

# WP 04-VU4605

Revision 32

## UVFS Alarm Response

Alarm Response Procedure

EFFECTIVE DATE: 02/15/16

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APPROVED FOR USE

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**TABLE OF CONTENTS**

CHANGE HISTORY SUMMARY ..... 3

HEPA FILTER UNIT CMS HIGH SET POINT ALARM..... 5

MOD AND/OR HI FILTER UNIT CMS HIGH DP ALARM..... 8

LOSS OF INDICATIONS FOR FILTER BANK(S) IN 41-B-856/857 UNDERGROUND VENTILATION FILTER SYSTEM (UVFS) UNIT(S)..... 11

WASTE HOIST TOWER ALARM 411-PIT-101 ..... 15

LOSS OF UNDERGROUND FILTRATION FAN 860A/B/C..... 17

LOSS OF S400 DIFFERENTIAL PRESSURE ..... 19

LOSS OF 308 LOUVER DIFFERENTIAL PRESSURE ..... 21

**CHANGE HISTORY SUMMARY**

<b>REVISION NUMBER</b>	<b>DATE ISSUED</b>	<b>DESCRIPTION OF CHANGES</b>
24	11/25/14	<ul style="list-style-type: none"> <li>• In Loss of U/G Filtration Fan section, Immediate Actions: <ul style="list-style-type: none"> <li>— Moved step 1.0 to step 2.0.</li> <li>— Deleted step 2.0 regarding notifying workers of ventilation change.</li> <li>— Deleted step 4.0 regarding checking for possible causes.</li> <li>— Changed steps 5.0 and 6.0 into bullets under new step 2.0.</li> </ul> </li> <li>• In Loss of 308 Louver DP section, deleted Subsequent Action 4.0 regarding logging LCO 3.2.1-related actions.</li> </ul>
25	02/13/15	<ul style="list-style-type: none"> <li>• Deleted Possible Causes sections globally.</li> <li>• Changed 5.0 inch wg to 4.0 inch wg globally regarding HEPA banks.</li> <li>• Modified wording of Immediate Action notification for evacuating the mine globally.</li> <li>• Deleted requirement for WHT doors and openings inspections globally.</li> <li>• Deleted specific Filter Bank cfm setpoint values globally, allowing COG Engineer to determine appropriate value.</li> </ul>
26	03/18/15	<ul style="list-style-type: none"> <li>• Modified wording of Immediate Action notification for evacuating the mine in Loss of Underground Filtration Fan.</li> </ul>
27	05/14/15	<ul style="list-style-type: none"> <li>• Added references to ESS-2014-03 and ESS-2014-09 where appropriate throughout document.</li> <li>• Added in Loss of U/G Filtration Fan section, Subsequent Action 2.0.</li> </ul>
28	06/12/15	<ul style="list-style-type: none"> <li>• Removed reference to WP 12-ER4907, Protective Actions and Protective Action Recommendations.</li> <li>• Added steps to include precautionary remain indoors measure.</li> </ul>
29	10/16/15	<ul style="list-style-type: none"> <li>• Complete rewrite to align with current practices.</li> </ul>
30	11/20/15	<ul style="list-style-type: none"> <li>• Changed 308 Louver DP alarm setpoint from -0.08 in wg to -0.161 in wg.</li> </ul>
31	01/22/16	<ul style="list-style-type: none"> <li>• Removed from Waste Hoist Tower Alarm section, stationing and monitoring responses for 411-PIT-201-101 alarm when BH 308 is still operable</li> </ul>
32	02/15/16	<ul style="list-style-type: none"> <li>• Revised in accord with consolidated ESS-2015-01.</li> </ul>

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**NOTE**

The following set points have been established for the Underground Ventilation Filtration System (UVFS). If Central Monitoring System (CMS) is lost, the Local Alarm Panel in Building 413 will be used to monitor Underground (U/G) Filter Differential Pressures (DPs). If any of these DP readings reach the alarm value, it is an indication of a potential abnormal condition in the U/G, and/or an indication of a potential abnormal condition associated with the filters or an instrument malfunction.

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**NOTE**

Adjusting the flow on the in-service filtration fan above or below fan set values may be required to maintain listed 41-B-856/857 Filter DPs, or as directed by COG Engineer.

