



DEPARTMENT OF
**ENVIRONMENTAL SAFETY,
SUSTAINABILITY & RISK**

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POWERED INDUSTRIAL TRUCK PROGRAM

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Policy Statement

I. Introduction

The purpose of the Powered Industrial Truck (PIT) Safety Program is twofold: to identify all the PIT's being operated on the campus and to verify each employee operating a PIT has been trained. The training will cover the safe operation and inspection of the PIT. The PIT Safety Program will be administered by Department of Environmental Safety, Sustainability & Risk (ESSR) in accordance with OSHA standards. This policy establishes responsibilities and procedures for accomplishing the PIT 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 PIT: which include fork trucks, forklifts, motorized hand 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 hand 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. Responsibilities

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, motorized hand pallet lifts and other PIT safety, the following structure is utilized:

- A. Department of Environmental Safety, Sustainability & Risk (ESSR) shall:
 - 1. Coordinate training of all employees required to operate a PIT;
 - 2. Maintain a record of all employees trained and on which PITs 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.

- B. Department heads, directors, and administrators will:
 - 1. Ensure that all provisions of the PIT Safety Program, as it pertains to each area, are followed;
 - 2. Provide funds to perform regular scheduled maintenance on their PITs; and
 - 3. Retain a copy of the employee's PIT "Certificate of Completion of Training" in the employee's personnel file.

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4. Report all accidents to Occupational Safety at ESSR so remedial training can be administered.

C. Supervisors shall:

1. Ensure that employees operate PIT's 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 PIT's on which they have been trained;
6. Perform an operator PIT operation evaluation, or assure an operator PIT evaluation is performed, for each PIT operator on a three-year cycle; and
7. Ensure that new employees or reassigned employees get PIT formal initial training before operating equipment.

D. Employees shall:

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

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, and written material).

The Department of Environmental Safety, Sustainability & Risk (ESSR) will coordinate the formal instruction and the trainee's evaluation. ESSR 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:

1. The operator has been observed to operate the vehicle in an unsafe manner.
2. The operator has been involved in an accident or near-miss incident.
3. The operator has received an evaluation that reveals that the operator is not operating the truck safely.
4. The operator is assigned to drive a different type of truck.
5. A condition in the workplace changes in a manner that could affect the safe operation of the truck.

All forklift and other PIT operators will be re-evaluated every three years. Re-qualification will be performed by the operator's supervisors or other designated and qualified employees. The supervisor shall utilize the checklist contained in Appendix "A" for forklifts and Appendix "B" for electric pallet lifts for this purpose. A copy of the completed sheet shall be sent to the Department of Environmental Safety, Sustainability & Risk for recordkeeping.

Procedures

A. Operator and Vehicle Information

1. Only authorized and trained personnel will operate PITs.
2. All forklifts 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.
3. The operator will perform daily pre-inspections.
4. 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.
5. Operators will follow the proper recharging or refueling safety procedures.
6. 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.
7. Operator will sound horn and use extreme caution when meeting pedestrians, making turns and cornering.
8. Passengers may not ride on any portion of a PIT. Only the operator will ride PITs.
9. 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.
10. Lift capacity will be marked on all PITs. Operator will assure load does not exceed rated limits.
11. When unattended, PITs will be turned off, forks lowered to the ground, parking brake applied and key removed
12. Operators are instructed to report all accidents, regardless of fault and severity to the Department of Environmental Safety, Sustainability & Risk.

B. Changing, Charging and Storing Batteries

1. Battery charging installations shall be located in well ventilated areas designated for that purpose.
2. 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.
3. Proper personal protective equipment shall be worn or utilized.
4. A carboy tilter or siphon shall be provided for handling electrolyte.
5. When charging batteries, acid shall be poured into water; water shall not be poured into acid.
6. Trucks shall be properly positioned and brake applied before attempting to change or charge batteries.
7. Care shall be taken to assure that vent caps are functioning. The battery (or compartment) cover(s) shall be open to dissipate heat.
8. Smoking is prohibited in the charging area.
9. Precautions shall be taken to prevent open flames, sparks or electric arcs in battery charging areas. Storage of combustibles is prohibited in charging locations.
10. Tools and other metallic objects shall be kept away from the top of uncovered batteries.

