Respond to Utilities, Air Compressors, and Generator Graphic #21 Alarms
at the 242-A Evaporator

Tank Farm Alarm Response Procedure

USQ # EV-18-1427-D, Rev. 0

CHANGE HISTORY (≤ LAST 5 REV-MODS)

<table>
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<tr>
<th>Rev-Mod</th>
<th>Release Date</th>
<th>Justification</th>
<th>Summary of Changes</th>
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<tr>
<td>I-1</td>
<td>10/16/2018</td>
<td>Periodic Review</td>
<td>Updated references and added in clarification of field configuration.</td>
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<tr>
<td>I-0</td>
<td>04/21/2015</td>
<td>Periodic review</td>
<td>Modified Step 4.3 to provide criteria on what is necessary</td>
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<tr>
<td>H-3</td>
<td>01/26/2015</td>
<td>Operations Request.</td>
<td>Added two steps to Immediate Actions and to Possible Causes.</td>
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<tr>
<td>H-2</td>
<td>12/02/2014</td>
<td>Operations request</td>
<td>Deleted steps throughout the procedure, added SOE to titles throughout the procedure, changed erroneous to inaccurate, corrected titles, included Compartment numbers for locations.</td>
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<tr>
<td>H-1</td>
<td>01/30/2014</td>
<td>Evap DSA and Upgrades</td>
<td>Removed reference to removed equipment and created consistency with voltage unit uses.</td>
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GRAPHIC #21

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<td>UPS AC INPUT FAIL</td>
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<td>PROC AIR COMPRESR PRESSURE LOW</td>
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<td>(LOW) PROCESS AIR HEADER PRESSURE</td>
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<td>PSL-IA-2</td>
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<td>PI-IA-1</td>
<td>(HIGH) INSTRMNT AIR HEADER PRESSURE</td>
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RECORDS

No records are generated during the performance of this procedure.
Facility: 242-A Evaporator

Graphic: 21  Alarm #: N/A
Panel: N/A
Source: UPS RDCS  Setpoint: N/A

Alarm Class:  Plant Stability
Alarm Description:  UPS AC INPUT FAIL (G21, F34/8); AC power input has been lost from UPS.

Automatic Actions:
None

Immediate Actions:

NOTE - A loss of electrical power is indicated by a loss of normal lighting and multiple alarms on the P1 and P2 alarm lists.

[1] IF loss of electrical power has occurred as indicated by loss of normal lighting and multiple alarms on the P1 and P2 alarm lists, EXIT this ARP AND GO TO TF-AOP-EVAP-002.

NOTE - Generator auto transfer switch “A.T.S.” transfer capability has been permanently disabled.

[2] REQUEST Backside Operator to check position of the following breaker to determine if AC power is available to the UPS:
   • UPS (located on MCC 2 compartment B3 in the AMU Room).


[4] NOTIFY Shift Manager of all existing conditions.

Possible Causes:
1. Loss of power to UPS.
2. Ongoing maintenance PM.
3. Instrument failure.

References:

Respond to Utilities, Air Compressors, and Generator Graphic #21 Alarms at the 242-A Evaporator

Facility: 242-A Evaporator
Graphic: 21  Alarm #: N/A
Panel: N/A  Setpoint: 97 psig
Source: PSLL-RE1-2  Alarm Class: Equipment Status

Alarm Description: PROC AIR COMPRESR PRESSURE LOW (F34/3); Process Air is below low Alarm setpoint.

Automatic Actions: None

Immediate Actions:

NOTE - Both air compressors CP-E-1 and CP-E-2 should be running and loaded when Process Air pressure is less than or equal to 97 psig.

[1] CHECK PI-PA-1 (G21, F34/3) PROCESS AIR HEADER PRESSURE.

[2] REQUEST Stationary Operating Engineer (SOE)/Backside Operator check local air receiver pressure indicator PI-RE1-1, located in the AMU Room.

