NRCA HVAC System

Tank Farm Alarm Response Procedure

Effluent Treatment Facility

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

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NRCA HVAC System Index

ALARM

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RECORDS

No records are generated during the performance of this procedure.
HVAC NRCA OPERATION ATT FAIL-1

Description: HVAC NRCA OPERATION ATT FAIL-1 (Operations area first floor)
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. Operations Area AHU 45B-EVU-6 will not run.

Immediate Actions:
[1] REQUEST the SOE perform the following actions, as specified:
   [1.1] CHECK the fire alarm (fire protection (FP) Zones 3 and 14).
   [1.2] (SOE/CRO) IF the alarm is on, RESPOND per ETF-ERP-85B-005.
   [1.3] (SOE) ENSURE first floor HVAC is aligned per ETF-45-001.

Possible Causes:
1. Operations area AHU 45B-EVU-6 failed to run.
2. Operations area AHU 45B-EVU-6 not in Auto.
3. Equipment alarm on operations area AHU 45B-EVU-6.
4. Fire Alarm (FP Zones 3 and 14) triggered.

References:
Drawings: H-2-89021, Sheet 2; H-2-89306
Documents: ETF-ERP-85B-005, Fire-Explosion at ETF
ETF-45-001, Operation of Non-RCA HVAC System
HVAC NRCA OPERATION ATT FAIL-2

Description: HVAC NRCA OPERATION ATT FAIL-2 (Electrical Equipment Room HVAC)
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. Electrical equipment room AHU 45B-EVU-7 will not run.

Immediate Actions:
[1] REQUEST the SOE perform the following actions, unless otherwise specified:
   [1.1] CHECK fire alarm (FP Zone 15).
   [1.2] (SOE/CRO) IF the alarm is on, RESPOND per ETF-ERP-85B-005.
   [1.3] (SOE) ENSURE electrical equipment room HVAC is aligned per ETF-45-001.

Possible Causes:
1. Operations area AHU 45B-EVU-7 failed to run.
2. Operations area AHU 45B-EVU-7 not in Auto.
3. Equipment alarm on operations area AHU 45B-EVU-7.
4. Fire Alarm (FP Zone 15) triggered.

References:
Drawings: H-2-89021, HVAC H-2-89306
Documents: ETF-ERP-85B-005, Fire-Explosion at ETF ETF-45-001, Operation of Non-RCA HVAC System
HVAC NRCA OPERATION ATT FAIL-3

Description: HVAC NRCA OPERATION ATT FAIL-3 (Control Area HVAC)
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. Control Area AHU 45B-EVU-8 will not run.

Immediate Actions

[1] REQUEST SOE perform the following actions, as specified:
[1.1] CHECK fire alarm (FP Zones 4 and 13).
[1.2] (SOE/CRO) IF the alarm is on, RESPOND per ETF-ERP-85B-005.
[1.3] (SOE) ENSURE control area HVAC is aligned per ETF-45-001.

Possible Causes

1. Control area AHU 45B-EVU-8 failed to run.
2. Control area AHU 45B-EVU-8 not in Auto.
3. Equipment alarm on control area AHU 45B-EVU-8.
4. Fire alarm (FP Zones 4 and 13) triggered.

References

Drawings: H-2-89021, Sheet 2; HVAC H-2-89306
Documents: ETF-ERP-85B-005, Fire-Explosion at ETF
ETF-45-001, Operation of Non-RCA HVAC System
HVAC TAH-45A003

Description: HVAC NRCA FIRST FLOOR TEMP HI (TAH-45A003)
Setpoint: 82°F
Alarm Location: TT-45A003
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] REQUEST the SOE perform the following action, as specified:
[1.1] (SOE) ENSURE first floor HVAC is aligned per ETF-45-001.

Possible Causes:
1. Operations area AHU 45B-EVU-6 failure.
2. Outdoor condensing unit 45B-EVU-3 failure.
3. TE/TT/TIC-45A003-1 failure.

References:
Drawings: H-2-89021, Sheet 2; H-2-89306
Documents: ETF-45-001, Operation of Non-RCA HVAC System
HVAC TAL-45A003

**Description:** HVAC NRCA FIRST FLOOR TEMP LO (TAL-45A003)

**Setpoint:** 68°F

**Alarm Location:** TT-45A003

**Graphic:** Alarm Summary 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 work activities or procedures.

**Automatic Actions:**

None.

**Immediate Actions:**

[1] **REQUEST** the SOE ensure first floor HVAC is aligned per ETF-45-001.

**Possible Causes:**

1. Operations area AHU 45B-EVU-6 failure.
3. TE/TT/TIC-45A003-1 failure.

**References:**

- **Drawings:** H-2-89021, Sheet 2; H-2-89306
- **Documents:** ETF-45-001, Operation of Non-RCA HVAC System
HVAC TAH-45A004

Description: HVAC NRCA ELECT EQUIP TEMP HI (TAH-45A004)
Setpoint: 82°F
Alarm Location: TT-45A004
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] REQUEST the SOE ensure electrical equipment room HVAC is aligned per ETF-45-001.

