi

COGEMA Engineering Corporation, P.O. Box 840  
Richland, WA 99352  
U.S. Department of Energy Contract DE-AC06-96RL13200

EDT/ECN: 140129 UC: 2030  
Org Code: S4100 Charge Code: 102525 / BC20 HN920201  
B&R Code: EW3120072 Total Pages: 35

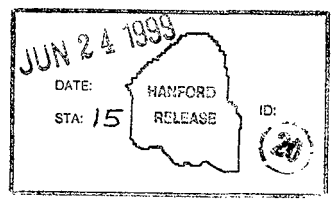
Key Words: DACS, DATA ACQUISITION AND CONTROL SYSTEM, 241SY101, MIXER PUMP, OTR, UPGRADE, Y2K

Abstract: The readiness of the upgraded 241-SY-101 Data Acquisition and Control System (DACS) to provide proper control and monitoring of the mixer pump and instrumentation in tank 241-SY-101 was evaluated by the performance of OTP-440-001. Results of the OTP are reported here.

\*CyberResearch is a registered trademarks of CyberResearch, Inc.  
\*Micron is a registered trademark of Micron System, Inc.

TRADEMARK DISCLAIMER. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof or its contractors or subcontractors.

Printed in the United States of America. To obtain copies of this document, contact: Document Control Services, P.O. Box 950, Mailstop H6-08, Richland WA 99352, Phone (509) 372-2420; Fax (509) 376-4989.



*Jamie Aardal* 6-24-99  
Release Approval Date

Release Stamp

Approved For Public Release

**241-SY-101 DATA ACQUISITION  
AND CONTROL SYSTEM  
(DACS) REMOTE OPERATOR  
INTERFACE OPERATIONAL  
TEST REPORT**

**HNF – 3687  
Revision 0**

**Prepared By:  
A. C. Zuehlke  
PLCs Plus, Richland, WA  
for  
Lockheed-Martin Hanford Company, Richland, WA**

**June 1999**

**DACS REMOTE OPERATOR INTERFACE OPERATIONAL TEST  
REPORT**

**TABLE OF CONTENTS**

Summary of OTP-440-001, "241-SY-101 Data Acquisition and Control System (DACS)  
Remote Operator Interface Operational Test Procedure", Revision 0.....3

OTP-440-001, "241-SY-101 Data Acquisition and Control System (DACS) Remote  
Operator Interface Operational Test Procedure", Revision 0.....5

<b>PROCEDURE NUMBER:</b>	<b>Revision Number:</b>	<b>Page Number:</b>
HNF-3687	0	2 of 34

# DACs REMOTE OPERATOR INTERFACE OPERATIONAL TEST REPORT

## Summary of OTP-440-001, "241-SY-101 Data Acquisition and Control System (DACs) Remote Operator Interface Operational Test Procedure", Revision 0.

Testing commenced on 6/9/1999 and was completed on 6/10/1999.

The completed procedure consists of 7 test sections, Sections 5.1 through 5.7:

- × Section 5.1 performed checks of the system security functions, including 4 levels of passwords.
- × Section 5.2 tested the station 7 display screen functions, including navigation between screens and verification of controls built-in to individual screens.
- × Section 5.3 performed verifications of individual trend displays available from the [TRENDS] screen at station 7.
- × Section 5.4 performed additional [TRENDS] screens checks using Tables A and B.
- × Section 5.5 performed a comparison of values displayed on screens at stations 5, 6, and 8 in the DACs trailer to values displayed on the same screens at station 7 in the DACs trailer.
- × Section 5.6 tested the capability to perform mixer pump runs with station 7 as the pump control station.
- × Section 5.7 performed tests to verify the proper functioning of Stations 11, 13, and 15, the three DACs Remote Supervisory Stations (RSSs). The ability to connect to the DACs trailer from each RSS was demonstrated, the data displayed on the screens at each RSS was verified to be accurate, and the ability to properly disconnect each RSS from the DACs trailer was demonstrated.

Nine Test Exceptions were written during testing to document typographical errors, steps out-of-sequence or missing, and actual problems encountered during testing.

- × Test Exception #1 documented that testing was performed at a different mixer pump rotational angle than the test originally specified.
- × Test Exception #2 documented that the supervisor level password no longer has sufficient security level to place tags in Auto or Manual, only Trainer and Administrative level passwords are now given permission for these actions.
- × Test Exception #3 documented that all required changes to this procedure will be made as pen-and-ink changes to the original document only, and that no PCA will be issued, since this is a "one time only" use procedure.

PROCEDURE NUMBER:	Revision Number:	Page Number:
HNF-3687	0	3 of 34

# DACS REMOTE OPERATOR INTERFACE OPERATIONAL TEST REPORT

- ✘ Test Exception #4 documented that the software version being tested was a more recent version than stated in the procedure.
- ✘ Test Exception #5 changed a procedural error that checked for the dates that various stations were brought on-line in the DACS trailer. The procedure called for the date that the test was performed, while the actual and true displayed date was the date that each station was last started up.
- ✘ Test Exception #6 changed a procedural error that checked for the dates of recent logins at the various stations in the DACS trailer. The procedure called for the date that the test was performed, while the actual and true displayed date was the date that the latest login at each station actually occurred.
- ✘ Test Exception #7 documented a manually entered change of the run time for a specified pump run, to shorten the required test time.
- ✘ Test Exceptions #8 and #9 documented incorrect DACS displays on the [PUMPRUN] screen at Station 8 during testing, at the end of the specified pump run. This portion of the test was reperformed satisfactorily.

All nine Test Exceptions were resolved by making pen-and-ink changes to the procedure or by retesting the affected portions of the procedure. No open Test Exceptions remain. The substitution of steps and the additions to steps were within the scope of USQ TF-98-1059.

The OTP was successfully and satisfactorily completed.

The remainder of this Operational Test Report (OTR) consists of all of the pages of the OTP, which describe the testing that was conducted and attest to the results that were obtained.

The page numbers for the OTR appear in the lower left-hand corner of the page and the page numbers of the original OTP were left for reference.

PROCEDURE NUMBER:	Revision Number:	Page Number:
HNF-3687	0	4 of 34

# DACS REMOTE OPERATOR INTERFACE OPERATIONAL TEST REPORT

OTP-440-001, "241-SY-101 Data Acquisition and Control System (DACS) Remote Operator Interface Operational Test Procedure", Revision 0.

