TSR Compliance

Respond to Monitor Control System Graphic #18 Primary Vent Stack Alarms

Tank Farm Alarm Response Procedure

AY/AZ Farm

USQ# TF-17-1334-D, Rev. 0

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>
</thead>
<tbody>
<tr>
<td>I-2</td>
<td>09/20/2017</td>
<td>Change to TFC-PLN-167</td>
<td>Inconsequential Change to update the White Label statement to latest changes to TFC-PLN-167.</td>
</tr>
<tr>
<td>I-1</td>
<td>08/30/2016</td>
<td>Requested by the electrical group</td>
<td>Added the White Label program statement.</td>
</tr>
<tr>
<td>H-2</td>
<td>12/22/2014</td>
<td>Inconsequential Title Change</td>
<td>Inconsequential Title Change</td>
</tr>
<tr>
<td>H-1</td>
<td>09/15/2014</td>
<td>MCS update to modify screen names</td>
<td>Engineering request to address changes to the MCS software per TFC-ENG-SCR-55647.</td>
</tr>
</tbody>
</table>

GRAPHIC #18 PRIMARY STACK ALARM INDEX

<table>
<thead>
<tr>
<th>Alarm</th>
<th>Description</th>
<th>Color</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>FI-AZK1-1 LOW</td>
<td>Primary Vent Stack Radiation Sample Flow LOW</td>
<td>Yellow</td>
<td>3</td>
</tr>
<tr>
<td>FI-AZK1-2 LOW</td>
<td>Primary Vent Stack Record Sample Flow LOW</td>
<td>Yellow</td>
<td>5</td>
</tr>
<tr>
<td>FI-AZK1-3 LOW</td>
<td>Primary Vent Stack Flow LOW</td>
<td>Yellow</td>
<td>7</td>
</tr>
<tr>
<td>FI-AZK1-3 HIGH</td>
<td>Primary Vent Stack Flow HIGH</td>
<td>Yellow</td>
<td>9</td>
</tr>
<tr>
<td>FI-AZK1-3 OE</td>
<td>Primary Vent Stack Flow Indicator Failure (Object Error)</td>
<td>Yellow</td>
<td>10</td>
</tr>
<tr>
<td>RAH-AZK1-1</td>
<td>Primary Vent Stack Radiation HIGH</td>
<td>Red</td>
<td>12</td>
</tr>
<tr>
<td>RAX-AZK1-1</td>
<td>Primary Vent Stack Cam Radiation Monitor Failure</td>
<td>Yellow</td>
<td>15</td>
</tr>
<tr>
<td>RI-AZK1-1A OE</td>
<td>Primary Vent Stack Radiation Input Failure (Object Error)</td>
<td>Yellow</td>
<td>17</td>
</tr>
<tr>
<td>TI-AZK1-3 OE</td>
<td>Primary Vent Stack Temperature Indicator Failure (Object Error)</td>
<td>Yellow</td>
<td>18</td>
</tr>
<tr>
<td>TI-AZK1-3 HIGH</td>
<td>Primary Vent Stack Temperature Indicator High</td>
<td>Yellow</td>
<td>19</td>
</tr>
<tr>
<td>TI-AZK1-3 High High</td>
<td>Primary Vent Stack Temperature Indicator High High</td>
<td>Red</td>
<td>21</td>
</tr>
</tbody>
</table>

RECORDS

No records are generated during the performance of this procedure.
1.0 PURPOSE

1.1 This procedure provides guidance to nuclear chemical operators for responding to alarms associated with the AY/AZ ventilation system on MCS graphic screen 18.

2.0 PRECAUTIONS AND LIMITATIONS

2.1 Personnel Safety

2.1.1 Non-electrical worker accessing electrical enclosures must ensure the following:

- The enclosure must have a white label indicating that it has been evaluated.
- The work activity within the enclosure does not involve:
  - Reaching around or moving electrical equipment
  - Contacting electrical connectors/connections
  - By-passing protective shielding/barriers.