C. Trucks

1. The flooring of trucks and trailers shall be checked for breaks and weakness before they are driven onto.
2. 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.
3. 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

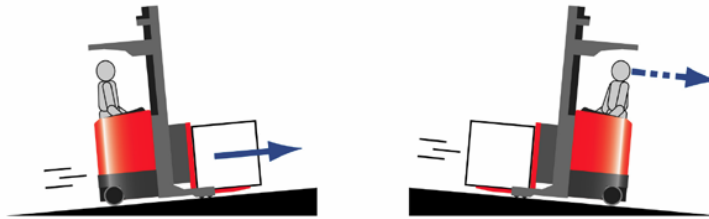
1. If at any time a powered industrial truck is found to be in need of repair, defective, or in any way unsafe, the truck shall be taken out of service until it has been restored to safe operating condition. Truck will be tagged to identify safety issue and point of contact for repairs.
2. Trucks shall not be driven up to anyone standing in front of a bench or other fixed object.
3. No person shall be allowed to stand or pass under the elevated portion of any truck, whether loaded or empty.
4. Unauthorized personnel shall not be permitted to ride on powered industrial trucks.
5. Arms or legs shall not be placed between the uprights of the mast or outside the running lines of the truck.
6. 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.
7. 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.
8. There shall be sufficient headroom under overhead installations, lights, pipes, sprinkler system, etc.
9. An overhead guard/carriage shall be used as protection against falling objects. It should be noted that 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.
10. A load backrest extension shall be used whenever necessary to minimize the possibility of the load or part of it from falling rearward.
11. Trucks shall not be parked so as to block fire aisles, access to stairways or fire equipment.

E. Traveling

1. 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.
2. Other trucks traveling in the same direction at intersections, blind spots or other dangerous locations shall not be passed.
3. 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.

4. Railroad tracks shall be crossed diagonally wherever possible. Parking closer than 8 feet from the center of railroad tracks is prohibited.
5. The driver shall be required to look in the direction of and keep a clear view of the path of travel.
6. **When traveling on slopes, keep the heavy end uphill. On a downgrade, the forklift should be driven in reverse, and the forks raised only enough to clear the surface.**



7. 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.
8. Stunt driving and horseplay shall not be permitted.
9. The driver shall be required to slow down for wet and slippery floors.
10. Duckboard or bridge plates, shall be properly secured before they are driven over. Duckboard or bridge plates shall be driven over carefully and slowly and their rated capacity never exceeded.
11. Running over loose objects on the roadway surface shall be avoided.

F. Loading

1. Only stable or safely arranged loads shall be handled. Caution shall be exercised when handling off-center loads which cannot be centered.
2. Only loads within the rated capacity of the truck shall be handled.
3. The long or high (including multiple-tiered) loads which may affect capacity shall be adjusted.
4. Trucks equipped with attachments shall be operated as partially loaded trucks when not handling a load.
5. 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.
6. Extreme care shall be used when tilting the load forward or backward, particularly when high tearing. 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 tearing, only enough backward tilt to stabilize the load shall be used.

G. Fueling Safety

1. Fuel tanks shall not be filled while the engine is running. Spillage shall be avoided.
2. 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.
3. No trucks shall be operated with a leak in the fuel system until the leak has been corrected.

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4. Open flames shall not be used for checking electrolyte level in storage batteries or gasoline level in fuel tanks.
 5. Fueling operations shall be located in well ventilated areas designated for that purpose.

H. Maintenance of Powered Industrial Trucks

1. Any power-operated industrial truck not in safe operating condition shall be removed from service using the lock out -tag out system.
2. 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.
3. Trucks in need of repairs to the electrical system shall have the battery disconnected prior to such repairs.
4. 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.
5. 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.
6. 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.
7. 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° F.) solvents should not be used. High flash point (at or above 100° F.) solvents may be used.



