

# WP 05-WH1002

Revision 13

## TRUDOCK Operation 41-T-152 & 41-T-153

Technical Procedure

EFFECTIVE DATE: 11/21/08

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APPROVED FOR USE

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## **INTRODUCTION**

This procedure provides instructions for the alignment and operation of the TRUDOCK system.

This procedure generates quality records in the Equipment Logbook.

## **REFERENCES**

### **BASELINE DOCUMENTS**

- 41-F-070-W, Waste Handling Building 411 TRUPACT Dock Vacuum and Exhaust P&ID
- 41-M-001-W, Waste Handling Facilities TRUPACT Dock Equipment Arrangement

### **REFERENCED DOCUMENTS**

- WP 05-WH1101, Surface Transuranic Mixed Waste Handling Area Inspections

## **PRECAUTIONS AND LIMITATIONS**

- Only personnel qualified as a Waste Handling Technician/Engineer (WHT/WHE), or trainees operating under the direct supervision of a qualified WHT/WHE, are authorized to perform the waste handling (WH) activities specified in this procedure.
- WHE is to be notified of any abnormal reading, indication, or equipment operation.
- TRUDOCK Bay doors are not to be operated while personnel are in operating zone.
- TRUDOCK Bay doors are not to be operated with TRUDOCK covers installed.
- Support leg on TRUDOCK Bay door is to be in vertical position when lowering.
- Support leg on TRUDOCK Bay door is to be properly recessed before inserting or removing contact-handled (CH) packaging.
- Waste Handling Building heating, ventilation, and air conditioning (HVAC) system and TRUDOCK Vent Hood Exhaust Fan are to be in operation before operating Dock Vacuum System (DVS).

- Vent Hood High-Efficiency Particulate Air (HEPA) filter differential pressure **MUST BE** within 0.5 to 1.5 in. of water, otherwise operations are to be secured and WHE notified.
- WHE, review Equipment Logbook on a weekly basis, generally the last day of the workweek.

## PREREQUISITE ACTIONS

- 1.0 Perform TRUDOCK preoperational check prior to operating for the first time on a shift.
- 2.0 Review Equipment Logbook, for the previous shift, for TRUDOCK intended for use for outstanding deficiencies and Action Requests (ARs).

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### NOTE

Preoperational checks are only required for the TRUDOCK position(s) intended for use as designated by the crew manager.

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## PERFORMANCE

- 1.0 TRUDOCK PREOPERATIONAL CHECK
  - 1.1 Ensure CH packaging stands are in place at each TRUDOCK position intended for use and ground strap is securely fastened to TRUDOCK and CH packaging stands.
  - 1.2 Ensure each 1/4 in. adapter is welded to a 3/8 in. extension at any TRUDOCK station, intended for use.

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### NOTE

If WEST DOCK is designated for use begin at Step 1.3. If EAST DOCK is designated for use then proceed to Step 1.8.

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### NOTE

Both TRUDOCKS may be designated for use; if directed by the crew manager, Steps 1.3 through 1.7 and Steps 1.8 through 1.12 may be performed in parallel.

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- 1.3 Start Vent Hood Exhaust Fan 41-B-015 by pressing START button on power panel 41-BS-015.
- 1.4 Ensure the following for TRUDOCK 41-T-152, WEST DOCK:
  - Damper for Vent Fan 41-B-015 in **OPEN** position
  - Dampers 41-K-013A & C are approximately 3/4 **OPEN**

- All gauges within calibration
  - 41P-SW03/10 and 41P-SW03/11 in the **ON** position
- 1.5 **IF** operating Dock Vacuum System 41-G-048A,  
**THEN** press **START** button on panel 41-GS-048A.
- 1.6 **IF** operating Dock Vacuum System 41-G-048B,  
**THEN** press **START** button on panel 41-GS-048B.
- 1.7 Perform the following:
- Remove rubber port cap on Damper 41-K-013A and verify the differential pressure on 411-PDI-070-021 is between 0.5 and 1.5 in. of water.
  - Remove rubber port cap on Damper 41-K-013C and verify the differential pressure on 411-PDI-070-023 is between 0.5 and 1.5 in. of water.
- 1.8 Start Vent Hood Exhaust Fan 41-B-016 by pressing **START** button on power panel 41-BS-016.
- 1.9 Ensure following for TRUDOCK 41-T-153, EAST DOCK:
- Damper for Vent Fan 41-B-016 in **OPEN** position
  - Dampers 41-K-014A & C are approximately 3/4 **OPEN**
  - All gauges within calibration
  - 41P-SW03/12 and 41P-SW03/13 in the **ON** position
- 1.10 **IF** operating Dock Vacuum System 41-G-049A,  
**THEN** press **START** button on panel 41-GS-049A.
- 1.11 **IF** operating Dock Vacuum System 41-G-049B,  
**THEN** press **START** button on panel 41-GS-049B.
- 1.12 Perform the following:
- Remove rubber port cap on Damper 41-K-014A and verify the differential pressure on 411-PDI-070-024 is between 0.5 and 1.5 in. of water.
  - Remove rubber port cap on Damper 41-K-014C and verify the differential pressure on 411-PDI-070-026 is between 0.5 and 1.5 in. of water.