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**NOTE**

Changes to the Filter Alarm High set points that go above 3.0 inch wg require approval from CBFO.

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**HEPA FILTER UNIT CMS HIGH SET POINT ALARM**

	<b>LOCAL ALARM PANEL</b>	<b>HIGH SET POINT</b>
<b>ESS</b>	<b>(\$)</b> PDAH-056-004/008 1st HEPA FILTER HEPA UNIT 41-B-856/857 <b>[ESS-2015-01, 3a.B]</b>	3.0 inch wg
<b>ESS</b>	<b>(\$)</b> PDAH-056-005/009 2nd HEPA FILTER HEPA UNIT 41-B-856/857 <b>[ESS-2015-01, 3a.B]</b>	3.0 inch wg
	<b>CMS ALARM</b>	<b>HIGH SET POINT</b>
<b>ESS</b>	<b>(\$)</b> 413 UVFS 1ST HEPA 856/857 <b>[ESS-2015-01, 3a.B]</b>	3.0 inch wg
<b>ESS</b>	<b>(\$)</b> 413 UVFS 2ND HEPA 856/857 <b>[ESS-2015-01, 3a.B]</b>	3.0 inch wg

**AUTOMATIC ACTIONS**

- NONE

**IMMEDIATE ACTIONS**

1.0 CMRO, **PERFORM** the following announcement:

- May I have your attention please (REPEAT)

There is a ventilation system irregularity at the WIPP Site.

All U/G personnel suspend work activities and report to the underground egress hoist stations for a controlled egress.

Suspend all site activities.

All non-essential personnel remain indoors as a precautionary measure.

- **REPEAT PREVIOUS MESSAGE**

2.0 FSM, SEND Facility Operations Technician (FOT) to Exhaust Filter Building (EFB) 413 to verify 41-B-856/957 local readings.

**SUBSEQUENT ACTIONS**

1.0 **IF** local readings are NORMAL (less than 3.0 inch wg),  
**THEN PERFORM** the following:

- 1.1 FOT, **MONITOR** local readings.

- 1.2 FSM, **CONTACT** COG Engineer and Operations Manager for recommendations on continued actions.
- 2.0 **IF** local HEPA filter bank readings confirm CMR alarm condition of greater than 3.0 inch water gauge for EITHER filter bank 41-B-856 OR filter bank 41-B-857 **THEN PERFORM** the following:
  - 2.1 FOT, visually **CHECK** 41-B-856/857 filter banks for abnormal conditions to include no visual change in configuration or obvious system deterioration.
  - 2.2 FOT, **CHECK** for high fan flow above fan set values (57,000 to 63,000 cfm).
  - 2.3 FOT, with FSM approval, **DECREASE** running fan 41-B-860A (41-B-860B) [41 B-860C] flow by rotating vortex manual handwheel CW (desired flow with both filter banks [41 B 856/41-B-857] I/S is 57,000 to 63,000 cfm, or as by COG Engineer).
  - 2.4 FOT, **IF** running fan 41-B-860A (41-B-860B) [41-B-860C] exhibits excessive vibration, **THEN NOTIFY** FSM immediately by voice.
  - 2.5 FSM, **IF** notified of excessive vibration, **THEN PERFORM** the following:
    - 2.5.1 **INSTRUCT** CMRO to CLOSE 308 dampers (if remote capability is available from CMR).
    - 2.5.2 **ENSURE** the Salt Shaft and AIS are covered.
    - 2.5.3 **ENSURE** the AAIT louvers are in the CLOSED position and inlet grating and damper openings are sealed.
    - 2.5.4 **INSTRUCT** RadCon to evaluate Station A and Station B filters, **AND PLACE** a CAM at each ventilation shaft.
    - 2.5.5 FOT, **SECURE** running fan.
    - 2.5.6 FOT, **ISOLATE** the inoperable unit by manually closing applicable U/G filter unit inlet and outlet dampers.
- 3.0 **IF BOTH** local HEPA filter bank readings confirm CMR condition of greater than 3.0 inch water gauge for filter bank 41-B-856 AND filter bank 41-B-857, **THEN PERFORM** the following:
  - 3.1 FOT, **SECURE** running fan.