PROCEDURE NUMBER:	Revision Number:	Page Number:
HNF-3687	0	5 of 34

**241-SY-101 DATA ACQUISITION AND CONTROL SYSTEM (DACS)  
REMOTE OPERATOR INTERFACE TEST**

Last Full Revision: A-0  
 Release Date: 2/12/99  
 USQ Screening Number: TF-98-1059  
 Approval Designator: SQ

Current Modification: A-1  
 USQ Screening Number: TF-98-1059  
 Approval Designator: SQ  
 PCA Incorporated: WTF-99-0107

POSITION/ORG	DELEGATE	DATE
LNPO/WTFO	<u>L.S. Dauenhauer</u>	<u>2/26/99</u>
QA/QAE	<u>R.R. True</u>	<u>2/26/99</u>
Safety/TWRS	<u>L.S. Krogsrud</u>	<u>2/22/99</u>
SOM/WTF	<u>K.J. Freeman</u>	<u>2/26/99</u>
HP		
ECO		
Engineer	<u>G.J. Gauck</u>	<u>2/22/99</u>
Acceptance Review	<u>B.E. Raymond</u>	<u>2/26/99</u>
Approval Authority	<u>W. Parnell</u>	<u>2/26/99</u>

Justification: Operations request.

**Summary of Changes:**

- Page 3, Step 1.1 -1.2, Reword steps.
- Page 5, Step 2.3.3, corrected misspelling
- Page 8, Step 4.1.7, add new step.
- Page 12, Step 5.2.9, direct station5 use.
- Page 15, Step 5.2.47, Direct not to use Trend screen.
- Page 25, Step 5.7.4, reword steps 5.7.4, 5.7.6, 5.7.8.
- Page 26, Step 5.7.9, correct spelling.
- Page 26 Step 5.7.10, delete step.
- Page 28, deleted 2nd and 3rd bullets.

Type	Document No.	Rev/Mod	Release Date	Page
<b>CONTINUOUS</b>	<b>OTP-440-001</b>	<b>A-1</b>	<b>2/26/99</b>	<b>1 of 29</b>



**TABLE OF CONTENTS**

**PAGE**

1.0	PURPOSE AND SCOPE . . . . .	3
1.1	PURPOSE . . . . .	3
1.2	SCOPE . . . . .	3
2.0	INFORMATION . . . . .	4
2.1	TERMS AND DEFINITIONS . . . . .	4
2.2	RESPONSIBILITIES . . . . .	4
2.3	REFERENCES . . . . .	5
2.4	GENERAL INFORMATION . . . . .	6
2.5	RECORDS . . . . .	6
3.0	PRECAUTIONS AND LIMITATIONS . . . . .	7
3.1	LIMITS . . . . .	7
4.0	PREREQUISITES . . . . .	8
4.1	CONDITIONS AND ACTIONS . . . . .	8
5.0	PROCEDURE . . . . .	9
5.1	SYSTEM SECURITY CHECKS . . . . .	9
5.2	DISPLAY SCREEN CHECKS . . . . .	11
5.3	TREND SCREEN CHECKS . . . . .	17
5.4	PERFORM TABLE A AND TASKS . . . . .	18
5.5	SCREEN DISPLAY VERIFICATION CHECKS . . . . .	21
5.6	PUMP OPERATION CHECKS . . . . .	23
5.7	REMOTE SUPERVISORY STATION (RSS) CHECKS . . . . .	25
	ATTACHMENT 1 - EXCEPTION LIST . . . . .	27
	ATTACHMENT 2 - FINAL PROCEDURE ACCEPTANCE SHEET . . . . .	28
	PROCEDURE HISTORY SIGNATURE SHEET . . . . .	29

## 1.0 PURPOSE AND SCOPE

### 1.1 PURPOSE

This procedure provides instructions for readiness of the final portion of the upgraded 241-SY-101 Data Acquisition and Control System (DACS) computer system to provide proper monitoring of the mitigation mixer pump and instrumentation installed in the 241-SY-101 underground storage tank, from Station 7 and the Remote Supervisory Stations (RSSs), ~~will be systematically evaluated by the performance of this procedure.~~

### 1.2 SCOPE

This procedure involves the Intellution Human-Machine Interface (HMI) software program at Stations 7, 11, 13, and 15 ~~will be verified to provide:~~

- Adequate operator display screens.
- Proper alarm notification and display.
- Proper abort notification and display.
- Proper operator control interface capability.
- Proper system security, including passwords and levels of authorization for system use.

Testing will be performed in the DACS trailer, located in the 200 West Area of the Hanford site, and from the various RSS locations around the Hanford site. This procedure will be performed after successful performance of OTP-440-002, 241-SY-101 Data Acquisition and Control System (DACS) Operator Interface Upgrade Operational Test Procedure in the DACS Trailer.

During this test, the DACS trailer will be configured in the final configuration for use of the FIX32 software and the upgraded computer system.

Type	Document No.	Rev/Mod	Release Date	Page
<b>CONTINUOUS</b>	<b>OTP-440-001</b>	<b>A-1</b>	<b>2/26/99</b>	<b>3 of 29</b>

## 2.0 INFORMATION

### 2.1 TERMS AND DEFINITIONS

- 2.1.1 In this procedure the term select means that the person performing the test should position the mouse pointer over the button, icon, or other item on the computer display screen and click the left mouse button.
- 2.1.2 OPS Is the name and password for operator level access to the DACS for testing purposes.
- 2.1.3 SUPER Is the name and password for supervisor level access to the DACS for testing purposes.
- 2.1.4 A Is the name, and there is no password for administrator/developer level access to the DACS for testing purposes.

### 2.2 RESPONSIBILITIES

- 2.2.1 DACS Cognizant Engineer: The engineer assigned direct responsibility for the performance, preparation, and adequacy of the test.
- 2.2.2 Test Director: The engineer assigned shift responsibility for performance of the test.

Type	Document No.	Rev/Mod	Release Date	Page
CONTINUOUS	OTP-440-001	A-1	2/26/99	4 of 29

**2.3 REFERENCES**

- 2.3.1 HNF-1516, Thermocouple Module Halt Failure Acceptance Test Procedure For Tank 241-SY-101 DACS-1, Revision 0
- 2.3.2 HNF-2989, 241-SY-101 Data Acquisition and Control System (DACs) Operator Interface Upgrade Acceptance Test Procedure, Revision 0
- 2.3.3 OTP-440-002, 241-SY-101 Data Acquisition and Control System (DACs) Operator Interface Upgrade Operational Test Procedure, Revision 0
- 2.3.4 WHC-SD-WM-ATP-046, 101-SY Mitigation Testing Acceptance Test Procedure, Revision 0
- 2.3.5 WHC-SD-WM-ATP-058, 101-SY Post Pump-Installation Acceptance Test Procedure, Revision 1
- 2.3.6 WHC-SD-WM-ATP-061, MIT Acceptance Test Procedure, Revision 0
- 2.3.7 WHC-SD-WM-ATP-062, Phase B Mitigation Testing Software Acceptance Test Procedure, Revision 0
- 2.3.8 WHC-SD-WM-ATP-069, Acceptance Test Procedure For Tank Bottom Thermocouples On Tank 241-SY-101, Revision 2
- 2.3.9 WHC-SD-WM-ATP-070, 101-SY Post Phase B Acceptance Test Procedure, Revision 0-A
- 2.3.10 WHC-SD-WM-ATP-082, DACS Upgrade Acceptance Test Procedure, Revision 0
- 2.3.11 WHC-SD-WM-ATP-098, GMS/DACS Interface Acceptance Test Procedure, Revision 0
- 2.3.12 WHC-SD-WM-ATP-107, MIT Upgrade Acceptance Test Procedure, Revision 1
- 2.3.13 WHC-SD-WM-ATP-128, Operator Coil Monitoring Acceptance Test Procedure, Revision 0

