Perform 702-AZ Exhauster Monitor and Control Operations

Tank Farm Plant Operating Procedure

TANK FARMS

USQ #GCX-2

CHANGE HISTORY (≤ LAST 5 REV-MODS)

<table>
<thead>
<tr>
<th>Rev-Mod</th>
<th>Release Date</th>
<th>Justification</th>
<th>Summary of Changes</th>
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<tbody>
<tr>
<td>H-1</td>
<td>06/08/2016</td>
<td>Records Change</td>
<td>Changed Records Section to meet Standard</td>
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<td>H-0</td>
<td>08/04/2015</td>
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<td>G-1</td>
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<td>Added new Section 5.9 for 702-AZ MCS Object Faceplate Actions.</td>
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<td>G-0</td>
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<td>All changes are as a result of the periodic review process.</td>
<td>Globally modified/deleted vague phrases. Modified wording in Steps 5.3.2, 5.3.2.3, 5.3.2.5, 5.4.3, 5.4.5, through, 5.4.10, and 5.6.7.</td>
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<td>F-1</td>
<td>07/03/2012</td>
<td>Engineering request.</td>
<td>Modified wording in Sections 1.1, 4.1, and 4.2. Modified procedure title. Deleted old Steps 1.2.1, 5.1.1, 5.1.2, 5.9.1, 5.9.2, and 5.9.3. Modified wording in Steps 1.2.1, 2.2.4, 2.2.5, 5.1.1, 5.2.3, 5.4.5.1, 5.4.5.2, and 5.10.1. Added new Steps 2.1.1 and 2.2.2. Modified title in Sections 5.1, 5.3, 5.9, and 5.10. Modified wording in first and fourth NOTEs for Step 5.2.1. Added new Section 5.6.</td>
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1.0 PURPOSE AND SCOPE

1.1 Purpose

This procedure provides instructions for operating a Tank Farm Monitoring and Control System (MCS) Human Machine Interface (HMI) to monitor and control the 702-AZ Primary or Building Exhauster.

1.2 Scope

1.2.1 This procedure is designed to provide a reference for the user in conjunction with applicable training to initiate, log-in, and operate the 702-AZ Primary or Building Exhauster.

2.0 INFORMATION

2.1 Terms and Definitions

- ABL Abnormal alarm
- ACT Active alarm
- HMI Human Machine Interface
- MBL Inhibited alarm
- PLC Programmable Logic Controller
- RTN Return to normal alarm
2.2 General Information

2.2.1 The 702-AZ Primary and Building Exhausters are part of the site wide Tank Farm Monitoring and Control System (MCS) HMI log-in.

2.2.2 Any Tank Farm MCS HMI can be used to monitor and control the 702-AZ Primary and Building exhausters. However, the preferred location is from the 702-AZ Control Room.

2.2.3 Security privileges allow and restrict certain operating modes, screens, and actions only to authorized users.

2.2.4 The Tank Farm MCS is a predominantly mouse-driven system.

2.2.5 The Tank Farm MCS is capable of providing information on the following types of 702-AZ Primary and Building Exhausters equipment or systems:

- Leak detectors (pit and encasement)
- Tank parameters (pressure, level, temperatures)
- CAM status (ventilation, stack, annulus)
- PLC controller status
- Equipment enclosure status
- Ventilation status
- Valve status
- Alarm status.

3.0 PRECAUTIONS AND LIMITATIONS

None

4.0 PREREQUISITES

4.1 Special Tools, Equipment and Supplies

The following special tools, equipment and supplies may be needed to perform this procedure:

- Log in password for 702-AZ Primary or Building Exhauster Tank Farm MCS access.

4.2 Performance Documents

The following documents may be needed to perform this procedure:

- ARPs for 702-AZ Primary or Building Exhauster.
5.0  PROCEDURE

5.1  Startup Tank Farm MCS HMI

5.1.1  POWER ON the HMI computer and monitors being used to monitor the 702-AZ Primary or Building Exhauster systems.

5.2  Logon 702-AZ Exhauster MCS System

NOTE - There are four levels of user functions to which passwords may be distributed. The four password levels are:
- Aging Waste Operator (Primary Ventilation)
- Stationary Operating Engineer (Building Ventilation Operator)
- Technician (Maintenance Craft)
- Supervisor (OE, Shift Manager, FWS).