- 3.2 FSM, **INSTRUCT** CMRO to CLOSE 308 dampers (if remote capability is available from CMR).
- 3.3 FSM, **ENSURE** the Salt Shaft and AIS are covered.
- 3.4 FSM, **ENSURE** the AAIT louvers are in the CLOSED position and inlet grating and damper openings are sealed.
- 3.5 FSM, **INSTRUCT** RadCon to evaluate Station A and Station B filters, **AND PLACE** a CAM at each ventilation shaft.

#### EXIT CONDITION

- Alarm conditions have cleared.
  - Adjustments have been made to clear the alarm.
  - Repair/Replacement of a Pressure Differential Transmitter.
- 1.0 Upon authorization by the President and Project Manager or Operations Manager, **INSTRUCT** CMRO to make the following announcement:
- May I have your attention please (REPEAT)  
  
The ventilation system issue at the WIPP Site has been resolved.  
  
The precautionary remain indoors measure has been lifted.  
  
All Site personnel resume normal operations.
  - **REPEAT PREVIOUS MESSAGE**

**MOD AND/OR HI FILTER UNIT CMS HIGH DP ALARM**

<b>LOCAL ALARM PANEL</b>	<b>HIGH SET POINT</b>
PDAH-056-002/006 MOD EFF. FILTER HEPA UNIT 41-B-856/857	3.0 inch wg
PDAH-056-003/007 HIGH EFF. FILTER HEPA UNIT 41-B-856/857	2.5 inch wg
<b>CMS ALARM</b>	<b>HIGH SET POINT</b>
413 UVFS MOD FLTR 856/857	3.0 inch wg
413 UVFS HI FLTR 856/857	2.5 inch wg

**AUTOMATIC ACTIONS**

- NONE

**IMMEDIATE ACTIONS**

1.0 CMRO, **PERFORM** the following announcement:

- May I have your attention please (REPEAT)

There is a ventilation system irregularity at the WIPP Site.

All U/G personnel suspend work activities and report to the underground egress hoist stations for a controlled egress.

Suspend all site activities.

All non-essential personnel remain indoors as a precautionary measure.

- **REPEAT PREVIOUS MESSAGE**

2.0 FSM, **SEND FOT** to EFB 413 to verify 41-B-856/857 filter bank local readings.



**SUBSEQUENT ACTIONS**

- 1.0 **IF** local readings are NORMAL (MOD filter less than 3.0 inch wg AND HI filter less than 2.5 inch wg),  
**THEN PERFORM** the following:
  - 1.1 FOT, **MONITOR** local readings.
  - 1.2 FSM, **CONTACT** COG Engineer and Operations Manager for recommendations on continued actions.
- 2.0 **IF** 41-B-856/857 filter bank local readings confirm CMS indications,  
**THEN PERFORM** the following:
  - 2.1 FOT, visually **CHECK** 41-B-856/857 filter banks for abnormal conditions to include no visual change in configuration or obvious system deterioration.
  - 2.2 FOT, **CHECK** for high fan flow above fan set values (57,000 to 63,000 cfm).
  - 2.3 FOT, with FSM approval, **DECREASE** running fan 41-B-860A (41-B-860B) [41 B-860C] flow by rotating vortex manual handwheel CW (desired flow with both filter banks [41 B 856/41-B-857] I/S is 57,000 to 63,000 cfm, or as directed by COG Engineer).
  - 2.4 FSM, **IF** DPs do NOT stabilize,  
**THEN CONTACT** COG Engineer and Operations Manager for recommendations on continued actions.

**EXIT CONDITIONS**

- Alarm conditions have cleared.
  - Adjustments have been made to clear the alarm.
  - Repair/Replacement of a Pressure Differential Transmitter.
- 1.0 Upon authorization by the President and Project Manager or Operations Manager, **INSTRUCT** CMRO to make the following announcement:
- May I have your attention please (REPEAT)  
  
The ventilation system issue at the WIPP Site has been resolved.  
  
The precautionary remain indoors measure has been lifted.  
  
