Perform TMACS Production System Verification

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1.0 PURPOSE AND SCOPE

1.1 Purpose

This procedure provides instructions for the verification of Tank Monitor and Control System (TMACS) software on the Production System.

1.2 Scope

This procedure involves all equipment and instrumentation specific to TMACS (TMACSPROD) located in room B-105, Building 2750, East area.

2.0 INFORMATION

2.1 General Information

2.1.1 Data recorded during verification will check the following functions:
  - Hanford Tank Farm Facilities screen
  - Tank Status screen
  - System communications.

2.1.2 Exceptions are used to document unexpected results and identify appropriate actions; not to circumvent performance requirements.

2.1.3 This procedure identifies all alarms expected as a result of performing this procedure and provides instructions for responding to those alarms.

2.1.4 Existing alarm response procedures will be used when responding to unexpected alarms that occur during performance this procedure.

2.1.5 If a section of this procedure is suspended for any reason prior to completing all steps, Shift Manager and Engineer will establish initial conditions necessary to resume activities associated with that section. Previously completed sections need not be repeated unless directed by Shift Manager and Engineer as pre-requisites to continuation.
3.0 PRECAUTIONS AND LIMITATIONS

NONE

4.0 PREREQUISITES

4.1 Field Preparations

The following conditions must be met before this procedure may commence:

4.1.1 **CONDUCT** daily pre-job briefing for all personnel involved in performance of this procedure **AND**

**DOCUMENT** pre-job on Data Sheet 1.
5.0 PROCEDURE

5.1 Verify Graphic Screens Are Displaying Properly

NOTE - Steps 5.1.2 through 5.1.16 may be performed in any order at the discretion of the Engineer.

- 5.1.1 IF any problems are found during performance of this procedure, IMMEDIATELY NOTIFY Shift Manager and Engineer.

- 5.1.2 ASSIGN a sequential number to all exceptions AND RECORD on Data Sheet 1.

- 5.1.3 RECORD disposition for each exception on Data Sheet 2.

- 5.1.4 LOG all unexpected alarms received during performance of this procedure as exceptions AND NOTIFY Shift Manager and Engineer for evaluation of impact to overall verification.

- 5.1.5 IF changing plant conditions impact performance of this procedure or delays extend duration longer than originally anticipated, NOTIFY Shift Manager and Engineer for additional instructions.

- 5.1.5.1 RECORD any additional instructions on Data Sheet 1.

- 5.1.6 RECORD all changes in equipment configuration, comments and observations by participants, and all other data pertinent to verification on Data Sheet 1.

NOTE - Shift Manager and Engineer may unilaterally stop this procedure for any reason.

- 5.1.7 RECORD all suspension of verification activities on Data Sheet 1.

- 5.1.8 NOTIFY Shift Manager and Engineer of any unplanned work stoppage.

- 5.1.8.1 IF an unplanned work stoppage occurs, PRIOR to resumption of verification procedure, OBTAIN concurrence from Shift Manager and Engineer AND RECORD on Data Sheet 1.
5.1 Verify Graphic Screens Are Displaying Properly (Cont.)

5.1.9  CONFIRM Hanford Tank Farm Facilities screen has colored tanks.

5.1.10 CONFIRM clock appears on Master Control Panel, and correct time and date are displayed.

5.1.11 CONFIRM Monitored Systems window is displayed on middle right-hand side of screen.

5.1.12 CLICK on any enabled Tank Icon in Hanford Tank Farm Facilities screen (icon will not be gray) AND CONFIRM the following:

- Tank Status screen for selected tank appears
- Name of tank matches one selected
- Individual sensor points are colored.

5.1.13 CLICK on a sensor AND CONFIRM the following:

- Sensor Trend chart appears
- Data for parameter is displayed on chart.

5.1.14 CLICK on a multiple Sensor Trend button AND CONFIRM that a Multiple Trends window is visible.

5.1.15 RETURN to Hanford Tank Farm Facilities screen.

5.1.16 CLICK on Current Alarms button AND CONFIRM Current Alarms window appears on left-hand side of screen.

5.1.17 REVIEW Section 5.1 AND VERIFY all steps are satisfactorily complete.

    ___________________________ / ___________________________ / ___________________________
    Signature                  Print                               Date
    Engineer
5.2 Verify Communications with the Field

Special Instruction

To ensure all sensors have had adequate time to be polled, this section must not begin until 2:00 AM on the calendar day following software installation.

5.2.1 CLICK on Report Menu on Control Panel.

5.2.2 CLICK on Suspect Sensor Report.

5.2.3 CLICK on “Update” button.

5.2.4 VERIFY Suspect Sensor Report contains no sensors in "Number of Suspect Sensors" box.

5.2.5 REVIEW Section 5.2 AND VERIFY all steps are satisfactorily complete.
5.3 Records

The following records are generated during the performance of this procedure:

5.3.1 **SUBMIT** the completed records to the shift office for record retention.

- This procedure in its entirety.

The record custodian identified in the Company Level Records Inventory and Disposition Schedule (RIDS) is responsible for record retention in accordance with TFC-BSM-IRM_DC-C-02.
### Data Sheet 1 - Verification Log

<table>
<thead>
<tr>
<th>Time/Date</th>
<th>Description</th>
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Data Sheet 2 - Exception Report

<table>
<thead>
<tr>
<th>Procedure Number &amp; Section:</th>
<th>Procedure Step Name:</th>
<th>Exception Tracking Number:</th>
</tr>
</thead>
</table>

Description of Problem:

Originator: __________________ / __________________

Signature: __________________

ORG: __________________

DATE: ________________

Impact on Continued Operations:

~ Hold For Resolution

~ Continue

________________________ / __________________________ Date: ________

Signature: __________________

Print: __________________

Shift Manager: __________________

Disposition:

Disposition Approved By: __________________ / __________________ / ________________

Signature: __________________

Print: __________________

Engineer: __________________

Date: ________________

Disposition And Retest Requirements Completed By: __________________

Date: ________________

Disposition Actions Complete Verified By: __________________

Date: ________________

QAE Concurrence with Disposition (If Required): __________________

Date: ________________

Retest Complete Verified By: __________________

Date: ________________

Exception Closed:

Engineer: __________________ / __________________ / ________________

Signature: __________________

Print: __________________

Date: ________________

Shift Manager: __________________ / __________________ / ________________

Signature: __________________

Print: __________________

Date: ________________