

WP 05-WH1412

Revision 8

CH Waste Handling Toyota Forklifts

Technical Procedure

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APPROVED FOR USE

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INTRODUCTION

This procedure provides guidance for operating the Contact-Handled (CH) Waste Handling Toyota Forklifts at the Waste Isolation Pilot Plant (WIPP).

This procedure meets the **Surveillance Requirements (SR) 4.1.2.1** and **4.1.2.3** and **Specific Administrative Controls (SACs) 5.1.1.2** of **Limiting Conditions of Operations (LCO) 3.1.2**.

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-07-3372, *Waste Isolation Pilot Plant Documented Safety Analysis*
- DOE/WIPP-07-3373, *Waste Isolation Pilot Plant Technical Safety Requirements*
- Hazardous Waste Facility Permit, Waste Isolation Pilot Plant, Permit No. NM4890139088-TSDF, issued by the New Mexico Environment Department
- Toyota, Forklift Operator's and Owner's Manual
- LORON, Warrior Push - Pull Model L105542, Operators Manual
- HARDER, Push - Pull Fixture, Operators Manual
- WP 13-1, Washington TRU Solutions LLC Quality Assurance Program Description
- WP 04-AD3011, Equipment Lockout/Tagout

REFERENCED DOCUMENTS

- WP 04-AD3001, Facility Mode Compliance
- WP 04-IM1000, Issues Management Processing of WIPP Forms
- EA04IM1000-1-0, WIPP Form
- WP 05-WH1810, Underground Transuranic Mixed Waste Disposal Area Inspections

PRECAUTIONS AND LIMITATIONS

The Technical Safety Requirements (TSRs) contain LCOs and 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 by WP 04-AD3001.

- Preoperational Checks are required prior to operating forklift on each shift.
- Only qualified Waste Handling Technicians, Engineers (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 forklift is **NOT** to be operated without adequate underground (U/G) ventilation.
- Equipment horn must be sounded whenever:
 - Starting or moving equipment.
 - Approaching an intersection.
 - Encountering an area of limited visibility.
 - Approaching pedestrian(s).
- Forklifts equipped with System of Active Stability (SAS) will operate and handle differently than similar forklifts without SAS. Operators must use caution when changing between trucks with and without SAS features. Operation of forklifts without SAS in the same manner as forklifts with SAS can result in loss of control and potential tip-over.

- Forklifts equipped with SAS are equipped with a Key-Lift Interlock. The design of this feature prevents the mast from being lowered if the engine has stopped, even if the lever for that function is operated. If the engine cannot be restarted for any reason, the mast may be lowered by unfastening the Manual Move-Down Valve located on top of the oil control valve. If this condition should arise, secure forklift, restrict access to suspended load and notify maintenance operations to manually lower mast.
- Automatic fork leveling (SAS) by activation of the tilt lever knob switch is only to be used with the forklift unloaded.
- When tilting the mast forward with a heavy load at high lift (>6 foot above ground), pressing the tilt lever knob switch (SAS) will cause the mast to suddenly stop moving. This operation SHALL be avoided. Under some conditions, suddenly stopping the mast while tilting forward may cause the forklift to tip forward.
- Exceeding the following load-carrying capacities of the 52-H-033 forklift can cause personal injuries or equipment damage:
 - Long Forks: 11,850 lb at 30-inch load center
 - Short Forks: 13,700 lb at 24-inch load center
 - HARDER: Push - Pull Fixture: 7,700 lb at 36-inch load center
 - LORON: 8,500 lb at 36-inch load center
- Exceeding the following load-carrying capacities of the 52-H-126 forklift can cause personal injuries or equipment damage:
 - Long Forks: 11,400 lb at 30-inch load center
 - Short Forks: 13,350 lb at 24-inch load center
 - HARDER: 7,700 lb at 36-inch load center
 - LORON: 8,250 lb at 36-inch load center

NOTE

Forklift attachment operation (Loron, Harder) on 52-H-127 is achieved by depressing button or lever at operators extreme right (fork positioner) **AND** actuating lever, as appropriate.