All Site personnel resume normal operations.
  - **REPEAT PREVIOUS MESSAGE**

## LOSS OF INDICATIONS FOR FILTER BANK(S) IN 41-B-856/857 UNDERGROUND VENTILATION FILTER SYSTEM (UVFS) UNIT(S)

### ENTRY CONDITIONS

**ANY** of the following conditions is TRUE:

- Loss of Mod indication for either or both 41-B-856/857 filter banks in the CMS
- Loss of High Filter Bank indication for either or both 41-B-856/857 filter banks in the CMS
- Loss of HEPA DP indication for either or both 41-B-856/857 HEPA filter banks in the CMS

### AUTOMATIC ACTIONS

- None

### IMMEDIATE ACTIONS

- 1.0 FSM, **SEND** Facility Operations Technician (FOT) immediately to check 41-B-856/857 LOCAL filter bank readings in Exhaust Filter Building 413.

### SUBSEQUENT ACTIONS

- 1.0 FOT, **NOTIFY** FSM immediately whether 41-B-856/857 LOCAL filter bank readings and HEPA filter bank DP indications in Exhaust Filter Building 413 are operable AND normal.
- 2.0 FSM, **IF** LOCAL filter bank readings are operable AND normal for ALL Mod, High, and HEPA filter bank DP indications, **THEN PERFORM** the following actions:
  - 2.1 **MONITOR** local readings.
  - 2.2 **CONTACT** COG Engineer and Operations Manager for recommendations on continued actions.
  - 2.3 **EXIT** procedure.

- 3.0 FSM, **IF ANY** local filter bank readings are inoperable OR abnormal, **THEN DIRECT** Central Monitoring Room Operator (CMRO) to make the following announcement:
- May I have your attention please (REPEAT)
  - There is a ventilation system irregularity at the WIPP Site.
  - All U/G personnel suspend work activities and report to the underground egress hoist stations for a controlled egress.
  - Suspend all site activities.
  - All non-essential personnel remain indoors as a precautionary measure.
  - **REPEAT PREVIOUS MESSAGE**
- 4.0 **IF ONE OR MORE** 41-B-856/857 HEPA filter bank DP indications are lost or inoperable, **THEN PERFORM** the following actions:
- 4.1 **SECURE** running fan 41-B-860A (41-B-860B) [41-B-860C] (depending upon which is running).
- 4.2 **IF** remote capability to close 308 dampers is available from the CMR, **THEN CLOSE** 308 dampers.
- 4.3 At direction of FSM, **ENSURE** the Salt Shaft and Air Intake Shaft (AIS) are covered.
- 4.4 **VERIFY** bulkhead 313 louvers are closed (if operable).
- 4.5 FSM, **INSTRUCT** RadCon to evaluate Station A and Station B filters, and place a CAM at each ventilation shaft.
- 5.0 **IF** one or more Mod and/or High filter bank indications are lost or inoperable, **THEN FOT, STAY** at local filter bank until directed otherwise by FSM, **AND PERFORM** the following:
- 5.1 **VERIFY** 41-B-856/857 filter bank readings to confirm CMS indications.
- 5.2 **IF LOCAL** readings are available, **THEN MONITOR** DPs for filter banks 41-B-856/857.
- 5.3 Visually **CHECK** 41-B-856/857 filter banks for abnormal conditions to include no visual change in configuration or obvious system deterioration.

- 5.4 **OBSERVE AND REPORT** to FSM any available DPs readings on (High and HEPAs) 41-B-856/857 filter banks.
- 5.5 **CHECK AND REPORT** status to FSM for high fan flow above fan set values (above 57,000 – 63,000 cfm).
- 5.6 **WHEN** directed by FSM, **CONTROL** DPs on other filter banks by decreasing running fan 41-B-860A (41-B-860B) [41-B-860C] flow by rotating vortex manual handwheel CW to no lower than 50,000 cfm, or as directed by COG Engineer with FSM approval.
- 5.7 **CONSULT** FSM regarding further actions.
- 6.0 FSM, **CONSULT** COG Engineer and Operations Manager for recommendations on further actions.