- 1.13 Notify WHE of the operational status of the TRUDOCK and of any deficiencies discovered during preoperational checks and status of each (e.g., deficiencies corrected and ARs generated).
- 1.14 Record the following in Equipment Logbook:
  - Deficiencies noted
  - Corrective action taken (outstanding/newly generated ARs, etc.)
- 1.15 Enter date, time, and signature in Equipment Logbook to document performance of preoperational checks.
- 1.16 Initiate ARs to address any deficiencies that **CANNOT** be corrected by Waste Handling Operations.
- 1.17 If applicable, complete appropriate sections of WP 05-WH1101, Attachment 5, Preoperational Waste Handling Mode Checklist.

## 2.0 OPERATING TRUDOCK BAY DOORS

### 2.1 Opening TRUDOCK doors:

- 2.1.1 Ensure TRUDOCK safety rails are upright and chains are in place.
- 2.1.2 Release dock gate locks and swing gates outward.

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#### **NOTE**

Emergency STOP button is located on panel adjacent to dock doors.

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- 2.1.3 Ensure Emergency STOP button is in RELEASE (out) position.

#### **CAUTION**

Damage to equipment or personnel is possible if the TRUDOCK bay doors come in contact with TRUPACT or halfPACT while opening or closing.

- 2.1.4 Ensure TRUDOCK Bay door travel path is clear of obstacles prior to opening **AND** remain on station until doors are fully open.
- 2.1.5 Press RAISE button, using dock position door power panel to open door.

### 2.2 Lowering TRUDOCK doors:

- 2.2.1 Ensure dock gates are fully open.

- 2.2.2 Ensure Emergency STOP button is in RELEASE (out) position.
- 2.2.3 Ensure TRUPACT/halfPACT is properly positioned in TRUDOCK by ensuring a uniform 2 in. spacing between the TRUDOCK pocket rubber bumpers and the TRUPACT/halfPACT.

### **CAUTION**

Damage to equipment or personnel is possible if the TRUDOCK bay doors come in contact with TRUPACT or halfPACT while opening or closing.

- 2.2.4 Ensure TRUDOCK Bay door travel path is clear of obstacles prior to lowering **AND** remain on station until doors are fully closed.
- 2.2.5 Press LOWER button, using dock position door power panel to close door.
- 2.2.6 Swing dock gates to closed position.
- 2.2.7 Engage dock gate locks.
- 2.2.8 Remove safety chains and lower TRUDOCK safety rails.

## 3.0 OPERATING THE CH PACKAGING VENT HOOD

### 3.1 Installing Vent Hood

- 3.1.1 Inspect vent hood for rips, tears, and any other deficiencies that would preclude its use for CH packaging operations.
- 3.1.2 Install Canberra Alpha Continuous Air Monitor (CAM) sampling head.
- 3.1.3 Connect vent hose to exhaust port on the vent hood.
- 3.1.4 Open access port opposite the exhaust port.

### 3.2 Removing Vent Hood

- 3.2.1 Disconnect vent hose from vent hood.
- 3.2.2 Remove vent hood.
- 3.2.3 Remove Canberra Alpha CAM sampling head.

## 4.0 OPERATING THE DVS

4.1 **IF** using DVS for pulling a vacuum,  
**THEN** perform following:

- 4.1.1 Ensure vacuum valve is CLOSED.
- 4.1.2 Attach vacuum hose to vent port tool.
- 4.1.3 Press START button on vacuum system panel.
- 4.1.4 Ensure vacuum valve is in OPEN position.

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### NOTE

Vacuum pump shut-off is set at 16 minutes, which will provide no more than 15 in. of Hg (mercury).

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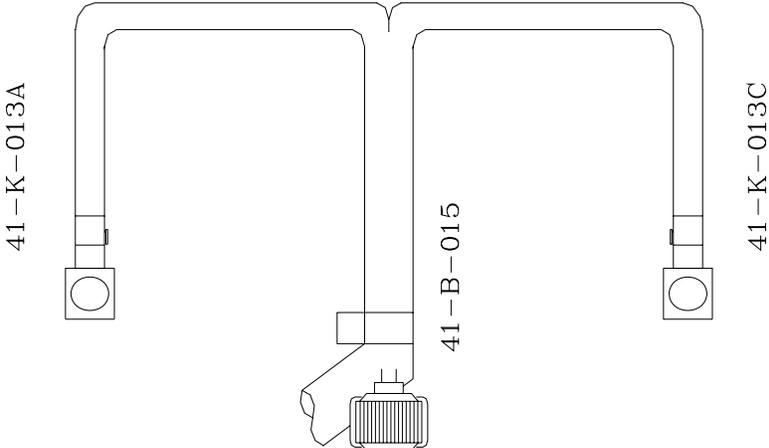
- 4.1.5 **WHEN** desired gauge indication is met,  
**THEN** place vacuum/vent valve to CLOSED position.
- 4.1.6 Stop vacuum pump.
- 4.1.7 Disconnect vacuum line.

## 5.0 SECURING FROM TRUDOCK OPERATIONS

- 5.1 **IF** operating Dock Vacuum System 41-G-048A,  
**THEN** press **STOP** button on panel 41-GS-048A.
- 5.2 **IF** operating Dock Vacuum System 41-G-048B,  
**THEN** press **STOP** button on panel 41-GS-048B.
- 5.3 **IF** operating Dock Vacuum System 41-G-049A,  
**THEN** press **STOP** button on panel 41-GS-049A.
- 5.4 **IF** operating Dock Vacuum System 41-G-049B,  
**THEN** press **STOP** button on panel 41-GS-049B.
- 5.5 Ensure the following:
  - Vacuum pumps are off.
  - Vent hood fans are off.

Attachment 1 - CH Packaging Vent Hood Connection

WEST DOCK (41-T-152)



ENG-99-064

EAST DOCK (41- T-153)

