UNIVERSITY OF MARYLAND POLICY ON FORKLIFT POWERED INDUSTRIAL TRUCK SAFETY

I. INTRODUCTION

The purpose of the Forklift Safety Program is twofold: to identify all the forklifts being operated on the campus, and to train each employee required to operate a forklift. The training will cover the safe operation and inspection of the forklift. The Forklift Safety Program will be administered by Department of Environmental Safety in accordance with OSHA standards. This policy establishes responsibilities and procedures for accomplishing the Forklift Safety Program.

II. SCOPE

This policy is intended to provide guidance to UM faculty, staff, and students and to provide a framework for the development and implementation of University policies and procedures regarding use of powered industrial trucks (PIT): which include fork trucks, forklifts, motorized pallet lifts and motorized power jacks in compliance with federal, state and local regulations.

This policy refers to the safety requirements relating to fire protection, design, maintenance, and use of fork trucks, forklifts, motorized pallet lifts and motorized power jacks. It does not, however, apply to compressed air or nonflammable compressed gas-operated industrial trucks, farm vehicles, nor to vehicles intended primarily for earth moving or over-the-road hauling.

III. MANAGEMENT

The University of Maryland, College Park (UM) is a complex organization consisting of thirteen colleges/schools and extensive support functions necessary to the operations of the institution. From the legal, regulatory, and public perspectives, the University is one corporate entity and is held accountable as such by federal and state authorities.

For these reasons, UM has the responsibility to establish policies and provide resources to ensure compliance with all environmental, safety and health laws. For purposes of establishing responsibilities for forklift and PIT safety, the following structure is utilized:

A. Department heads, directors, and administrators will:
   1. Ensure that all provisions of the Forklift Safety Program, as it pertains to each area, are followed;
   2. Provide funds to perform regular scheduled maintenance on their forklifts; and
   3. Retain a copy of the employee's forklift “Certificate of Completion of Training” in the employee’s personnel file.
   4. Report all accidents to Occupational Safety at DES so remedial training can be administered.
B. Supervisors will:
   1. Ensure that employees operate forklifts safely;
   2. Ensure that employees are scheduled for initial training and remedial training as needed;
   3. Ensure that employees are competent to operate a powered industrial truck, as demonstrated by successful completion of a training program;
   4. Report all accidents through the Departmental reporting procedures;
   5. Ensure that employees operate only forklifts on which they have been trained;
   6. Perform an operator forklift operation evaluation, or assure an operator forklift evaluation is performed, for each forklift operator on a three-year cycle; and
   7. Ensure that new employees or reassigned employees get lift truck formal initial training before operating equipment.

C. Employees will:
   1. Inspect forklifts daily before use;
   2. Report any deficiencies found during daily inspections to their supervisor;
   3. Not operate a forklift that is in need of repairs;
   4. Not operate a forklift on which they have not been trained;
   5. Operate forklifts safely to prevent injury or damage; and
   6. Report any accidents or unsafe acts to their supervisor.

D. Department of Environmental Safety will:
   1. Coordinate training of all employees required to operate a forklift;
   2. Maintain a record of all employees trained and on which lifts they are trained;
   3. Determine the extent of the refresher training to prevent duplication of training to operators; and
   4. Investigate all accidents/incidents and recommend corrective actions to ensure safety of employees operating this equipment.

IV. TRAINING

University of Maryland employees must successfully complete training as required by OSHA.

A. The initial safety training consists of a combination of practical training (demonstrations performed by certified powered industrial truck operators and practical exercises performed by the trainee prior to the formal instruction and evaluation) and formal instruction (e.g., lecture, discussion, interactive computer learning, video tape, written material).

The Department of Environmental Safety will coordinate the formal instruction and the trainee's evaluation. DES will issue an operator's certificate to employees that successfully complete these two components of the training.

The Powered Industrial Trucks standard requires additional training for forklift operators who change and charge batteries; handle propane tanks, fuel diesel or gasoline engines; and repair and maintain powered industrial trucks.

B. Refresher training shall be provided to the operator when:
• The operator has been observed to operate the vehicle in an unsafe manner.
• The operator has been involved in an accident or near-miss incident.
• The operator has received an evaluation that reveals that the operator is not operating the truck safely.
• The operator is assigned to drive a different type of truck.
• A condition in the workplace changes in a manner that could affect the safe operation of the truck.