### EXIT CONDITIONS

- Where LOCAL Mod, High, and HEPA DP indications are normal and operational and CMS indications are NOT normal or operable:
  - Normal operation of the Central Monitoring System (CMS) is restored and ALL indications (both CMS and LOCAL) are within prescribed limits.
- Successful action has been taken to correct deficiencies.
- HEPA filter bank(s) with ONE 41-B-856/857 Filter Unit Operable at a value as directed by the COG Engineer:
  - Danger tag inoperable 41-B-856/857 Filter Unit inlet and outlet dampers in CLOSED position.
  - Caution tag ALL filtration fans to a value as directed by the COG Engineer.
  - Inoperable 41-B-856/857 Filter Unit isolated and running fan 41-B-860A (41-B-860B) [41-B-860C] flow established at a value as directed by the COG Engineer.

- HEPA Filter Bank(s) with BOTH U/G Filter Units inoperable:
  - Danger tag inoperable U/G Filter Units inlet and outlet dampers in CLOSED position.
  - Danger tag ALL filtration fans – DO NOT RUN.
  - Successful action has been taken to correct deficiencies.
  - Alarms are cleared for BOTH 41-B-856/857 filter units.
- Site operations or limited site operations resumed after a controlled egress only by President & Project Manager or Operations Manager when a fan flow as determined by COG Engineer through one UVFS filter unit is established and maintained.

## WASTE HOIST TOWER ALARM 411-PIT-101

### ENTRY CONDITIONS

ALARMS	SET POINTS
411-PIT-201-101 (AP0249)	-0.15 inch wg OR INOPERABLE

### AUTOMATIC ACTIONS

- None

### IMMEDIATE ACTIONS

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#### NOTE

Habitability is allowed for those personnel currently in the U/G while actions are being taken to restore negative differential pressure or differential pressure monitoring operability. Maintenance personnel may also enter the U/G to correct the alarm conditions.

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1.0 **IF** the U/G is manned,  
**THEN NOTIFY** immediately U/G Facility Engineer (UFE) of alarm condition or loss of CMS indication.

2.0 **IF** the U/G is manned,  
**THEN INSTRUCT** UFE to verify proper bulkhead alignment  
**AND REPORT** status to CMR.

### SUBSEQUENT ACTIONS

3.0 FOT, **CHECK AND REPORT** to CMRO condition of AAIT Relief Dampers.

4.0 **IF BOTH** the Bulkhead Regulator 308 and WHT differential pressure indication/instrumentation are either in an alarm condition or inoperable,  
**THEN PERFORM** the following actions UNTIL the alarm or inoperable condition is corrected: (ESS-2015-01, PAC 8 (C.1))

4.1 **OPEN** necessary WHT doors to ensure up-casting will exit through either the Waste Handling Building (WHB) CH or RH Confinement Ventilation Systems (HEPA filtered).(ESS-2015-01, PAC 8 (C.2)a)

4.2 **STATION** FOT at Waste Hoist Tower (WHT) differential pressure instrumentation, if operable, to report DP to CRM.

#### REFERENCE USE

- 4.3 If U/G is manned, **INSTRUCT** U/G Roving Watch to monitor local differential pressure indicator at Bulkhead Regulator 308 and report to CMR.
- 4.4 **INSTRUCT** Radiation Control to install CAMs at the following locations, **AND ENSURE** CAMs are operable and monitored:
- Waste Hoist Collar area
  - Second floor of the WHT
  - CH Conveyance Loading Room
  - RH Facility Cask Loading Room
- Auxiliary Air Intake (ESS-2015-01, PAC 8 (C.2)b)
- 5.0 FSM, **IF** unable to stabilize DP, **THEN CONTACT** the COG Engineer and Operations Manager for further direction.
- 6.0 FSM, **COVER** AIS and/or Salt Shaft as needed to achieve desired DPs.

**EXIT CONDITIONS**

- Alarm(s) have cleared.
- Adjustments have been made to clear the alarm.
- Repair/Replacement of a Pressure Differential Transmitter.



**LOSS OF UNDERGROUND FILTRATION FAN 860A/B/C****ENTRY CONDITIONS**

<b>ALARMS</b>	<b>SET POINTS</b>
EXH FAN 860A/B/C SHUT DOWN (CMS Point CH5620/5623/5626)	STOP

**AUTOMATIC ACTIONS**

- None

**IMMEDIATE ACTIONS****NOTE**

Immediate Actions 1.0 and 2.0 below may be performed concurrently.