- Exceeding the following load-carrying capacities of the (SAS equipped) 52-H-127 forklift can cause personal injuries or equipment damage:
 - Long Forks: 13,000 lb at 30-inch load center
 - Short Forks: 15,000 lb at 24-inch load center
 - HARDER: 7,700 lb at 36-inch load center
 - LORON: 8,500 lb at 36-inch load center
- Operator must be aware of overhead obstacles at all times, when forklift is in operation.
- To prevent personal injury, hands, feet, and other body parts must remain inside Forklift Operators Designated Area at all times.
- Carrying passengers is prohibited.
- During load movements that impair the Forklift Operator's view, a Spotter shall be utilized.
- Airlock doors must be FULLY OPEN prior to entering/exiting with mobile equipment.
- Mobile equipment must be in the center of an airlock prior to opening/closing airlock doors before exiting.
- Prior to forklift operation, removal of the wheel chocks must be verified.
- 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 handling waste or when diesel-powered vehicles are operating within 100 ft of the waste face.
- In the U/G, no waste shall be moved to a location outside the designated disposal path.

PREREQUISITE ACTIONS

- 1.0 Verify U/G ventilation is aligned to allow forklift operation.
- 2.0 If a required inspection becomes delinquent, perform the following:
 - 2.1 Immediately notify Site Environmental Compliance (SEC) of the delinquent inspection.
 - 2.2 Schedule and complete the required inspection.
 - 2.3 Document the following in a letter to SEC within five working days:
 - Schedule for inspection
 - Reason(s) why the inspection was not performed
 - Any measures taken to offset negative impacts resulting from not performing the inspection
 - Actions to prevent further delinquencies
 - SEC, **GO TO** WP 04-IM1000 and ensure a WIPP Form (EA04IM1000-1-0) is generated.
- 3.0 Review Equipment Logbook for outstanding deficiencies and Action Requests (ARs).
- 4.0 WHE, review Equipment Logbook on a weekly basis, generally the last day of the work week.
- 5.0 Record hour meter reading and equipment number in Equipment Logbook.

PERFORMANCE

NOTE

Any deficiencies found during the following inspection must be corrected before operating the forklift, including torquing wheel lugs and reapplying torque paint if necessary.

1.0 PREOPERATIONAL CHECKS

- 1.1 Prior to forklift operation at beginning of each shift, inspect the following:
 - Visually verify that there are 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]**

- Hydraulic oil level is in proper range on dipstick. **[SAC 5.1.1.2]**
- Batteries are free from acid spills and have **NO** loose or missing caps or cables.
- Engine oil level is in proper range on dipstick. **[SAC 5.1.1.2]**
- Engine coolant level is in proper range in reservoir tank. **[SAC 5.1.1.2]**
- Fire suppression system status lights are functioning properly and no trouble lights are seen on the Automatic Fire Suppression control module. **[LCO 3.1.2]**
- Visually verify that the automatic/manual fire suppression system has not discharged. **[LCO 3.1.2]**
- Air cleaner trap indicator is below the white line (if applicable).
- Tires are in good condition: **NOT** excessively worn or cracked.
- Torque paint/tabs are installed on all accessible wheel lugs and is not cracked or broken.
- LORON or HARDER, Push/Pull Fixture (If used):
 - **NO** obvious cracks, breaks, bends, twists, or wear
 - Hydraulic hoses are **NOT** crushed, damaged, or leaking
 - Fixture is properly secured to forklift
- Upright and Lift Chains:
 - **NO** obvious wear, damage, or missing parts
 - **NO** slack or broken chains
- Forks (if used):
 - **NO** obvious cracks, breaks, bends, twists, or wear
 - Correctly installed and locked in the proper position