2.1.1.1 Stop and notify management if these conditions cannot be met, or if discrepancies exist (e.g. conflicting or missing labels, missing or damaged protective barriers).

3.0 OPERATION

3.1 OPERATE Monitor Control System (MCS) in accordance with procedure TO-060-356.

3.2 OPERATE Primary ventilation system in accordance with procedure TO-060-350.

3.3 RESET primary command interlocks, object errors, and duty/standby faceplate latch failures per procedure TO-060-350.

4.0 ENVIRONMENTAL COMPLIANCE

To ensure reporting requirements are met, all planned and unplanned outages of exhausters, exhaust monitoring systems, and required abatement control equipment must be reported to the applicable shift office and Environmental On-Call per TFC-ESHQ-ENV_FS-C-01.
Facility: AY/AZ Primary Ventilation

Graphic: 18  \[ \text{Alarm #: FI-AZK1-1 LOW} \]

Source: FI-AZK1-1  \[ \text{Setpoint: 0.30 SCFM} \]


Alarm Description: Primary Vent Stack Radiation Sample Flow LOW

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

- 90 seconds after the "lead" sample pump (AZ-K1-11-1 or AZ-K1-11-2) fails, the "backup" pump will attempt to start. Transferring operation back to the "lead" pump is disabled until the PUMP RESET button has been pressed.

Automatic Actions:

1. The backup sampling pump will attempt to start (after a 90 second delay).

Immediate Actions:

[1] CHECK that one of the two primary ventilation exhaust fans (either AZ-K1-5-1A or AZ-K1-5-1B) is running using graphic screen 17.

[2] IF an exhaust fan is not running, PERFORM the following:

[2.1] EVACUATE all personnel from AY/AZ Farm to a protected or upwind area.

[2.2] NOTIFY Shift Manager of alarms and actions.

[2.3] REQUEST Shift Manager respond per TF-AOP-021.

[2.4] IF permission is given from the Shift Manager, PERFORM the following:

[2.4.1] STOP waste disturbing activities to AY/AZ Farm.

[2.4.2] START one of the fans per TO-060-350 AND RETURN to this alarm response procedure.

NOTE - Under normal operations, only one of the sample pumps should be running.

[3] IF a primary ventilation exhaust fan is running, PERFORM the following:

[3.1] CHECK the status of both primary vent stack monitoring sampling pumps (AZ-K1-11-1 and AZ-K1-11-2).

[3.2] IF a pump is not operating, SWAP to the alternate sampling pump.

(Continued on Next Page)
Facility: AY/AZ Primary Ventilation

Graphic: 18  Alarm #: FI-AZK1-1 LOW
Source: FI-AZK1-1  Setpoint: 0.30 SCFM

Immediate Actions (Cont.):

[6] CHECK FIT-AZK1-1 for signs of malfunction (e.g., loss of flow indication).
[7] NOTIFY Shift Manager of actions and findings.

Supplemental Actions:

[8] REQUEST Shift Manager notify Environmental per the Environmental On-Call list in accordance with TFC-ESHQ-ENV_FS-C-01 of all problems or abnormalities associated with the Beta/Gamma monitoring system.

Possible Causes:

1. Instrument malfunction or failure.
2. Valves in the system closed or restricted.
3. Primary ventilation exhaust fans AZ-K1-5-1A or AZ-K1-5-1B are not running.
4. Ongoing maintenance work.
5. If stack temperature exceeds 110°F, MV-AZK1-1 will close to protect the Beta/Gamma monitoring unit.
6. Beta/Gamma monitor particulate filter may be plugged.

References:

Drawings: H-14-020107, sht 6
Documents: TO-060-350, Start, Stop, and Operate AY/AZ Tank Ventilation Primary Exhaust System
HNF-SD-WM-TSR-006, Tank Farms Technical Safety Requirements
**TSR Compliance**

**Respond to Monitor Control System Graphic #18 Primary Vent Stack Alarms**

**Facility:** AY/AZ Primary Ventilation

**Graphic:** 18  
**Alarm #:** FI-AZK1-2 LOW

**Source:** FI-AZK1-2  
**Setpoint:** 0.30 SCFM

**Alarm Class:** Technical Safety Requirement (LCO 3.1, DST Primary Tank Ventilation Systems, and LCO 3.4, DST Induced Gas Release Event Flammable Gas Control).

