

WP 05-WH1402

Revision 9

13-Ton Electric Forklifts

Technical Procedure

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APPROVED FOR USE

TABLE OF CONTENTS

INTRODUCTION. 3

REFERENCES. 3

PRECAUTIONS AND LIMITATIONS. 3

PREREQUISITE ACTIONS. 5

PERFORMANCE. 6

1.0 PREOPERATIONAL CHECKS. 6

2.0 FORKLIFT OPERATION. 9

3.0 FORKLIFT SHUTDOWN. 10

4.0 BATTERY CHARGING. 10

INTRODUCTION^{1, 2, 3}

This procedure provides guidance for operating the 13-ton electric forklifts at the Waste Isolation Pilot Plant (WIPP). This procedure generates records in the Equipment Logbook.

REFERENCES

BASELINE DOCUMENTS

- 40 *Code of Federal Regulations* (CFR) §264.15, "General Inspection Requirements"
- DOE Standard, 1090-2004, *Hoisting & Rigging*
- Hazardous Waste Facility Permit, Waste Isolation Pilot Plant, Permit No. NM48901388-TSDF, issued by the New Mexico Environment Department
- DOE/WIPP 02-3183, *CH Packaging Program Guidance*
- DOE/WIPP 02-3184, *CH Packaging Operations Manual*
- DOE/WIPP 02-3185, *CH Packaging Maintenance Manual*
- 41-H-012, Auto Lift Operators Manual
- 41-H-012C, Hoist Lift Truck Operators Manual
- WP 04-AD3011, Equipment Lockout/Tagout

REFERENCED DOCUMENTS

- WP 04-IM1000, Issues Management Processing of WIPP Forms
- WP 05-WH1101, Surface Transuranic Mixed Waste Handling Area Inspections
- EA04IM1000-1-0, WIPP Form

PRECAUTIONS AND LIMITATIONS

- Grounding strap must be attached.
- Preoperational Checks are required prior to operating forklift on each shift.
- Only those individuals 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 waste handling activities specified in this procedure.

- The rated load carrying capacity (26,000 lb at 54-inch load center) of the forklift **MUST NOT** be exceeded.
- When operating forklift, the operator must remain aware of overhead obstacles (i.e., doors, crane pendants, etc.) at all times.
- To prevent personnel injury, the operator must keep hands, feet, and other body parts 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.
- Decreased speeds are required in icy or wet conditions, and when turning corners.
- Airlock doors must be in the OPEN position prior to entering/exiting with mobile equipment.
- Only one piece of mobile equipment at a time may be in the airlock and it must be centered in the airlock when entering/exiting airlock doors.
- When handling CH Waste Package(s), the operator **MUST NOT** operate with the package against the fork backs.
- If forklift battery capacity gauge is in the red band, a battery charge is required before use.
- If forklift battery capacity gauge indicates battery is at full capacity, additional charging may cause damage to the battery or charger.
- Except in emergency situations, the charger must be allowed to complete a charge cycle.
- If applicable, upon illumination of the red battery warning light, forklift hydraulics will shut down within 5 minutes.
- Forklift battery should have an equalizing charge performed on a weekly basis.

PREREQUISITE ACTIONS

- 1.0 **IF** Emergency Stop Control is engaged,
THEN contact WHE.
- 2.0 If a required inspection goes delinquent, perform the following:
 - 2.1 Immediately notify Site Environmental Compliance (SEC) of the delinquent inspection.
 - 2.2 Schedule and complete the 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
 - 2.4 SEC, **GO TO** WP 04-IM1000 and ensure EA04IM1000-1-0, WIPP Form, is initiated.
- 3.0 If forklift battery is charged and still on the battery charger, perform the following to disconnect forklift from charger:
 - 3.1 Verify battery charger is **OFF**.
 - 3.2 Disconnect battery charger power cable from battery power plugs.
 - 3.3 Connect battery power plugs to forklift power plugs.
- 4.0 Review Equipment Logbook for outstanding deficiencies and Action Requests (ARs).
- 5.0 Record Hour Meter reading and Equipment Number in Equipment Logbook.

PERFORMANCE

1.0 PREOPERATIONAL CHECKS

1.1 Prior to forklift operation at beginning of each shift, inspect the following:

1.1.1 General condition:

- **NO** damage
- **NO** loose parts
- **NO** grease leaks on forklift or floor
- **NO** oil leaks on forklift or floor
- **NO** trash

1.1.2 Seat belts are in good condition, if applicable.

1.1.3 Tires are in good condition; **NOT** excessively worn or cracked.

1.1.4 All accessible wheel lugs are installed and hand-tight.

1.1.5 Service Brake:

- Brake pedal has approximately 2 to 3 inches of free play that is readily felt by hand.
- Brake pedal is **NOT** springy or spongy, and does **NOT** stick or bind when pressed.

