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RECORDS

No records are generated during the performance of this procedure.
SURGE TANK RDY ATTEMPT FAIL VD13599

DESCRIPTION: SURGE TANK READY ATTEMPT FAILURE
Setpoint: Logic permissive(s) not met
Alarm Location: Logic generated alarm
Graphic: Alarm Summary Screen and Recent Alarm Display 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. System enters SHUTDOWN mode.

Immediate Actions:
[1] ENSURE AUTO setting on handswitches and correct alignment on air-operated valves (AOV) per ETF-60-002.
[3] ENSURE at least one selected surge tank pump is in AUTO and not in ALARM.
[4] ENSURE the following support systems are in OPERATION:
   - Seal Water
   - Chemical Feed
   - Instrument Air
   - Cooling Water
   - Vessel Off-Gas.
[5] IF low level alarm is ON, ADJUST level above 15% per ETF-60M-003.

(Continued on Next Page)
SURGE TANK RDY ATTEMPT FAIL  
VD13599

DESCRIPTION: SURGE TANK READY ATTEMPT FAILURE
  Setpoint: Logic permissive(s) not met
  Alarm Location: Logic generated alarm
  Graphic: Alarm Summary Screen and Recent Alarm Display Screen
  Indications: N/A

(Continued)

Possible Causes

1. System AUTO condition not met.
2. Surge tank low level alarm ON.
3. System AOVs misaligned.
4. Both selected pumps in ALARM or in MANUAL.
5. Support systems not in OPERATION.
6. Pump breaker(s) OPEN.

References:

  Drawings: None
  Documents: ETF-60-002, Integrated MTT Operation
             ETF-60M-003, LERF to ETF Transfers
SURGE TANK OPER ATTEMPT FAIL
VD135106

DESCRIPTION: SURGE TANK OPERATION ATTEMPT FAILURE
Setpoint: Logic permissive(s) not met
Alarm Location: Logic generated alarm
Graphic: Alarm Summary Screen and Recent Alarm Display Screen
Indications: N/A

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

Automatic Actions:
1. System enters SHUTDOWN or READY mode.
2. IF MTT was in Operation, it will go to READY.

Immediate Actions:
[1] ENSURE AUTO setting on handswitches and correct alignment on AOVs per ETF-60-002.
[3] ON graphic Surge, CONFIRM A-B controller (AIT-60A-022) [AIT-60A-023] is not in high-high or low-low alarm.
[4] ENSURE selected surge tank pumps are in AUTO and not in ALARM.
[5] ENSURE following support systems are in OPERATION:
   • Seal Water
   • Chemical Feed
   • Instrument Air
   • Cooling Water
   • Vessel Off-Gas.
[6] IF low level alarm is ON, ADJUST level above 15% per ETF-60M-003.

(Continued on Next Page)
SURGE TANK OPER ATTEMPT FAIL
VD135106

DESCRIPTION: SURGE TANK OPERATION ATTEMPT FAILURE
Setpoint: Logic permissive(s) not met
Alarm Location: Logic Generated Alarm
Graphic: Alarm Summary Screen and Recent Alarm Display Screen
Indications: N/A

Possible Causes
1. System AUTO condition not met.
2. Surge tank low level alarm ON.
3. pH A-B controller (AIT-60A-022) [AIT-60A-023] is in high-high or low-low alarm.
4. System AOVs misaligned.
5. One of the selected pumps is in ALARM or in MANUAL.
6. Support systems not in OPERATION.
7. Breaker OPEN for selected pump(s).

References:
Drawing: None
Documents: ETF-60-002, Integrated MTT Operation
ETF-60M-003, LERF to ETF Transfers
SURGE TK PURGE RDY ATT FAIL
VD135116

DESCRIPTION: SURGE TANK PURGE READY ATTEMPT FAILURE

Setpoint: Logic permissive(s) not met
Alarm Location: Logic generated alarm
Graphic: Alarm Summary Screen and Recent Alarm Display Screen
Indications: N/A

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

Automatic Actions:
None.