All forklift and PIT operators will be re-evaluated every three years. Re-qualification will be performed by the operators supervisors or other qualified employees. The supervisor shall utilize the checklist contained in Attachment 1 for this purpose. A copy of the completed sheet shall be sent to the Department of Environmental Safety for recordkeeping.

V. PROCEDURES

A. Operator and Vehicle Information

• Only authorized and trained personnel will operate PITs.
• All PITs shall be equipped with a horn, fire extinguisher and manufacturer’s face plate and should be equipped with an overhead carriage, rotating beacon, and back-up alarm. All safety equipment provided on the vehicle from the manufacturer must be maintained in working order.
• The operator will perform daily pre-inspections.
• Any safety defects (such as hydraulic fluid leaks, defective brakes, defective steering, missing face plate, non-working horn, missing fire extinguisher, etc.) will be reported for immediate repair or have the PIT taken out of service.
• Operators will follow the proper recharging or refueling safety procedures.
• Loads will be tilted back and carried no more than 6 inches from the ground. Loads that restrict the operator’s vision will be transported backwards.
• Operator will sound horn and use extreme caution when meeting pedestrians, making turns and cornering.
• Passengers may not ride on any portion of a PIT. Only the operator will ride PITs.
• If PITs are used as a man lift, an appropriate man lift platform (cage with standard rails and toe-boards) will be used. Aisle will be maintained free from obstructions, marked and wide enough (six foot minimum) for vehicle operation.
• Lift capacity will be marked on all PITs. Operator will assure load does not exceed rated limits.
• When unattended, PITs will be turned off, forks lowered to the ground, parking brake applied and key removed.
• Operators are instructed to report all accidents, regardless of fault and severity to the Department of Safety and Environmental Compliance.
B. Changing, Charging and Storing Batteries

- Battery charging installations shall be located in well ventilated areas designated for that purpose.
- Facilities shall be provided for flushing and neutralizing spilled electrolyte, for fire protection, for protecting charging apparatus from damage by trucks, and for adequate ventilation for dispersal of fumes from gassing batteries.
- Proper personal protective equipment shall be worn or utilized.
- A carboy tilter or siphon shall be provided for handling electrolyte.
- When charging batteries, acid shall be poured into water; water shall not be poured into acid.
- Trucks shall be properly positioned and brake applied before attempting to change or charge batteries.
- Care shall be taken to assure that vent caps are functioning. The battery (or compartment) cover(s) shall be open to dissipate heat.
- Smoking is prohibited in the charging area.
- Precautions shall be taken to prevent open flames, sparks or electric arcs in battery charging areas. Storage of combustibles is prohibited in charging locations.
- Tools and other metallic objects shall be kept away from the top of uncovered batteries.

C. Trucks

- The flooring of trucks and trailers shall be checked for breaks and weakness before they are driven onto.
- The brakes of highway trucks shall be set and wheel chocks placed under the rear wheels to prevent the trucks from rolling while they are boarded with powered industrial trucks.
- Dock plates will be used when loading trucks or trailers. Operators will assure dock plates are in good condition and will store on edge when not in use.

D. Operations

- If at any time a powered industrial truck is found to be in need of repair, defective, or in any way unsafe, the truck shall be taken out of service until it has been restored to safe operating condition. Truck will be tagged to identify safety issue and point of contact for repairs.
- Trucks shall not be driven up to anyone standing in front of a bench or other fixed object.
- No person shall be allowed to stand or pass under the elevated portion of any truck, whether loaded or empty.
- Unauthorized personnel shall not be permitted to ride on powered industrial trucks.
- Arms or legs shall not be placed between the uprights of the mast or outside the
running lines of the truck.

- When a powered industrial truck is left unattended, load engaging means shall be fully lowered, controls shall be neutralized, power shall be shut off, brakes set and keys removed. Wheels shall be blocked if the truck is parked on an incline.
- A safe distance shall be maintained from the edge of the ramps or platforms while on any elevated dock, or platform or freight car. Trucks shall not be used for opening or closing freight doors.
- There shall be sufficient headroom under overhead installations, lights, pipes, sprinkler system, etc.
- An overhead guard/carriage shall be used as protection against falling objects. It should be noted than an overhead guard is intended to offer protection from the impact of small packages, boxes, bagged material, etc., representative of the job application, but not to withstand the impact of a falling capacity load.
- A load backrest extension shall be used whenever necessary to minimize the possibility of the load or part of it from falling rearward.
- Trucks shall not be parked so as to block fire aisles, access to stairways or fire equipment.

