Changes “Other Than Inconsequential” Require These Additional Reviews:

Radiological Controls:
Central Radcon Organization

USQ # EV-16-0146-S, Rev 3

<table>
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<tr>
<th>CHANGE HISTORY (≤ 5 REV-MODS)</th>
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| N-2     | 07/25/2018   | Operations Request | Page 2 Step 1.1.1 Struck out second and third bullets  
Page 3 Step 2.1.4 Struck out "for HPT and IHT Survey"  
Step 2.1.5.1 changed "BED" to "Shift manager"  
Struck out Step 2.1.6.1  
Step 2.1.8 struck out HPTs  
Step 2.1.8.1 Struck out "IHT/HPT" and "and/or chemical (VOCs and ammonia)"  
Page 4 struck out Step 2.2.2  
Page 5 3.1 struck out "and chemical (VOCs and ammonia)"  
Struck out all of Section 3.2  
Pages 7 & 8 Updated Duty Card to reflect procedure. |
| N-1     | 11/29/2017   | Operations Request | Added Step 2.1.1 to address recording step completion. Changed RECORD section to generate no records |
| N-0     | 10/03/2016   | Periodic Review   | Modified note – clarification of duty card and Shift Manager responsibilities. Updated records section to comply with standard. |
| M-1     | 02/02/2016   | Operations Request | Added step 3.2.1.1 "REMOVE tape from radiological area doors/entrances." |
| M-0     | 12/22/2015   | Periodic review   | Modified 1.1.1, 2.1.8, 2.2.1, 2.2.2, 3.2.1, Added new 2.1.4, 2.1.4.1 struck out 5.1.5.0, 2.1.6.0, 2.1.10 |
NOTE - This procedure is not intended to be used as a stand-alone procedure. It is a guide for the 242-A Shift Manager (SM) to ensure appropriate actions are performed in the event of an emergency.

- This is a guide to assist the operator and Shift Manager in placing the facility in a safe configuration.

Steps in this procedure may be performed simultaneously or in any logical order, depending on situational needs.

The attached Duty Card is to be completed by the A-1 operator. Since not all procedural steps are included in the Duty Card, the Shift Manager will ensure that all procedural steps are reviewed and the necessary steps are performed.

- Any change to the body of this procedure requires review of Attachment 1 to determine if changes to Attachment 1 are also required.

1.0 INITIATING CONDITIONS

1.1.1 Activation of two or more of the following (indications of Loss-of-Confinement in 242-A Evaporator):

- Survey Area Personnel Contamination Monitor (PCM) Alarm
- RSH-ARCB [G23, F41/7] – COND RM BASEMENT AREA RAD HIGH.
- K1 Filter failure as indicated by exhaust stack CAM alarm: RSH-1 [G22, F44/1] STACK SAMPLE HIGH RAD ALARM
- Radioactive waste/feed line release into Pump Room or Evaporator Room.
242-A Respond to Evaporator High Radiological Release

2.0 ACTIONS

2.1 Initial Actions

2.1.1 WHEN performing Step 2.1.2, WRITE time of step completion on the laminated Duty Card AND RECORD time of step completion in the A-1 or Shift Manager logbook.

2.1.2 DIRECT control room operator to perform actions per Attachment 1.

2.1.3 IF a loss of confinement in 242-A Evaporator is indicated, DETERMINE if a loss of negative pressure (> 0.0 inch water gauge) in radiologically controlled (hot side) areas has occurred as confirmed by 2 of the 3 following radiologically controlled area pressure indicators (located on the VCS HMI):

Indicators
- PDI-K1-305 EVAP ROOM
- PDIC-K1-304 PUMP ROOM
- PDIC-K1-303 CONDENSER ROOM.

2.1.4 DIRECT all non-essential personnel to the lunch room.

2.1.5 PERFORM facility accountability.

2.1.5.1 IMMEDIATELY REPORT any missing persons to the Shift Manager.

2.1.6 IF personnel are found to be contaminated, SEGREGATE them from others.

2.1.7 SECURE impacted area.

2.1.8 INVESTIGATE cause of high radiation alarms with operators and HPTs.

2.1.8.1 IF results of investigation warrants, ESTABLISH radiological monitoring.
2.1 Initial Actions (Cont.)

2.1.9 **EVALUATE** need to evacuate, or to remain in a non-radiological safe area in the 242-A Facility **AND**

**IF** facility evacuation is necessary **IMPLEMENT** TF-ERP-001.

2.1.10 **PROVIDE** the following to BED:
- Facility status
- Personnel accountability
- Location of personnel.

2.2 Follow-up Actions

2.2.1 **IF** K1 Ventilation System is off (loss of negative pressure in radiological areas), **SECURE** radiological areas (doors taped).
3.0 RECOVERY

3.1 Termination/Exit Criteria

- Confinement in 242-A Evaporator is confirmed or restored
- K1 ventilation system restored
- Spill/leak contained
- Radiation readings have returned to an acceptable level
- Emergency is terminated in accordance with RLEP 3.4 Event Termination, Reentry and Recovery.
4.0 RECORDS

The performance of this procedure generates no records.

The record custodian identified in the Company Level Records Inventory and Disposition Schedule (RIDS) is responsible for record retention in accordance with TFC-BSM-IRM_DC-C-02.
242-A Respond to Evaporator High Radiological Release

Attachment 1 – 242-A Radiological Release Duty Card

MULTIPLE ALARMS

IF Process Operations are in progress, SCAN the MCS for abnormal conditions that initiated the radiation alarm

NOTE
Use ARP-T-601-023 for a SINGLE CAM/ARM alarm

TIME LINE

CONTINUED

YES

NOTIFY Shift Manager, IF Directed PERFORM a controlled shutdown via TO-600-060.

NO

IF unsafe to remain in the facility and perform a controlled shutdown, THEN DEPRESS SEISMIC SHUTOFF button in control room AND EVACUATE to appropriate staging area, or as directed by Shift Manager.

ACCOUNT for all personnel

☐ Essential personnel
☐ Nonessential personnel

NOTIFY BED of conditions and status.

PERFORM Personnel Protective Actions

☐ DIRECT non-essential personnel to the lunch room or safe location

☐ DIRECT Operations, IHT, and HPT personnel to the lunch room or safe location.

☐ SECURE the affected area.

NOTIFY Shift Manager

ACCOUNT for all personnel

☐ Essential personnel
☐ Nonessential personnel

CONTINUED
242-A Respond to Evaporator High Radiological Release

Attachment 1 – 242-A Radiological Release Duty Card (Cont.)

TIME LINE

A

IF someone is missing, NOTIFY Shift Manager

INFORM HPTs of active radiation alarms, personnel locations, and to:
☐ TROUBLESHOOT radiation monitors.
☐ CONDUCT building monitoring as necessary.
☐ SURVEY personnel for possible contamination.

Active Radiation Alarms in Non-Radiation Areas of Building?

NO

ENSURE either K1-5-2 or K1-5-3 exhaust fan is RUNNING (SOE), and confinement area is negative in pressure. (per local indicators or on VCS HMI in Control Room) (SOE)

YES

IF neither K1-5-2 or K1-5-3 exhaust fan is operating TAPE UP radiation area doors and openings both inside and outside building.

DIRECT all nonessential personnel to evacuate to the appropriate staging area or to a location directed by the SM and AWAIT HPT personal surveys and monitoring.

SHUT DOWN K2-5-1, K2-5-2, and K2-5-3 to minimize contamination migration (SOE).

SHUT DOWN Lunch Room A/C, HPT Office A/C and Shift Office Heat Pump.

PROCEED to TF-ERP-EVAP-005 for Recovery Actions