

APPLICATION

NYU Langone Health

PURPOSE

- To prevent accidents resulting from unsafe operation of powered industrial trucks (PITs).
- To comply with the Occupational Safety and Health Administration (OSHA) standard for Powered Industrial Trucks, 29 CFR 1910.178.

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POLICY

1.0 Application

NYU Langone Health (NYULH) refers to the NYU Langone Health System, NYU Langone Hospitals, NYU School of Medicine, NYU Long Island School of Medicine, the Family Health Centers at NYU Langone, and all entities controlled by any of them.

This policy applies to:

- All NYULH owned and leased facilities.
- All employees, contractors, and consultants of NYULH.

RED+F Construction is responsible for ensuring construction contractors implement this policy.

The other departments and divisions impacted by the program, and the PITs they own and/or operate are:

Location	Department	PITs
Main campus	Division of Comparative Medicine (DCM)	2 semi-electric pallet trucks (Xilin CBD10A-II)
	Environmental Services	1 electric lift truck 1 motorized truck (Americart AC2544)
	Materials Management	1 electric pallet jack (Crown WP3035-45) 2 powered tank movers
NYU Langone Health –Brooklyn (NYULH-B)	Materials Management	2 electric power jacks (Crown WP2345-45)
NYU Winthrop Hospital (NYUWH)	Logistics, Inventory and Distribution	Hyster electric lift trucks. -4 model W40Z 4 (loading dock) -7 model W40Z (warehouse) -1 model B60ZAC (warehouse) -1 model J30XNT (warehouse)
NYU Langone Orthopedic Hospital (NYU LOH)		None

2.0 Responsibilities

2.1 Environmental Health and Safety (EH&S) is responsible for:

- Developing the Program and updating it as needed.

- Training PIT program coordinators on the requirements of the Program.
- Evaluating operating environments to determine if they are hazardous.
- Approving PITs for use in hazardous environments.
- Providing technical support.
- Conducting annual audits to evaluate the effectiveness of the Program.

2.2 **Department/division heads** are responsible for compliance with the Program within their departments/divisions. Their responsibilities include, but are not limited to:

- Reporting all PITs to EH&S.
- Designating a manager, supervisor, or foreman as their PIT program coordinator.
- Ensuring that contractors comply with this policy.

2.3 **PIT program coordinators** are responsible for implementing the Program within the department/division. This includes:

- Obtaining approval from EH&S for any PIT to be used in a potentially hazardous location.
- Ensuring PIT operators, including supervisors and forepersons assigned to oversee PIT use, are trained and certified.
- Maintaining training, certification, and pre-operational inspection records for a minimum of three years.
- Ensuring that any equipment determined to be unsafe is put out of operation until repaired.
- Conducting periodic inspections to verify that all requirements of this policy are followed.

2.4 **Supervisors and forepersons** are responsible for:

- Ensuring operators have received required training and are evaluated and certified prior to operating PITs.
- Ensuring that only individuals who have been trained and certified operate PITs.
- Ensuring operators are evaluated and certified at least once every 3 years.
- Ensuring daily checklists are completed.
- Supervising the use of PITs on a day to day basis.

- Implementing corrective actions, including refresher training, in the event that an operator violates safe operating procedures or is involved in an accident or a near-miss incident.

2.5 **Operators** are responsible for:

- Completing initial training prior to operating a PIT.
- Completing refresher training as needed.
- Conducting a pre-operational inspection prior to using a PIT, and completing the daily checklist.
- Operating equipment safely and in accordance with the manufacturer's operating instructions.
- Reporting any defects or malfunctions to the supervisor or foreman immediately, and discontinuing use if the defect impairs the safe operation or use of the PIT.

3.0 **Definitions**

Operator means an individual who is competent to operate a PIT safely, as demonstrated by the successful completion of training and current certification.