[3] IF PI-PA-1 OR PI-RE1-1 read less than or equal to 97 psig, REQUEST SOE/Backside Operator to check both air compressors in AMU Room are running and loaded.

[4] IF only one air compressor is running, REQUEST SOE/Backside Operator to check SIGMA control panel for an alarm.

[4.1] IF panel is in Alarm, REQUEST SOE/Backside operator to note alarm message code, last line of the display AND DO NOT RESET alarm.

[4.2] DETERMINE meaning of alarm message code using Attachments 1 and/or 2 in TO-620-160.

[4.3] NOTIFY Shift Manager of alarm condition and recommended remedy AND REQUEST the following personnel be contacted if needed to assist:

• Electrician to troubleshoot compressor breaker and compressor controls
• Maintenance to troubleshoot compressor.

[4.4] NOTIFY System Engineer immediately if remedy is “contact authorized KAESER distributor”.

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### Respond to Utilities, Air Compressors, and Generator Graphic #21 Alarms at the 242-A Evaporator

**Facility:** 242-A Evaporator  
**Graphic:** 21  
**Panel:** N/A  
**Source:** PSLL-RE1-2  
**Setpoint:** 97 psig  
**Alarm #:** N/A

<table>
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<th>Immediate Actions (Cont.):</th>
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<tr>
<td><strong>[5]</strong> REQUEST SOE/Backside operator change set point pressures, p1 and p2, to 115 psig on the running compressor per TO-620-160.</td>
</tr>
<tr>
<td><strong>[6]</strong> IF an air compressor is not running and compressor SIGMA control panel is blank and no warning lights are on, REQUEST SOE/Backside Operator to check position of the feeder breaker for that compressor:</td>
</tr>
<tr>
<td>• Compressor CP-E-1, located on MCC No. 2 compartment A7 in the AMU Room</td>
</tr>
<tr>
<td>• Compressor CP-E-2, located on MCC No. 2 compartment A8 in the AMU Room.</td>
</tr>
<tr>
<td><strong>[7]</strong> IF at least one air compressor is loaded and Process Air pressure is not rising, REQUEST Backside Operator to check for Process Air System leakage.</td>
</tr>
<tr>
<td><strong>[8]</strong> IF a loss of air pressure has occurred as indicated by PI-PA-1 (G21, F34/3) PROCESS AIR HEADER PRESSURE and PI-IA-1 (G21, F34/5) INSTRMNT AIR HEADER PRESSURE Low Pressure Alarms EXIT this ARP AND</td>
</tr>
<tr>
<td>GO TO TF-AOP-EVAP-006.</td>
</tr>
<tr>
<td><strong>[9]</strong> NOTIFY Shift Manager of all existing conditions.</td>
</tr>
</tbody>
</table>

**Possible Causes:**
1. Compressor failure.  
2. Leak in the air system.  
3. Ongoing maintenance PM.  

**References:**
- **Documents:** TF-AOP-EVAP-006, Response to 242-A Evaporator Loss of Compressed Air System  
  TO-620-160, Operate 242-A Evaporator Compressed Air System.
Respond to Utilities, Air Compressors, and Generator Graphic #21 Alarms at the 242-A Evaporator

Facility: 242-A Evaporator

Graphic: 21  Alarm #: N/A
Panel: N/A

Source: PT-PA-1  Setpoint: 95 psig

Alarm Class: Auxiliaries
Alarm Description: PROCESS AIR HEADER PRESSURE (LOW) (G21, F34); Air pressure in Process Air system is below low Alarm setpoint.

NOTE - This Alarm is expected during Evaporator Shutdown if Reboiler is "AIR-ON", but is not isolated.

Automatic Actions:

None

Immediate Actions:

NOTE - Air compressors CP-E-1 and CP-E-2 should be running and loaded when Process Air pressure is less than or equal to 97 psig.