Immediate Actions:
[1] ENSURE AUTO setting on handswitches critical for purging per ETF-60-002.
[2] ENSURE selected surge tank pumps in AUTOMATIC and not in ALARM.
[3] ENSURE the following support systems for surge tank purging are in OPERATION:
   • Seal Water
   • Chemical Feed
   • Instrument Air
   • Cooling Water
   • Vessel Off-Gas
   • Verification Tank in VERIFYING.

Possible Causes:
1. Critical AOVs not in condition for purging.
2. At least one selected surge tank pump in ALARM.
3. Support systems for purging are not in OPERATION.

References:
Drawings: None
Documents: ETF-60-002, Integrated MTT Operation
SURGE TK PURGE ATT FAIL
VD135117

DESCRIPTION: SURGE TANK PURGE ATTEMPT FAILURE
Setpoint: Logic permissive(s) not met
Alarm Location: Logic generated alarm
Graphic: Alarm Summary Screen and Recent Alarm Display Screen
Indications: N/A

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

Automatic Actions:
1. System goes to PURGE READY.

Immediate Actions:

[1] ENSURE AUTO setting on handswitches and correct alignment on AOVs per ETF-60-002.

[2] ENSURE selected surge tank pumps are in AUTOMATIC and not in ALARM.

[3] ENSURE the following support systems for surge tank purging are in OPERATION:
   - Seal Water
   - Chemical Feed
   - Instrument Air
   - Cooling Water
   - Vessel Off-Gas
   - Verification Tank in VERIFYING.

[4] IF low level alarm is ON, ADJUST level above 15% per ETF-60M-003.

(Continued on Next Page)
SURGE TK PURGE ATT FAIL
VD135117

DESCRIPTION: SURGE TANK PURGE ATTEMPT FAILURE
Setpoint: Logic permissive(s) not met
Alarm Location: Logic Generated Alarm
Graphic: Alarm Summary Screen and Recent Alarm Display Screen
Indications: N/A

Possible Causes:
1. Critical handswitches and AOVs not in condition for purging.
2. Both selected pumps not running or running in MANUAL.
3. Surge tank low level alarm ON.
4. Support systems not in OPERATION.

References:
Drawings: None
Documents: ETF-60-002, Integrated MTT Operation
ETF-60M-003, LERF to ETF Transfers
SURGE TANK LAH 20B009
LS20B009

DESCRIPTION: SURGE TANK SECONDARY CONTAINMENT LEVEL HIGH (LAH-20B-009)
Setpoint: 6.5 inches
Alarm Location: LS-20B-009
Graphic: Alarm Summary Screen and Recent Alarm Display Screen
Indications: N/A

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

Automatic Actions:
None.

Immediate Actions:

[1] INSPECT for spills, leaks, or rainwater in containment.
[2] IF only rainwater is found, PROCEED to step [6].
[3] IF spills or leaks are found, PERFORM the following:
[3.1] NOTIFY CRO and SOM.
[3.2] SHUT DOWN pumps from LERF basin (P-42-4), [P-43-4], {P 44 4}.
[3.3] IF load-in pumps are transferring to surge tank, SHUT DOWN load-in pumps (59A-P-103A/B).
[3.4] CLOSE the following valves:
  - AOV-60A-054
  - AOV-60A-055
  - AOV-60A-056.
[4] IF leak or spill is found, PERFORM spill response procedure ETF-ERP-85B-003.
[5] IF leak detector alarms have been activated for transfer lines, FOLLOW appropriate ARP:
  - LDA-60A040 for 3-in. LERF transfer line
  - LDA-60M01A/B for 4-in. LERF transfer line
  - LDA-59A-127 for Load In transfer line

(Continued on Next Page)
DESCRIPTION:  SURGE TANK LEVEL HIGH (LAH-20B-009)
Setpoint: 6.5 inches
Alarm Location: LS-20B-009
Graphic: Alarm Summary Screen and Recent Alarm Display Screen
Indications: N/A

Immediate Actions (Cont.):

[6] **IF** no leakage or spills are found, **PUMP** sump water to Sump Tank 1.
[6.1] **CONFIRM** the following are CLOSED:
   - 60A-039
   - 60A-040
[6.2] **OPEN** 60A-041.
[6.3] **LOCALLY START** surge tank sump pump 20B-P-3.
[6.4] **WHEN** sump level drops to the sump pump suction level, **LOCALLY STOP** surge tank sump pump, 20B P 3.