PIT means a mobile, power-driven vehicle, such as a fork lift truck, platform lift truck, or motorized hand truck. PIT's are used primarily to move materials. They can also be used to raise, lower, or remove large objects or a number of smaller objects on pallets or in boxes, crates, or other containers. PITs can either be ridden by the operator or controlled by a walking operator.

PIT program coordinator means a person who has the knowledge, training and experience needed to manage the PIT program within a department/division, and to ensure proper training and performance evaluation of PIT operators.

4.0 **Equipment selection**

- 4.1 Only PITs approved for hazardous locations shall be used in these areas.
- 4.2 Any approved PIT may be used in a non-hazardous location.
- 4.3 High lift rider trucks shall be fitted with an overhead guard.
- 4.4 Fork trucks shall have a vertical load backrest extension, operable flashing lights, and audible travel alarms.

5.0 Training and certification

5.1 EH&S coordinates training for PIT program coordinators on the requirements of the Program.

5.2 PIT program coordinators organize training, evaluation, and certification of operators and supervisors.

- Trainees shall be supervised at all times during the training and evaluation.

5.3 Operator training

- Training shall be specific to the type of PIT used.
- Training shall consist of a combination of formal instruction and practical training and shall comply with OSHA requirements.
- A sample training curriculum is included as Appendix A.

5.4 Operator evaluation

- The PIT program coordinator shall ensure that each prospective operator passes a performance driving test.
 - The operator shall locate and explain all operational controls, and demonstrate competency in operating the PIT.
 - The operator's competency shall be documented. A sample evaluation form is included as Appendix B.
- The PIT program coordinator shall work with supervisors/forepersons to ensure each operator's performance is re-evaluated at least once every three years.

5.5 Certification

- The PIT program coordinator shall ensure that supervisors/forepersons are evaluated and certified, e.g., by the equipment vendor.
- The supervisor/foreperson shall certify that each operator has received appropriate training and has successfully demonstrated the knowledge and skills necessary to safely operate the specific PIT(s) to which they have been assigned.
- The PIT program coordinator shall maintain written certification for all operators.
- The certification shall include the name of the operator, the date of the training, the date of the evaluation, and the name of the person performing the training and evaluation.

- The certification shall be valid up to three years, as long as safe operating techniques are met.

5.6 **Refresher training** in relevant topics shall be provided to the operator when:

- The operator has been observed to operate the PIT 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 competent or operating the PIT safely.
- The operator is assigned to drive a different type of PIT.
- A condition in the workplace changes in a manner that could affect safe operation of the PIT.

6.0 **Pre-operational inspection**

The operator shall examine the PIT before use for conditions that may adversely affect its operation, and verify that it is safe to operate.

- A sample checklist for Internal Combustion Engine Industrial Truck - Gas/LPG/Diesel Truck is included as Appendix C.
- A sample checklist for Electric Industrial Truck is included as Appendix D.
- A sample checklist for Walking Pallet Truck is included as Appendix E.

7.0 **Standard operating procedures**

7.1 **General**

- Where possible, PITs shall be electric powered. Where this is not feasible, an assessment of the hazards posed by the alternatively powered equipment must be done and the proper protections implemented.
- PITs shall only be operated on surfaces capable of handling the weight.
- Unauthorized personnel shall not be allowed to ride on PITs.
- Operators of seated PITs shall wear seat belts.
- Arms or legs shall not be placed between the uprights of the mast or outside the running lines of the PIT.
- No person shall be allowed to stand or pass under the elevated portion of any PIT, whether loaded or empty.
- There shall be sufficient headroom under overhead installations.
- Whenever a PIT is equipped with a lifting carriage or forks for lifting, the following precautions shall be taken:

- The platform shall be securely attached to the lifting carriage and/or forks.
- Means shall be provided whereby personnel on the platform can shut off power to the PIT.
- Protection from falling objects shall be provided.
- Whenever a PIT is left unattended:
 - It shall not obstruct fire aisles, access to stairways, or fire safety equipment.
 - The load engaging means shall be lowered.
 - The controls shall be neutralized.
 - The power shall be shut off.
 - The keys will be removed and secured from unauthorized access.
 - The brakes shall be set.
 - The wheels shall be blocked if the PIT is parked on an incline.