[1] IF a complete loss of air supply pressure has occurred as indicated by PI-PA-1 LOW and PI-IA-1 LOW EXIT this ARP AND

GO TO TF-AOP-EVAP-006.

[2] REQUEST Stationary Operating Engineer (SOE)/Backside Operator to check local air receiver pressure indicator PI-RE1-1, located in the AMU Room.

[3] IF PI-RE1-1 reading is less than or equal to 95 psig, REQUEST SOE/Backside Operator to perform the following:

[3.1] CHECK both air compressors are running and loaded.

[4] IF only one air compressor is running, REQUEST SOE/Backside Operator to check SIGMA control panel for an alarm.

[4.1] IF panel is in Alarm, REQUEST SOE/Backside operator to annotate alarm message code, last line of the display AND

DO NOT RESET alarm.

[4.2] DETERMINE meaning of alarm message code using Attachments 1 and/or 2 in TO-620-160.

[4.3] NOTIFY Shift Manager of alarm condition and recommended remedy AND IF necessary, REQUEST the following personnel be contacted:

- Electrician to troubleshoot compressor breaker and compressor controls
- Maintenance to troubleshoot compressor.

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Facility: 242-A Evaporator

Graphic: 21 Alarm #: N/A
Panel: N/A
Source: PT-PA-1 Setpoint: 95 psig

(Continued)

Immediate Actions (Cont.):

[4.4] NOTIFY System Engineer immediately if remedy is “contact authorized KAESER distributor”.

[5] IF an air compressor is not running and compressor SIGMA control panel is blank and no warning lights are on, REQUEST SOE/Backside Operator to check position of the feeder breaker for that compressor:
   - Compressor CP-E-1, located on MCC No. 2 compartment A7 in the AMU Room
   - Compressor CP-E-2, located on MCC No. 2 compartment A8 in the AMU Room.

[6] IF at least one air compressor is loaded and Process Air pressure is NOT rising, CHECK for system leakage.

[7] NOTIFY Shift Manager of all existing conditions and actions taken.

[8] ENSURE HV-EA1-4 (G14/1) is CLOSED.

Possible Causes:

1. Compressor failure.
2. Leak in the air system.
3. Reboiler is in “AIR-ON” status during Evaporator Shutdown, but is not isolated.
4. Ongoing maintenance PM.
5. Instrument failure.

References:

Drawings: H-2-99001, Sheet 1, H-2-99085, Sheets 3, 34 and 35, H-2-100096, Sheet 1
Documents: TF-AOP-EVAP-006, Response to 242-A Evaporator Loss of Compressed Air System
TO-620-160, Operate 242-A Evaporator Compressed Air System.
Respond to Utilities, Air Compressors, and Generator Graphic #21 Alarms at the 242-A Evaporator

Facility: 242-A Evaporator

Graphic: 21                  Alarm #: N/A
Panel: N/A                    PSL-IA-2
Source: PSL-IA-2             Setpoint: 45 psig

Alarm Class: Auxiliaries
Alarm Description: 50# INST AIR PRESSURE LOW (F34/5); Pressure in 50 psi Instrument Air header is below low Alarm setpoint.

Automatic Actions:
None

Immediate Actions:

NOTE - Low pressure in 50 psig Instrument Air header could cause inaccurate low weight factor indication for C-A-1 vessel.
- Low weight factor indication could result in activating a weight factor interlock and eventually trip PB-1 and PB-2.

[1] IF a loss of Air Pressure has occurred as indicated by PI-PA-1 PROCESS AIR HEADER PRESSURE (G21, F34/3) and PI-IA-1 INSTRMNT AIR HEADER PRESSURE (G21, F34/4) Low Pressure Alarms, EXIT this ARP AND GO TO TF-AOP-EVAP-006.

[2] CHECK the following for alarm status:
   • PSLCPE1/2 (F34/2) PROC AIR COMPRESR PRESSURE LOW
   • PI-PA-1 (G21, F34/3) PROCESS AIR HEADER PRESSURE (LOW).

