USQ Not Required – ETF is a <Hazard Category 3 Radiological Facility

CHANGE HISTORY (≤ LAST 5 REV-MODS)

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Compressed Air System

Alarm

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RECORDS

No records are generated during the performance of this procedure.
COMPRESSED OPER FAILURE

DESCRIPTION: COMP AIR OPERATION FAILURE
Setpoint: Logic permissive(s) not met
Alarm Location: Logic generated alarm
Graphic: Alarm Summary Screen
Indications: N/A

NOTE - Alarm response procedures are not designed for, nor intended to be applied to, “expected” alarms generated by approved work activities or procedures.

Automatic Actions:
1. Compressed air system goes to SHUTDOWN mode.
2. ETF processes affected by air permissive go to SHUTDOWN mode.

Immediate Actions:
[1] (CRO) REQUEST SOE perform the following actions, as specified.
[2] (SOE) IF alarm is due to MCS out of compressed air OPERATION mode, START compressed air system per ETF-01B-001.
[3] (SOE/CRO) IF alarm was due to compressed air compressor alarm, 1B-C1-A, INVESTIGATE problem AND RESPOND per appropriate section of this ARP.
[4] (CRO) GO TO applicable ARP.

Supplemental Actions:
None.

Possible Causes:
1. Auto condition not met for dryers and compressor.
2. Compressed air compressor failure.

References:
Drawings: None
Documents: ETF-01B-001, Compressed Air System Operation
COMPRESSOR ALARM 1B-C1-A

DESCRIPTION: COMP AIR COMPRESSOR ALARM (1B-C1-A)
Setpoint: Logic permissive(s) not met
Alarm Location: Logic generated alarm
Graphic: Alarm Summary Screen
Indications: N/A

NOTE - Alarm response procedures are not designed for, nor intended to be applied to, “expected” alarms generated by approved work activities or procedures.

Automatic Actions:
1. Compressed air system goes to SHUTDOWN mode.
2. ETF processes affected by air permissive go to SHUTDOWN mode.

Immediate Actions:
[1] (CRO) REQUEST SOE perform the following actions, as specified.
[2] (SOE) CHECK all systems that were being operated are in MANUAL AND PLACE in safe configuration.
[3] (SOE) DETERMINE cause of alarm by locally observing red indicator lights on compressor skid in Room 134.
[4] (SOE) IF high discharge temperature light is ON, ENSURE the following cooling water valves are OPEN:
   • 95C-026
   • 95C-027
   • 95C-064.
[5] (SOE) IF high discharge pressure light is ON, CHECK separator dP on local gauge.
[6] (SOE) IF low oil pressure light is ON, CHECK for oil leaks around compressor.

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COMPRESSOR ALARM 1B-C1-A (CONT.)

DESCRIPTION: COMP AIR COMPRESSOR ALARM (1B-C1-A)
Setpoint: Logic permissive(s) not met
Alarm Location: Logic generated alarm
Graphic: Alarm Summary Screen
Indications: N/A

(Continued)

Immediate Actions (Cont.):

[7] (SOE) IF low water pressure light is ON, ENSURE the following cooling water valves are OPEN:
   • 95C-026
   • 95C-027
   • 95C-064.
[7.1] CHECK for cooling water for leaks around compressor.
[8] (SOE) IF low motor oil light is ON, CHECK for oils leak around compressor.
[9] (SOE) ON MCC 3, CHECK air compressor breaker 1B-C-1 is ON.
[10] VISUALLY MONITOR Sump 1 and 2 levels.
[11] (SOE) IF problem is resolved, RESTART air compressor per ETF-01B-001,

   OR
   PLACE portable air compressor in service if required.

Supplemental Actions:
None.

Possible Causes:
1. High discharge pressure, greater than 135 psig, due to:
   • Defective pressure switch
   • Oil separator plugged
   • High pressure switch adjusted too low
   • Defective pilot valve.

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COMPRESSOR ALARM 1B-C1-A (CONT.)

DESCRIPTION: COMP AIR COMPRESSOR ALARM (1B-C1-A)
Setpoint: Logic permissive(s) not met
Alarm Location: Logic generated alarm
Graphic: Alarm Summary Screen
Indications: N/A

Possible Causes: (Cont.)

2. High discharge temperature, greater than 240°F, due to:
   - Lack of cooling water
   - Water flow regulating valve not functioning properly
   - Defective discharge temperature switch.

3. Low oil pressure due to:
   - Oil leaks
   - Compressor needs oil
   - Low water pressure due to:
     - Insufficient supply of water
     - Piping leaks
     - Water flow regulating valve not functioning properly.