- Standard Waste Box (SWB) attachment (if used):
 - **NO** obvious cracks, breaks, bends, twists, or wear
 - Attachment is properly secured to forklift
 - Seat belts are in good condition.
 - Sufficient fuel is available for operation.
- 1.2 Remove wheel chocks.
- 1.3 Ensure battery disconnect switch is in the **ON** position, if installed.
- 1.4 Sit in seat and fasten seat belt.
- 1.5 Adjust seat to provide easy access to all controls.
- 1.6 Verify seat locking mechanism locks.
- 1.7 Ensure Directional and Fork or Attachment Controls are in NEUTRAL.
- 1.8 Press service brake pedal.
- 1.9 Start forklift.
- 1.10 Immediately investigate any unusual noises.
- 1.11 Verify the following:
- When brake pedal is fully depressed, three inches or more clearance exist between the brake pedal and floor plate.
 - Brake pedal is **NOT** springy or spongy, and does **NOT** stick or bind when pressed.
 - All gauge indications show within their normal ranges.
 - 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]**
 - Fork or attachment controls operate normally.
 - Parking brake does **NOT** bind when set or released.

- Forklift does **NOT** move when attempting to move FORWARD and BACKWARD with the parking brake engaged.

1.13 With the brakes released, verify the following:

- Steering operates smoothly during operation.
- Brakes do not drag during operation.
- Backup alarm sounds while moving in reverse.
- With the forklift UNLOADED, automatic fork leveling control system (SAS) is working properly, (if applicable).

1.14 Complete the **Surveillance Data Sheet(s)**, EA04AD3001-SR10, for **LCO 3.1.2, SR 4.1.2.1** and **4.1.2.3**, and **SAC 5.1.1.2** as found in WP 04-AD3001.

1.15 Forward the completed **Surveillance Data Sheet(s)** and all associated documentation to the FSM for review and approval.

1.16 Notify WHE of the operational status of the forklift and of any deficiencies discovered during Preoperational Checks and the status of each (e.g., deficiencies corrected and ARs generated).

1.17 Record any deficiencies, corrective actions, and amount of fluids added, if any, in the Equipment Logbook.

1.18 Record if the Push/Pull Fixture or SWB Attachment is used and if the preoperational check is satisfactory, in the Equipment Logbook.

1.19 Enter date, time, and signature in Equipment Logbook to document performance of Preoperational Checks, Equipment Number, and checks as satisfactory or unsatisfactory.

1.20 Initiate ARs to address any deficiencies that **CANNOT** be corrected by Waste Handling Operations.

1.21 If applicable, complete appropriate sections of WP 05-WH1810, Attachment 2, Preoperational Waste Handling Mode Checklist.

2.0 FORKLIFT OPERATION

2.1 Remove wheel chocks.

2.2 Ensure battery disconnect switch is in the **ON** position, if installed.

2.3 Sit in seat and fasten seat belt.

- 2.4 Adjust seat to provide easy access to all controls.
 - 2.5 Verify seat locking mechanism locks.
 - 2.6 Ensure Directional and Fork or Attachment Controls are in NEUTRAL.
 - 2.7 Press service brake pedal.
 - 2.8 Start Forklift.
 - 2.9 Turn lights **ON**.
 - 2.10 Release parking brake.
 - 2.11 Raise forks or attachment 6 to 10 inches above the floor.
 - 2.12 Select direction of travel.
 - 2.13 Release service brake.
 - 2.14 Press accelerator pedal to move forklift.
 - 2.15 Operate the appropriate controls for moving and stacking loads.
- 3.0 FORKLIFT SHUTDOWN
- 3.1 Perform the following:
 - Place forks or attachment flat on floor.
 - Set parking brake.
 - Shift Directional Control Lever to NEUTRAL.
 - Turn lights **OFF**.
 - 3.2 Turn key to OFF position.
 - 3.3 Ensure wheels are chocked.