Operate Chain Hoist with Electromagnetic Lifting Device at 6241-A Diversion Box and 6241-V Vent Station

Tank Farm Plant Operating Procedure 6241-A and 6241-V Buildings

USQ # GCX-2

<table>
<thead>
<tr>
<th>Rev-Mod</th>
<th>Release Date</th>
<th>Justification</th>
<th>Summary of Changes</th>
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<tr>
<td>F-1</td>
<td>08/10/2016</td>
<td>Inconsequential change requested by records management.</td>
<td>Updated records section.</td>
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<tr>
<td>F-0</td>
<td>10/16/2014</td>
<td>Periodic review</td>
<td>Added hearing protection per JHA. Added Step to address IH Sample Plan per JHA. Modified Step 4.2.4 to remove extraneous information not required to perform the Step.</td>
</tr>
<tr>
<td>E-1</td>
<td>07/22/2014</td>
<td>Global Change per 3-FCD-728 C-11.</td>
<td>Added leading zeroes to PMID numbers with less than 6 digits.</td>
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<tr>
<td>E-0</td>
<td>10/04/2012</td>
<td>All changes are as a result of the periodic review process.</td>
<td>Deleted Section 4.2. Added new Step 4.2.6. Deleted old Step 5.1.7. Modified wording in Step 5.2.16.</td>
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<tr>
<td>D-1</td>
<td>09/14/2010</td>
<td>New formatting standard</td>
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1.0 PURPOSE AND SCOPE

1.1 Purpose

This procedure provides instructions to operate the Chain Hoists with Electromagnetic Lifting Devices, located in the 6241-A DIVERSION BOX and 6241-V VENT STATION Buildings in support of Cross Site Transfer Line System activities.

1.2 Scope

The procedure applies to the Chain Hoists with Electromagnetic Lifting Devices located in the 6241-A DIVERSION BOX and 6241-V VENT STATION Buildings.

2.0 INFORMATION

None
3.0 PRECAUTIONS AND LIMITATIONS

3.1 Personnel Safety

**WARNING** - Failure to remove debris from the floor plate surface or the lifting face of the electromagnet will seriously reduce the lifting capacity of the magnet and could result in a dropped load causing injury to personnel.

**WARNING** - Interrupted power to the Electromagnetic Lifting Device will cause an immediate drop of load causing a serious hazard to personnel and equipment.

**WARNING** - Lifting of floor plates may expose additional radiological hazards and could result in contamination of personnel.

**WARNING** - Failure to wear appropriate PPE including hearing protection when removing or replacing Steel Floor Plates may cause injury to personnel.

**WARNING** - Exceeding limits of a maximum of 15 minutes ON cycle after which a minimum OFF cycle of 15 minutes before re-energizing the device could result in a failure of the device and a dropped load.

**WARNING** - Failure to keep steel floor plate below the minimum level required to allow travel could result in injury to personnel.

3.2 Equipment Safety

**CAUTION** - Exceeding floor loading restrictions listed on wall and entrance door labels may cause damage to equipment or building.

3.3 Radiation and Contamination Control

3.3.1 When performed without a work package, this procedure is limited to radiological areas and work activities permitted by a general Radiological Work Permit (RWP).

3.3.2 When work is performed in or when work will result in a high contamination, high radiation, or an airborne radioactivity area, an approved work package must be developed which is reviewed by Radiological Control per the ALARA work planning procedure TFC-ESHQ-RP_RWP-C-03.

3.3.3 HPT coverage is required during lifting of floor plates as this may expose additional radiological hazards.
4.0 PREREQUISITES

4.1 Special Tools, Equipment, and Supplies

The following equipment may be required before entry into building or vault rooms:
- Portable lighting (minimum requirement is a flashlight).

4.2 Field Preparation

NOTE - The following actions may be performed in any logical order or in parallel.

4.2.1 CONFIRM IH Sample Plan has been issued covering the work.

4.2.2 CONFIRM Operator of Chain Hoist has completed the Basic Crane and Rigging Course.

4.2.3 VERIFY Gantry Bridge, Trolley, and Chain Hoist yearly inspection has been performed per Data Sheets WT-005929 (6241-A) and WT-005932 (6241-V).

4.2.4 CLEAN surface of floor plate and lifting face of electromagnet.

WARNING

Failure to remove debris from the floor plate surface or the lifting face of the electromagnet will seriously reduce the lifting capacity of the magnet and could result in a dropped load causing injury to personnel.
4.2 Field Preparation (Cont.)

4.2.5 PRIOR to and during entry into the vault or buildings, REQUEST IHT support to monitor for oxygen, flammable gas, VOCs, and ammonia.

**WARNING**

Lifting of floor plates may expose additional radiological hazards and could result in contamination of personnel.

4.2.6 REQUEST Health Physics organization assistance to perform this procedure.

4.2.7 IF a solenoid-operated valve is protruding through a steel floor plate being removed, CONTACT Maintenance Management AND REQUEST maintenance disassemble valve.

4.2.8 PERFORM a pre-job safety brief.
5.0 PROCEDURE

NOTE - Section 5.1 and Section 5.2 are generic for use in 6241-A DIVERSION BOX and 6241-V VENT STATION Buildings.

5.1 Remove Steel Floor Plates

WARNING
Failure to wear appropriate PPE including hearing protection when removing or replacing Steel Floor Plates may cause injury to personnel.

5.1.1 DON the following PPE.
- Hard hats
- Hearing protection
- Safety shoes
- Leather gloves
- Safety glasses.

5.1.2 CONFIRM the following:
- Electromagnetic lifting device power switch is in the OFF position
- Electromagnetic lifting device power cord is twist-locked to one of the two 120 VAC receptacles, located on north wall.