- It is the responsibility of each Supervisor, Operations Engineer, and Shift Manager to ensure distribution of a password is only to their respective function. The passwords are to be controlled with confidentiality consistent with any computer system password.

- If the password provided to the user does not allow the individual to perform the function needed, only the Supervisor, Operations Engineer, or Shift Manager may enter the supervisory password to allow the required function.

- The Supervisor, Operations Engineer, or Shift Manager who enters the supervisory password will then notify the Tank Farm MCS System Administrator to determine if a change in user functions will be necessary.

5.2.1  PRESS Ctrl/Alt/Delete.

5.2.2  IF username is not the required username, TYPE IN applicable Username.

5.2.3  ENTER password supplied by Shift Manager or Tank Farm MCS administrator.

5.2.4  ENSURE the Operator Workplace displays on both screens.

5.2.5  CONFIRM correct username is displayed at the bottom of the screen.
5.3 Perform Logover on Tank Farm MCS System

Logging On Without Logging Off Previous User

5.3.1 IF logging on as other than the current user, PERFORM a “Log Over” function to simultaneously log on at the HMI as follows:

5.3.1.1 PLACE the mouse over the username on the lower right of the screen.

5.3.1.2 RIGHT CLICK AND SELECT “Change User”.

5.3.1.3 ENTER the username and password for the new login.

5.3.1.4 CONFIRM the new login is shown on the lower right on a yellow background.

Reverting Back To Previous User

5.3.2 PERFORM the following to log out and switch back to previous user:

5.3.2.1 PLACE the mouse over the username on the lower right of the screen.

5.3.2.2 RIGHT CLICK AND SELECT “Revert to XXXX”, where XXXX will be the previous user.

5.3.2.3 ENTER the username and password for the previous user.

5.3.2.4 CONFIRM the new login is shown on the lower right on a white background.

5.3.2.5 IF the login background is still yellow, LOG OFF from the Windows START menu AND LOG IN per Section 5.2 as the previous login.
5.4 Monitor and Trend 702-AZ Process Equipment

5.4.1 ENSURE Login is complete.

5.4.2 FROM the Navigation screen, SELECT the process area by clicking on the appropriate graphic.

5.4.3 AT the appropriate screen, MONITOR parameters per Round Sheets/Data Sheets.

5.4.4 ENSURE equipment is available and communicating by observing the following criteria AND

IF any of the criteria is not met, GO TO alarm lists:
- Objects or their values are not flashing red or yellow
- Analog values change with the process
- The object or value does not have a red line across it
- The HMI screen does not have a red box around it.

5.4.5 SELECT AND OBSERVE alarm lists as follows:

5.4.5.1 IF observing process alarms, MONITOR the small alarm list at the top of the screen,

    OR

SELECT the numbered portion of the Process Alarm Banner to see the Process Alarm List.

5.4.5.2 IF observing system alarms, SELECT the numbered portion of the System Alarm Banner to see the System Alarm List.

5.4.5.3 IF acknowledging a process or system alarm, LEFT CLICK on the box on the left side of the alarm in the list,

    OR

LEFT CLICK “Acknowledge The Visible Alarm” button to acknowledge all visible alarms at one time.
5.4 Monitor and Trend 702-AZ Process Equipment (Cont.)

5.4.5.4 IF the process or system alarm does not clear or is not due to planned work activities, RESPOND per appropriate ARP.

5.4.6 IF returning to the previous screen, SELECT the green/white back button at the left of the page header,

OR

SELECT navigation buttons on the top of the screen.

Trending

5.4.7 IF accessing a Trend Screen for an individual piece of equipment, PERFORM the following:

5.4.7.1 SELECT the equipment for the desired trend.

5.4.7.2 SELECT the Three Dot icon.

5.4.7.3 SELECT the Trend Display icon at the top of the faceplate.

5.4.8 IF changing Trend Settings, SELECT the following on the Trend Display AND

MODIFY:
- HIGH Range
- LOW Range
- 1 Hour Range (change to any value)

NOTE - The time range will be displayed at the top of the trend.

