TSR Compliance

Respond to Panel 101 Alarms at 271-AP

Tank Farm Alarm Response Procedure

USQ # TF-18-1416-S, Rev. 0

<table>
<thead>
<tr>
<th>Rev-Mod</th>
<th>Release Date</th>
<th>Justification</th>
<th>Summary of Changes</th>
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<tbody>
<tr>
<td>H-4</td>
<td>10/09/2018</td>
<td>Operations Request</td>
<td>Removed references to LCO 3.5.</td>
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<tr>
<td>H-3</td>
<td>08/30/2017</td>
<td>PER-17-1176 and periodic review comments</td>
<td>Modified alarm response steps for Annulus Leak Detected.</td>
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<tr>
<td>H-2</td>
<td>04/05/2017</td>
<td>Engineering AP Demo project</td>
<td>Deleted Alarms 4 and 5.</td>
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<tr>
<td>H-1</td>
<td>09/14/2016</td>
<td>AP Exhauster project</td>
<td>Changed Alarm Class, Actions and possible causes on ARPs for AP Farm to be consistent with one another.</td>
</tr>
<tr>
<td>H-0</td>
<td>07/29/2015</td>
<td>Periodic review</td>
<td>No changes made, updating to next Rev, H-0.</td>
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Panel ANN-101 Alarm Index

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<th>Description</th>
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<tr>
<td>1</td>
<td>Supernate Pmp WT-P-001 Shutdown (WT-SDA-301)</td>
<td>White</td>
<td>2</td>
</tr>
<tr>
<td>9</td>
<td>Annulus Leak Detected Tank 101 (WSTA-LDA-121)</td>
<td>Yellow</td>
<td>3</td>
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</tbody>
</table>

Figure 1: 241-AP-271 Instrument Building Alarm Panel ANN-101

**RECORDS**

No records are generated during the performance of this procedure.
Respond to Panel 101 Alarms at 271-AP

Facility: 241-AP-271 INSTRUMENT BUILDING

Panel: ANN-101 Alarm #: 1

Source: AP01A-WT-P-001 Setpoint: N/A

Alarm Class: Equipment Status

Alarm Description: Supernate pump WT-P-001 Shut down

NOTE - Alarm Response Procedures are not designed for, nor intended to be applied to, "expected" alarms generated by approved work activities or procedures.
- This alarm is expected when SN PUMP AP01A-WT-P-001 is shut down with the motor control center breaker shut.

Immediate Actions:

[1] ENSURE that PUMP AP01A-WT-P-001 (pump P-101-1) status is OFF (STOP pushbutton not illuminated, START pushbutton illuminated).

[2] NOTIFY the Shift Manager of findings.

Possible Causes:

1. The pump has automatically tripped from one of the following:
   • Motor overload
   • Blown motor control center breaker control circuit fuse.

2. Mechanical failure of pump.

3. Instrument malfunction.

References:

Drawings: H-14-020803, H-14-030003, Sht. 1
Respond to Panel 101 Alarms at 271-AP

Facility: 241-AP-271 Instrument Building

Panel: ANN-101  Alarm #: 9

Source: AP101-WSTA-LDT-151  Setpoint: 0.25 inches ± 0.02 inches above the annulus bottom
  AP101-WSTA-LDT-152
  AP101-WSTA-LDT-153

Alarm Class: Environmental
Alarm Description: ANNULUS LEAK DETECTED TANK 101 (WSTA-LDA-121), Liquid detected by 241-AP-101 annulus ENRAF leak detectors.

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:

[2] IF a transfer is in progress into or out of 241-AP-101, REQUEST MBD Operator shut down transfer.
[3] CHECK LOCAL DISPLAYS OF Annulus ENRAFs AP101-WSTA-LDT-151, AP101-WSTA-LDT-152, AP101-WSTA-LDT-153 for the following:
  • ENRAFs are not in alarm.(HA indication will be in display for an alarm condition)
  • Displacers are less than or equal to 0.25 inches from the bottom of the annulus tank.
  [5.1] IF annulus leak detectors show an increased level in the annulus, PERFORM the following:
    [5.1.1] Shift Manager EVALUATE TF-AOP-005 entry criteria.
    [5.1.2] Shift Manager NOTIFY maintenance to perform leak detection verification per 6-LDD-485.

(Continued On Next Page)
Facility: 241-AP-271 Instrument Building

Panel: ANN-101  Alarm #: 9

Source: AP101-WSTA-LDT-151  Setpoint: 0.25 inches ± 0.02 inches above the annulus bottom
AP101-WSTA-LDT-152
AP101-WSTA-LDT-153

SUPPLEMENTAL ACTIONS:


POSSIBLE CAUSES:

1. Waste leaking from primary tank to annulus.
2. Condensate, rainwater, snowmelt, or other water has entered the annulus from outside.
3. Instrument malfunction.
4. ENRAF performed a reset due to loss of power.
5. Time delay relay fails.

REFERENCES:
Drawings: H-14-020503, H-2-90476 Sheet 3
Documents: RPP-16922, Environmental Specification Requirements
OSD-T-151-00031, Operating Specifications For Tank Farm Leak Detection and Single-Shell Tank Intrusion Detection, Table 3-1
HNF-SD-WM-TSR-006, Tank Farms Technical Safety Requirements
TF-AOP-005, Response to Unexpected Tank Temperature or Flammable Gas Increase or Level Change
6-LDD-485, ENRAF Series 854 Annulus Leak Detection Gauges Calibration and Maintenance
Figure 1  241-AP-271 Instrument Building Alarm Panel ANN-101

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>ANNULUS LEAK DETECTED TANK 101 (WSTA-LDA-121)</th>
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SUPERNATE PMP WT-P-001 SHUTDOWN (WT-SDA-301)