Appendix I

University of Maryland Forklift Operator Evaluation

Instructions: Use this checklist during the field session to evaluate operator proficiency. It can also be used for periodic evaluation to ensure that operators are continuing to operate forklifts properly.

Forward a copy of this evaluation to ESSR, Room 3115, Chesapeake Bldg., College Park, MD 20742 for training recordkeeping, or FAX to 301-314-9294.

Operator Name:	Unit/Dept.:	Evaluator/Supervisor Name:
Date of Evaluation:	Equipment Operated (Make, Model, Gas, Propane, Elec, Diesel):	

OPERATOR ACTIONS	RATING				COMMENTS
Pre-Use Inspection					
1. Follow Operator's Daily Checklist	GOOD	FAIR	POOR	N/A	
2. Look for Damage and Comments on Damage	GOOD	FAIR	POOR	N/A	
3. Uses Seat belt	YES		NO		
Picking Up the Load					
1. Square up on the center of the load.	GOOD	FAIR	POOR	N/A	
2. Stop with the fork tips about 1 foot from the load.	GOOD	FAIR	POOR	N/A	
3. Clear personnel from the area near the load.	GOOD	FAIR	POOR	N/A	
4. Level the forks; then slowly drive forward until the load contacts the carriage.	GOOD	FAIR	POOR	N/A	
5. Lift the load carefully and smoothly until it is clear.	GOOD	FAIR	POOR	N/A	
6. Tilt the mast back slightly to stabilize the load.	GOOD	FAIR	POOR	N/A	
7. Look over both shoulders.	GOOD	FAIR	POOR	N/A	
8. Checks load for correct travel height.	GOOD	FAIR	POOR	N/A	
Traveling					
1. Does not raise or lower the load and forks while traveling.	GOOD	FAIR	POOR	N/A	
2. Maintain a safe speed.	GOOD	FAIR	POOR	N/A	
3. Observe all traffic rules, warning signs, floor load limits and overhead clearances.	GOOD	FAIR	POOR	N/A	
5. Follow other vehicles at safe distance.	GOOD	FAIR	POOR	N/A	
6. Slow down when cornering.	GOOD	FAIR	POOR	N/A	
7. Use the horn to alert others.	GOOD	FAIR	POOR	N/A	
8. Travel with the load facing uphill while on a ramp or incline.	GOOD	FAIR	POOR	N/A	
Putting Down a Load					
1. Make sure there is sufficient clearance for the load.	GOOD	FAIR	POOR	N/A	



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OPERATOR ACTIONS	RATING				COMMENTS
2. Clear personnel from the area near the load.	GOOD	FAIR	POOR	N/A	
3. Square up to the location; then stop about 1 foot away.	GOOD	FAIR	POOR	N/A	
4. Raise the load to placement level.	GOOD	FAIR	POOR	N/A	
5. Move slowly forward.	GOOD	FAIR	POOR	N/A	
6. If the load is on a pallet, lower it into position and lower the forks further.	GOOD	FAIR	POOR	N/A	
7. Look over both shoulders before backing out.	GOOD	FAIR	POOR	N/A	
8. Back straight out until the forks have cleared.	GOOD	FAIR	POOR	N/A	
9. Lower the forks to traveling position.	GOOD	FAIR	POOR	N/A	
Parking					
1. Fully lower the forks.	GOOD	FAIR	POOR	N/A	
2. Neutralize the controls.	GOOD	FAIR	POOR	N/A	
3. Set the brakes.	GOOD	FAIR	POOR	N/A	
4. Turn off the power.	GOOD	FAIR	POOR	N/A	
5. If parked on an incline, block the wheels.	GOOD	FAIR	POOR	N/A	
6. Park only in authorized areas.	GOOD	FAIR	POOR	N/A	
Fueling and Battery Recharging					
1. Engine off.	GOOD	FAIR	POOR	N/A	
2. Fire extinguisher nearby.	GOOD	FAIR	POOR	N/A	
3. Proper personal protective equipment worn.	GOOD	FAIR	POOR	N/A	
4. Safe fueling and battery recharging procedures followed.	GOOD	FAIR	POOR	N/A	
5. Spills cleaned up immediately.	GOOD	FAIR	POOR	N/A	

Based on my evaluation, the operator has **successfully** completed the evaluation and is qualified to operate the equipment described on page one.