Possible Causes:

1. Rainwater accumulation.
2. Surge tank or associated piping leaks.
3. Influent transfer line leak.

References:

Drawings:  None
Documents: ETF-ERP-85B-003, Emergency Spill or Release at ETF
SURGE TANK LAHX-60A012  
VD135125

DESCRIPTION: SURGE TANK LEVEL HIGH (LAHX-60A012)  
Setpoint: 95%  
Alarm Location: LT-60A-012  
Graphic: Alarm Summary Screen and Recent Alarm Display Screen  
Indications: N/A

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

Automatic Actions:
1. Transfers evaporator mode from OPERATION to HOT STANDBY and dryer mode from OPERATION to SHUTDOWN.  
2. Stops LERF transfer pumps.

Immediate Actions:
[1] ENSURE the following LERF, evaporator, and dryer transfer pumps stopped:  
   • P-42-4  
   • P-43-4  
   • P-44-4  
   • 60I-P-3  
   • 60J-P-3.

[2] ENSURE the following valves are CLOSED:  
   • V054 (AOV60A054)  
   • V055 (AOV60A055)  
   • V056 (AOV60A056).

[3] ENSURE two of three surge tank pumps 60A-P-1A/B/C running.

(Continued on Next Page)
SURGE TANK LAHX-60A012
VD135125

DESCRIPTION: SURGE TANK LEVEL HIGH (LAHX-60A012)
Setpoint: 95%
Alarm Location: LT-60A-012
Graphic: Alarm Summary Screen and Recent Alarm Display Screen
Indications: N/A

Immediate Actions (Cont.):

[4] **ON** Polisher graphic, **CHECK** whether V401 (AOV60G401) is positioned to return polisher outlet flow to surge tank.

[5] **ON** graphic Surge, **CHECK** LIC-60A-012 indicates greater than 95%.

[6] **ENSURE** the following valves are OPEN:
   - 60A-071, surge tank discharge isolation valve
   - 60A-005, surge tank pump A outlet
   - 60A-011, surge tank pump B outlet
   - 60A-014, surge tank pump C outlet.

[7] **ENSURE** closed valve 60H-046, verification water inlet to surge tank.

Possible Causes:

1. Surge tank pump failure.
2. Polisher water is returning to surge tank.
3. Verification water is leaking through 60H-046.
5. Inappropriate valve lineup.
6. Failure of automatic action at 93% (high level actuation).

References:

Drawings: None
Documents: None
SURGE TANK LAL 60A012
VD135129

DESCRIPTION: SURGE TANK LEVEL LOW (LAL-60A-012)
Setpoint: 5% level
Alarm Location: LT 60A-012
Graphic: Alarm Summary Screen and Recent Alarm Display Screen
Indications: N/A

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

Automatic Actions:
1. System enters SHUTDOWN mode.
2. Surge tank pumps 60A-P-1A, 60A-P-1B, 60A-P-1C shut down.
3. Surge tank heater 60A-E-1 shut down.
4. If MTT was in Operation it will go to READY

Immediate Actions:
[1] ENSURE V057 (AOV60A057) CLOSED.
[2] ENSURE the following surge tank pumps stopped:
   • P1A (60AP1A)
   • P1B (60AP1B)
   • P1C (60AP1C).
[3] ENSURE surge tank heater 60A-E-1 is OFF.
[4] ON graphic Surge, CHECK LIC-60A-012 indicates less than 5%.
[5] ENSURE the following valve(s) are OPEN:
   • V054 (AOV60A054)
   • V055 (AOV60A055)
   • V056 (AOV60A056).

