Rough Filter Alarm Response

ETF Alarm Response Procedure

Effluent Treatment Facility

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

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<th>Release Date</th>
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<th>Summary of Changes</th>
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<tr>
<td>A-1</td>
<td>08/21/2018</td>
<td>Periodic Review Update</td>
<td>Updated procedure to correct component nomenclatures.</td>
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<tr>
<td>A-0</td>
<td>03/24/2016</td>
<td>Converting to WRPS Format</td>
<td>New Procedure – Supersedes ETF-PRO-AR-51378 (ARP-60B-001)</td>
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Rough Filter

Alarm

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RECORDS

No records are generated during the performance of this procedure.
ROUGH FIL RDY ATTEMPT FAIL
VD135346

DESCRIPTION: ROUGH FILTER READY ATTEMPT 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. Rough Filter System goes to SHUTDOWN.
2. MTT System goes to READY.

Immediate Actions:
[1] CONFIRM compressed air is available per ETF-01B-001.
[2] ENSURE AUTO setting and status on necessary air-operated valves (AOV) and solenoid-operated valve (SOV) per ETF-60-002.
[4] ON group display 3, CONFIRM LSH60B111 and LSH60B112 are ON,

   OR

   ON graphic Rough Filter, CONFIRM LSH111 and LSH112 are ON.

Possible Causes
1. Compressed air is not in OPERATION.
2. AUTO is not selected for Rough Filter System AOVs and SOV.
4. Level Switch LSH-60B111 or LSH-60B112 not functioning.
5. Valve misalignment.

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ROUGH FIL RDY ATTEMPT FAIL  
VD135346

DESCRIPTION: ROUGH FILTER READY ATTEMPT FAILURE
   Setpoint: Logic permissive(s) not met
   Alarm Location: Logic generated alarm
   Graphic: Alarm Summary Screen
   Indications: N/A

(Continued)

References:
   Drawings: None
   Documents: ETF-01B-001, Compressed Air System Operations
              ETF-60-002, Integrated MTT Operation
              ETF-60-006, Initial MTT Lineup in Configuration 1
ROUGH FILTER OPERATION ATTEMPT FAILURE
VD135348

DESCRIPTION: ROUGH FILTER OPERATION ATTEMPT 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 maintenance or testing procedures.

Automatic Actions:
1. Rough Filter System goes to SHUTDOWN.
2. MTT System goes to READY.

[1] CONFIRM compressed air is available per ETF-01B-001.
[2] ENSURE AUTO setting and status on necessary AOVs and SOV per ETF-60-002.
[4] ON group display 3, CONFIRM LSH60B111 and LSH60B112 are ON,

OR
ON graphic Rough Filter, CONFIRM LSH111 and LSH112 are ON.

Possible Causes
1. Compressed air is not in OPERATION.
2. AUTO is not selected for Rough Filter System AOVs and SOV.

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ROUGH FILTER OPERATION ATTEMPT FAILURE
VD135348

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

(Continued)

Possible Causes (Cont.)

4. Following valves not positioned in OPERATION within five minutes:
   • AOV-60B-004
   • AOV-60B-007
   • AOV-60B-009
   • AOV-60B-015.

5. Valve misalignment.

References:

Drawings: None
Documents: ETF-01B-001, Compressed Air System Operations
ETF-60-002, Integrated MTT Operation
ETF-60-006, Initial MTT Lineup in Configuration 1
ROUGH FIL BACKW ATTEMPT FAIL
VD135350

DESCRIPTION: ROUGH FILTER BACKWASH ATTEMPT 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 maintenance or testing procedures.

Automatic Actions:
1. Rough Filter System goes to SHUTDOWN.
2. MTT System goes to READY.

Immediate Actions:
[1] CONFIRM Compressed Air System is in OPERATION per ETF-01B-001.
[3] ENSURE AUTO setting and status on necessary AOVs and SOV per ETF-60-002.

Possible Causes
1. Remote valves are taken out of AUTO.
2. Compressed air is not in OPERATION.
3. Backwash is not completed within MCS allotted time.
4. AOVs and SOV valve positioning indicator malfunction.
5. PCV-60B023 not set at 85 to 90 psig.
6. Backwash air pressure, PI-60B105, is less than 75 psig before AOV-60B010 is opened.
7. Valve misalignment.

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ROUGH FIL BACKW ATTEMPT FAIL
VD135350

DESCRIPTION: ROUGH FILTER BACKWASH ATTEMPT FAILURE
Setpoint: Logic permissive(s) not met
Alarm Location: Logic generated alarm
Graphic: Alarm Summary Screen
Indications: N/A

References:

Drawings: None
Documents: ETF-01B-001, Compressed Air System Operations
ETF-60-002, Integrated MTT Operation
ETF-60-006, Initial MTT Lineup in Configuration 1

(Continued)
ROUGH FILTER DIFFERENTIAL PRESSURE HI (PDAH-60B103)

Setpoint: 80 psig

Alarm Location: MCS calculated value, base on PIT-60B101 and PIT-60B102 inputs

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 maintenance or testing procedures.

Automatic Actions:
None.

Immediate Actions:

[1] IF high dP occurs when taking filter into SHUTDOWN, PERFORM no other actions AND

EXIT this procedure.