**Alarm Description:** Primary Vent Stack Record Sample Flow LOW

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

- 90 seconds after the "lead" sample pump (AZ-K1-11-1 or AZ-K1-11-2) fails, the "backup" pump will start. Transferring operation back to the "lead" pump is disabled until the PUMP RESET button has been pressed.

**Automatic Actions:**

1. The backup sampling pump will attempt to start (after a 90 second delay).

**Immediate Actions:**

1. **CHECK** that one of the two primary ventilation exhaust fans (either AZ-K1-5-1A or AZ-K1-5-1B) is running using graphic screen 17.

2. **IF** an exhaust fan is not running, **PERFORM** the following:
   
   2.1 **EVACUATE** all personnel from AY/AZ Farm to a protected or upwind area.
   
   2.2 **NOTIFY** Shift Manager of alarms and actions.
   
   2.3 **REQUEST** Shift Manager respond per TF-AOP-021.
   
   2.4 **IF** permission is given from the Shift Manager, **PERFORM** the following:
      
      2.4.1 **STOP** waste disturbing activities to AY/AZ Farm.
      
      2.4.2 **START** one of the fans per TO-060-350 AND **RETURN** to this alarm response procedure.

NOTE - Under normal operations, only one of the sample pumps should be running.

3. **IF** a primary ventilation exhaust fan is running, **PERFORM** the following:

   3.1 **CHECK** the status of both primary ventilation stack monitoring sampling pumps (AZ-K1-11-1 and AZ-K1-11-2).

   3.2 **IF** a pump is not operating, **SWAP** to the alternate sampling pump.

   3.3 **REQUEST** HPT to check operation of the monitor record sampling system.

   3.4 **REQUEST** HPT to check the record sample filter paper for flow restrictions.

(Continued on Next Page)
Facility: AY/AZ Primary Ventilation

Graphic: 18  Alarm #: FI-AZK1-2 LOW
Source: FI-AZK1-2  Setpoint: 0.30 SCFM

Immediate Actions (Cont.):

[4] CHECK FIT-AZK1-2 for signs of malfunction (e.g., loss of flow indication).
[6] REQUEST Shift Manager notify Environmental per the Environmental On-Call list in accordance with TFC-ESHQ-ENV_FS-C-01 of all problems or abnormalities associated with the record sampling systems.

Possible Causes:

1. Instrument malfunction or failure.
2. Valves in the system closed or restricted.
3. Primary ventilation exhaust fans AZ-K1-5-1A or AZ-K1-5-1B are not running.
4. Ongoing maintenance work.
5. Particulate Filter F-AZK1-1 is plugged/needs replacing.

References:

Drawings: H-14-020107, sht 6
Documents: TO-060-350, Start, Stop, and Operate AY/AZ Tank Ventilation Primary Exhaust System
TF-AOP-021, Response to Tank Farm Ventilation Upset
HNF-SD-WM-TSR-006, Tank Farms Technical Safety Requirements
Facility:  AY/AZ Primary Ventilation

Graphic:  18  
Alarm #:  FI-AZK1-3 LOW

Source:  FI-AZK1-3  
Setpoint:  200 SCFM


Alarm Description:  Primary Vent Stack Flow LOW

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. Shutdown of operating primary stack sampling system.
2. Shutdown of operating primary exhaust filter train heater.
3. IF received in combination with a vent header pressure (PI-AZK1-1A or PI-AZK1-1B) high or low alarm, Shuts down active exhaust fan.

Immediate Actions:

[2] REVIEW active and event list AND RESPOND to active alarms per applicable ARP.
[4] REQUEST Shift Manager notify Environmental per the Environmental On-Call list in accordance with TFC-ESHQ-ENV_FS-C-01 of all problems or abnormalities associated with the record sampling systems and/or if the primary stack continuous air monitor fails.