(Continued on Next Page)
**SURGE TANK LAL 60A012**  
**VD135129**

**DESCRIPTION:** SURGE TANK LEVEL LOW (LAL-60A-012)  
Setpoint: 5% level  
Alarm Location: LT 60A-012  
Graphic: Alarm Summary Screen and Recent Alarm Display Screen  
Indications: N/A  

(Continued)

**Immediate Actions (Cont.):**

[6] **CONFIRM** the following LERF pumps are pumping:
- P-42-4
- P-43-4
- P-44-4.

[7] **ENSURE** line up for operation per ETF-60-006.

[8] **INCREASE** level above 7% per ETF-60-002 or ETF-60M-003.

[9] **IF** outside temperatures is below 35°F, **INCREASE** level to at least 25% per ETF-60-002 or ETF-60M-003.

**Possible Causes:**

1. AOV-60A-057 (rough filter inlet) failed to close at 7% level.
2. LERF basin pump not operating.
3. Valve misalignment.

**References:**

- Drawings: None
- Documents: ETF-60-002, Integrated MTT Operation  
  ETF-60-006, Initial MTT Lineup in Configuration 1  
  ETF-60M-003, LERF to ETF Transfers
SURGE TANK TAH-60A011
VD135130

DESCRIPTION: SURGE TANK TEMPERATURE HIGH (TAH-60A-011)
Setpoint: 190°F
Alarm Location: TT-60A-011
Graphic: Alarm Summary Screen and Recent Alarm Display Screen
Indications: N/A

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

Automatic Actions:
None.

Immediate Actions:
[1] ON TT60A011, CHECK surge tank temperature is greater than or equal to 190°F.
[2] IF MTT is in OPERATION, PERFORM the following:
   [2.1] PLACE MTT in READY.
   [2.2] PLACE surge tank system in SHUTDOWN.
   [2.3] ENSURE surge tank heater, 60A-E-1, in MANUAL STOP.

Possible Causes:
1. Failure of tank heater controls.
2. Faulty temperature indication on TI-60A-011.

References:
Drawings: None
Documents: None
SURGE TANK TAL-60A011
VD135133

DESCRIPTION: SURGE TANK TEMPERATURE LOW (TAL-60A-011)

Setpoint: 35°F

Alarm Location: TT-60A-011

Graphic: Alarm Summary Screen and Recent Alarm Display Screen

Indications: N/A

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

Automatic Actions:
None.

Immediate Actions:

[1] ON TT60A011, CHECK surge tank temperature is equal to or less than 35°F.

[2] ENSURE the following:
   • Surge tank heater, E1 (60AE1), is in AUTO
   • Surge tank level, LT60A012, is above 25%.

[3] PLACE surge tank in READY mode per ETF-60-002 until temperature reaches 40°F.

[4] IF temperature is not greater than 32°F or continues to fall, NOTIFY SOM.

Possible Causes:

1. Tank heater or controls failure.
2. Tank level is too low during cold weather.

References:

Drawings: None
Documents: ETF-60-002, Integrated MTT Operation
SURGE TANK AAHHX-60A022
OR 60A023

DESCRIPTION: SURGE TANK PH A HI-HI (AAHHX-60A022), VD135142, OR
SURGE TANK PH B HI-HI (AAHHX-60A023), VD135146

Setpoint: 7.0 pH units
Alarm Location: AIT-60A-022 or AIT-60A-023
Graphic: Alarm Summary Screen and Recent Alarm Display Screen
Indications: N/A

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

Automatic Actions:
1. Rough filter inlet valve V057 (AOV60A057) closes.
2. Surge tank goes to blinking READY.
3. MTT goes to blinking READY.

Immediate Actions:
[1] ON graphic Surge, MONITOR A-B controller (AIT-60A-022) [AIT-60A-023], for pH oscillation.
[2] ENSURE Chemical Feed System is operating per ETF-65C-001.
[3] CHECK chemical metering pumps, 65CP5/6, and controllers, P65CP5/6, for proper operation.
[4] IF pH does not return to normal pH band within less than 30 minutes, ON graphic Surge, SELECT redundant pH control B (A).
[5] ADJUST pH per ETF-60-002 to values in applicable process memo.