[2] IF high dP occurs other than when taking filter into SHUTDOWN, PERFORM the following:

[2.1] PERFORM filter backwash per ETF-60-002.

[2.2] IF filter does not return to normal after backwash, NOTIFY SOM to determine whether to chemically clean filter per ETF-60B-002.

[2.3] IF filter dP does not return to normal after cleaning, SHUT DOWN the Rough Filter System.

[3] NOTIFY Design Authority to investigate filter high dP.

Possible Causes

1. Buildup of solids on filter.
2. Faulty pressure transmitter, PIT-60B101 or PIT-60B102.
3. Normal pressure build up, when MTT taken to READY or SHUTDOWN.

References:

Drawings: None
Documents: ETF-60-002, Integrated MTT Operation
ETF-60B-002, Rough/Fine Filter Chemical Cleaning and Layup
Rough Filter Alarm Response

ROUGH FIL PALX 60B105
VD135404

DESCRIPTION: ROUGH FILTER AIR PRESSURE LOW (PAL-60B105)
   Setpoint: 75 psig
   Alarm Location: PIT-60B105
   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 maintenance or testing procedures.

Automatic Actions:
1. Rough Filter System will go to SHUTDOWN mode from BACKWASH mode.

Immediate Actions:
[1] CONFIRM compressed air is available per ETF-01B-001.
[2] CONFIRM PCV-60B-023 is adjusted to 90 psig (85 to 95 psig).
[3] CONFIRM V021 (SOV60B021) is working properly (look for indications such as PI-60B105 reading 85 to 95 psi).
[4] ENSURE PIT-60B-105 isolation valve, V-PIT60B105-B, is OPEN.

Possible Causes:
1. PCV-60B-023 is malfunctioning or incorrectly set.
2. Pressure transmitter, PIT-60B-105, malfunctioning.
3. Loss of compressed air.
4. Incorrect valving.

References:
   Drawings: None
   Documents: ETF-01B-001, Compressed Air System Operations
AUX ROUGH FILTER PDAH-60B104>AH VD11505

DESCRIPTION: INFLUENT FILTER DIFFERENTIAL PRESSURE HI (PDAH-60B104)
Setpoint: 40 psig
Alarm Location: PIT-60B104
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 maintenance or testing procedures.

Automatic Actions:
None.

Immediate Actions:

[1] IF high dP occurs when taking filter into SHUTDOWN, **PERFORM** no other actions AND EXIT this procedure.

[2] IF high dP occurs other than when taking filter into SHUTDOWN, AND IF filters are in parallel operation, **NOTIFY** SOM to schedule filter element changeout.

[3] IF high dP occurs other than when taking filter into SHUTDOWN, AND IF filters are in series operation, **PERFORM** the following:
  [3.1] **MONITOR** individual filter dPs using local gauges.
  [3.2] IF local gauges indicate dP across any filter exceeds the PDAH-60B104 set point, **NOTIFY** SOM to schedule filter element changeout.

Possible Causes:

1. Buildup of solids on filter.
2. Faulty pressure transmitters, PDIT-60B104.
3. Normal pressure build up when MTT taken to READY or SHUTDOWN.

References:

<table>
<thead>
<tr>
<th>Drawings:</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>Documents:</td>
<td>None</td>
</tr>
</tbody>
</table>

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Type: REFERENCE
Document No.: ETF-ARP-60B-001
Rev/Mod: A-1
Release Date: 08/21/2018
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AUX ROUGH FILTER PDAHH 60B104>AH VD11506

DESCRIPTION: INFLUENT FILTER DIFFERENTIAL PRESSURE HI HI (PDAHH-60B104)

Setpoint: 75 psig
Alarm Location: PIT-60B104
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 maintenance or testing procedures.

Automatic Actions:
None.

Immediate Actions:

[1] IF high dP occurs when taking filter into SHUTDOWN, PERFORM no other actions AND
EXIT this procedure.

[2] IF high dP occurs other than when taking filter into SHUTDOWN, AND IF filters are in parallel operation, PERFORM the following:
[2.1] SHUT DOWN Influent Filter System.
[2.2] NOTIFY SOM to schedule filter element changeout.

[3] IF high dP occurs other than when taking filter into SHUTDOWN, AND IF filters are in series operation, PERFORM the following:
[3.1] MONITOR individual filter dPs using local gauges.
[3.2] IF local gauges indicate dP across any filter exceeds the PDAH-H60B104 setpoint, SHUT DOWN Influent Filter System AND NOTIFY SOM to schedule filter element changeout.

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AUX ROUGH FILTER PDAHH 60B104>AH VD11506

DESCRIPTION: INFLUENT FILTER DIFFERENTIAL PRESSURE HI HI (PDAHH-60B104)
   Setpoint: 75 psig
   Alarm Location: PIT-60B104
   Graphic: Alarm Summary Screen
   Indications: N/A

Possible Causes:
1. Buildup of solids on filter.
2. Faulty pressure transmitter, PDIT-60B104.
3. Pressure build up when MTT taken to READY or SHUTDOWN.

References:
   Drawings: None
   Documents: None

(Continued)