1.1.6 Parking Brake does **NOT** bind when set or released, if applicable.

1.1.7 Battery compartment:

- Free of acid spills
- **NO** loose or missing caps or cables

1.1.8 Fire extinguisher is in place and seal is intact.

NOTE

The hydraulic system reservoir level is checked with the forks positioned as follows:

- Together
 - Lowered to bottom of mast
 - Tilted back
-

1.1.9 Hydraulic system:

- Reservoir level is above the LOW mark.
- **NO** visible leakage from hoses, couplings, or fittings.

1.1.10 Forks:

- **NO** obvious cracks, breaks, bends, twists, or wear.
- Correctly installed and locked in the proper position.

1.2 Adjust seat to provide easy access to all controls.

1.3 Verify seat locking mechanism locks.

1.4 Sit in seat and fasten seat belt, if applicable.

1.5 Verify the following controls are in NEUTRAL:

- Directional control lever
- Hoist control lever
- Tilt control lever
- Fork position lever
- Side shift lever

1.6 Press service brake pedal.

1.7 To start forklift, turn key to **ON**.

1.8 Immediately investigate any unusual noises.

- 1.9 After forklift starts, verify the following:
- Battery indicator shows adequate charge for operation.
 - Horn sounds.
 - Adjust mirrors to provide visibility, if applicable.
 - Flashing lights illuminate, if applicable.
 - Parking brake does not bind when set or released, if applicable.
 - Front lights illuminate.
 - Back lights illuminate.
 - Hoist control raises and lowers forks.
 - Tilt control tilts forks forward and backward.
 - Fork position control operates forks in and out.
 - Fork side shift control operates forks left and right.
- 1.10 Raise forks 6 to 10 inches above the floor.
- 1.11 Test the parking brake as follows, if applicable:
- 1.11.1 Engage parking brake.
- 1.11.2 Release service brake pedal.
- 1.11.3 Attempt to move forklift forward and backward verifying forklift does **NOT** move in either direction.
- 1.12 Release parking brake, if applicable.
- 1.13 Using directional control lever, select a direction to travel.
- 1.14 Press accelerator pedal and move forklift.
- 1.15 While forklift is moving, verify 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.
 - Seat brake engages when operator rises from seat.
 - Brake lights illuminate when brake pedal is pushed, if applicable.
- 1.16 Stop forklift.
- 1.17 Set parking brake, if applicable.
- 1.18 Initiate ARs to address any deficiencies that **CANNOT** be corrected by Waste Handling Operations.
- 1.19 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).

- 1.20 Record the following in Equipment Logbook:
- Deficiencies noted
 - Addition of oil, water, or other fluids, including amount added
 - Corrective action taken (i.e., outstanding/newly generated ARs, etc.)
 - Record Hour Meter reading and equipment number
 - If attachments are used, enter equipment number and check satisfactory or unsatisfactory
- 1.21 Enter date, time, and signature in Equipment Logbook to document performance of Preoperational Checks.
- 1.22 If applicable, complete appropriate sections of WP 05-WH1101, Attachment 5, Preoperational Waste Handling Mode Checklist.
- 1.23 WHE, review Equipment Logbooks on a weekly basis, generally the last day of the work week.

2.0 FORKLIFT OPERATION

- 2.1 Sit in seat and fasten seat belt, if applicable.
- 2.2 Verify the following controls are in **NEUTRAL**:
- Directional control lever
 - Hoist control lever
 - Tilt control lever
 - Fork position lever
 - Side shift lever
- 2.3 Press service brake pedal.
- 2.4 To start forklift, turn key to **ON**.
- 2.5 Commence forklift operation as follows:
- Release parking brake, if applicable.
 - Select direction of travel.
 - Raise forks 6 to 10 inches above the floor.
- 2.6 Release service brake pedal.
- 2.7 Press accelerator pedal to move forklift.

- 2.8 Operate the appropriate controls for moving and stacking loads.
- 2.9 If forklift indicates a low battery warning during forklift operation, place load in a safe condition and discontinue use of the forklift until battery is charged.

3.0 FORKLIFT SHUTDOWN

- 3.1 Perform the following to park forklift:
- Place forks flat on floor.
 - Shift directional control lever to **NEUTRAL**.
 - Turn key to **OFF** position.
 - Set parking brake, if applicable.
- 3.2 If battery requires charging, **GO TO** Section 4.0.

4.0 BATTERY CHARGING

- 4.1 Verify battery charger is in **OFF** position.
- 4.2 Disconnect battery power plugs from forklift.
- 4.3 Connect battery power plugs to connectors on battery charger cable.
- 4.4 If performing equalizing charge, then press EQUALIZING BATTERY CHARGE button on battery charger.
- 4.5 Verify battery charger is in **ON** position.
- 4.6 Record in the Equipment Logbook the name of the person placing the forklift on charge, the date and time the charge was initiated, and the type of charge performed (normal or equalizing).