(Continued on Next Page)
Facility: AY/AZ Primary Ventilation

Graphic: 18  Alarm #: FI-AZK1-3 LOW
Source: FI-AZK1-3  Setpoint: 200 SCFM

Possible Causes:
1. Primary Exhaust fan system malfunction.
2. Ongoing maintenance work.
3. Instrument malfunction or failure.
4. Improper valve lineup.

References:
- Drawings: H-14-020107, sht 6
- Documents: RPP-11413, Ventilation System In-service Requirements
  RPP-16922, Environmental Specification Requirements
  TO-060-350, Start, Stop, and Operate AY/AZ Tank Ventilation Primary Exhaust System
  HNF-SD-WM-TSR-006, Tank Farms Technical Safety Requirements.
Facility: AY/AZ Primary Ventilation

Graphic: 18  Alarm #: FI-AZK1-3 HIGH

Source: FI-AZK1-3  Setpoint: 920 SCFM

Alarm Class: Environmental Impact

Alarm Description: Primary Vent Stack Flow HIGH

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] REDUCE operating primary exhaust fan (AZ-K1-5-1A or AZ-K1-5-1B) speed until flow is less than 900 SCFM AND ENSURE tank vacuums and flows are in normal range.
[3] REVIEW alarm and event list AND RESPOND to active alarms per the applicable ARP.

Possible Causes:

1. Primary Exhaust fan system malfunction.
2. Ongoing maintenance work.
3. Instrument malfunction or failure.
4. Possible system breach.

References:

Drawings: H-14-020107, sht 6
Documents: RPP-11413, Ventilation System In-service Requirements
TSR Compliance

Respond to Monitor Control System Graphic #18 Primary Vent Stack Alarms

Facility: AY/AZ Primary Ventilation

Graphic: 18  
Alarm #: FI-AZK1-3 OE

Source: FI-AZK1-3  
Setpoint: -75 SCFM


Alarm Description: Primary Vent Stack Flow Object Error

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] CHECK primary vent stack flow on FIT-AZK1-3 (stack mass flow transmitter) in CAB-AZK1-1.

[2] IF primary exhaust has shut down, PERFORM the following:
  [2.1] EVACUATE all personnel from AY/AZ Farm to a protected or upwind area.
  [2.2] NOTIFY Shift Manager of alarms and actions.
  [2.3] REQUEST Shift Manager respond per TF-AOP-021.
  [2.4] IF directed by Shift Manager, STOP waste disturbing activities to AY/AZ Farm.
  [2.5] REQUEST Shift Manager notify Environmental per the Environmental On-Call list in accordance with TFC-ESHQ-ENV_FS-C-01 of a fan failure or fan transfer caused by an operational upset or anomaly.

Supplemental Actions:


[4] IF condition has cleared RESET object error per procedure TO-060-350.

(Continued on Next Page)
Facility: AY/AZ Primary Ventilation

Graphic: 18  Alarm #: FI-AZK1-3 OE

Source: FI-AZK1-3  Setpoint: -75 SCFM

Possible Causes:
1. Flow element failure.
2. Loss of power to flow element, broken wire, lifted lead.
3. Instrument malfunction or failure.
4. Ongoing maintenance work.

References:
Drawings: H-14-020107, Sht 6
TO-060-350, Start, Stop, and Operate AY/AZ Tank Ventilation Primary Exhaust System
TF-AOP-021, Response to Tank Farm Ventilation Upset
HNF-SD-WM-TSR-006, Tank Farms Technical Safety Requirements.
Facility: AY/AZ Primary Ventilation

Graphic: 18  Alarm #: RAH-AZK1-1  
Setpoint:  
Slow: 300 DPM/ft³/60 minutes  
Fast: 7,000 DPM/ft³/60 seconds
Beta Net Count Rate: 3,000 CPM

Source: RE-AZK1-1


Alarm Description: Primary Vent Stack Radiation High

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

- Any one of the alarm setpoints will activate the alarm.
- Stack sampling system shutdown will generate the RAX-AZK1-1 alarm.