- ESS** 1.0 **(\$)** CMRO, **PERFORM** the following announcement:
- May I have your attention please (REPEAT)
- There is a ventilation system irregularity at the WIPP Site.
- All U/G personnel suspend work activities and report to the underground egress hoist stations for a controlled egress.
- Suspend all site activities.
- All non-essential personnel remain indoors as a precautionary measure.
- **REPEAT PREVIOUS MESSAGE** [ESS-2015-01, 3a] [~~ESS-2015-01, 3a~~]
- 2.0 **START** filtration fan per WP 04-VU1001, *Surface Underground Ventilation and Filtration System Operation*.
- 3.0 **IF** unable to place U/G ventilation in service, **THEN PERFORM** the following:
- **WHEN** directed by FSM, **ENSURE** Salt Shaft and AIS are covered.

- **WHEN** directed by FSM,  
**ENSURE** the AAIT louvers are in the CLOSED position and inlet grating and damper openings are sealed.
  - CMRO, **IF** remote capability to close 308 dampers is available from CMR,  
**THEN CLOSE** dampers 308.
- 4.0 **IF** U/G ventilation fan is OPERATING AND both the Bulkhead Regulator 308 and WHT differential pressure indication/instrumentation are either in an alarm condition or inoperable,  
**THEN GO TO** Waste Hoist Tower Alarm 411-PIT-201-101 in this procedure.  
(ESS-2015-01, PAC 8 (C.1))

### SUBSEQUENT ACTIONS

- 1.0 FSM, **NOTIFY** COG Engineer and Operations Manager of the loss and start of a U/G filtration fan in filtration mode.
- 2.0 CMRO, to limit drafts and airflow from the U/G through a stationary fan,  
**PERFORM** the following measures promptly when power is interrupted:
- 2.1 Fully **CLOSE** either the inlet or outlet control damper on each 860 fan.
- 2.2 **MAINTAIN** damper in CLOSED state until damper opening is necessary to restart an operating fan.

### EXIT CONDITIONS

EXH FAN 41-B-860A (41-B-860B) [41-B-860C] placed in-service.

- 1.0 CMRO, **PERFORM** the following announcement:
- May I have your attention please (REPEAT)  
  
The ventilation system issue at the WIPP Site has been resolved.  
  
The precautionary remain indoors measure has been lifted.  
  
All Site personnel resume normal operations.”
  - **REPEAT** PREVIOUS MESSAGE

## LOSS OF S400 DIFFERENTIAL PRESSURE

### NOTE

Alarm Response to loss of S400 differential pressure is only applicable during U/G Waste Handling mode.

### ENTRY CONDITIONS

ALARMS	SET POINTS
S400 DIFFERENTIAL PRESSURE AIR LOCK (FANS ENABLED) (CMS Point AG6102)	0.20 inch wg

### AUTOMATIC ACTIONS

- None

### IMMEDIATE ACTIONS

- 1.0 CMRO, **IF** pressure in U/G Bulkhead 74-B-309 is less than 0.20 inch wg, **THEN CONTACT** Underground Facility Engineer (UFE) to start high pressure fan(s) (74-B-007 A/B/C and 74-B-008 A/B/C) to maintain pressure at greater than 0.20 inch wg.
- 2.0 UFE/UGRW, **GO TO** WP 04-VU1611, *Pressurization of U/G Bulkhead 74 B-309*, **AND MAINTAIN** greater than 0.20 inch wg in 74-B-309 (S400) from 53P CP03/309.
- 3.0 CMRO, **WHEN** S400 alarm clears, **THEN NOTIFY** UFE/UGRW.
- 4.0 **IF** alarm condition still does not clear, **THEN** UFE, **CONTINUE** starting fans at 74-B-309 (S400) per WP 04-VU1611 to maintain pressure with the airlock.
  - 4.1 **SUSPEND** Waste Handling mode in the U/G and shaft access area.

### SUBSEQUENT ACTIONS

- 1.0 **IF** unable to restore S400 DP, **THEN NOTIFY** the COG Engineer and Operations Manager for further direction.