Possible Causes:
1. Electrical equipment room AHU 45B-EVU-7 failure.
2. Outdoor condensing unit 45B-EVU-4 failure.
3. TE/TT/TIC-45A004-1 failure.

References:
Drawings: H-2-89021, Sheet 2; H-2-89306
Documents: ETF-45-001, Operation of Non-RCA HVAC System
HVAC TAL-45A004

Description: HVAC NRCA ELECT EQUIP TEMP LO (TAL-45A004)
Setpoint: 68°F
Alarm Location: TT-45A004
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] REQUEST the SOE ensure electrical equipment room HVAC is aligned per ETF-45-001.

Possible Causes:
1. Electrical equipment room AHU 45B-EVU-7 failure.
3. TE/TT/TIC-45A004-1 failure.

References:
Drawings: H-2-89021, Sheet 2; H-2-89306
Documents: ETF-45-001, Operation of Non-RCA HVAC System
HVAC TAH-45A005

Description: HVAC CONTROL AREA TEMP HI (TAH-45A005)
Setpoint: 76°F
Alarm Location: TT-45A005
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] REQUEST the SOE ensure control area HVAC is aligned per ETF-45-001.

Possible Causes:
1. Control room AHU 45B-EVU-8 failure.
2. Outdoor condensing unit 45B-EVU-5 failure.
3. TE/TT/TIC-45A005-1 failure.

References:
Drawings: H-2-89021, Sheet 2; H-2-89306
Documents: ETF-45-001, Operation of Non-RCA HVAC System
HVAC TAL-45A005

Description: HVAC NRCA CONTROL AREA TEMP LO (TAL-45A005)
Setpoint: 68°F
Alarm Location: TT-45A005
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] REQUEST the SOE ensure control area HVAC is aligned per ETF-45-001.

Possible Causes:
1. Control room AHU 45B-EVU-8 failure.
3. TE/TT/TIC-45A005-1 failure.

References:
Drawings: H-2-89021, Sheet 2; H-2-89306
Documents: ETF-45-001, Operation of Non-RCA HVAC System
HVAC NRCA 45B-EVU6-A

Description: OPERATIONS AREA HVAC NRCA EVU-6 (45B-EVU6-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. Operations area AHU 45B-EVU-6 will not operate.

Immediate Actions:

[1] REQUEST the SOE perform the following actions, as specified:
   [1.1] (SOE) ENSURE operations area HVAC is aligned per ETF-45-001.
   [1.2] (SOE) CHECK circuit breaker MDP-3-11 is on.
   [1.3] (SOE) IF the breaker tripped, REQUEST Maintenance to troubleshoot and reset.

Possible Causes:

1. Circuit breaker MDP-3-11 open/tripped.
2. Local motor overload tripped.
3. Local control fuses blown.

References:

Drawings: H-2-89021, Sheet 2; H-2-89306
Documents: ETF-45-001, Operation of Non-RCA HVAC System
Description: ELECTRICAL EQUIPMENT ROOM HVAC NRCA EVU-7 (45B-EVU7-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. Electrical equipment room AHU 45B-EVU-7 will not operate.

Immediate Actions:
[1] REQUEST the SOE perform the following actions, as specified:
   [1.1] (SOE) ENSURE electrical equipment room HVAC is aligned per ETF-45-001.
   [1.2] (SOE) CHECK circuit breaker DP-4-19 is on.
   [1.3] (SOE) IF the breaker tripped, REQUEST Maintenance to troubleshoot and reset.

Possible Causes:
1. Circuit breaker DP-4-19 open/tripped.
2. Local motor overload tripped.
3. Local control fuses blown.

References:
Drawings: H-2-89021, Sheet 2; H-2-89306
Documents: ETF-45-001, Operation of Non-RCA HVAC System
HVAC NRCA 45B-EVU8-A

Description: CONTROL AREA HVAC NRCA EVU-8 (45B-EVU8-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. Control room AHU 45B-EVU-8 will not operate.

Immediate Actions:
[1] REQUEST the SOE perform the following actions, as specified:
[1.1] (SOE) ENSURE control area HVAC is aligned per ETF-45-001.
[1.2] (SOE) CHECK circuit breaker MDP-3-15 is on.
[1.3] (SOE) IF the breaker tripped, REQUEST Maintenance to troubleshoot and reset.

Possible Causes:
1. Circuit breaker MDP-3-15 open/tripped.
2. Local motor overload tripped.
3. Local control fuses blown.

References:
Drawings: H-2-89021, Sheet 2; H-2-89306
Documents: ETF-45-001, Operation of Non-RCA HVAC System