5.1.3 POSITION gantry bridge and trolley over electromagnetic lifting device.

5.1.4 LOWER AND SECURE chain hoist hook onto electromagnetic lifting device.

5.1.5 LOCATE steel floor plate to be removed.
5.1 Remove Steel Floor Plates (Cont.)

5.1.6 ENSURE clear path for movement of floor plate to laydown area.

5.1.7 RAISE electromagnetic lifting device to level that ensures device will clear valve actuators.

5.1.8 POSITION gantry bridge and trolley over steel floor plate being removed.

5.1.9 LOWER electromagnetic lifting device onto steel floor plate being removed.

**WARNING**

Interrupted power to the electromagnetic lifting device will cause an immediate drop of load causing a serious hazard to personnel and equipment.

**WARNING**

Exceeding limits of a maximum of 15 minutes ON cycle after which a minimum OFF cycle of 15 minutes before re-energizing the device could result in a failure of the device and a dropped load.

5.1.10 PLACE electromagnetic lifting device power switch in the ON position.

**WARNING**

Lifting of floor plates may expose additional radiological hazards and could result in contamination of personnel.

5.1.11 BEFORE proceeding, CONFIRM an HPT is present.
5.1 Remove Steel Floor Plates (Cont.)

**WARNING**

Failure to keep steel floor plate below the minimum level required to allow travel could result in injury to personnel.

5.1.12 RAISE steel floor plate to minimum level required to allow travel.

5.1.13 SLOWLY MOVE steel floor plate to pre-determined laydown area.

**CAUTION**

Exceeding floor loading restrictions listed on wall and entrance door labels may cause damage to equipment or building.

5.1.14 LOWER steel floor plate onto floor.

5.1.15 PLACE electromagnetic lifting device power switch in the OFF position.

5.1.16 IF load has not been released within 2 seconds, MOMENTARILY PLACE electromagnetic lifting device power switch in the RELEASE position.

5.1.17 AFTER load has been released, UNPLUG electromagnetic lifting device power cord.

5.1.18 RETURN work area to as-found condition.

5.1.19 IF desired, DOFF the following PPE.

- Hard hats
- Hearing protection.
5.2 Replace Steel Floor Plates

**WARNING**
Failure to wear appropriate PPE when removing or replacing Steel Floor Plates may cause injury to personnel.

5.2.1 **DON** the following PPE.
- Hard hats
- Hearing protection
- Safety shoes
- Leather gloves
- Safety glasses.

5.2.2 **PLACE** electromagnetic lifting device onto steel floor plate to be replaced.

5.2.3 **CONFIRM** the following:
- Electromagnetic lifting device power switch is in the OFF position
- Electromagnetic lifting device power cord is twist-locked to one of the two 120 VAC receptacles located on north wall.
5.2 Replace Steel Floor Plates (Cont.)

**WARNING**

Interrupted power to the electromagnetic lifting device will cause an immediate drop of load causing a serious hazard to personnel and equipment.

**WARNING**

Exceeding limits of a maximum of 15 minutes ON cycle after which a minimum OFF cycle of 15 minutes before re-energizing the device could result in a failure of the device and a dropped load.

5.2.4 **PLACE** electromagnetic lifting device power switch in the ON position.

**WARNING**

Failure to keep steel floor plate below the minimum level required to allow travel could result in injury to personnel.

5.2.5 **RAISE** steel floor plate to minimum level required to allow travel.

5.2.6 **POSITION** gantry bridge and trolley over steel floor plate original location.

5.2.7 **LOWER** steel floor plate into original position.

5.2.8 **PLACE** electromagnetic lifting device power switch in the OFF position.
5.2 Replace Steel Floor Plates (Cont.)

5.2.9 IF load has not been released within 2 seconds, **MOMENTARILY PLACE** electromagnetic lifting device power switch in the RELEASE position.

5.2.10 **AFTER** load has been released, **UNPLUG** electromagnetic lifting device power cord.

5.2.11 **POSITION** gantry bridge and trolley over electromagnetic lifting device storage location.

5.2.12 **LOWER** electromagnetic lifting device onto floor.

5.2.13 **REMOVE** chain hoist hook from electromagnetic lifting device.

5.2.14 **POSITION** gantry bridge and trolley in position that ensures chain hoist and hook will not interfere with operations.

5.2.15 **STORE** electromagnetic lifting device power cord.

5.2.16 **IF** any solenoid-operated valve was disassembled to allow steel floor plate to be lifted, **REQUEST** maintenance reassemble valve.

5.2.17 **RETURN** work area to as-found condition.

5.2.18 **IF** desired **DOFF** the following PPE.

- Hard hats
- Hearing protection
- Leather gloves.
5.3 Records

5.3.1 **PERFORM** the following for records identified within this procedure.

5.3.1.1 **RECORD** the number of times the record was generated in applicable column

OR

5.3.1.2 **SUBMIT** the package to FWS/OE/Shift Manager.

<table>
<thead>
<tr>
<th>Records Submittal Checklist</th>
<th>Number of times completed</th>
<th>N/A (✓)</th>
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<tbody>
<tr>
<td>4.2 Field Preparation</td>
<td></td>
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</tr>
<tr>
<td>Step 4.2.3</td>
<td></td>
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</tr>
<tr>
<td>送件至FWS/OE/Shift Manager SEND the completed records with Records Submittal Checklist attached to the Central Shift Office for records retention.</td>
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</tbody>
</table>

_________________________ / ________________ / ________________
Signature                  Print (First and Last)       Date
FWS/OE/Shift Manager

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.