Evaluator/Supervisors Signature: _____

UM ID #: _____

Based on my evaluation, the operator **has not demonstrated** competence in operating the equipment described on page one.

Evaluator/Supervisor Signature: _____

UM ID #: _____

Operator Signature: _____

Date: _____

Operator Print Name: _____

Operator UM ID #: _____

Unit/Dept.: _____



Appendix II

University of Maryland Electric Pallet Lift Operator Evaluation

Instructions: Use this checklist during the field session to evaluate operator proficiency. It can also be used for periodic evaluation to ensure that operators are continuing to operate electric pallet lifts properly.

Forward a copy of this evaluation to ESSR, Room 3115, Chesapeake Bldg., College Park, MD 20742 for training recordkeeping, or FAX to 301-314-9294.

Operator Name:	Unit/Dept.:	Evaluator/Supervisor Name:
Date of Evaluation:	Equipment Operated (Make, Model):	

OPERATOR ACTIONS	RATING				COMMENTS
Pre-Use Inspection					
1. Follow Operator's Daily Checklist	GOOD	FAIR	POOR	N/A	
2. Look for Damage and Comments on Damage	GOOD	FAIR	POOR	N/A	
3. Record damages on Daily Checklist	YES		NO		
Picking Up the Load					
1. Square up on the center of the load.	GOOD	FAIR	POOR	N/A	
2. Clear personnel from the area near the load	GOOD	FAIR	POOR	N/A	
3. Move under the load as far as possible.	GOOD	FAIR	POOR	N/A	
4. Raise the load until it is high enough for good floor clearance but low enough for stability.	GOOD	FAIR	POOR	N/A	
5. Make sure route is clear.	GOOD	FAIR	POOR	N/A	
Traveling					
1. Face the direction of travel.	GOOD	FAIR	POOR	N/A	
2. Maintain a safe speed.	GOOD	FAIR	POOR	N/A	
3. Slow down to allow for wide swings around corners.	GOOD	FAIR	POOR	N/A	
5. Use horn to alert pedestrians.	GOOD	FAIR	POOR	N/A	
5. Stop smoothly.	GOOD	FAIR	POOR	N/A	
6. Stop before raising or lowering load.	GOOD	FAIR	POOR	N/A	
Putting Down a Load					
1. Make sure there is sufficient clearance for the load.	GOOD	FAIR	POOR	N/A	
2. Clear personnel from the area near the load.	GOOD	FAIR	POOR	N/A	
3. Steer the load into place with both hands on the controls.	GOOD	FAIR	POOR	N/A	
4. Lower the load to the floor.	GOOD	FAIR	POOR	N/A	
5. Make sure nothing has moved behind you.	GOOD	FAIR	POOR	N/A	
6. Carefully reverse direction backing away from the pallet.	GOOD	FAIR	POOR	N/A	



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OPERATOR ACTIONS	RATING				COMMENTS
Parking					
1. Fully lower the forks.	GOOD	FAIR	POOR	N/A	
2. Neutralize the controls.	GOOD	FAIR	POOR	N/A	
3. Turn off the power.	GOOD	FAIR	POOR	N/A	
4. Park only in authorized areas.	GOOD	FAIR	POOR	N/A	
Battery Recharging					
1. Turn off the pallet lift.	GOOD	FAIR	POOR	N/A	
2. Proper personal protective equipment worn.	GOOD	FAIR	POOR	N/A	
3. Follow safe battery recharging procedures.	GOOD	FAIR	POOR	N/A	

Based on my evaluation, the operator has **successfully** completed the evaluation and is qualified to operate the equipment described on page one.

Evaluator/Supervisors Signature: _____

UM ID #: _____

Based on my evaluation, the operator **has not demonstrated** competence in operating the equipment described on page one.

Evaluator/Supervisor Signature: _____

UM ID #: _____

Operators Signature: _____

Date: _____

Operators Print Name: _____

Operator UM ID #: _____

Unit/Dept.: _____