Type	Document No.	Rev/Mod	Release Date	Page
<b>CONTINUOUS</b>	<b>OTP-440-001</b>	<b>A-1</b>	<b>2/26/99</b>	<b>5 of 29</b>

## 2.4 GENERAL INFORMATION

The portion of the upgraded DACS computer system to be tested per this procedure consists of one CyberResearch 400 Mhz Personal Computer (PC), (DACS Trailer Station 7), and three Micron 400 Mhz PCs (Remote Supervisory Stations 11, 13, and 15). The connection for RSS 17 (any laptop computer with a modem and the proper software) will not be tested since this access capability will only be available to development personnel.

The portions of the system to be tested include:

- Operator display screens and screen controls.
- System alarming and alarm display functions.
- System security implementation and password control.

## 2.5 RECORDS

At the completion of all testing, approval of all data collected and system performance shall be documented on Attachment 2, "Final Procedure Acceptance Sheet".

Type	Document No.	Rev/Mod	Release Date	Page
<b>CONTINUOUS</b>	<b>OTP-440-001</b>	<b>A-1</b>	<b>2/26/99</b>	<b>6 of 29</b>

### 3.0 PRECAUTIONS AND LIMITATIONS

#### 3.1 LIMITS

3.1.1 Any required changes to this procedure shall be approved by the DACS Cognizant Engineer, or a designated representative, and may be made as pen-and-ink changes in all official and working copies of the procedure. An entry shall be made in the official Test Log fully describing the change or changes and the reason for the change(s). A PCA, documenting the change or changes, shall be initiated by the DACS Cognizant Engineer and approved per administrative requirements.

*Test Exception #3*

3.1.2 If, during testing, any indicated parameter or control function is not correct or appears to be malfunctioning, then the engineer conducting this test shall make a determination as to the feasibility of continuing testing. Since actual mitigation mixer pump operation will not occur during this test, there should be no safety impact to continuing the test and completing corrective actions later. A record of all noted deficiencies will be kept on Attachment 1, "Exception List".

#### 3.1.3 Unexpected Alarms

- If unexpected SY Tank Farm equipment alarms or abnormal indications are received during testing, testing evolutions shall be immediately suspended and actions, as prescribed in approved SY Tank Farm Alarm Response and Emergency Procedures, shall be taken by responsible facility personnel to place the equipment/facility in a safe, stable condition. When the reason for the unexpected condition is understood and resolved, then testing activities may be resumed after permission to do so is received from the West Area Shift Manager (WASM).

Type	Document No.	Rev/Mod	Release Date	Page
CONTINUOUS	OTP-440-001	A-1	2/26/99	7 of 29

### 4.0 PREREQUISITES

#### 4.1 CONDITIONS AND ACTIONS

X 4.1.1 Only properly trained and qualified Operations personnel designated by the West Area Shift Manager (WASM) and the DACS Cognizant Engineer are allowed to direct testing per this procedure, and perform equipment operating and control functions.

X 4.1.2 One engineer acting as a Test Director is required to be present during testing.

X 4.1.3 Prior to initiation of testing and at the start of each shift during testing, test personnel shall be briefed on the scope of testing to be conducted during the shift. The briefing shall include any equipment to be operated or controlled during the shift. Additionally, a discussion of work in the SY Tank Farm that could affect testing shall also be held between the WASM and the Test Director in charge of the test to be conducted.

X 4.1.4 Prior to initiation of testing, the following items shall be verified:

X 4.1.5 The upgraded DACS Station 7 and RSS Station 11, 13, and 15 computers are installed and ready for testing.

[Signature] 6-9-99  
Test Director Date

X 4.1.6 The latest version of all software and programming to be tested has been loaded on to all DACS computers.

[Signature] 6-9-99  
Test Director Date

X 4.1.7 The mixer pump has been rotated to approximately 28° (26° to 30°) for testing.

Test Exception #1

[Signature] 6-9-99  
Test Director Date

Type	Document No.	Rev/Mod	Release Date	Page
CONTINUOUS	OTP-440-001	A-1	2/26/99	8 of 29





5.1 SYSTEM SECURITY CHECKS (Cont.)

5.1.11 PERFORM the following:

- X 5.1.11.1 LOGIN as OPS at Station 5.
- X 5.1.11.2 LOGIN as OPS at Station 6.
- X 5.1.11.3 LOGIN as SUPER at Station 7.
- X 5.1.11.4 LOGOUT at Station 8, AND VERIFY that PUBLIC is listed as the Current User.

NOTE - The alarm status of some tags shown on the TAGSTAT screen cannot be changed. Tags for which the alarm status cannot be changed should not be chosen in Step 5.1.12.

X 5.1.12 At all stations, one station at a time, ACCESS the TAGSTAT screen AND ATTEMPT to disable the alarm for any tag that has a changeable alarm status.

X 5.1.13 VERIFY the following:

X 5.1.13.1 VERIFY NO screen changes occur at Station 8.

X 5.1.13.2 VERIFY at Stations 5, 6, and 7, the alarm status shows that the alarm for the selected tag is in a disabled condition.

X 5.1.13.3 ~~VERIFY~~ REENABLE ALL TAGS PREVIOUSLY DISABLED.

X 5.1.14 At all stations, one station at a time, ATTEMPT to place any tag in Manual.

X 5.1.15 VERIFY the following:

X 5.1.16 VERIFY NO screen changes occur at Stations 5, 6, and 8.

X 5.1.16.1 VERIFY screen changes occur when LOG IN as TRAINING 5 and A (Administrator)

Test Exception 2 X 5.1.17 VERIFY at Station 7, the tag status shows that the selected tag is now in Manual. at Stations 7, 8.

X 5.1.18 RETURN the Alarm and Auto/Manual status of the selected tags to normal at Stations 5, 6, and 7.

Testing as directed by this procedure section has been completed, and discrepancies, if any, have been listed on Attachment 1, Exception List.

\_\_\_\_\_  
Test Director Signature: 1 6-10-99 Date:

Type	Document No.	Rev/Mod	Release Date	Page
CONTINUOUS	OTP-440-001	A-1	2/26/99	10 of 29

**5.2 DISPLAY SCREEN CHECKS**

X 5.2.1 IF any discrepancy is noted during testing, **THEN RECORD** a description of the condition in Attachment 1.

