Tank Farm Alarm Response Procedure

USQ # GCX-2

CHANGE HISTORY (≤ LAST 5 REV-MODS)

<table>
<thead>
<tr>
<th>Rev-Mod</th>
<th>Release Date</th>
<th>Justification</th>
<th>Summary of Changes</th>
</tr>
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<tbody>
<tr>
<td>I-0</td>
<td>08/23/2016</td>
<td>Periodic Review</td>
<td>No changes made.</td>
</tr>
<tr>
<td>H-0</td>
<td>08/21/2014</td>
<td>Periodic review comment incorporation.</td>
<td>Removed “as applicable” from step in alarm response for CAM FAILURE ANNULUS EXH STACK (VTA-XA-910B)</td>
</tr>
<tr>
<td>G-3</td>
<td>07/18/2014</td>
<td>Reference Update</td>
<td>Update reference from TFC-OPS-OPER-C-56 to TF-REC-001</td>
</tr>
<tr>
<td>G-2</td>
<td>12/05/2013</td>
<td>Updating reference</td>
<td>Updated title of TF-OPS-005 to reflect title change of document.</td>
</tr>
<tr>
<td>G-1</td>
<td>04/30/2013</td>
<td>Global change per ARP-T-231-00101 G-4.</td>
<td>All pages. Inconsequential change to change procedure use type in footer from Continuous to Reference.</td>
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Alarm Description Color Page
11 ..................CAM Failure Annulus Exh Stack (VTA-XA-910B) ......................... White .................. 2
12 ..................Hi Rad Alarm Annulus Exh Stack (VTA-RAH-910B) ....................... White .................. 3
Figure 1 – 241-AW-271 Instrument Building Alarm Panel ANN-AUX ....................... .................. 5

RECORDS

No records are generated during the performance of this procedure.
Respond to Panel ANN-AUX Alarms at 271-AW

Facility: 241-AW-271 Building

| Panel: ANN-AUX | Alarm #: 11 |
| Source: AW296-VTA-FSL-922 (Record Sampler) | Setpoint: 1.5 CFM |
| AW296-VTA-FSL-912 (Beta/Gamma monitor) | |
| AW296-VTA-TSH-901 | |
| AW296-VTA-TSL-901 | |
| AW296-VTA-CAM-910 | |

Alarm Class: Environmental Impact

Alarm Description: CAM Failure Annulus Exhaust Stack. Record sampler or CAM low flow.

NOTE - Alarm Response Procedures are not designed for, nor intended to be applied to, "expected" alarms generated by approved work activities or procedures.

Immediate Actions:

[1] CHECK that annulus exhauster is operating.

Supplemental Actions:

[3] IF continuous air monitor is found to have failed, INITIATE repair or replacement.

Possible Causes:

1. Mechanical failure of a vacuum pump.
2. Failure of one of the cabinet instruments.
3. This is a common low flow alarm for both the record sampler loop or Beta/Gamma monitor in annulus exhaust stack continuous air monitor. Each loop has its own vacuum pump.
4. HIGH/LOW Cabinet Temperature.

References:

Drawings: H-2-74897, H-2-90928, H-14-020202
Documents: TF-OPS-005, DST Daily CAM and Record Sampler Inspections
Respond to Panel ANN-AUX Alarms at 271-AW

Facility: 241-AW-271 Building

Panel: ANN-AUX Alarm #: 12

Source: AW296-VTA-CAM-910 Setpoint: 3000 CPM (Nominal)

Alarm Class: Environmental Impact

Alarm Description: High Radiation Alarm Annulus Exhaust Stack.

NOTE - Alarm Response Procedures are not designed for, nor intended to be applied to, "expected" alarms generated by approved work activities or procedures.

Immediate Actions:

[1] EVACUATE all personnel from AW Farm.

[2] ENSURE annulus exhauster is shut down.

[3] STOP all waste disturbing activities in AW-Farm.


[5] CHECK status of the following annunciators:


[6] IF entering farm, DON Self Contained Breathing Apparatus (SCBA) and personal protective equipment until alarm is clear and farm is released by HPT.


(Continued on Next Page)
Respond to Panel ANN-AUX Alarms at 271-AW

Facility: 241-AW-271 Building

Panel: ANN-AUX   Alarm #: 12
Source: AW296-VTA-CAM-910   Setpoint: 3000 CPM (nominal)

Supplemental Actions:

[8] IF alarm on CAM is in alarm and filter paper readings are less than 3000 cpm, PERFORM the following:

[8.1] REQUEST Health Physics Technician to reset alarm.
[8.2] RE-START annulus exhaust system per TO-060-105.
[8.3] REQUEST HPT to perform TF-OPS-005.

[9] IF filter paper readings are greater than 3000 cpm AND/OR CAM alarm will not reset, PERFORM the following:

[9.2] ENSURE annulus exhaust system remains shut down.
[9.3] REQUEST Shift Manager perform the following:
  [9.3.1] CONTACT Tank Farms Engineering
  [9.3.2] EVALUATE the need to notify Environmental On-Call per TF-REC-001.

Possible Causes:

1. Waste has leaked from one of the AW Tanks to its annulus. (This case would show an alarm on the annulus continuous air monitor for that tank).
2. Setpoint is too low and background radiation spikes set it off.
3. The annulus stack continuous air monitor has failed.

References:

Drawings: H-2-74897, H-2-90928, H-14-020202
Documents: TO-060-105, Operate the 241-AW Annulus Ventilation System (VTA)
            TF-OPS-005, DST Daily Cam and Record Sampler Inspections
            OSD-T-151-00007, Operating Specifications for the Double-Shell Storage Tanks
Respond to Panel ANN-AUX Alarms at 271-AW

Figure 1 – 241-AW-271 Instrument Building Alarm Panel ANN-AUX

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<tr>
<td>11</td>
<td>*W</td>
<td>12</td>
<td>*W</td>
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CAM FAILURE ANNULUS EXH STACK (VTA-XA-910B)  
HI RAD ALARM ANNULUS EXH STACK (VTA-RAH-910B)

*W - Signifies a white colored window