[3] IF PSLCPE1/2 or PI-PA-1 is in alarm status, RESPOND per Alarm Response in this procedure.

NOTE - PI-RE1-3 is located on the south wall next to the door on the 5th level of the condenser room.


[5] IF PI-RE1-3 reads less than or equal to 45 psig, REQUEST Backside Operator to check for leakage in 50 psig IA Header.

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Respond to Utilities, Air Compressors, and Generator Graphic #21 Alarms at the 242-A Evaporator

Facility: 242-A Evaporator

Graphic: 21 Alarm #: N/A
Panel: N/A
Source: PSL-IA-2 Setpoint: 45 psig

Immediate Actions (Cont.):

NOTE - The air dryer is permanently valved out.

[6] REQUEST SOE to check the following indicators for proper indication and operation:
• ΔP across Air Dryer Outlet Filter FG-E-1 in AMU Room by checking inlet and outlet pressures (normal reading < 5 psid)

NOTE - PCV-RE1-2 is located in AMU Room.


Possible Causes:

1. Leak in the air system.
2. Clogged filters.
3. Ongoing maintenance PM.
5. Air Dryer failure.

References:

Drawings: H-2-99001, Sheets 1 and 2.
Respond to Utilities, Air Compressors, and Generator Graphic #21 Alarms at the 242-A Evaporator

Facility: 242-A Evaporator

Graphic: 21  Alarm #: N/A
Panel: N/A  Setpoint: N/A
Source: KJX-PWR  Alarm #21

Alarm Class: Plant Stability
Alarm Description: 24-VDC POWER SUPPLY FAIL (G21, F34/8); 24 volt DC power supply has failed or load not on UPS inverter, or Automatic Transfer Switch (ATS) problems.

Automatic Actions: None

Immediate Actions:

NOTE - A loss of electrical power is indicated by loss of normal lighting and multiple alarms on the P1 and P2 alarm lists.

[1] IF loss of electrical power has occurred as indicated by loss of normal lighting and multiple alarms on P1 and P2 alarm lists, EXIT this ARP AND GO TO TF-AOP-EVAP-002.


NOTE - Breaker #3 on Panel C is located in the AMU Room behind the stairwell.

[4] IF both PL-PRI and PL-SEC lights are OFF, REQUEST Backside Operator to check the position of Breaker #3 on Panel C.

NOTE - 24-VDC power supply fuses are located in the back side of AUX Panel by RAD Monitor Pane I.

[5] IF either or both PL-PRI and PL-SEC lights are OFF, REQUEST Electrician to check 24-VDC power supply fuses.

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Respond to Utilities, Air Compressors, and Generator Graphic #21 Alarms at the 242-A Evaporator

Facility: 242-A Evaporator

Graphic: 21       Alarm #: N/A
Panel: N/A
Source: KJX-PWR  Setpoint: N/A

(Continued)

Immediate Actions (Cont.):

NOTE - A loss of the primary power in 24 volt DC circuit will normally result in an automatic switchover to secondary power.

- The PL-SEC light ON with the PL-PRI light OFF and a loss of power indicates automatic switchover of power did not occur.

- Switch HS-PRI is located on the Aux Instrument Cabinet next to Rad Monitor Panel.

- Power fuse is located backside of Aux Instrument Cabinet next to Rad Monitor Cabinet.

[6] IF PL-SEC light is ON and PL-PRI light is OFF, POSITION switch HS-PRI to OFF/SECONDARY POWER AND REQUEST Electrician to check primary power fuse.

[7] NOTIFY Shift Manager of all existing conditions.

Possible Causes:

1. Failure of 24-VDC power supply.
2. UPS Inverter is not supplying power to Panelboard F for MCS loads.
3. Circuit Breaker 3 in Panelboard C is OFF.
4. Bad 24-VDC PRI and SEC circuit fuse(s).
5. Automatic Transfer Switch (ATS) trouble.
6. Ongoing maintenance PM.

