

WP 05-WH1711

Revision 9

6-Ton Diesel Forklift 52-H-007C

Technical Procedure

EFFECTIVE DATE: 07/12/10

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APPROVED FOR USE

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CHANGE HISTORY SUMMARY

REVISION NUMBER	ISSUED DATE	DESCRIPTION OF CHANGES
9	07/12/10	Field revision to correct SR number from SR 10 to SR11.

INTRODUCTION

This procedure provides guidance for operating the 6-Ton Toyota Forklift (52-H-007C) at the Waste Isolation Pilot Plant (WIPP).^{1,2}

Performance of this procedure generates the following record(s), as applicable:

- Equipment Logbook

REFERENCES

BASELINE DOCUMENTS

- Title 30 *Code of Federal Regulations* (CFR) Part 56, "Safety and Health Standards - Surface Metal and Nonmetal Mines"
- 30 CFR Part 57, "Safety and Health Standards - Underground Metal and Nonmetal Mines"
- 30 CFR Part 58, "Health Standards for Metal and Nonmetal Mines"
- 40 CFR §264.15, "General Inspection Requirements"
- DOE Standard 1090-2007, *Hoisting and Rigging*
- DOE/WIPP-07-03372, *Waste isolation Pilot Plant Documented Safety Analysis*
- DOE/WIPP-07-3373, *Waste Isolation Pilot Plant Technical Safety Requirements*
- 00CD-0001, WIPP Mine Ventilation Plan
- WP 13-1, Washington TRU Solutions LLC Quality Assurance Program Description
- *Toyota Operator's and Owner's Manual*

REFERENCED DOCUMENTS

- WP 04-AD3001, Facility Mode Compliance

PRECAUTIONS AND LIMITATIONS

The Technical Safety Requirements (TSRs) contains Limiting Conditions for Operations (LCOs) and Specific Administrative Controls (SACs) which provide specific preventative or mitigative limits and required actions for identified accident scenarios. Failure to comply with LCOs or SACs may constitute a violation and must be immediately reported to the Facility Shift Manager (FSM). The step affected by the LCO/SAC is followed by the LCO/SAC number in bold brackets (e.g., **[LCO 3.X.X]**).

Applicable LCO/SAC Surveillance Data Sheets SHALL be completed as required per WP 04-AD3001, Facility Mode Compliance, prior to utilizing equipment selected for use.

The specific safety requirements that apply during performance of this procedure are as follows:

- Only qualified 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 activities specified in this procedure.
- The 6-ton forklift **SHALL NOT** be operated in an active disposal room **UNLESS** there is a minimum of 42,000 cfm air flow in the room. There must be a minimum of 20,000 cfm to operate the forklift in any other area of the underground (U/G).
- Equipment horn must be sounded whenever:
 - Starting or moving equipment,
 - Approaching an intersection,
 - Encountering an area of limited visibility, or
 - Approaching pedestrian(s).
- Exceeding the 14,000-lb load carrying capacity at 24-inch load center or the 12,500-lb load carrying capacity at a 30-inch load center, as specified on the data plate of the 52-H-007C forklift, can cause personal injuries or equipment damage.
- Battery charging for the remote-handled (RH) 6-ton waste handling forklift shall not be done within 100 feet of the contact-handled (CH) waste face.
- If battery charging for the RH 6-ton waste handling forklift is performed in the disposal circuit, it must only be performed in a cross-cut or in an unused room in the disposal circuit.
- Battery charging for the RH 6-ton waste handling forklift shall not be done in the disposal path during CH waste transport.
- When operating forklift in close proximity to overhead power lines and obstacles, a spotter shall be used.
- Hands, feet, and other body parts shall be kept inside Forklift Operator's designated area to prevent personal injury.
- The carrying of passengers is prohibited.
- During load movements that impair the Forklift Operator's view, a spotter shall be used.
- If forklift becomes inoperable, WHE must be notified.

- No non-waste-handling vehicles are allowed in the active disposal room during waste handling operations.
- A spotter is required when diesel-powered vehicles are operating within 100 feet of the waste face.
- A spotter is required when any diesel-powered vehicles are operating within 100 feet of the Horizontal Emplacement and Retrieval Equipment (HERE) with the facility cask aligned on a borehole.
- In the U/G, no waste shall be moved to a location outside the designated disposal path.
- Equipment Logbook must be reviewed by WHE on a weekly basis, generally the last day of the workweek.

PREREQUISITE ACTIONS

- 1.0 Ensure U/G ventilation is aligned to allow forklift operation.
- 2.0 Review Equipment Logbook for outstanding deficiencies and Action Requests (ARs).
- 3.0 Record hour meter reading and equipment number in Equipment Logbook.