X 5.2.1.1 For each discrepancy recorded, **ENTER** an identifying number in the "EXCEPTION NUMBER" Column of Attachment 1.

X 5.2.1.2 **REPRODUCE** Attachment 1 as needed, and attach the additional pages to this procedure, to record all discrepancies noted during testing.

NOTE - The following steps should be performed at Station 7.

X 5.2.2 With the WELCOME screen displayed, **VERIFY** that the date is displayed in the upper left-hand corner of the screen and that the time (in military format) is displayed in the upper right-hand corner of the screen.

X 5.2.3 *Test Exception #4* **VERIFY** that the Version of the DACS software being tested is ~~4.00~~<sup>4.01</sup> and that the Version of the PLC software being tested is 3.06, as displayed below the date in the upper left-hand corner of the screen.

X 5.2.4 From the WELCOME screen, **SELECT** any five other screens **AND VERIFY** that the date, time (within one minute), DACS software version number, and PLC software version number are the same as displayed on the WELCOME screen.

- 1) MSMAIN.
- 2) TEMP PRFL<sup>26-10-99</sup>
- 3) ROLLOVER.
- 4) Run POPS
- 5) Pump.

Type	Document No.	Rev/Mod	Release Date	Page
CONTINUOUS	OTP-440-001	A-1	2/26/99	11 of 29

**5.2 DISPLAY SCREEN CHECKS (Cont.)**

X5.2.5 From the WELCOME screen, **PERFORM** the following for each of the listed buttons:

- |    |          |    |          |    |          |
|----|----------|----|----------|----|----------|
| X° | CSMAIN   | X° | HVTALARM | X° | PUMPALRM |
| X° | STRNALM  | X° | TEMPALM  | X° | MANABRT  |
| X° | NETSTAT  | X° | MSMAIN   | X° | MIT17B   |
| X° | MIT17C   | X° | PUMP     | X° | GASSUM   |
| X° | SUMMARY  | X° | TEMPRFL  | X° | ROLLOVER |
| X° | ASMAIN   | X° | PUMPOPS  | X° | TRENDS   |
| X° | DACS     | X° | IOSTATUS | X° | ABRTENAB |
| X° | ABRTCHEK | X° | MININ    | X° | TAGSTAT  |
| X° | PUMVIEW  |    |          |    |          |

- X 5.2.5.1 **SELECT** the button...
- X 5.2.5.2 **VERIFY** that the screen that is now displayed is the screen that should be associated with the button that was selected.
- X 5.2.5.3 **SELECT** the MAP button on the displayed screen.
- X 5.2.5.4 **VERIFY** that the MAP screen is displayed.
- X 5.2.5.5 **SELECT** the WELCOME button on the MAP screen **AND VERIFY** that the WELCOME screen is displayed.
- X 5.2.6 **SELECT** the LOGIN/OUT button, select the LOGIN button on the Login/Logout Confirmation screen, and login as OPS.
- X 5.2.7 **PRESS** the <F2> key **AND VERIFY** that a Tag Status pop-up box is displayed.
- X 5.2.8 **SELECT** the ? in the Tag Status box.
- X 5.2.9 **VERIFY** that a Tag Select box is displayed **AND if necessary, SELECT "STATIONS" in the "Node Selection:" column of the Tag Select box.**
- X 5.2.10 In the Tag Select box, **USE** the scroll bar to advance through the list of the tags in the database, **SELECT** a tag, **AND THEN SELECT** the OK button.
- X 5.2.11 **VERIFY** that the Tag Select box is no longer displayed and that the tag that was selected is now displayed in the Tag Status box in the Tagname field.
- X 5.2.12 **SELECT** OK **AND VERIFY** that a tag details pop-up screen is displayed providing information about the selected tag.

## 5.2 DISPLAY SCREEN CHECKS (Cont.)

- X 5.2.13 SELECT the CLOSE button on the tag details pop-up screen AND VERIFY that the tag details screen and the Tag Status box are no longer visible.
- X 5.2.14 PRESS the <F4> key AND VERIFY that the ALARMSUM screen is displayed.
- X 5.2.15 SELECT the HELP button AND VERIFY that the ALARMSUM Screen Help screen is displayed.
- X 5.2.16 SELECT the CLOSE button AND VERIFY that the ALARMSUM Screen Help screen is no longer displayed.
- X 5.2.17 SELECT the EVENT SUMM button AND VERIFY that a RED NOTE box is displayed with the message CLOSE ALARM/EVENT BOX WHEN NOT USING and a Select an Alarm/Event Summary File message box is displayed.
- X 5.2.18 VERIFY that the list in the message box contains files for the last 30 days (if 30-days of data files are available).
- X 5.2.19 SELECT a file, SELECT the Enter button, AND VERIFY that the selected file is displayed in an Alarm/Event Summary File message box.
- X 5.2.20 SELECT the DONE button AND VERIFY that the Alarm/Event Summary File message box and the NOTE box are no longer displayed.
- X 5.2.21 SELECT the PREV SCREEN button AND VERIFY that the WELCOME screen is displayed.
- X 5.2.22 SELECT the CSMAIN button AND VERIFY that the CSMAIN screen is displayed.
- X 5.2.23 PRESS the <F6> key, AND VERIFY that the WELCOME screen is displayed.
- X 5.2.24 PRESS the <F6> key AND VERIFY that the CSMAIN screen is displayed.
- X 5.2.25 PRESS the <F8> key AND VERIFY that the CSMAIN Screen Help screen is displayed.
- X 5.2.26 PRESS the <F8> key AND VERIFY that the CSMAIN Screen Help screen is no longer displayed.
- X 5.2.27 PRESS the <Ctrl-L> keys AND VERIFY that the Login/Logout Confirmation screen is displayed.

Type	Document No.	Rev/Mod	Release Date	Page
CONTINUOUS	OTP-440-001	A-1	2/26/99	13 of 29

**5.2 DISPLAY SCREEN CHECKS (Cont.)**

- X 5.2.28 **LOGIN** as SUPER.
- X 5.2.29 **SELECT** the **PRINT** button **AND VERIFY** that a pop-up screen with the message Are You Sure That You Want To Print? is displayed.
- X 5.2.30 **SELECT** the **YES** button **AND VERIFY** that a print of the CSMAIN screen is printed on the DACS printer and the pop-up screen is no longer displayed.
- X 5.2.31 **ACCESS** the **WELCOME** screen **AND VERIFY** that the P-RUN-VIS button is visible.
- X 5.2.32 **SELECT** the P-RUN-VIS button, **AND VERIFY**, that on the PUMPRUN Button Visible Checklist screen, a RED checkmark is not present in the large Station 7 box near the center of the screen and that a RED checkmark is present in the box preceding Station 8, under the Currently Enabled Stations heading.
- X 5.2.33 At Station 8, **VERIFY** that a PUMPRUN button is visible on the following screens:
  - ° MAP ° WELCOME ° GASSUM
  - ° PUMP
- X 5.2.34 **SELECT** the large Station 7 box near the center of the screen.
- X 5.2.35 **VERIFY** that a RED checkmark becomes visible in the large Station 7 box near the center of the screen and also in the small box preceding Station 7 under the Currently Enabled Stations heading.
- X **NOTE -** Only one station may have pump control at any given time. When one station is selected as the pump control station, the other stations are automatically configured for pump operation viewing only.
- X 5.2.36 **VERIFY** that the RED checkmark is no longer visible in the small box preceding Station 8.
- X 5.2.37 **SELECT** the **CLOSE** button **AND VERIFY** that the PUMPRUN button is now visible and the PUMPVUEW button is no longer visible, on the WELCOME screen.