**EXIT CONDITION**

- Alarm conditions have cleared.
- Adjustments have been made to clear the alarm.
- Repair/Replacement of a Pressure Differential Transmitter.

## LOSS OF BULKHEAD 308 REGULATOR DIFFERENTIAL PRESSURE

### ENTRY CONDITIONS

LOCAL ALARM PANEL	SET POINT
534-PDI-160-528A 534-PDI-160-528B	-0.161 inch wg
LOSS OF INDICATION	INOPERABLE (ESS-2015-01, PAC 8.A)
CMS ALARM	SET POINT
308 Regulator U/G DP4 LOW DP	-0.161 inch wg
LOSS OF INDICATION	INOPERABLE (ESS-2015-01, PAC 8.A)

### AUTOMATIC ACTIONS

- None

### IMMEDIATE ACTIONS

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#### NOTE

Habitability is allowed for those personnel currently in the U/G while actions are being taken to restore negative differential pressure or differential pressure monitoring operability. Maintenance personnel may also enter the U/G to correct the alarm conditions.

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#### NOTE

FSM may at any time direct covering the AIS collar when deemed necessary to regulate airflow down the AIS shaft and/or Salt Shaft.

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- 1.0 CMRO, **MONITOR** DP indications for the Waste Hoist Tower.(ESS-2015-01, PAC 8.B.1, and PAC 8.C.3)
- 2.0 CMRO, **IF** the U/G is manned,  
**THEN PERFORM** the following actions:
  - 2.1 **NOTIFY UFE AND CONSULT** regarding cause of alarm. (ESS-2015-01, PAC 8.B.2 and PAC 8.C.3)
  - 2.2 **STATION** operator at U/G Bulkhead 308 regulator to **MONITOR AND REPORT** DP readings to CMR. . (ESS-2015-01, PAC 8.B.2 and PAC 8.C.3)

- 3.0 **IF** U/G Bulkhead 308 DP sensor readings are above -0.161 inch wg, **THEN ADJUST** 308 Regulator to clear alarm condition. . (ESS-2015-01, PAC 8.B.2 and PAC 8.C.3))
- 4.0 **IF** 308 regulator is completely CLOSED and alarm has not cleared, **THEN PERFORM** the following actions: . (ESS-2015-01, PAC 8.B.2 and PAC 8.C.3)
- 4.1 **COVER** AIS collar and/or Salt collar, as necessary.
- 4.2 **ENSURE** an 860 fan is in operation per WP 04-VU1001.
- 4.3 **ADJUST** 308 Regulator per WP 04-VU1004.
- 5.0 **IF** both the Bulkhead Regulator 308 and WHT differential pressure indication/instrumentation are either in an alarm condition or inoperable, **THEN PERFORM AND MAINTAIN** the following actions until either condition is corrected:
- 5.1 **OPEN** necessary WHT doors to ensure up-casting will exit through either the Waste Handling Building (WHB) CH or RH Confinement Ventilation Systems (HEPA filtered). (ESS-2015-01, PAC 8 (C.2)a)
- 5.2 **INSTRUCT** Radiation Control to install CAMs at the following locations and ensure CAMs are operable and monitored:
- Waste Hoist Collar area
  - Second floor of the WHT
  - CH Conveyance Loading Room
  - RH Facility Cask Loading Room
  - Auxiliary Air Intake (ESS-2015-01, PAC 8.(C.2)b)

## SUBSEQUENT ACTIONS

- 1.0 **IF** unable to restore 308 Louver DP, **THEN CONTACT** the COG Engineer and Operations Manager for further direction. . (ESS-2015-01, PAC 8.B.2 and PAC 8.C.3)
- 1.1 FSM, **INSTRUCT** the covering of the AIS collar and/or Salt Shaft collar with staged material. . (ESS-2015-01, PAC 8.B.2 and PAC 8.C.3)
- 1.2 **ADJUST** 74-B-308 Regulator via the CMS as needed to achieve 308 Louver DP with COG Engineer and FSM approval. . (ESS-2015-01, PAC 8.B.2 and PAC 8.C.3)

## EXIT CONDITION

## REFERENCE USE

- Alarm is cleared.
- Adjustments have been made to clear the alarm.
- Repair/Replacement of a Pressure Differential Transmitter.