Possible Causes:
1. Instrument failure AIT-60A-022 or AIT-60A-023.
2. Chemical Feed System failure.
3. Surge tank metering pump failure, 65C-P-5 or 65C-P-6.

References:
Drawings: None
Documents: ETF-60-002, Integrated MTT Operation
ETF-65C-001, Chemical Feed System Operation
SURGE TANK AAHX 60A022 OR 60A023

DESCRIPTION: SURGE TANK PH A HI (AAHX-60A022), VD135143, OR SURGE TANK PH B HI (AAHX-60A023), VD135147
Setpoint: 6.5 pH units
Alarm Location: AIT-60A-022 or AIT-60A-023
Graphic: Alarm Summary Screen and Recent Alarm Display Screen
Indications: N/A

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

Automatic Actions:
1. If surge tank is in OPERATION, no automatic actions.
2. If surge tank is in READY, surge tank returns to blinking READY.
3. If MTT is in READY, MTT returns to blinking READY.

Immediate Actions:

[1] ON graphic Surge, MONITOR A-B controller (AIT-60A-022) [AIT 60A 023], for pH oscillation.
[2] ENSURE Chemical Feed System is operating per ETF-65C-001.
[3] CHECK chemical metering pumps, 65CP5/6, and controllers, P65CP5/6, for proper operation.
[4] IF pH does not return to normal pH band within less than 30 minutes, ON graphic Surge, SELECT redundant pH control B (A).
[5] ADJUST pH per ETF-60-002 to values in applicable process memo.

Possible Causes:
1. Normal operating oscillations.
2. Instrument failure, AIT-60A-022 or AIT-60A-023.
3. Chemical Feed System failure.
4. Surge tank metering pump failure, 65C-P-5 or 65C-P-6.

(Continued on Next Page)
DESCRIPTION: SURGE TANK PH A HI (AAHX-60A022), VD135143, OR SURGE TANK PH B HI (AAHX-60A023), VD135147

Setpoint: 6.5 pH units
Alarm Location: AIT-60A-022 or AIT-60A-023
Graphic: Alarm Summary Screen and Recent Alarm Display Screen
Indications: N/A

References:

Drawings: None
Documents: ETF-60-002, Integrated MTT Operation
ETF-65C-001, Chemical Feed System Operation
SURGE TANK AALLX 60A022
OR 60A023

DESCRIPTION: SURGE TANK PH A LO-LO (AALLX-60A022), VD135145, OR
SURGE TANK PH B LO-LO (AALLX-60A023), VD135149

Setpoint: 4.0 pH units
Alarm Location: AIT-60A-022 or AIT-60A-023
Graphic: Alarm Summary Screen and Recent Alarm Display Screen
Indications: N/A

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

Automatic Actions:

1. Rough filter inlet valve V057 (AOV60A057) closes.
2. Surge tank goes to blinking READY.
3. MTT goes to blinking READY.

Immediate Actions:

[2] IF directed by SOM, TRANSFER LERF basin water to surge tank.
[3] ENSURE Chemical Feed System is operating per ETF-65C-001.
[4] ENSURE chemical metering pump 65CP5/6 is OFF.
[5] IF pH does not return to normal pH band within less than 30 minutes, ON graphic Surge, SELECT redundant pH control B (A).
[6] IF pH does not return to normal pH band in redundant control within one hour, INITIATE START pump control of 65CP7.
[7] ADJUST pH per ETF-60-002 to values in applicable process memo.

(Continued on Next Page)
SURGE TANK AALLX 60A022
OR 60A023

DESCRIPTION: SURGE TANK PH A LO-LO (AALLX-60A022), VD135145, OR
SURGE TANK PH B LO-LO (AALLX-60A023), VD135149

Setpoint: 4.0 pH units
Alarm Location: AIT-60A-022 or AIT-60A-023
Graphic: Alarm Summary Screen and Recent Alarm Display Screen
Indications: N/A

(Continued)

Possible Causes:
1. Instrument failure, AIT-60A-022 or AIT-60A-023.
2. Chemical Feed System failure.
3. Surge tank metering pump failure, 65C-P-7.
4. NaOH line plugged.
5. Too much H₂SO₄ added to surge tank.