Type	Document No.	Rev/Mod	Release Date	Page
CONTINUOUS	OTP-440-001	A-1	2/26/99	14 of 29



**5.2 DISPLAY SCREEN CHECKS (Cont.)**

X 5.2.50 VERIFY the following is displayed for Stations 5, 6, 7, and 8:

X 5.2.50.1 VERIFY STATUS is ONLINE (GREEN letters).

X Exception #5. 5.2.50.2 VERIFY DATE is the ~~current~~ date (GREEN letters).  
*The computer stations went on-line*

X 5.2.50.3 VERIFY TIME the approximate time of the last system startup (GREEN letters).

X 5.2.50.4 VERIFY NAME is SUPER for Station 7, OPS for Stations 5 and 6, and PUBLIC for Station 8 (BLACK letters).

X 5.2.50.5 VERIFY GROUP is SUPERVISOR for Station 7, OPERATIONS for Stations 5 and 6, and VIEW ONLY for Station 8 (BLACK letters).

X Exception #6. 5.2.50.6 VERIFY DATE is the ~~current~~ date (BLACK letters).

X 5.2.50.7 VERIFY TIME is the approximate time of the last user login (BLACK letters).  
*of the last LOGIN change.*

X 5.2.51 At Station 7, ACCESS the WELCOME screen.

Testing as directed by this procedure section has been completed, and discrepancies, if any, have been listed on Attachment 1, Exception List.

*[Signature]*      1 6/10/99  
Test Director Signature      Date

Type	Document No.	Rev/Mod	Release Date	Page
CONTINUOUS	OTP-440-001	A-1	2/26/99	16 of 29

5.3 TREND SCREEN CHECKS

X 5.3.1 IF any discrepancy is noted during testing, THEN RECORD a description of the condition in Attachment 1.

X 5.3.1.1 For each discrepancy recorded, ENTER an identifying number in the "EXCEPTION NUMBER" Column of Attachment 1.

Y 5.3.1.2 REPRODUCE Attachment 1 as needed, AND ATTACH the additional pages to this procedure, to record all discrepancies noted during testing.

X 5.3.2 LOG IN to Station 7 and 8 as OPS AND VERIFY the following is displayed on the NETSTAT screen at Station 6 for all stations:

L X 5.3.2.1 VERIFY STATUS is ONLINE (GREEN letters).

X Test Exception 5 X 5.3.2.2 VERIFY DATE is the current date (GREEN letters).

X 5.3.2.3 VERIFY TIME the time on-line status was achieved (GREEN letters). *the computer stations went on-line.*

X 5.3.2.4 VERIFY NAME is OPS (BLACK letters).

X 5.3.2.5 VERIFY GROUP is OPERATIONS (BLACK letters).

Test Exception 6 X 5.3.2.6 VERIFY DATE is the current date (BLACK letters).

X 5.3.2.7 VERIFY TIME is the time of login (BLACK letters). *of the last log-in change.*

X 5.3.3 At Station 7, ACCESS the TRENDS screen.

X 5.3.4 SELECT any PEN GROUP AND VERIFY that a pop-up screen is displayed with a listing of tagnames included in the selected pen group.

X 5.3.5 USING Table A, VERIFY that the tagnames listed for the selected pen group are the same as listed in Table A. *Pen Groups: Hydrogen, NH3, N2O, Tank Flow, Pressure, Hydrogen, Computer Parameters*

X 5.3.6 REPEAT Steps 5.3.4 and 5.3.5 for two additional pen groups, THEN GO TO Step 5.4.1. *Hydrogen, Computer Parameters*

Testing as directed by this procedure section has been completed, and discrepancies, if any, have been listed on Attachment 1, Exception List.

*[Signature]* / 6/10/99.  
Test Director Signature Date

Type	Document No.	Rev/Mod	Release Date	Page
CONTINUOUS	OTP-440-001	A-1	2/26/99	17 of 29



**5.4 PERFORM TABLE A AND TASKS**

**TABLE A**

PEN GROUP	TAGS INCLUDED IN GROUP
Tank Flow, pressure, Hydrogen	FTE50001, FTE50002, FTE50003, PIR17B04, PIR17C01, GC2-H2, GC3-H2, NIR17B01
Tank Level, Strain	LIR01A, LIR01C, WIR12A04
Pump Motor Parameters	ZIMPE112, ZIMPE142, VR232020, VR232040, VR232050, TIR12A01, TIR12A02
Pump pressures, Strains	PDPBASE, PCR12A01, PITN0110, PITN0111, WIR12A01, WIR12A02, WIR12A03, WIR12A04
Strain Gauges	WIR12A01, WIR12A02, WIR12A03, WIR12A04, WIR17C01, WIR17C02, WIR1BA01, WIR1BA02
Hydrogen, Vent Header	NIRO5A01, NITKSY06, NITJSY06, NIR17B01, TT10001, MT10001
Hydrogen, NH <sub>3</sub> , N <sub>2</sub> O	GC1-H2, GC2-H2, GC3-H2, FT-N20C, FT-NH3C, PHO-NH3
MIT17B TCs 01-08	TIR17B01, TIR17B02, TIR17B03, TIR17B04, TIR17B05, TIR17B06, TIR17B07, TIR17B08
MIT17B TCs 09-15	TIR17B09, TIR17B10, TIR17B11, TIR17B12, TIR17B13, TIR17B14, TIR17B15
MIT17B TCs 16-22	TIR17B16, TIR17B17, TIR17B18, TIR17B19, TIR17B20, TIR17B21, TIR17B22
MIT17C TCs 01-08	TIR17C01, TIR17C02, TIR17C03, TIR17C04, TIR17C05, TIR17C06, TIR17C07, TIR17C08
MIT17C TCs 09-15	TIR17C09, TIR17C10, TIR17C11, TIR17C12, TIR17C13, TIR17C14, TIR17C15
MIT17C TCs 16-22	TIR17C16, TIR17C17, TIR17C18, TIR17C19, TIR17C20, TIR17C21, TIR17C22
TBS TCs 01-08	TBSTC01, TBSTC02, TBSTC03, TBSTC04, TBSTC05, TBSTC06, TBSTC07, TBSTC08
TBS TCs 09-18	TBSTC09, TBSTC11, TBSTC12, TBSTC13, TBSTC15, TBSTC16, TBSTC17, TBSTC18
TBS TCs 19-26	TBSTC19, TBSTC20, TBSTC21, TBSTC22, TBSTC23, TBSTC25, TBSTC26
Weather Station	WST1, WSH1, WSP1, WSWSPD, WSWDIR