References:

Drawings: H-2-99085, Sheets 1 and 2.
Respond to Utilities, Air Compressors, and Generator Graphic #21 Alarms at the 242-A Evaporator

Facility: 242-A Evaporator

Graphic: 21  Alarm #: N/A
Panel: N/A  Setpoint: N/A

Source: UPS RDCS  Alarm #: N/A

Alarm Class: Plant Stability
Alarm Description: UPS BATTERY LOW (G21, F34/10); Battery voltage from UPS battery is low.

Automatic Actions:
None

Immediate Actions:

NOTE - A loss of electrical power is indicated by loss of normal lighting and multiple alarms on the P1 and P2 alarm lists.

[1] IF loss of electrical power has occurred as indicated by loss of normal lighting and multiple alarms on P1 and P2 alarm lists, EXIT this ARP AND GO TO TF-AOP-EVAP-002.

NOTE - Generator auto transfer switch “A.T.S.” transfer capability has been permanently disabled.

[2] REQUEST Backside Operator to check position of the following breaker to determine if AC power is available to the UPS:
• UPS, located on MCC 2 compartment B3 in the AMU Room.

[3] IF this Alarm is still active, UPS breaker(s) are properly positioned, PERFORM the following:
[3.1] NOTIFY Shift Manager of all existing conditions AND REQUEST maintenance be performed on UPS.

(Continued on Next Page)
Facility: 242-A Evaporator

Graphic: 21    Alarm #: N/A
Panel: N/A
Source: UPS RDCS    Setpoint: N/A

Possible Causes:
1. Loss of power to UPS.
2. Ongoing maintenance PM.
3. Instrument failure.

References:
Facility: 242-A Evaporator

Graphic: 21  Alarm #: N/A

Panel: N/A

Source: UPS RDCS  Setpoint: N/A

Alarm Class: Plant Stability

Alarm Description: UPS MBS POSITION (G21, F34/11)

NOTE - This alarm is a status indicator for this switch. When bypass switch is activated, MCS is receiving power from UPS output that is not uninterruptible and is not conditioned.

Automatic Actions:

None

Immediate Actions:

NOTE - This alarm is a status indicator for this switch.

[1] ENSURE maintenance is being performed on UPS.

Possible Causes:

1. Ongoing PM maintenance.
2. Instrument failure.

References:

Documents: None.
Respond to Utilities, Air Compressors, and Generator Graphic #21 Alarms at the 242-A Evaporator

Facility: 242-A Evaporator
Graphic: 21  Alarm #: N/A
Panel: N/A  Setpoint: N/A
Source: EMCP FAULT, K5, KTD-10  Alarm Class: Plant Stability
Alarm Description: DIESEL GENERATR TROUBLE (G21, F34/13); There is a fault in the standby Diesel Generator system.

Automatic Actions: None

Immediate Actions:
[1] REQUEST Backside Operator to check the following annunciator panels:
   • Underground Storage Tank Leak Detection Panel (ULD-1 is located outside generator enclosure).

   NOTE - A diagnostic fault will cause various alarms to flash every 2 seconds on Electronic Modular Control Panel (EMCP).
   • Electronic Modular Control Panel (inside generator enclosure).
   • Generator Annunciation Control Cubicle (inside generator enclosure).

[2] IF any alarms are present on the following, RESPOND per ARP-T-601-EDG.
   • ULD-1
   • EMCP
   • Generator Annunciation Control Cubicle.

[3] NOTIFY Shift Manager of all existing conditions.

Possible Causes:
1. ULD-1 alarm.
2. EMCP alarm.
3. Generator Annunciation Control Cubicle.
4. Ongoing maintenance PM.
5. Instrument malfunction.