5.4.9 IF scrolling the Trend Display back in time, PERFORM the following:

5.4.9.1 SELECT the Block/Unblock button (small x on red background).

5.4.9.2 SELECT the left double arrow to go back in time and the right double arrow to go forward in time.

5.4.10 IF zooming in and out, SELECT the plus or minus magnifying glass.

5.4.11 WHEN completed with scrolling and zooming, SELECT the “Block/Unblock” button (small x on red background) to continue taking live data.
Perform 702-AZ Exhauster Monitor and Control Operations

5.5 Monitor 702-AZ ABB Equipment

5.5.1 FROM the Navigation screen, SELECT the Communication Monitor button on the lower right corner of the screen.

5.5.2 IF a red X is observed on the Status column, NOTIFY Shift Manager.

5.5.3 FROM the upper task bar, SELECT the System Status.

5.5.4 IF a red X is observed on the Status column, NOTIFY Shift Manager.

5.5.5 FROM the Standby Power screen, OBSERVE the PLC enclosure power supply status (JAX).

5.5.6 IF in alarm and not due to planned work activities, CONTACT Shift Manager AND

RESPOND per appropriate ARP.
5.6 Alarm Hiding and Shelving

**Alarm Hiding**

NOTE - Alarms may be hidden by the system if the process conditions do not call for the alarm to be active. For example, a low differential pressure alarm across a filter may be hidden if the train is not being used.

- If no alarms are hidden, the bar will be the same color as the center portion of the Process Alarm Banner.

5.6.1 **SELECT** the lower black bar on the Process Alarm banner to see the Hidden Alarm List.

**Alarm Shelving**

NOTE - An Operator can shelve an alarm, so it will not alarm when maintenance or other issues will cause nuisance activations. The amount of time an alarm can be shelved is limited to 8 hours.

5.6.2 **WHILE** the alarm is active, **SELECT** the Alarm List.

5.6.3 **RIGHT-CLICK** the alarm to be shelved on the Alarm List.

5.6.4 **SELECT** "Shelve Selected" from the menu.

5.6.5 **SELECT** the reason for shelving the alarm from the drop down list or type in a reason the alarm is being shelved.
5.6 Alarm Hiding and Shelving (Cont.)

NOTE - Allowing the time to expire will remove the alarm from the Shelved Alarm List.

5.6.6 SELECT the amount of time to shelve the alarm.

5.6.7 TYPE in a comment.

5.6.8 SELECT OK.

5.6.9 CONFIRM the alarm is on the Shelved Alarm List.

NOTE - The upper bar of the Process Alarm Banner will turn black when there is an alarm on the Shelved Alarm List. If no alarms are shelved, the bar will be the same color as the center portion of the Process Alarm Banner.

Un-Shelving an Alarm

5.6.10 PULL UP the Shelved Alarm List.

5.6.11 RIGHT-CLICK the alarm to be un-shelved on the Alarm List.

5.6.12 SELECT "Unshelve Selected" from the menu.

5.6.13 CONFIRM the alarm is removed from the Shelved Alarm List.
5.7 Inhibit 702-AZ Exhauster Alarms

5.7.1 LOGIN as “supervisor”.

5.7.2 LOCATE graphic where instrument to be inhibited resides.

5.7.3 LEFT CLICK on instrument.

5.7.4 LEFT CLICK on the three dot icon to go to the expanded faceplate.

5.7.5 ON the A/E Obj Tab, UNCHECK the Enable Object Error Alarm/Event checkbox AND SELECT Enter.

5.7.6 AT the A/E High or A/E Low Tab, UNCHECK the Enable Alarm/Event for the alarm to be disabled (High-High, High, Low, or Low-Low) AND SELECT Enter after each one.

NOTE - The following step confirms the instrument(s) has/have been inhibited (disabled).

5.7.7 CONFIRM the faceplate displays the Red Triangle with a Yellow X across and the Instrument on the screen shows an Orange box with an “I” in it.

5.7.8 LOG OUT as Supervisor.
5.8 Uninhibit 702-AZ Exhauster Alarms

5.8.1 LOGIN as “supervisor”.

5.8.2 LOCATE graphic where instrument to be uninhibited resides.

5.8.3 LEFT CLICK on the three dot icon to go to the expanded faceplate.

5.8.4 AT the A/E High or A/E Low Tab, CHECK the Enable Alarm/Event for the alarm to be enabled (High-High, High, Low, or Low-Low) AND SELECT Enter after each one.