7.2 **Fuel**

Where fueled powered PITs have been approved for use, the following requirements must be met.

- Liquid fuels such as gasoline and diesel fuel shall be stored and handled in accordance with local fire code and NFPA 30, Flammable and Combustible Liquids Code.
- Liquid petroleum gas (LPG) shall be stored and handled in accordance with local fire code and NFPA 58, Storage and Handling of Liquefied Petroleum Gases.
- LPG and diesel powered PITS shall be refueled outdoors and kept outdoors when not in use.
- In order to avoid spills, only approved close-circuit systems shall be used when filling fuel tanks.
- Fuel and oil spills shall be cleaned up immediately by SPCC trained employee(s) using proper spill cleanup materials and procedures.
 - Employees shall contact EH&S for disposal of spill cleanup material.
- No PIT shall be operated with a leak in the fuel system until the leak has been corrected.
- Open flames shall not be used for checking level of fuel in tanks or level of electrolytes in storage batteries.

7.3 Batteries

- A location shall be designated for charging batteries.
 - If a battery contains acid, an emergency eyewash shall be immediately adjacent.
- PITs shall be properly positioned and the brake applied before attempting to change or charge batteries.
- Water shall not be poured into acid; acid may be added to water.
- Reinstalled batteries shall be properly positioned and secured in the PIT.
- The battery (or compartment) cover(s) shall be open to dissipate heat. Vent caps shall function properly.
- Tools and other metallic objects shall be kept away from the top of uncovered batteries.

7.4 Loading

- Only stable or safely arranged loads shall be handled. Caution shall be exercised when handling loads that cannot be centered.
- Only loads below the rated capacity of the PIT shall be handled.
- PITs equipped with attachments shall be operated as partially loaded PITs 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.

7.5 Travelling

- Stunt driving and horseplay is prohibited.
- PITs shall not be driven up to anyone standing in front of a bench or other fixed object.
- The operator shall slow down and sound the horn at cross aisles and other locations where vision is obstructed.
- If the load obstructs forward view, the operator shall travel with the load trailing.
- The operator shall look in the direction of, and keep a clear view of the path of travel.
- Grades shall be ascended and descended slowly.

- When ascending or descending grades in excess of 10 percent, loaded PITs 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 PIT shall be operated at a speed that permits it to be brought to a stop in a safe manner.
- The operator shall slow down for wet and slippery floors.
- Running over loose objects on the roadway surface shall be avoided.
- Dockboards and bridgeplates shall be properly secured before they are driven over. They shall be driven over carefully and slowly and their rated capacity never exceeded.
- Elevators shall be approached slowly and entered squarely after the elevator is properly leveled. Once on the elevator, the controls shall be neutralized, power shut off, and the brakes set.
 - Motorized hand trucks shall enter the elevator or other confined areas with load end forward.
- While negotiating turns, speed shall be reduced to a safe level and the hand steering wheel shall be turned in a smooth sweeping motion.

7.6 Interaction with trucks

- The brakes of highway trucks shall be set and wheel chocks placed under the rear wheels to prevent the trucks from rolling when they are boarded by PITs.
- Fixed jacks shall be used to support a semi-trailer that is not coupled to a tractor, to prevent up-ending during the loading and unloading.

7.7 Alteration, maintenance and repair

- PITs shall be kept in clean condition, free of lint, excess oil, and grease.
- If a PIT is found to be in need of repair, defective, or in any way unsafe, it shall be taken out of service until it has been restored to safe operating condition.
 - All repairs to PITs shall be made by authorized personnel only.
 - Repairs shall not be made in hazardous locations.
 - Repairs to the fuel or ignition systems that involve fire hazards shall be conducted only in locations designated for such repairs.
 - The battery shall be disconnected before repairs are made to the electrical system.

