Respond to Monitor Control System Graphic #23 Diesel Generator Alarms

Tank Farm Alarm Response Procedure

AY/AZ Farm

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>
</thead>
<tbody>
<tr>
<td>I-0</td>
<td>09/16/2015</td>
<td>Periodic Review</td>
<td>No changes identified. Footer updated.</td>
</tr>
<tr>
<td>H-1</td>
<td>09/15/2014</td>
<td>MCS update to modify screen names per TFC-ENG-SCR-55647</td>
<td>Engineering request to address changes to the MCS software. Modified screen name to just a number.</td>
</tr>
<tr>
<td>H-0</td>
<td>09/12/2013</td>
<td>All changes are as a result of the periodic review process.</td>
<td>Corrected the format for Step 1 on page 11.</td>
</tr>
<tr>
<td>G-4</td>
<td>05/02/2013</td>
<td>Global Change per ARP-T-251-00003 G-1. Inconsequential change to change procedure use type to Reference.</td>
<td>Change procedure use type in the footer to Reference.</td>
</tr>
<tr>
<td>G-3</td>
<td>02/14/2013</td>
<td>Operations request and Warning was skill of the craft and not needed.</td>
<td>Updated Purpose section. Modified Facility, Graphic reference, and Alarm #. Deleted Warning box. Modified Facility, Graphic reference, and Alarm #. Deleted Step [3]. Modified Facility, Graphic reference, and Alarm #. Modified Facility, Graphic reference, and Alarm #. Modified Step [1] and deleted Step [2].</td>
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GRAPHIC #23 DIESEL GENERATOR ALARM INDEX

<table>
<thead>
<tr>
<th>Alarm</th>
<th>Description</th>
<th>Color</th>
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<tr>
<td>XA-AZ-EPRG-1</td>
<td>Diesel Generator Alarm Status</td>
<td>Yellow</td>
<td>3</td>
</tr>
<tr>
<td>LAL-AZ-EPRTK-1</td>
<td>Diesel Fuel Tank Level (LOW)</td>
<td>Yellow</td>
<td>5</td>
</tr>
<tr>
<td>LALL-AZ-EPRTK-1</td>
<td>Diesel Fuel Tank Level (LOW LOW)</td>
<td>Yellow</td>
<td>6</td>
</tr>
<tr>
<td>YS-AZ-EPRG-1</td>
<td>Diesel Generator Status (ON/OFF)</td>
<td>Yellow</td>
<td>7</td>
</tr>
<tr>
<td>YS-AZ-EPR-1B</td>
<td>Transfer Switch 1 Positioned To Standby Power</td>
<td>Yellow</td>
<td>8</td>
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<tr>
<td>XA-AZ-EPRBAT-1</td>
<td>Diesel Generator Battery Status (Out Of Service)</td>
<td>Yellow</td>
<td>9</td>
</tr>
<tr>
<td>YS-AZ-EPR-2B</td>
<td>Transfer Switch 2 Positioned to Standby Power</td>
<td>Yellow</td>
<td>10</td>
</tr>
<tr>
<td>JAX_(1 to 7)_PS(1 to 7)_1</td>
<td>LCU Power Supply Offline</td>
<td>Yellow</td>
<td>11</td>
</tr>
</tbody>
</table>

RECORDS

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

1.1  This attachment provides guidance to Nuclear Chemical Operators (NCOs) for responding to alarms associated with the AY/AZ ventilation system, MCS Graphic 23.

1.2  The diesel generator and automatic transfer switches are out of service and should not be operated. This attachment provides guidance on what to do should an alarm associated with the generator and/or automatic transfer switches occurs.

1.3  Section 2.0 provides guidance to Nuclear Chemical Operators (NCOs) for starting up the Monitor and Control System so that they may determine current alarm status if the system is not on line when they report to the control room.

2.0  OPERATION

2.1  **IF** system does not respond and appears to be locked, REFER to procedure TO-060-356 for instructions on re-setting and re-booting system **AND**

RETURN to this procedure.

2.2  OPERATE system in accordance with procedure TO-060-356.
Facility: 702-AZ Primary Ventilation

Graphic: 23

Alarm #: XA-AZ-EPRG-1

Source: AZ-EPR-G-1

Setpoint: N/A

Alarm Class: Equipment Status

Alarm Description: Diesel Generator Alarm Status

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 generator alarm panel, located in entry way of 701-AZ Building generator room AND ACKNOWLEDGE alarms.

2. IF diesel generator room is safe to enter, CHECK AND ACKNOWLEDGE alarms on electronic modular control panel.

3. IF the diesel generator is still running, and conditions exist that warrant an emergency stop as deemed necessary by the operator, BREAK the glass cover AND PRESS EMERGENCY STOP pushbutton.