5.8.5 ON the A/E Obj Tab, CHECK the Enable Object Error Alarm/Event checkbox AND SELECT Enter.

5.8.6 CONFIRM the faceplate no longer displays the Red Triangle with a Yellow X across and the Instrument on the screen does not show an Orange box with an “I” in it.

5.8.7 LOGOUT as Supervisor.
5.9 702-AZ MCS Object Faceplate Actions

NOTE - MCS objects include fans, heaters, valves, pumps, and compressors.

START or STOP an MCS Object

5.9.1 IF STARTING or STOPPING an MCS object, PERFORM the following:

5.9.1.1 CLICK on object to Start or Stop (opens faceplate).
5.9.1.2 ENSURE object is in MANUAL mode.
5.9.1.3 CLICK on desired action button (Start or Stop).
5.9.1.4 CLICK on Apply button.
5.9.1.5 CONFIRM the following:
   • Desired icon (Start/Stop) appears on status bar of faceplate.
   • Associated graphic indicates object is ON or OFF.
5.9.1.6 CLOSE faceplate.

OPEN or CLOSE an MCS Object

5.9.2 IF OPENING or CLOSING an MCS object, PERFORM the following:

5.9.2.1 CLICK on object to Open or Close (opens faceplate).
5.9.2.2 ENSURE object is in MANUAL mode.
5.9.2.3 CLICK on desired action button (Open or Close).
5.9.2.4 CLICK on Apply button.
5.9.2.5 CONFIRM the following:
   • Desired icon (Open/Close) appears on status bar of faceplate.
   • Associated graphic indicates object is OPEN or CLOSED.
5.9.2.6 CLOSE faceplate.

Place an MCS object in AUTO or MANUAL mode

5.9.3 IF placing an MCS object in AUTO or MANUAL mode, PERFORM the following:

5.9.3.1 CLICK on object to place in Auto or Manual (opens faceplate).
5.9.3.2 CLICK on desired action button (Auto or Manual).
5.9 702-AZ MCS Object Faceplate Actions (Cont.)

5.9.3.3 CLICK on Apply button AND

CONFIRM desired icon (Auto or Manual) appears on status bar of faceplate.

5.9.3.4 CLOSE faceplate.

Adjust An Object Setpoint (Auto mode)

5.9.4 IF controlling an object in AUTO mode, PERFORM the following to adjust the associated setpoint:

5.9.4.1 ENSURE object is in AUTO mode.

5.9.4.2 CLICK on Internal Setpoint window (Int Sp.).

5.9.4.3 ADJUST setpoint to desired value.

5.9.4.4 CLICK on Apply button.

5.9.4.5 CONFIRM setpoint appears in the following locations:

- Faceplate setpoint window (Int Sp.)
- Graphic setpoint window

5.9.4.6 CLOSE faceplate.

Adjust an Object Output Value (Manual Mode)

5.9.5 IF controlling object in MANUAL mode, PERFORM the following to adjust the Output Value:

5.9.5.1 ENSURE object is in MANUAL mode.

5.9.5.2 CLICK on Output Value window (Out).

5.9.5.3 ADJUST Output to desired value.

5.9.5.4 CLICK on Apply button.

5.9.5.5 CONFIRM Output Value appears in the following locations:

- Faceplate Output Value window (Out)
- Graphic window

5.9.5.6 CLOSE faceplate.
Perform 702-AZ Exhauster Monitor and Control Operations

5.10 Log Out of Tank Farm MCS System

NOTE - This section may be performed at any time.

5.10.1 **PRESS** Ctrl-Alt-Del keys at the same time **AND**

**SELECT** the “Log Off” option.

5.10.2 **ENSURE** system has logged out the user by confirming the Windows login screen is available.

5.11 Shutdown Tank Farm MCS HMI

5.11.1 **POWER DOWN** the computer and monitors being used to monitor and control the 702-AZ Primary or Building Exhauster.
5.12 Records

No records are generated during the performance of this procedure.

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.