7.8 **Lighting:** If lighting in the operating area is less than 2 lumens per square foot auxiliary directional lighting shall be provided.

- EH&S can evaluate lighting levels

7.9 **Exhaust emissions:** If a PIT creates carbon monoxide gas, levels in the operating environment shall not exceed 50 parts per million.

- EH&S can evaluate carbon monoxide levels.

8.0 **Recordkeeping**

The PIT program coordinator shall maintain the certification of training records for each operator, and daily checklists, for a minimum of three years.

9.0 **Annual evaluation**

EH&S shall conduct an annual evaluation of the program as part of the Annual Evaluation of the Environmental Safety Management Plan.

Appendix A	Sample Training Curriculum
Appendix B	Sample PIT Operator Evaluation Form
Appendix C	Sample Operator’s Daily Checklist: Gas/LPG/Diesel Truck
Appendix D	Sample Operator’s Daily Checklist: Electric Industrial Truck
Appendix E	Sample Operator’s Daily Checklist: Walking Pallet Truck

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Replaces	3/2017
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Summary of Revisions

Revision date	Section	Changes
October 2019	Throughout	Updates logo and organizational references
		Incorporates NYUWH and NYU Long Island School of Medicine Adds PITs for Environmental Services and NYUWH
	Reviewed by	Adds review by NYULH-B Supply Chain Management and by NYUWH
February 2017	Application	Changes NYULMC to NYU Langone
	1.0	Clarifies definition of a PIT
	2.0	Defines NYU Langone Updates list of department owned PITs
	Reviewed by	Adds reviewers for Lutheran
	Summary of Revisions	Adds Summary of Revisions
	Appendix B	Adds Sample PIT Operator Evaluation and Certification Form
	Appendix E	Adds Sample Daily Operator’s Checklist: Walking Pallet Truck

Sample Training Curriculum

1. Introduction
 - a. Overview of the program
 - b. Goal of the program: to provide a training program based on the trainee's prior knowledge, the types of PITs used in the workplace, and the hazards of the workplace.
 - c. Course shall utilize video, group discussion and hands-on practice. Each operator shall obtain the knowledge and skills needed to do their job correctly and safely.
 2. Types, features, and physics
 - a. Familiarize each operator with the basic types and functions of PITs.
 - b. Develop an understanding of the information shown on a data plate.
 - c. Understand the critical truck measurements that affect safety.
 - d. Understand the forces that cause tip-overs and the truck design considerations and safety ratings that help prevent them, including the "stability triangle."
 3. Inspecting the PIT
 - a. Understand the purpose and importance of pre-operational checkouts.
 - b. Provide a basic understanding of areas covered during a pre-operational checkout.
 - c. Familiarize each operator with a checklist for pre-operational checkouts, and what to do if a problem is discovered.
 4. Driving the PIT
 - a. Understand the elements of safe movement of a PIT.
 - b. Understand the differences between an automobile and a PIT.
 - c. Recognize the safety hazards associated with operating a PIT.
 5. Load handling
 - a. Understand the elements of load lifting safety.
 - b. Understand the safe operating procedures for raising and lowering loads in aisles.
 6. LPG for lift trucks
 - a. Discuss LPG and its properties.
 - b. Understand the elements and procedures of safely refueling internal combustion PITs.
 - c. Describe tank components: service valve, surge valve, relief valve, etc.
 - d. Discuss related safety issues.
 7. Battery and charging
 - a. Understand the elements and procedures of safely changing and charging batteries.
 - b. Discuss filling procedures and maintenance.
 - c. Discuss related safety issues.
 8. Safety concerns
 - a. Review/reinforce potential of serious injury.
 - b. Review/reinforce safety procedures in your facility.
 9. Specific PIT and workplace training/hands-on
 - a. Review features of specific PIT's to be operated.
 - b. Review operating procedures of specific PIT's to be operated.
 - c. Review safety concerns of specific PIT's to be operated.
 - d. Review workplace conditions and safety concerns of areas where PIT's shall be operated.
 - e. Learn/practice actual operation of specific PIT's to be operated and appropriate workplace conditions where PIT's shall be operated.
 - f. Demonstrate proficiency performing the PIT operator duties specific to the trainee's position and workplace conditions.
 10. Certification of completion of the course
-