PERFORMANCE

1.0 PREOPERATIONAL CHECKS

- 1.1 Before forklift operation at beginning of each shift, inspect the following:
 - General condition: **NO** damage, loose parts, oil leaks, water leaks, grease, oil, or trash is/are present. **[SAC 5.1.1.2]**
 - Seat belts are in good condition.
 - Tires are in good condition; **NOT** excessively worn or cracked, and all wheel lugs are present, tight, and/or torque-paint is intact.
 - Engine oil level is in proper range on dipstick. **[SAC 5.1.1.2]**
 - Hydraulic oil level is in proper range on dipstick. **[SAC 5.1.1.2]**
 - No excessive leaks (i.e., battery compartment, hydraulic lines, fuel lines) as indicated by visible flow of fluid under pressure, puddles beneath the equipment, or abnormal loss of hydraulic fluid. **[SAC 5.1.1.2]**

- Engine coolant level is in proper range in reservoir tank. **[SAC 5.1.1.2]**
 - Batteries are free from acid spills and have **NO** loose or missing caps or cables. **[SAC 5.1.1.2]**
 - Fire Suppression System control module system status lights are functioning properly and that no trouble lights are illuminated on the equipment. **[LCO 3.1.2]**
 - Upright and Lift Chains have:
 - **NO** obvious wear, damage, or missing parts, and
 - **NO** slack or broken chains.
- 1.2 Visually verify that the automatic/manual fire suppression system has not discharged.
- 1.3 Ensure forks:
- Have **NO** obvious cracks, breaks, bends, twists, or wear, and
 - Are correctly installed and are locked in the proper position.
- 1.4 Remove wheel chocks.
- 1.5 Sit in seat and fasten seat belt.
- 1.6 Ensure parking brake is set.
- 1.7 Adjust seat to provide easy access to all controls.
- 1.8 Ensure seat locking mechanism locks.
- 1.9 Ensure the following controls are in NEUTRAL:
- Directional Control Lever
 - Hoist Control Lever
 - Tilt Control Lever
 - Side Shift Control Lever
- 1.10 Press service brake pedal.
- 1.11 To start forklift, turn key to ON.
- 1.12 Immediately investigate any unusual noises.

1.13 Check the following service brake characteristic:

- When brake pedal is fully depressed, three (3) inches or more clearance exists between the brake pedal and floor plate.
- Brake pedal is **NOT** springy or spongy, and does **NOT** stick or bind when pressed or released.

1.14 Ensure the following:

- All gauges are working.
- Sufficient fuel is present for operation.
- All fault/warning lights are off.
- Horn sounds. **[SAC 5.1.1.2]**
- Front lights illuminate. **[SAC 5.1.1.2]**
- Back lights illuminate. **[SAC 5.1.1.2]**
- Hoist control raises and lowers forks.
- Tilt control tilts forks forward and backward.
- Side shift control moves forks from side-to-side.
- Parking brake does **NOT** bind when set or released.

1.15 Raise forks or attachment 6 to 10 inches above the floor.

1.16 Engage parking brake and attempt to move forklift against moderate engine speed FORWARD and BACKWARD, ensuring forklift does **NOT** move in either direction.

1.17 Release parking brake.

1.18 Use Directional Control Lever to select direction of travel.

1.19 Press accelerator pedal and move forklift.

- 1.20 While forklift is moving, check the following:
- Steering operates smoothly and does **NOT** pull to the right or left.
 - Brakes are in good condition and do **NOT** drag.
 - Backup alarm operates while moving in reverse.
- 1.21 Stop forklift.
- 1.22 Lower forks to the floor.
- 1.23 Set parking brake.
- 1.24 Complete the Surveillance Data Sheet(s), EA04AD3001-SR11, for **LCO 3.1.2, Surveillance Requirements 4.1.2.1, 4.1.2.3, and SAC 5.1.1.2** for RH Waste Handling Equipment as found in WP 04-AD3001.
- 1.25 Forward the completed Surveillance Data Sheet(s) and all associated documentation to the FSM for review and approval.
- 1.26 Initiate ARs to address those deficiencies that **CANNOT** be corrected by Waste Handling Operations.
- 1.27 WH, perform the following:
- Notify WHE of any deficiencies discovered during preoperational checks and the status of each (e.g., deficiencies corrected or ARs generated).
 - Notify WHE and report status of preoperational check.
- 1.28 Record the following in Equipment Logbook:
- Deficiencies noted
 - Addition of oil, water, or other fluids including amount added
 - Corrective action taken (outstanding/newly generated ARs, etc.)
- 1.29 Enter, date, time, and signature in Equipment Logbook to document performance of preoperational checks.
- 1.30 Install wheel chocks.

2.0 FORKLIFT OPERATION

- 2.1 Remove wheel chocks.
- 2.2 Sit in seat and fasten seat belt.
- 2.3 Adjust seat to provide easy access to all controls.
- 2.4 Ensure seat locking mechanism locks.
- 2.5 Ensure the following controls are in NEUTRAL:
 - Directional Control Lever
 - Hoist Control Lever
 - Tilt Control Lever
 - Side Shift Control Lever
- 2.6 Press service brake pedal.
- 2.7 To start forklift, turn key to **ON**.
- 2.8 Turn lights **ON**.
- 2.9 Release parking brake.
- 2.10 Raise forks 6 to 10 inches above the floor.
- 2.11 Use Directional Control Lever to select direction of travel.
- 2.12 Release service brake.
- 2.13 Press accelerator pedal to move forklift.
- 2.14 Operate the appropriate controls for moving and stacking loads.

3.0 FORKLIFT SHUTDOWN

- 3.1 Place forks flat on floor.
- 3.2 Set parking brake.
- 3.3 Shift Directional Control Lever to NEUTRAL.
- 3.4 Turn lights **OFF**.
- 3.5 Turn key to **OFF** position.
- 3.6 Install wheel chocks.