Automatic Actions:

1. Operating primary exhaust fan will shut down (stops power to both fan VSDs).
2. Active train outlet damper closes. (MK-AZK1-2A or MK-AZK1-2B)
3. Operating recirc module fans shuts down (K4-5-1 fans).
4. Activates the red strobe light and high-rad bell on the primary stack cabinet, and the outdoor cam strobe light and alarm (West side of 702-AZ ventilation building).

Immediate Actions:

1. **ENSURE** primary ventilation exhaust fans (AZ-K1-5-1A and AZ-K1-5-1B) have shut down.
2. **ENSURE** all recirc module K4-5-1 fans have shutdown.
3. **ENSURE** 241-AZ-271 Control Building doors are CLOSED.
4. **SHUTDOWN** the 241-AZ-271 Control Building ventilation system until High Radiation alarm is cleared.
5. **ENSURE** low vacuum and flow alarm is activated.
6. **NOTIFY** Shift Manager of alarms and actions.
7. **REQUEST** Shift Manager respond per TF-AOP-021.
8. **IF** directed by Shift Manager, **STOP** waste disturbing activities to AY-AZ Farm.

(Continued on Next Page)
Respond to Monitor Control System Graphic #18 Primary Vent Stack Alarms

Facility: AY/AZ Primary Ventilation

Graphic: 18  Alarm #: RAH-AZK1-1
Source: RE-AZK1-1

Setpoint:  
- **Slow:** 300 DPM/ft^3/60 minutes
- **Fast:** 7,000 DPM/ft^3/60 seconds
- **Beta Net Count Rate:** 3,000 CPM

Immediate Actions (Cont.):

NOTE - Proper hearing protection should be used when entering 702-AZ with the alarm on.

[9] **IF** directed by Shift Manager, **REQUEST** HPT **PERFORM** the following:

[9.1] **ENTER** Building 702-AZ to change AMS-4 Continuous Air Monitor (CAM) filter paper and to evaluate levels.

[9.2] **PERFORM** surveys.

[10] **PRESS** red "Acknowledge" button on continuous air monitor to clear alarm.

[11] **PRESS** "HORN ALARM ACKNOWLEDGE" button HS-AZK1-1B1 on primary stack monitor cabinet (CAB-AZK1-1) to acknowledge and silence CAM failure horn.

[12] **PRESS** "BELL ALARM ACKNOWLEDGE" button HS-AZK1-1A1 on primary stack monitor cabinet (CAB-AZK1-1) to acknowledge and silence CAM high radiation bell.

[13] **IF** beta net count rate is < 3,000 cpm, **PRESS** High-Radiation Alarm Reset button PB-AZK1-1 to clear High-Radiation alarm **AND**

**CONTACT** Shift Manager for permission to restart primary exhaust fan per procedure TO-060-350.

Supplemental Actions:

[14] **CONTINUE** to monitor system parameters **AND**

**NOTIFY** Shift Manager of changing indications.

(Continued on Next Page)
Facility:   AY/AZ Primary Ventilation

Graphic: 18  
   Alarm #: RAH-AZK1-1
   Setpoint:     Slow: 300 DPM/ft$^3$/60 minutes
                 Fast: 7,000 DPM/ft$^3$/60 seconds
   Source:      RE-AZK1-1

Possible Causes:
1. Background radiation level spike.
2. Ongoing maintenance work.
3. Instrument malfunction or failure.
4. Functional testing of primary exhaust stack Continuous Air Monitor interlock system.