Sample PIT Operator Evaluation Form

Date:	Department:
Operator Name:	Evaluator Name:
PIT Make/Model:	

Each PIT Operator is required to be evaluated by a competent person prior to initial use of the PIT and at least once every three years thereafter. If the evaluator believes the operator's skills are inadequate, additional training may be required. This evaluation is valid only for the PIT listed above.

Pre-operation of PIT		YES	NO	N/A
1	Did the operator complete a pre-use inspection?			
2	Did the operator conduct a visual inspection of the work area?			
3	Did the operator conduct a visual inspection of the load?			
4	Did the operator adjust the forks to the proper distance for the load?			
5	Did the operator determine the weight of the load prior to the lift?			
6	Did the operator inspect the floor of the trailer?			
7	Are the trailer brakes locked and wheels chocked?			
8	Did the operator inspect the dock boards/bridge plates?			
9	Did the operator use the seat belt?			

Operation of PIT		YES	NO	N/A
1	Did the operator show familiarity with the PIT controls?			
2	Did the operator approach the load at a safe speed?			
3	Did the operator strike anything as he/she attempted to position the forks?			
4	Are the forks under the entire load?			
5	Is the load properly balanced?			
6	Did the operator raise and tilt the load properly?			
7	Did the operator lower the load to 6 inches from the ground prior to traveling?			
8	Did the operator travel with the load at a safe speed, under control, and within the designated aisle?			
9	Did the operator travel in reverse when his/her vision was obstructed?			
10	Did the operator yield to pedestrians?			
11	Did the operator slow down and use horn at intersections?			
12	Did the operator properly turn the corner(s) and was aware of the rear end swing?			
13	Did the operator drive up and down the ramp or other incline properly?			
14	Did the operator look behind when backing up?			
15	Did the operator stop the PIT in a smooth manner?			
16	Did the operator lower the load and place it in the proper location?			

Post-operation of PIT		YES	NO	N/A
1	Did the operator come to a complete stop before turning off the PIT?			
2	Did the operator place the forks flat on the floor when parking?			
3	Did the operator place the controls in neutral when parking the PIT?			
4	Did the operator set the parking brake when parking the PIT?			
5	Did the operator close the valve of the propane cylinder?			

The operator demonstrated competency in operating the PIT.	<input type="checkbox"/> Yes	<input type="checkbox"/> No
The operator has been evaluated and approved to use the PIT.	<input type="checkbox"/> Approved	<input type="checkbox"/> Not approved
If No and Not approved, retraining is scheduled for: _____ / _____ / _____		

Operator's signature:	Date:
Evaluator's signature:	Date:

**Sample Operator's Daily Checklist
Internal Combustion Engine Industrial Truck - Gas/LPG/Diesel Truck**

Record of Fuel Added

Date:	Operator:	Shift:
PIT Make/Model:	Serial #:	Hour meter:
Fuel:	Engine Oil:	
Hydraulic Oil:	Radiator Coolant:	

Safety and Operational Checks (prior to each shift)

Have a **qualified** mechanic correct all problems. Do not use until item is corrected.