**TABLE B**

PEN GROUP	1 hr	4 hr	12 hr	24 hr	72 hr	7 day	30 day
Tank Flow, pressure,							
Tank Level, Strain							
Pump Motor Parameters	A						
Pump Pressures, Strains				A			
Strain Gauges							
Hydrogen, Vent Header			A				
Hydrogen, NH <sub>3</sub> , N <sub>2</sub> O							
MIT17B TCs 01-08							
MIT17B TCs 09-15							
MIT17B TCs 16-22							
MIT17C TCs 01-08							
MIT17C TCs 09-15							
MIT17C TCs 16-22							
TBS TCs 01-08							
TBS TCs 09-18							
TBS TCs 19-26							
Weather Station							

5.4 PERFORM TABLE A AND B TASKS (Cont.)

5.4.1 USING Tables A and B, PERFORM the following:

X 5.4.1.1 SELECT a PEN GROUP.

X 5.4.1.2 SELECT an available historical trend for the desired pen group AND VERIFY that a Historical Display screen is visible.

X 5.4.1.3 VERIFY that the tagnames listed for the trends are the same as the tagnames listed for the desired pen group in Table A.

X 5.4.1.4 VERIFY that the selected trend displays the required amount of data (1-hour's worth, 7-day's worth, etc.)

X 5.4.1.5 SELECT the File pull-down menu AND THEN SELECT Exit to close the Historical Display screen.

X 5.4.1.6 IF the trend checks for a particular pen group were satisfactory, THEN INITIAL only the associated blocks in Table B.

X 5.4.1.7 REPEAT Steps 5.4.1.1 through 5.4.1.6 until three pen groups and an available trend have been verified, THEN GO TO Section 5.5.

Testing as directed by this procedure section has been completed, and discrepancies, if any, have been listed on Attachment 2, Exception List.

*[Handwritten Signature]*

Test Director Signature

1 6-10-99.  
Date

*Hydrogen, Vent Header 12 hr*

*Pump pressures, Strains 24 hr.*

Type	Document No.	Rev/Mod	Release Date	Page
CONTINUOUS	OTP-440-001	A-1	2/26/99	20 of 29

**5.5 SCREEN DISPLAY VERIFICATION CHECKS**

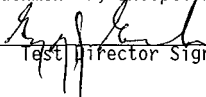
- X 5.5.1 IF any discrepancy is noted during testing, **THEN RECORD** a description of the condition in Attachment 1.
  - X 5.5.1.1 For each discrepancy recorded, **ENTER** an identifying number in the "EXCEPTION NUMBER" Column of Attachment 1.
  - X 5.5.1.2 **REPRODUCE** Attachment 1 as needed, **AND ATTACH** the additional pages to this procedure, to record all discrepancies noted during testing.
  - X 5.5.1.3 At Stations 5, 6, and 8, **ACCESS** the following screens:
    - HVTALARM • PUMPALRM • STRNALM
  - X 5.5.1.4 At Station 7, **ACCESS** the following screens, one at a time, **AND COMPARE** the displayed values with the displayed values on the same screens at the other stations:
    - HVTALARM • PUMPALRM • STRNALM
  - X 5.5.1.5 **VERIFY** that the displayed values are identical from one computer station to another.
  - X 5.5.1.6 At Stations 5, 6, and 8, **ACCESS** the following screens:
    - TEMPLM • MANABRT • MIT17B
  - X 5.5.1.7 At Station 7, **ACCESS** the following screens, one at a time, **AND COMPARE** the displayed values with the displayed values on the same screens at the other stations:
    - TEMPLM • MANABRT • MIT17B
  - X 5.5.1.8 **VERIFY** that the displayed values are identical from one computer station to another.
  - X 5.5.1.9 At Stations 5, 6, and 8, **ACCESS** the following screens:
    - MIT17C • PUMP • GASSUM
  - X 5.5.1.10 At Station 7, **ACCESS** the following screens, one at a time, **AND COMPARE** the displayed values with the displayed values on the same screens at the other stations:
    - MIT17C • PUMP • GASSUM

Type	Document No.	Rev/Mod	Release Date	Page
CONTINUOUS	OTP-440-001	A-1	2/26/99	21 of 29

## 5.5 SCREEN DISPLAY VERIFICATION CHECKS (Cont.)

- ✓ 5.5.1.11 VERIFY that the displayed values are identical from one computer station to another.
- ✓ 5.5.1.12 At Stations 5, 6, and 8, ACCESS the following screens:
- SUMMARY      °      TEMPRFL      °      ROLLOVER
- ✓ 5.5.1.13 At Station 7, ACCESS the following screens, one at a time, AND COMPARE the displayed values with the displayed values on the same screens at the other stations:
- SUMMARY      °      TEMPRFL      °      ROLLOVER
- ✓ 5.5.1.14 VERIFY that the displayed values are identical from one computer station to another.
- ✓ 5.5.1.15 At Stations 5, 6, and 8, ACCESS the following screens:
- PUMPOPS      °      DACS      °      MININ
- ✓ 5.5.1.16 At Station 7, ACCESS the following screens, one at a time, AND COMPARE the displayed values with the displayed values on the same screens at the other stations:
- PUMPOPS      °      DACS      °      MININ
- ✓ 5.5.1.17 VERIFY that the displayed values are identical from one computer station to another.
- ✓ 5.5.1.18 At Stations 5 and 6, ACCESS the following screens:
- TBSTC      °      TAGSTAT
- ✓ 5.5.1.19 At Station 7, ACCESS the following screens, one at a time, AND COMPARE the displayed values with the displayed values on the same screens at the other stations:
- TBSTC      °      TAGSTAT
- ✓ 5.5.1.20 VERIFY that the displayed values are identical from one computer station to another.

Testing as directed by this procedure section has been completed, and discrepancies, if any, have been listed on Attachment 1, Exception List.