References:
   Drawings:   H-14-020107, sht 6
   Documents: TO-060-350, Start, Stop, and Operate AY/AZ Tank Ventilation Primary Exhaust System
               TO-060-357, Start, Stop and Operate 241-AZ-702 Building Ventilation System
               RPP-16922, Environmental Specification Requirements
               CVI 22525.63
               TF-AOP-021, Response to Tank Farm Ventilation Upset
               HNF-SD-WM-TSR-006, Tank Farms Technical Safety Requirements
Respond to Monitor Control System Graphic #18 Primary Vent Stack Alarms

Facility: AY/AZ Primary Ventilation

Graphic: 18

Alarm #: RAX-AZK1-1

FAILURES

Source: RAX-AZK1-1

Setpoint: N/A


Alarm Description: Primary Vent Stack Cam Radiation Monitor Failure

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. Activates alarm horn and amber strobe light on primary stack cabinet.

Immediate Actions:

[1] CHECK radiation monitor RAX-AZK1-1 failure using MONITOR CONTROL SYSTEM graphic screen #18.

NOTE - Proper hearing protection should be used when entering 702-AZ with the alarm on.

[2] IF primary stack Beta/Gamma continuous air monitor (CAM) has failed, CHECK primary stack monitoring system in CAB-AZK1-1 for proper operation.

[3] PRESS red "ACKNOWLEDGE" button on continuous air monitor to clear alarm.

[4] PRESS "HORN ALARM ACKNOWLEDGE" button HS-AZK1-1B1 on primary stack monitor cabinet to acknowledge and silence horn.

[5] CHECK the status of both primary ventilation stack monitoring sampling pumps (AZ-K1-11-1 and AZ-K1-11-2).

[6] IF a pump is not operating, SWAP to the alternate sampling pump.

[7] NOTIFY Shift Manager of actions and findings.

[8] REQUEST Shift Manager notify Environmental per the Environmental On-Call list in accordance with TFC-ESHQ-ENV_FS-C-01 if the primary stack continuous air monitor fails.

(Continued on Next Page)
Respond to Monitor Control System Graphic #18 Primary Vent Stack Alarms

Graphic: 18
Alarm #: RAX-AZK1-1
FAILURE

Source: RAX-AZK1-1
Setpoint: N/A

(Continued)

Possible Causes:

1. Failed beta/gamma monitor.
2. Ongoing maintenance work.
3. Loss of power to the Continuous Air Monitor.
4. Communication problem with MASSTRON.
5. Primary stack vent temperature HIGH HIGH alarm closed valve MV-AZK1-1.

References:

Drawings: H-14-020107, sht 6
Documents: TO-060-350, Start, Stop, and Operate AY/AZ Tank Ventilation Primary Exhaust System
CVI 22525.63
HNF-SD-WM-TSR-006, Tank Farms Technical Safety Requirements.
Respond to Monitor Control System Graphic #18 Primary Vent Stack Alarms

Facility: AY/AZ Primary Ventilation

Graphic: 18

Alarm #: RI-AZK1-1A OE

Source: RAX-AZK1-1

Setpoint: - 0.63 decades

Alarm Class: Environmental Impact

Alarm Description: Primary Vent Stack Radiation Input FAIL

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 indicative of a loss of communications between the Beta/Gamma Continuous Air Monitor and the MCS.

Immediate Actions:

[1] IF alarm condition has cleared RESET object error per procedure TO-060-350.
[2] CHECK RI-AZK1-1A on MCS graphic 18 for a value indication.
[3] CHECK AMS-4 Beta/Gamma monitor system in the primary stack monitoring cabinet (CAB-AZK1-1) for proper operation AND ACKNOWLEDGE local alarms.

Possible Causes:

1. Broken wire or lifted lead.
2. Transmitter power supply failure.
3. Loss of power to Continuous Air Monitor cabinet.
4. Possible Remote Control Module failure.
5. Ongoing maintenance work.
6. Instrument malfunction or failure.
7. Loss of communication.

References:

Drawings: H-14-020107, sht 6
TO-060-350, Start, Stop, and Operate AY/AZ Tank Ventilation Primary Exhaust System
Facility: AY/AZ Primary Ventilation

Graphic: 18  Alarm #: TI-AZK1-3 OE

Source: TI-AZK1-3  Setpoint: -25.0 degrees F

Alarm Class: Equipment Status  Alarm Description: Primary Vent Stack Temperature Indicator Failure

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 indicative of a loss of communications between the primary stack temperature element and the MCS.