4. Motor oil low due to:
   - Oil leaks
   - Low oil level in compressor
   - MCC-3, breaker 1B-C-1, tripped.

References:
- Drawings: None
- Documents: ETF-01B-001, Compressed Air System Operation
**COMPRESSED AIR WARNING 1B-C1-1-W**

**DESCRIPTION:** COMP AIR COMPRESSOR WARNING (1B-C1-1-W)

Setpoint: Logic permissive(s) not met

Alarm Location: Logic generated alarm

Graphic: Alarm Summary Screen

Indications: N/A

**NOTE** - Alarm response procedures are not designed for, nor intended to be applied to, “expected” alarms generated by approved work activities or procedures.

**Automatic Actions:**

None.

**Immediate Actions:**

1. **[1]** (CRO) **REQUEST** SOE perform the following actions, as specified.
2. **[2]** (SOE) **DETERMINE** cause of alarm by observing gauges on compressor instrument panel skid in Room 134.

**Supplemental Actions:**

None.

**Possible Causes:**

1. Air filter dP.
2. Oil filter dP.
3. Oil separator dP.

**References:**

- Drawings: None
- Documents: None
SERVICE AIR PAL-1B011

DESCRIPTION: SERVICE AIR PRESSURE LO (PAL-1B011)
Setpoint: 80 psig
Alarm Location: PIT-1B011
Graphic: Alarm Summary Screen
Indications: N/A

NOTE - Alarm response procedures are not designed for, nor intended to be applied to, “expected” alarms generated by approved work activities or procedures.

Automatic Actions:
None.

Immediate Actions:
[1] (CRO) REQUEST SOE perform the following actions, as specified.
[2] (SOE) ON MCS, CHECK PI-1B011 indicates less than 80 psig.
[3] (SOE) ON service air receiving tank, CHECK PI-1B001 indicates greater than or equal to 100 psig.
[4] (SOE) CHECK service air system for leakage.
[5] (SOE) IF leakage is detected, ISOLATE per SOM instruction.
[6] (SOE) CONFIRM control valves, PCV-1B037 and PCV-1B038, are operable as follows:
   [6.1] SLOWLY OPEN 1B-005, bypass valve.
   [6.2] CHECK for system pressure rise.
   [6.3] IF control valves are failed CLOSED as indicated by a rise in system pressure, AND IF directed by SOM, SHUT DOWN system per ETF-01B-001.
[7] (SOE/NCO) CHECK plant systems for potential air leaks.

Supplemental Actions:
None.

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SERVICE AIR PAL-1B011 (CONT.)

DESCRIPTION: SERVICE AIR PRESSURE LO (PAL-1B011)
Setpoint: 80 psig
Alarm Location: PIT-1B011
Graphic: Alarm Summary Screen
Indications: N/A

(Continued)

Possible Causes:

1. Compressor failure.
2. PCV valves fail close.
3. Pressure transmitter failure.
4. System leaks throughout plant.

References:

Drawings: None
Documents: ETF-01B-001, Compressed Air System Operation
**INSTRUMENT AIR PAL-1D011**

**DESCRIPTION:** INSTRUMENT AIR PRESSURE LO (PAL-1D011)

**Setpoint:** 80 psig

**Alarm Location:** PIT-1D011

**Graphic:** Alarm Summary Screen

**Indications:** N/A

NOTE - Alarm response procedures are not designed for, nor intended to be applied to, “expected” alarms generated by approved work activities or procedures.

**Automatic Actions:**
None.

**Immediate Actions:**

[1] (CRO) **REQUEST** SOE perform the following actions, as specified.

[2] (SOE) **ON** MCS, **CHECK** PI-1D011 indicates pressure less than 80 psig.

[3] (SOE) **ON** instrument air receiving tank, **CHECK** PI-1D001, indicates greater than or equal to 100 psig.

[4] (SOE) **CHECK** service air system for leakage.

[5] (SOE/NCO) **CHECK** downstream instrument air systems for leakage.

[6] (SOE/NCO) **IF** leakage is detected, **ISOLATE** per SOM instruction.

[7] (SOE) **CONFIRM** control valve, PCV-1D031, is operable as follows:

[7.1] **SLOWLY OPEN** valve 1D-004, bypass valve.

[7.2] **CHECK** for system pressure rise.

[7.3] **IF** control valves are fail CLOSED as indicated by a rise in system pressure **AND**

**IF** directed by SOM, **SHUT DOWN** system per ETF-01B-001.

[8] **RECORD** SOM direction in ETF Control Room Logbook.

**Supplemental Actions:**
None.

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INSTRUMENT AIR PAL-1D011 (CONT.)

DESCRIPTION: INSTRUMENT AIR PRESSURE LO (PAL-1D011)
Setpoint: 80 psig
Alarm Location: PIT-1D011
Graphic: Alarm Summary Screen
Indications: N/A

Possible Causes:
1. Compressor failure.
2. PCV valves fail close.
3. Pressure transmitter failure.
4. System leaks throughout plant.

References:
Drawings: None
Documents: ETF-01B-001, Compressed Air System Operation