  
Test Director Signature

1 6/10/99  
Date

Type	Document No.	Rev/Mod	Release Date	Page
CONTINUOUS	OTP-440-001	A-1	2/26/99	22 of 29

**5.6 PUMP OPERATION CHECKS**

- X 5.6.1 IF any discrepancy is noted during testing, **THEN RECORD** a description of the condition in Attachment 1.
  - Y 5.6.1.1 For each discrepancy recorded, **ENTER** an identifying number in the "EXCEPTION NUMBER" Column of Attachment 1.
  - X 5.6.1.2 **REPRODUCE** Attachment 1 as needed, **AND ATTACH** the additional pages to this procedure, to record all discrepancies noted during testing.
- X 5.6.2 IF necessary to allow testing per this procedure section, **THEN DISABLE** the abort coils associated with any instruments that are sending erratic signals using the "ABRTENAB" screen.
- X 5.6.3 **RESET** the E-Stop pushbuttons **AND VERIFY** that both pushbuttons are illuminated.
- X 5.6.4 **POSITION** the E-Stop alarm silence switch to **NORMAL**.
- X 5.6.5 **ENSURE** that power supply local disconnect switches SY01A-WST-DS-001 and SY01A-WST-DS-002 are still administratively locked in OFF.
- X 5.6.6 **REQUEST** the WASM to close power supply circuit breakers SY272-EDS-BKR-123 and SY272-EDS-BKR-120.
- X 5.6.7 At Station 5, **ACCESS** the PUMP screen.
- X 5.6.8 At Station 6, **ACCESS** the PUMPALRM screen.
- X 5.6.9 At Station 8, **ACCESS** the PUMPVIEW screen.
- X 5.6.10 At Station 7, **ACCESS** the WELCOME screen and login as SUPER.
- X 5.6.11 **ACCESS** the P-RUN-VIS screen, **ENSURE** that Station 7 is selected as the pump control station, **AND SELECT** the CLOSE button.

Type	Document No.	Rev/Mod	Release Date	Page
CONTINUOUS	OTP-440-001	A-1	2/26/99	23 of 29

5.6 PUMP OPERATION CHECKS (Cont.)

X 5.6.12 At Station 7, ACCESS the PUMPRUN screen AND PERFORM the following:

Y 5.6.12.1 IF the STOP TEST button at Station 7 is GREEN, then SELECT the STOP TEST button.

X 5.6.12.2 In the TEST SETUP portion of the screen, IF necessary, SELECT the Test: field AND ENTER 34.

X Test Exception #7 5.6.12.2.1 Change duration manually from 25 minutes to 5 minutes

X 5.6.12.3 SELECT the SET VALUES button.

X 5.6.12.4 SELECT the ENABLE TEST button.

X 5.6.12.5 SELECT the START TEST button and, when the VSD is running at setpoint speed VERIFY that the displayed values for pump motor Speed and Amps are consistent with the Speed and Amps values displayed on the PUMP DRIVE VSD touch panel in the DACS Trailer.

X 5.6.12.6 VERIFY that the pump parameters displayed at Stations 5, 6, and 8 are consistent with the parameters displayed at Station 7.

X 5.6.12.7 WHEN the 30SEC - WARN 30 Seconds Until End of Test alarm is received, ACKNOWLEDGE the alarm.

X 5.6.12.8 SELECT the ENABLE STOP button and then the FLASHING YELLOW STOP TEST button to end the test run. Test Exception #8 Test Exception #9

X 5.6.12.9 VERIFY that the elapsed time is approximately 4 minutes 40 seconds.

X 5.6.12.10 VERIFY that the STOP TIME portion of the screen is displaying the time that the pump was stopped.

X 5.6.12.11 VERIFY that the E Stop circuitry IS NOT tripped.

X 5.6.12.11.1 At station 8, ACCESS the WELCOME screen and login as SUPER.

X 5.6.12.12 At station 8, ACCESS the P-RUN-VIS screen, SELECT Station 8 as the pump control station, AND SELECT the CLOSE button.

X 5.6.12.13 REQUEST the WASH to close power supply circuit breaker 3P2-EDS-BW12-123 lock open

Testing as directed by this procedure section has been completed, and discrepancies, if any, have been listed on Attachment 1, Exception List. and 4272-EDS-BW12-123

Signature: [Handwritten Signature] Date: 6/10/99

Type	Document No.	Rev/Mod	Release Date	Page
CONTINUOUS	OTP-440-001	A-1	2/26/99	24 of 29

**5.7 REMOTE SUPERVISORY STATION (RSS) CHECKS**

X 5.7.1 IF any discrepancy is noted during testing, THEN RECORD a description of the condition in Attachment 1.

X 5.7.1.1 For each discrepancy recorded, ENTER an identifying number in the "EXCEPTION NUMBER" Column of Attachment 1.

X 5.7.1.2 REPRODUCE Attachment 1 as needed, AND ATTACH the additional pages to this procedure, to record all discrepancies noted during testing.

NOTE - RSS Station 11 is located in the West Area Shift Manager's Office.

- RSS Station 13 is located in the 306E DACS Development Laboratory.

- RSS Station 15 is located in the 2750E Training Office.

- Personnel will be required to be stationed in the DACS Trailer and at the remote locations for testing per this test section.

X X X 5.7.2 From a selected remote location, START UP the RSS computer AND DOUBLE CLICK the "RSS X STARTUP" icon.

X X X 5.7.3 VERIFY that a "POP-UP" "DAIL-UP NETWORKING: screen is displayed.

X X X 5.7.4 ON the "POP-UP" screen VERIFY that the "PHONEBOOK ENTRY TO DIAL:" ~~Phone book entry to dial:~~ field reads: "DACs Trailer RSS (X) Connection: and the "PHONE NUMBER PREVIEW" field reads the correct telephone number for the station being tested, as shown in table C.

X X X 5.7.5 ESTABLISH communications with personnel in the DACS Trailer.

X X X 5.7.6 SELECT the "DIAL" button AND VERIFY that the connection to the DACS Trailer is made automatically.

X X X 5.7.7 REQUEST DACS Trailer personnel to VERIFY that the proper modem for the remote station being tested is utilized.

X X X 5.7.8 As the phone connection to the DACS trailer is being made, VERIFY that a "DACs RSS ~~STARTUP~~Startup" message box is displayed.

Type	Document No.	Rev/Mod	Release Date	Page
CONTINUOUS	OTP-440-001	A-1	2/26/99	25 of 29



**5.7 REMOTE SUPERVISORY STATION (RSS) CHECKS (Cont.)**

XXX 5.7.9 WHEN the phone connection is established, SELECT the "CONTINUEContinue" button in the "DACS RSS STARTUPStartup" message box AND VERIFY the following:

XXX 5.7.9.1 The "DACS RSS STARTUPStartup" message box is no longer displayed.

XXX 5.7.9.2 The FIX32 software is started up and, after a time delay, the [WELCOME] screen is displayed.

5.7.10 QUICKLY ACCESS several screens AND VERIFY that the displayed values for DACS parameters are indicated by "@" symbols.

XXX 5.7.11 AFTER the remote station has begun updaing, ACCESS any five screens and, while in communication with personnel in the DACS Trailer, VERIFY that the values displayed for various DACS parameters are correct. RSS-11 HURALARM RSS-15 Pump/ALM Pump. Rollover DACS TAGSTAT.