References:
Drawings: None
Documents: ETF-60-002, Integrated MTT Operation
ETF-65C-001, Chemical Feed System Operation
SURGE TANK AALX 60A022
OR 60A023

DESCRIPTION: SURGE TANK PH A LO (AALX-60A022), VD135144, OR
SURGE TANK PH B LO (AALX-60A023), VD135148
  Setpoint: 4.0 pH units
  Alarm Location: AIT-60A-022 or AIT-60A-023
  Graphic: Alarm Summary Screen and Recent Alarm Display Screen
  Indications: N/A

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

Automatic Actions:
1. If surge tank is in OPERATION, no automatic actions.
2. If surge tank is in READY, surge tank returns to blinking READY.
3. If MTT is in READY, MTT returns to blinking READY.

Immediate Actions:
[1] ON graphic Surge, MONITOR A-B controller (AIT-60A-022) [AIT 60A 023] for pH
oscillation.
[2] IF directed by SOM, TRANSFER LERF basin water to surge tank.
[3] ENSURE Chemical Feed System is operating per ETF-65C-001.
[4] ENSURE chemical metering pumps, 65CP7, and controllers, P65CP7, for proper
operation.
[5] IF pH does not return to normal pH band within less than 30 minutes, ON graphic Surge,
SELECT redundant pH control B (A).
[6] ADJUST pH per ETF-60-002 to values in applicable process memo.

(Continued on Next Page)
## Surge Tank System Alarm Response

### SURGE TANK AALX 60A022 OR 60A023

**DESCRIPTION:** SURGE TANK PH A LO (AALX-60A022), VD135144, OR SURGE TANK PH B LO (AALX-60A023), VD135148

- **Setpoint:** 4.0 pH units
- **Alarm Location:** AIT-60A-022 or AIT-60A-023
- **Graphic:** Alarm Summary Screen and Recent Alarm Display Screen
- **Indications:** N/A

#### Possible Causes:

1. Normal operating oscillations.
2. Instrument failure, AIT-60A-022 or AIT-60A-023.
3. Chemical Feed System failure.
4. Surge tank metering pump failure, 65C-P-7.
5. NaOH line plugged.

#### References:

- **Drawings:** None
- **Documents:** ETF-60-002, Integrated MTT Operation  
  ETF-65C-001, Chemical Feed System Operation
SURGE TANK 60A P1A A, 60A P1B A, OR 60A P1C A

DESCRIPTION: SURGE TANK PUMP A FAILURE (60A-P-1A), 60AP1AA
SURGE TANK PUMP B FAILURE (60A-P-1B), 60AP1BA
SURGE TANK PUMP C FAILURE (60A-P-1C), 60AP1CA

Setpoint: Pump not running when required
Alarm Location: Logic generated alarm
Graphic: Alarm Summary Screen and Recent Alarm Display Screen
Indications: N/A

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

Automatic Actions:
1. Surge tank system goes to SHUTDOWN.
2. MTT goes to READY.

Immediate Actions:
[1] ENSURE surge system is in SHUTDOWN.
[2] ON graphic Surge Pump, SELECT pumps not in ALARM.

Possible Causes:
1. Pump failure.
2. Open breaker on pump.

References:
Drawings: None
Documents: ETF-60-002, Integrated MTT Operation
**SURGE TANK 60A E1 A VD135178**

**DESCRIPTION:**  SURGE TANK HEATER FAILURE (60A-E-1A/B)

**Setpoint:**  Heater not operating when required

**Alarm Location:**  Logic alarm

**Graphic:**  Alarm Summary Screen and Recent Alarm Display Screen

**Indications:**  N/A

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

---

**Automatic Actions:**

None.

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**Immediate Actions:**

[1] **CHECK** breaker of heater for trip condition AND **TROUBLESHOOT** per SOM instruction.