E. Traveling

- All traffic regulations shall be observed, including authorized speed limits. A safe distance shall be maintained approximately three seconds from the truck ahead, and the truck shall be kept under control at all times.
- Other trucks traveling in the same direction at intersections, blind spots or other dangerous locations shall not be passed.
- The driver shall be required to stop and sound the horn at cross aisles and other locations where vision is obstructed. If the load being carried obstructs forward view, the driver shall be required to travel with the load trailing.
- Railroad tracks shall be crossed diagonally wherever possible. Parking closer than 8 feet from the center of railroad tracks is prohibited.
- The driver shall be required to look in the direction of and keep a clear view of the path of travel.
- Grades shall be ascended or descended slowly. When ascending or descending grades in excess of 10 percent, loaded trucks shall be driven with the load upgrade. On all grades the load and load engaging means shall be tilted back if applicable, and raised only as far as necessary to clear the road surface.
- Under all travel conditions the truck shall be operated at a speed that will permit it to be brought to a stop in a safe manner.
- Stunt driving and horseplay shall not be permitted.
- The driver shall be required to slow down for wet and slippery floors.
- Dockboard or bridgeplates, shall be properly secured before they are driven over. Dockboard or bridgeplates shall be driven over carefully and slowly and their rated capacity never exceeded.
- Running over loose objects on the roadway surface shall be avoided.
F. Loading

- Only stable or safely arranged loads shall be handled. Caution shall be exercised when handling off-center loads which cannot be centered.
- Only loads within the rated capacity of the truck shall be handled.
- The long or high (including multiple-tiered) loads which may affect capacity shall be adjusted.
- Trucks equipped with attachments shall be operated as partially loaded trucks when not handling a load.
- A load engaging means shall be placed under the load as far as possible; the mast shall be carefully tilted backward to stabilize the load.
- Extreme care shall be used when tilting the load forward or backward, particularly when high tiering. Tilting forward with load engaging means elevated shall be prohibited except to pick up a load. An elevated load shall not be tilted forward except when the load is in a deposit position over a rack or stack. When stacking or tiering, only enough backward tilt to stabilize the load shall be used.

G. Fueling Safety

- Fuel tanks shall not be filled while the engine is running. Spillage shall be avoided.
- Spillage of oil or fuel shall be carefully washed away or completely evaporated in a well ventilated area and the fuel tank cap replaced before restarting the engine.
- No trucks shall be operated with a leak in the fuel system until the leak has been corrected.
- Open flames shall not be used for checking electrolyte level in storage batteries or gasoline level in fuel tanks.
- Fueling operations shall be located in well ventilated areas designated for that purpose.

H. Maintenance of Powered Industrial Trucks

- Any power-operated industrial truck not in safe operating condition shall be removed from service using the lock out -tag out system.
- Those repairs to the fuel and ignition systems of industrial trucks which involve fire hazards shall be conducted only in locations designated for such repairs.
- Trucks in need of repairs to the electrical system shall have the battery disconnected prior to such repairs.
- All parts of any such industrial truck requiring replacement shall be replaced only by parts equivalent as to safety with those used in the original design.
- Industrial trucks shall not be altered so that the relative positions of the various parts are different from what they were when originally received from the manufacturer, nor shall they be altered either by the addition of extra parts not provided by the manufacturer or by the elimination of any parts. Additional counter-weighting of fork trucks shall not be done unless approved by the truck manufacturer.
- When the temperature of any part of any truck is found to be in excess of its normal
operating temperature, thus creating a hazardous condition, the vehicle shall be removed from service and not returned until the cause for such overheating has been eliminated.

- Industrial trucks shall be kept in a clean condition, free of lint, excess oil, and grease. Noncombustible agents should be used for cleaning trucks. Low flash point (below 100 deg F.) solvents should not be used. High flash point (at or above 100 deg F.) solvents may be used.