References:
Documents: ARP-T-601-EDG, “Respond to Local Emergency Diesel Alarms at 242-A Evaporator”.
Respond to Utilities, Air Compressors, and Generator Graphic #21 Alarms at the 242-A Evaporator

Facility: 242-A Evaporator

Graphic: 21 Alarm #: N/A
Panel: N/A
Source: YS-CPE1-1 Setpoint: N/A

Alarm Class: Equipment Status
Alarm Description: PROC AIR COMPRESR NO. 1 CONFIRM (F34/0); Process Air Compressor #1 is OFF.

Automatic Actions: None

Immediate Actions:

[1] IF this compressor shutdown was unexpected, REQUEST Stationary Operating Engineer (SOE)/Backside Operator to check the following:
   • Status of CP-E-1 and CP-E-2 (running/not running)
   • Air compressor SIGMA CONTROL panel on CP-E-1 and CP-E-2 for alarms or warnings.

[2] IF CP-E-1 SIGMA CONTROL panel is in alarm, REQUEST SOE/Backside Operator to perform the following:
   [2.1] NOTE alarm message code, last line of the display AND DO NOT RESET alarm.
   [2.2] SCROLL through event history AND RECORD last 4 events warnings or alarms.
   [2.3] CHECK CP-E-2 is running and maintaining Process Air System pressure greater than 97 psig.
   [2.4] IF compressor SIGMA control panel is blank and no warning lights are on, CHECK position of feeder breaker for compressor CP-E-1, located on MCC No. 2 Compartment A-7 in AMU Room.

[3] IF CP-E-2 is not running, or is running but not maintaining Process Air System pressure greater than or equal to 97 psig, RESPOND per PSLCPE1/2 Process Air Compressor Pressure Low, PI-PA-1 of this Alarm Response Procedure (Page 3 of 23).

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Facility: 242-A Evaporator

Graphic: 21  Alarm #: N/A
Panel: N/A
Source: YS-CPE1-1  Setpoint: N/A

Immediate Actions (Cont.):

[4] NOTIFY Shift Manager of all existing conditions AND REQUEST the following personnel be contacted:
   • Electrician to troubleshoot compressor breaker and compressor controls
   • Maintenance to troubleshoot compressor.

[5] AFTER shutdown cause(s) have been resolved AND IF directed by Shift Manager, RESTART compressor per TO-620-160.

Possible Causes:

1. Compressor CP-E-1 motor OFF.
2. Ongoing PM.
3. Instrument failure.

References:

Facility: 242-A Evaporator

Graphic: 21   Alarm #: N/A
Panel: N/A     Setpoint: N/A
Source: YS-CPE2-1   Alarm Class: Equipment Status

Alarm Description: PROC AIR COMPRESR NO. 2 CONFIRM (F34/1); Process Air Compressor #2 is OFF.

Immediate Actions:

[1] IF this compressor shutdown was unexpected, REQUEST Stationary Operating Engineer (SOE)/Backside Operator to check the following:
   - Status of CP-E-1 and CP-E-2 (running/not running)
   - Air compressor SIGMA CONTROL panel on CP-E-1 and CP-E-2 for alarms or warnings.

[2] IF CP-E-2 SIGMA CONTROL panel is in alarm, REQUEST SOE/Backside Operator to perform the following:
   [2.1] NOTE alarm message code, last line of the display AND DO NOT RESET alarm.
   [2.2] SCROLL through event history AND RECORD last 4 events warnings or alarms.
   [2.3] CHECK CP-E-1 is running and maintaining Process Air System pressure greater than 97 psig.
   [2.4] IF compressor SIGMA control panel is blank and no warning lights are on, CHECK position of feeder breaker for compressor CP-E-2, located on MCC No. 2 Compartment A-8 in AMU Room.

[3] IF CP-E-1 is not running, or is running but not maintaining Process Air System pressure greater than or equal to 97 psig, RESPOND per PSLCPE1/2 Process Air Compressor Pressure Low, Alarm #3 of this Alarm Response Procedure (Page 3 of 23).