4. INVESTIGATE cause of alarm.

5. NOTIFY Shift Manager of findings.

(Continued on Next Page)
Facility: 702-AZ Primary Ventilation

Graphic: 23  
Alarm #: XA-AZ-EPRG-1

Source: AZ-EPR-G-1  
Setpoint: N/A

Possible Causes:
1. Ongoing maintenance PM
2. Instrument failure
3. Low oil pressure
4. Overcrank
5. Overspeed
6. High coolant temperature
7. Emergency stop pushbutton has been pressed
8. Low coolant level
9. Fault shutdown

References:

Drawings:  H-2-131360
Documents:  TO-060-364, Operate AY/AZ Tank Ventilation System Electrical Power Systems
Respond to Monitor Control System Graphic #23 Diesel Generator Alarms

Facility: 702-AZ Primary Ventilation

Graphic: 23  
Alarm #: LAL-AZ-EPRTK-1  
LOW

Source: LSL-AZEPRTK-1  
Setpoint: 175 gallons

Alarm Class: Equipment Status

Alarm Description: Diesel Fuel Tank Level is low (LOW)

NOTE - Alarm Response Procedures are not designed for, nor intended to be applied to, "expected" alarms generated by approved work activities or procedures.
- If the diesel generator is running for testing or due to a loss of normal power, this alarm can be expected after an extended run time.

Immediate Actions:

[1] CHECK generator alarm panel, located in entry way of 701-AZ Building generator room.

Possible Causes:

1. Fuel level low due to diesel engine operation
2. Instrument failure
3. Leak in fuel system

References:

Drawings: H-2-131360
Facility: 702-AZ Primary Ventilation

Graphic: 23  

Alarm #: LALL-AZ-EPRTK-1  

YELLOW  

LALL-AZ-EPRTK-1  

LOW LOW

Source: LSL-AZEPRTK-1  

Setpoint: 90 gallons

Alarm Class: Equipment Status

Alarm Description: Diesel Fuel Tank Level very low (LOW LOW)

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

- If the diesel generator is running for testing or due to a loss of normal power, this alarm can be expected after an extended run time.

Immediate Actions:

[1] CHECK generator alarm panel, located in entry way of 701-AZ Building generator room.

[2] ENSURE all Operator Actions for DIESEL FUEL TANK LEVEL (LOW) have been completed.


Possible Causes:

1. Fuel level low due to diesel engine operation
2. Instrument failure
3. Leak in fuel system

References:

Drawings: H-2-131360
Facility: 702-AZ Primary Ventilation

Graphic: 23  Alarm #: YS-AZ-EPRG-1

Source: AZ-EPR-G-1  Setpoint: N/A

Alarm Class: Equipment Status

Alarm Description: Diesel Generator Status (ON/OFF)

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 Generator Building for abnormal conditions AND DIRECT any personnel in the Generator building to leave.

Possible Causes:

1. Loss of normal AC power
2. Diesel generator testing or maintenance in progress

References:

Drawings: H-14-030007, Sht. 3, H-2-131360
Documents: TO-060-364, Operate AY/AZ Tank Ventilation System Electrical Power Systems
Respond to Monitor Control System Graphic #23 Diesel Generator Alarms

Facility: 702-AZ Primary Ventilation

Graphic: 23  Alarm #: YS-AZ-EPR-1B

Source: YS-AZ-EPR-1B  Setpoint: N/A

Yellow
YS-AZ-EPR-1B

Alarm Class: Equipment Status
Alarm Description: Transfer Switch 1 Positioned To Standby Power

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] NOTIFY Shift Manager.

Possible Causes:
1. Loss of normal AC power
2. Ongoing maintenance PM or diesel generator testing

References:
Drawings: H-14-030007, Sht. 3, H-2-131360
Facility: 702-AZ Primary Ventilation

Graphic: 23  Alarm #: XA-AZ-EPRBAT-1

Source: Battery  Setpoint: N/A

Alarm Class: Equipment Status

Alarm Description: Diesel Generator Battery Status

This equipment is Out Of Service

Immediate Actions:
None

Possible Causes:
None
Respond to Monitor Control System Graphic #23 Diesel Generator Alarms

Facility: 702-AZ Primary Ventilation

Graphic: 23  Alarm #: YS-AZ-EPR-2B

Source: YS-AZ-EPR-2B  Setpoint: N/A

Alarm Class: Equipment Status

Alarm Description: Transfer Switch 2 Positioned to Standby Power

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] NOTIFY Shift Manager.

Possible Causes:

1. Loss of normal AC power
2. Ongoing maintenance PM or diesel generator testing
3. The ATS S-12 AUTO/MANUAL switch in MANUAL, the EMERGENCY pushbutton has been pressed, and the diesel generator has started.

References:

Drawings: H-14-030007, Sht. 3
Facility: 702-AZ Primary Ventilation

**Alarm #:**
- JAX_1_PS1_1, JAX_1_PS2_1
- JAX_2_PS1_1, JAX_2_PS2_1
- JAX_3_PS1_1, JAX_3_PS2_1
- JAX_4_PS1_1, JAX_4_PS2_1
- JAX_5_PS1_1, JAX_5_PS2_1
- JAX_6_PS1_1, JAX_6_PS2_1
- JAX_7_PS1_1, JAX_7_PS2_1

**Graphic:** 23

**Source:** ABB Power Supply

**Setpoint:** N/A

**Alarm Class:** Equipment Status

**Alarm Description:** Power supply status

**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. IF only one power supply within an LCU is offline, NOTIFY Shift Manager.
2. IF both power supplies within an LCU are offline, PERFORM the following:
   2.1 REVIEW other MCS screens and alarms to determine effect of the power failure on the system.
   2.2 NOTIFY Shift Manager of actions and findings.

**Possible Causes:**

1. Equipment failure.
2. Breaker de-energized.

**References:** None