Engine Off Checks	OK	Maintenance needed
Leaks – Fuel, Hydraulic Oil, Engine Oil or Radiator Coolant		
Tires – Condition and Pressure		
Forks, Top Clip Retaining Pin and Heel – Check Condition		
Load Backrest – Securely Attached		
Hydraulic Hoses, Mast Chains, Cables and Stops – Check Visually		
Overhead Guard – Attached		
Finger Guards – Attached		
Propane Tank (LP Gas Truck) – Rust Corrosion, Damage		
Safety Warnings – Attached (Refer to Parts Manual for Location)		
Battery – Check Water/Electrolyte Level and Charge		
All Engine Belts – Check Visually		
Hydraulic Fluid Level – Check Level		
Engine Oil Level – Dipstick		
Transmission Fluid Level – Dipstick		
Engine Air Cleaner – Squeeze Rubber Dirt Trap or Check the Restriction Alarm (if equipped)		
Fuel Sedimentor (Diesel)		
Radiator Coolant – Check Level		
Operator's Manual – In Container		
Nameplate – Attached and Information Matches Model, Serial Number and Attachments		
Seat Belt – Functioning Smoothly		
Hood Latch – Adjusted and Securely Fastened		
Brake Fluid – Check Level		

Engine On Checks – Unusual Noises Must Be Investigated Immediately	OK	Maintenance needed
Accelerator or Direction Control Pedal – Functioning Smoothly		
Service Brake – Functioning Smoothly		
Parking Brake – Functioning Smoothly		
Steering Operation – Functioning Smoothly		
Drive Control – Forward/Reverse – Functioning Smoothly		
Tilt Control – Forward and Back – Functioning Smoothly		
Hoist and Lowering Control – Functioning Smoothly		
Attachment Control – Operation		
Horn and Lights – Functioning		
Cab (if equipped) – Heater, Defroster, Wipers – Functioning		
Gauges: Ammeter, Engine Oil Pressure, Hour Meter, Fuel Level, Temperature, Monitors – Functioning		

**Sample Operator's Daily Checklist
Electric Industrial Truck**

Record of Fuel Added

Date:	Operator:	Shift:
PIT Make/Model:	Serial #:	Hour meter:
Fuel:	Engine Oil:	
Hydraulic Oil:	Radiator Coolant:	

Safety and Operational Checks (prior to each shift)

Have a **qualified** mechanic correct all problems. Do not use until item is corrected.

Motor Off Checks	OK	Maintenance needed
Leaks – Hydraulic Oil, Battery		
Tires – Condition and Pressure		
Forks, Top Clip Retaining Pin and Heel -- Condition		
Load Backrest Extension – Attached		
Hydraulic Hoses, Mast Chains, Cables & Stops – Check Visually		
Finger Guards – Attached		
Overhead Guard – Attached		
Safety Warnings – Attached (Refer to Parts Manual for Location)		
Battery – Water/Electrolyte Level and Charge		
Hydraulic Fluid Level – Dipstick		
Transmission Fluid Level – Dipstick		
Operator's Manual in Container		
Capacity Plate Attached – Information Matches Model, Serial Number and Attachments		
Battery Restraint System – Adjust and Fasten		
Operator Protection Sitdown Truck - Seat Belt – Functioning Smoothly Man-up Truck – Fall protection/Restraining means - Functioning		
Brake Fluid – Check level		
Motor On Checks (Unusual Noises Must Be Investigated Immediately)	OK	Maintenance needed
Accelerator Linkage – Functioning Smoothly		
Parking Brake – Functioning Smoothly		
Service Brake – Functioning Smoothly		
Steering Operation – Functioning Smoothly		
Drive Control – Forward/Reverse – Functioning Smoothly		
Tilt Control – Forward and Back – Functioning Smoothly		
Hoist and Lowering Control – Functioning Smoothly		
Attachment Control – Operation		
Horn – Functioning		
Lights & Alarms (where present) – Functioning		
Hour Meter – Functioning		
Battery Discharge Indicator – Functioning		
Instrument Monitors – Functioning		

**Sample Operator's Daily Checklist
Walking Pallet Truck**

Date:	Operator:
Make/Model:	Truck #:

Check each item	OK	Not OK	Explain if Not OK
Forks			
Battery			
Handguards			
Brakes			
Check the drive operations			
Horn			
Load handling attachments			

Corrective actions required:	
Corrected on:	