(Continued on Next Page)
Facility: 242-A Evaporator

Graphic: 21  Alarm #: N/A
Panel: N/A
Source: YS-CPE2-1  Setpoint: N/A

Immediate Actions (Cont.):

[4] NOTIFY Shift Manager of all existing conditions AND REQUEST the following personnel be contacted:
   • Electrician to troubleshoot compressor breaker and compressor controls
   • Maintenance to troubleshoot compressor.

[5] IF required to maintain air pressure and CA-1 vessel is empty of waste, REQUEST an SOE to start portable compressors.

[6] AFTER shutdown cause(s) have been resolved AND IF directed by Shift Manager, RESTART compressor per TO-620-160.

Possible Causes:

1. Compressor CP-E-2 motor OFF.
2. Ongoing PM.
3. Instrument failure.

References:

Respond to Utilities, Air Compressors, and Generator Graphic #21 Alarms at the 242-A Evaporator

Facility: 242-A Evaporator

Graphic: 21
Alarm #: N/A
Panel: N/A
Source: PT-PA-1
Setpoint: 120 psig

Alarm Class: Auxiliaries
Alarm Description: PROCESS AIR HEADER PRESSURE (HIGH) (G21, F34/3); Pressure in 90 psi Process Air header is greater than Alarm setpoint.

NOTE - Relief valve PSV-RE1-1 activates at a system pressure of 125 psig.

Automatic Actions:
None

Immediate Actions:

NOTE - PI-RE1-1 is located in front of Air Receiver Tank in AMU Room.

[1] REQUEST Stationary Operating Engineer (SOE)/Backside Operator to check local Instrument Air system pressure indicator PI-RE1-1.

[2] IF PI-RE1-1 reads greater than or equal to 120 psig or Air Receiver Relief valve PSV-RE1-1 is activating, REQUEST SOE/Backside Operator to perform the following:

[2.1] CHECK that both air compressor CP-E-1 and air compressor CP-E-2 are running unloaded, in idle, or not running.

[2.2] IF either air compressor is running loaded, PERFORM the following:

[2.2.1] CHECK system pressure on main menu AND RECORD pressure.

[2.2.2] PRESS the “LOAD IDLE” key.

[2.2.3] CONFIRM machine switches to “IDLE” and IDLE LED flashes.

[2.2.4] IF compressor fails to unload and system pressure continues to rise PRESS E-Stop on compressor.

[2.2.5] ALLOW Compressor to idle for at least five (5) minutes, PRESS the “OFF” key.

[2.2.6] CONFIRM the “ON” LED extinguishes and the compressor shuts down.

(Continued on Next Page)
Immediate Actions (Cont.):

[3] NOTIFY Shift Manager of conditions AND REQUEST Maintenance to troubleshoot air compressors control system.

Possible Causes:

1. Compressor control malfunction.
2. Ongoing maintenance PM.
3. Instrument failure.

References:

Drawings: H-2-99001.
Documents: None.
Respond to Utilities, Air Compressors, and Generator Graphic #21 Alarms at the 242-A Evaporator

Facility: 242-A Evaporator

Graphic: 21  Alarm #: N/A
Panel: N/A
Source: PT-IA-1  Setpoint: 18 psig

Alarm Class: Auxiliaries
Alarm Description: INSTRMNT AIR HEADER PRESSURE (LOW) (G21, F34/4); Pressure in 20 psi Instrument Air header is below low Alarm Setpoint.

Automatic Actions:

1. Instrument Air pressure less than 15 psig could cause numerous Process Control valves to fail to their fail-safe positions.
2. Electric Exhaust Fan, K1-5-2, could start when Instrument Air is less than 15 psig.

Immediate Actions:

[1] IF a loss of air supply pressure has occurred, as indicated by PI-PA-1 LOW and PI-IA-1 LOW EXIT this ARP AND GO TO TF-AOP-EVAP-006.

NOTE - PI-RE1-2 is located by Air Receiver Tank R-E-1 in AMU Room.