Immediate Actions:

[1] CHECK primary vent stack temperature reading on temperature transmitter (TI-AZK1-3) in primary stack monitoring cabinet (CAB-AZK1-1).

[2] IF condition has cleared  RESET object error per procedure TO-060-350.


Possible Causes:

1. Temperature element failure/malfunction.
2. Loss of power to transmitter, broken wire, lifted lead.
3. Ongoing maintenance work.
4. Loss of power to primary stack cabinet.
5. Communication or control module failure.

References:

Drawings:  H-14-020107, Sht 6
TO-060-350, Start, Stop, and Operate AY/AZ Tank Ventilation Primary Exhaust System
Respond to Monitor Control System Graphic #18 Primary Vent Stack Alarms

Facility: AY/AZ Primary Ventilation

Graphic: 18  Alarm #: TI-AZK1-3 HIGH

Source: TI-AZK1-3  Setpoint: 100 degrees F

Alarm Class: Equipment Status  Alarm Description: Primary Vent Stack Temperature HIGH

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] ENSURE the primary vent system chiller system is operating properly by performing the following:
   [1.1] CHECK the chiller unit locally for operation and alarms.
   [1.2] CHECK the chiller glycol pumps are operating properly.
   [1.3] CHECK glycol flow rate is in normal range.
   [1.4] CHECK the supply and return chilled water temperatures are within normal ranges.

[2] IF the primary vent system chiller system is operating properly, PERFORM the following:
   [2.1] CHECK AND ADJUST the primary vent operating heater temperature setting per procedure TO-060-350.
   [2.2] CHECK primary vent operating heater controller has not failed on 100% output.
      [2.2.1] IF primary vent heater has failed on 100% output, ATTEMPT to adjust the heater output to a normal range.

[3] IF the primary vent heater cannot be controlled, SHUTDOWN heater AND SWITCH filter trains per procedure TO-060-350.

[4] IF the temperature increases to greater than 110°F, REFER to the TI-AZK1-3 HIGH-HIGH temperature alarm response actions in this Alarm Response Procedure.


(Continued on Next Page)
Facility: AY/AZ Primary Ventilation

Graphic: 18
Alarm #: TI-AZK1-3 HIGH

Source: TI-AZK1-3
Setpoint: 100 degrees F

Possible Causes:
1. Temperature element failure/malfunction.
2. Loss of power to transmitter, broken wire, lifted lead.
3. Ongoing maintenance work.
4. Chiller off line or primary condenser bypassed.
5. Heater failed on 100% output.

References:
Drawings: H-14-020107, sht 6
Documents: TO-060-350, Start, Stop, and Operate AY/AZ Tank Ventilation Primary Exhaust System
Respond to Monitor Control System Graphic #18 Primary Vent Stack Alarms

Facility: AY/AZ Primary Ventilation

Graphic: 18

Alarm #: TI-AZK1-3 HIGH

Setpoint: 110 degrees F

Source: TI-AZK1-3

Alarm Description: Primary Vent Stack Temperature Indicator HIGH-HIGH

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. Closes CAM sample valve (MV-AZK1-1).

Immediate Actions:

[1] ENSURE the “TI-AZK1-3 HIGH” alarm response actions have been completed.

[2] IF the primary vent stack temperature cannot be lowered to less than 110°F REQUEST permission from Shift Manager AND SHUTDOWN primary ventilation system per procedure TO-060-350.

[3] REQUEST Shift Manager notify Environmental per Environmental On-Call list in accordance with TFC-ESHQ-ENV_FS-C-01.


Possible Causes:

1. Temperature element failure/malfunction.
2. Loss of power to transmitter, broken wire, lifted lead.
3. Ongoing maintenance work.
4. Chiller off line or primary condenser bypassed.
5. Heater failed on to full heat.

References:

Drawings: H-14-020107, sht 6
Documents: TO-060-350, Start, Stop, and Operate AY/AZ Tank Ventilation Primary Exhaust System