---

**Possible Causes:**

2. Electrical failure.
3. Open breaker on heater.

---

**References:**

- **Drawings:**  None
- **Documents:**  None
3 IN LERF LINE LEAK DETECTOR ALRM
LDA-60A040

**DESCRIPTION:**
3 INCH LERF LINE LEAK DETECTOR ALARM (LDA-60A040)

**Setpoint:**
Liquid detected or continuity fault in the encasement of the 3”-60M-001-M17 LERF to ETF transfer line

**Alarm Location:**
LDE-A1-09 and LDE-A1-10

**Graphic:**
Alarm Summary Screen and Recent Alarm Display Screen

**Indications:**
N/A

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

**Automatic Actions:**
None.

**Immediate Actions:**

1. **PRESS** silence button on Tracetek unit located on south end of process floor at 2025E, adjacent to LCU-3 module.

2. **DETERMINE** alarm type (leak or fault) and the location of the tripped leak detector (LDE-A1-9 or LDE-A1-10).

3. **CHECK** for leaks into surge tank berm.

4. **IF** alarm is due to carrier pipe failure, **PERFORM** the following:
   
   4.1. **SHUT DOWN** pumps from LERF basin (P-42-4), [P-43-4], {P-44-4}.
   
   4.2. **ENSURE** LV PXX-4-1 CLOSED.
   
   4.3. **ENSURE** the following valves CLOSED:
   
   - V057 (AOV60A055)
   - V056 (AOV60A056).
   
   4.4. **ENSURE** the following valves CLOSED for all LERF basins:
   
   - HV-XX-8
   - HV-XX-10.
   
   4.5. **SHUT DOWN** annulus air purge per ETF-01B-001.
   
   4.6. **FOLLOW** spill response procedure ETF-ERP-85B-003.

(Continued on Next Page)
3 IN LERF LINE LEAK DETECTOR ALRM
LDA-60A040

DESCRIPTION: 3 INCH LERF LINE LEAK DETECTOR ALARM (LDA-60A040)
Setpoint: Liquid detected or continuity fault in the encasement of the 3”-60M-001-M17
LERF to ETF transfer line
Alarm Location: LDE-A1-09 and LDE-A1-10
Graphic: Alarm Summary Screen and Recent Alarm Display Screen
Indications: N/A

(Continued)

Immediate Actions (Cont.): [5] IF alarm is not due to carrier pipe failure, PERFORM the following based on alarm type and location of the tripped leak detector:

System Fault or LDE A1 10 Leak Alarm
[5.1] ENSURE annulus air purge is operating per ETF-01B-001.
[5.3] IF transfer through 3-inch 60M-001-17 line is needed, PERFORM surveillance as follows:
   [5.3.1] CONDUCT visual surveillance (for continuous use of transfer line) once every shift for transfer line leaks at 60M-14F.
   [5.3.2] CONDUCT visual surveillance (for intermittent use of transfer line) once at the beginning, and at least once during the transfer for line leaks at 60M-14F.
[5.4] CLOSE 60M-14F after each surveillance.

LDE A1 9 Leak Alarm
[5.5] ENSURE annulus air purge is operating per ETF-01B-001.
[5.7] IF transfer through 3-inch 60M-001-17 line is needed, CHECK (once per shift) Tracetek unit (next to LCU-3) LDE-A1-10 leak alarm is not tripped.

(Continued on Next Page)
3 IN LERF LINE LEAK DETECTOR ALRM
LDA-60A040

**DESCRIPTION:** 3 INCH LERF LINE LEAK DETECTOR ALARM (LDA-60A040)
- **Setpoint:** Liquid detected or continuity fault in the encasement of the 3"-60M-001-M17 LERF to ETF transfer line
- **Alarm Location:** LDE-A1-09 and LDE-A1-10
- **Graphic:** Alarm Summary Screen and Recent Alarm Display Screen
- **Indications:** N/A

(Continued)

**Possible Causes:**
1. Liquid in encasement of 3-inch LERF to ETF pipeline.
2. Break in detector cable continuity.
3. Loss of power to Tracetek unit module.

**References:**
- **Drawings:** None
- **Documents:** ETF-ERP-85B-003, Emergency Spill or Release at ETF
  ETF-01B-001, Compressed Air System Operations