NOTE - PI-DRE1-4 is located near Air Receiver Tank in AMU Room.

[3] IF PI-RE1-2 reading is less than or equal to 18 psig, REQUEST Backside Operator to check local Instrument Air system pressure indicator PI-DRE1-4.

[4] IF PI-DRE1-4 reads greater than or equal to 25 psig, REQUEST SOE to perform the following:

[4.1] CHECK ΔP across air dryer outlet filter FG-E-1 (gauge PDI-DRE1-5) is less than 5.0 psid.


[4.5] SLOWLY OPEN the PCV-RE1-1 Bypass valve HV-IA-RE1-4 SLOWLY, until 20 psig IA Hdr pressure is restored to normal.

(Continued on Next Page)
Facility: 242-A Evaporator

Graphic: 21       Alarm #: N/A
Panel: N/A
Source: PT-IA-1   Setpoint: 18 psig

Immediate Actions (Cont.):

[5] NOTIFY Shift Manager of all existing conditions AND
REQUEST Maintenance to troubleshoot PCV-RE1-1.

[6] IF PI-DRE1-4 reads less than or equal to 25 psig, REQUEST SOE to check the
following equipment for proper operation:
   • ΔP across Air Dryer Inlet Filters FG-E-2 and FO-E-2 in AMU Room by checking
     inlet and outlet pressures (Normal range is less than 5 psid)

[7] IF Instrument Header Pressure is less than 15 psig and decreasing, SHUTDOWN
   Evaporator per TO-600-060.

[8] NOTIFY Shift Manager of all existing conditions AND
REQUEST Maintenance to troubleshoot PCV-RE1-1, IA Hdr 100/20 psig Reducer for
   proper operation.

Possible Causes:

1. Leak in the air system.
2. Clogged filters.
3. Air dryer failure.
4. Ongoing maintenance PM.
5. Instrument failure.

References:


Respond to Utilities, Air Compressors, and Generator Graphic #21 Alarms at the 242-A Evaporator

Facility: 242-A Evaporator

**Graphic:** 21
**Alarm #:** N/A
**Panel:** N/A
**Source:** PT-IA-1

**Setpoint:** 25 psig

**Alarm Class:** Auxiliaries
**Alarm Description:** INSTRMNT AIR HEADER PRESSURE (HIGH) (G21, F34/4); Pressure in 20 psi Instrument Air header is greater than Alarm setpoint.

**PI-IA-1**

NOTE - Relief valve PSV-RE1-2 activates at a system pressure of 25 psig.

**Automatic Actions:**
None

**Immediate Actions:**

NOTE - PI-RE1-2 is located in front of the Air Receiver Tank in the AMU Room.

1. **REQUEST** Backside Operator to check local Instrument Air system pressure indicator PI-RE1-2.

2. **IF** PI-RE1-2 reads greater than or equal to 25 psig or Relief valve PSV-RE1-2 is activating, **REQUEST** Power Operator to perform the following:

   2.1 **SLOWLY CLOSE** Pressure Reduction valve PCV-RE1-1 Inlet Isolation valve HV-IA-RE1-1.

   2.2 **SLOWLY CLOSE** Pressure Reduction valve PCV-RE1-1 Outlet Isolation valve HV-IA-RE1-5.

   2.3 **AFTER** PSV-RE1-2, 20 psig IA Hdr Relief Valve resets, **MONITOR** PI-RE1-2 AND

      **SLOWLY OPEN** PCV-RE1-1 Bypass valve HV-IA-RE1-4, until 20 psig IA Hdr pressure is restored to normal.

3. **NOTIFY** Shift Manager of all existing conditions AND

   **REQUEST** Maintenance to troubleshoot PCV-RE1-1.

**Possible Causes:**

1. Failure of PCV-RE1-1.
2. Ongoing maintenance PM.
3. Instrument failure.

**References:**

- **Drawings:** H-2-99001.
- **Documents:** None.