XXX 5.7.12 LOGIN at the remote station as OPS. M17B. GASSUM. AS MAIN. MININ

XXX 5.7.13 At the remote station, ACCESS any HELP screen.

XXX 5.7.14 SELECT the MODEM button, AND THEN SELECT the Hang Up button on the pop-up screen. RSS-13. TEMPALM FBSTC Summary M17B MININ

XXX 5.7.15 VERIFY that the remote station has been automatically disconnected.

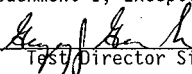
XXX 5.7.16 INITIAL the TEST SATISFACTORY (INITIALS) column of Table C, if the remote station was tested satisfactorily.

XXX 5.7.17 REPEAT Steps 5.7.2 through 5.7.16 until all remote stations have been tested.

**TABLE C**

REMOTE STATION TESTED	PHONE NUMBER DIALED	TEST SATISFACTORY (Initials)
RSS 11	372-1773	A
RSS 13	373-4733	A
RSS 15	373-4163	A

Testing as directed by this procedure section has been completed, and discrepancies, if any, have been listed on Attachment 1, Exception List.

 Test Director Signature

1 6/10/99 Date

**ATTACHMENT 1 - EXCEPTION LIST**

EXCEPTION	STEP	EXCEPTION DESCRIPTION	EXCEPTION RESOLUTION	RESOLUTION	DATE
1	4.1.7	Pump angle at 108° and not 28° as specified.	Test will be performed at 108° since angle in GENESIS = angle in FIX 32.	This is not important to the test as long as angle is equal (to GENESIS)	6/9/99
2	5.1.17	Cannot verify Station #7 tag in manual.	Password SUPER (LVL.4) no longer has permission or need to place tags in AUTO/MANUAL (SCR 47).	ACCEPTED	6/9/99
3	3.1 LIMITS GENERAL	Pen & Ink changes to document procedure changes.	This is a one time use procedure. Will not be used again.	ACCEPTED	6/10/99
4	5.2.3	DACS software is Version 4.00	Change to reflect latest DACS software Version 4.01.	ACCEPTED	6/10/99
5	5.2.50.2 5.3.2.2	Statement: Verify DATE is the current date (GREEN Letters)	Date is the date the computer went on-line.	ACCEPTED	6/10/99
6	5.2.50.6 5.3.2.6	Statement: Verify DATE is the current date (BLACK Letters)	Date is the date of the recent log-in change.	ACCEPTED	6/10/99
7	5.6.12.2.1	Added step to manually change test #34 time from 25 min. to 5 min.	Time manually changed to reduce wasted time.	ACCEPTED	6/10/99
8	5.6.12.8	Received visual indication mouse tracks under operational status.	**	** RETESTED ACCEPTED	6/10/99
9	5.6.12.8	Received Green ENABLE STOP	***	*** RETESTED ACCEPTED	6/10/99

\* - Tested at Station 7 & 8 per pen and ink changes. Administrator and Training password level is required to place tags in manual so as to be used for signal injection.  
 \*\* - [AI-INIT] screen initialization variable script on Station 7 needed restart due to version change from 4.00 to 4.01.  
 \*\*\* - Same resolution as \*\*\*

**ATTACHMENT 2 - FINAL PROCEDURE ACCEPTANCE SHEET**

Completion of this procedure has demonstrated that:

- ° Operator display and control screens at Stations 7, 11, 13 and 15 are adequate for operation, control, and monitoring of the DACS.
- ° ~~Alarm notification and display are proper for operation, control, and monitoring of the DACS.~~
- ° ~~Abort notification and display are proper for operation, control, and monitoring of the DACS.~~
- ° The DACS operator control interface capabilities have been tested to be adequate and satisfactory.
- ° Control of pump motor and directional drive motor VSDs by Station 7 is satisfactory.
- ° System security, including passwords and levels of authorization for system use, is satisfactory and adequate.

A record of all noted deficiencies was kept on Attachment 1, Exception List, and all recorded exceptions have been resolved and the resolutions approved.

**APPROVED BY:**

R.E. Larson / 6/10/99  
 R.E. Larson, Engineering Manager / Date

G.J. Gauck / 6/10/99  
 G. J. Gauck, Cognizant Engineer / Date

Type	Document No.	Rev/Mod	Release Date	Page
<b>CONTINUOUS</b>	<b>OTP-440-001</b>	<b>A-1</b>	<b>2/26/99</b>	<b>28 of 29</b>

**PROCEDURE HISTORY SIGNATURE SHEET**

Last Full Revision: A-0

Release Date: 2/12/99

USQ Screening Number: TF-98-1059

Approval Designator: SQ

Current Modification: A-0

USQ Screening Number: TF-98-1059

Approval Designator: SQ

PCA Incorporated:

POSITION/ORG	DELEGATE	DATE
LNPO/WTFO	<u>L.S. Dauenhauer</u>	<u>1/26/99</u>
QA/QAE	<u>R.R. True</u>	<u>1/28/99</u>
Safety/TWRS	<u>L.S. Krogsrud</u>	<u>1/28/99</u>
SOM/TWO	<u>O. Ravencraft</u>	<u>2/11/99</u>
HP	<u>M. Kornish</u>	<u>2/12/99</u>
ECO	<u>P.C. Miller</u>	<u>2/11/99</u>
Engineer	<u>G.J. Gauck</u>	<u>1/26/99</u>
Acceptance Review	<u>B.E. Raymond</u>	<u>2/12/99</u>
Approval Authority	<u>R.P. Tucker</u>	<u>2/12/99</u>

Justification: Y2K Compliance

Summary of Changes:

New Procedure

Type	Document No.	Rev/Mod	Release Date	Page
<b>CONTINUOUS</b>	<b>OTP-440-001</b>	<b>A-1</b>	<b>2/26/99</b>	<b>29 of 29</b>

# DISTRIBUTION SHEET

<b>To</b> Distribution	<b>From</b> A.M. Ermi / COGEMA Engineering	Page 1 of 1
<b>Project Title/Work Order</b> 241-SY-101 DACS Remote Operator Interface Operational Test Report 2		Date June 16, 1999
		EDT No. 140129
		ECN No. N/A

Name	MSIN	Text With All Attach.	Text Only	Attach./Appendix Only	EDT/ECN Only
M. H. Brown	T4-07	X			
A. M. Ermi (2)	L6-37	X			
G. J. Gauck	T4-07	X			
L. S. Krogsrud	T4-07				X
D. C. Larsen	T4-08				X
R. E. Larson	T4-07				X
D. D. Tate	L6-37				X
R. R. True	T4-07				X
R. P. Tucker	T4-07				X
Central Files	B1-07	x			
DOE/RL Reading Room	H2-53	x			