Safety Procedure Manual

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	Revision Date: 03/12/2012	**Final**
Issued By: EH&S Environmental Health & Safety	**Review Date: 03/2012**	**Approved by: The Directors of EHS**
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SUBJECT: Powered Industrial Trucks Program

REGULATORY STATUTE: OSHA -29 CFR 1910.178

BASIS: Accidents resulting from powered industrial truck operation can result in severe personal injury or death, major property damage and major damage to company products. This poses a serious problem for workers and their employer. The OSHA Powered Industrial Trucks Standard establishes uniform requirements to make sure that hazards associated with the use of Powered Industrial Trucks are evaluated, and that this hazard information and training is transmitted to all affected workers.

GENERAL: Case Western Reserve University will ensure that the requirements of the OSHA Standard for powered industrial trucks will be adhered to. This standard practice instruction is intended to address comprehensively the issues of; employee training, authorization, safety requirements, fire protection, new purchase designs, maintenance, and general operation of fork trucks, tractors, platform lift trucks, motorized hand trucks, and other specialized industrial trucks used within our facility.

RESPONSIBILITY: The Case Western Reserve University Directors of EHS, are solely responsible for all facets of this program and has full authority to make necessary decisions to ensure success of the program. The Safety Officers will develop written detailed instructions covering each of the basic elements in this program, and is the sole person authorized to amend these instructions. Case Western Reserve University has expressly authorized the Safety Officers to halt any operation of the company where there is danger of serious personal injury.

Contents of the Case Western Reserve University Powered Industrial Trucks Program

1. **Written Program. Development and Maintenance of a written powered industrial trucks program.**
2. **Training Program. Development and implementation of the employee training program regarding; authorization, use, operator maintenance, and associated hazards.**
3. **Operations Program. Development and implementation of the operations program regarding; authorization, use, operator maintenance, and associated hazards.**
4. **Configuration Program. Development and implementation of the vehicle configuration program regarding modifications or additions to vehicles which affect capacity, and safe operation.**

Case Western Reserve University Powered Industrial Trucks Program

1. Written Program.

This standard practice instruction will be maintained in accordance with 29 CFR 1910.178 and updated as required. Where no update is required this document will be reviewed annually. Effective implementation of this program requires support from all levels of management within this company. This written program will be communicated to all personnel that are affected by it. It encompasses the total workplace, regardless of number of workers employed or the number of work shifts. It is designed to establish clear goals, and objectives.

2. Training program.

Operator Training.

Only trained and authorized operators shall be permitted to operate a powered industrial truck. Employees will be trained in accordance with the following guidelines.

2.1 The Case Western Reserve University Directors of EHS, or select trainers, (once trained) will have the authority to provide training on the operation of powered industrial trucks.

2.2 Employees of Case Western Reserve University will not operate a powered industrial truck (PIT) unless they have received training in accordance with this standard practice instruction.

2.3 Personnel rotated within the company will have their training verified prior to being allowed to operate a PIT.

2.4 Employee personnel records will be annotated with the date, title, and specifics of said training.

2.5 Any employee who refuses such training will not be permitted to operate a PIT.

3. Operations Program.

3.1 Trucks shall not be driven up to anyone standing in front of a fixed object.

3.2 No person shall be allowed to stand or pass under the elevated portion of any truck, whether loaded or empty.

3.3 Unauthorized personnel shall not be permitted to ride on powered industrial trucks. A safe place to ride shall be provided where riding of trucks is authorized.

3.4 Arms or legs are prohibited from being placed between the uprights of the mast or outside the running lines of the truck.

3.5 When a powered industrial truck is left unattended, load engaging means shall be fully lowered, controls will be neutralized, power shut off, and brakes set. Wheels will be blocked if the truck is parked on an incline.

3.5.1 A powered industrial truck is unattended when the operator is 25 ft. or more away from the vehicle which remains in his view, or whenever the operator leaves the vehicle and it is not in his view.

3.5.2 When the operator is dismounted and within 25 ft. of the truck still in his view, the load engaging means will be fully lowered, controls neutralized, and the brakes set to prevent movement.

3.6 A safe distance shall be maintained from the edge of ramps or platforms while on any elevated dock, platform, or freight car. Trucks will not be used for opening or closing freight doors.

3.7 Brakes will be set and wheel blocks in place to prevent movement of trucks, trailers, or railroad cars while loading or unloading. Fixed jacks may be necessary to support a semi trailer during loading or unloading when the trailer is not coupled to a tractor. The flooring of trucks and trailers will be checked for breaks and weakness before they are driven onto.

3.8 The operator will ensure sufficient headroom under overhead installations, lights, pipes, sprinkler system, etc. before operating the vehicle in these areas.

3.9 An overhead guard will 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.

3.10 A load backrest extension will be used whenever necessary to minimize the possibility of the load or part of it from falling rearward.

3.11 Only approved industrial trucks will be used in hazardous locations.

3.12 Whenever a truck is equipped with vertical only, or vertical and horizontal controls elevatable with the lifting carriage or forks for lifting personnel, the following additional precautions will be taken for the protection of personnel being elevated.

3.12.1 Use of a safety platform firmly secured to the lifting carriage and/or forks.

3.12.2 Means shall be provided whereby personnel on the platform can shut off power to the truck.

3.12.3 Such protection from falling objects as indicated necessary by the operating conditions will be provided.

3.13 Fire aisles, access to stairways, and fire equipment will be not be obstructed at any time.

3.14 General requirements. Operators:

3.14.1 Operators will obey Plant/Site speeds and other traffic regulations at all times.

3.14.2 Operators will operate loaded trucks with forks no more than 6-8 inches above the ground, with the load carried low and tilted back.

3.14.3 Operators will not raise or lower loads while moving.

3.14.4 Operators will not carry anything on the overhead guard.

3.14.5 Operators will use all plant/Site observation mirrors

3.14.6 Operators will ensure vehicle sound/illuminated warning devices are operational.

3.14.7 Operators will yield right of way to pedestrians, emergency vehicles, and avoid pedestrian lanes.

3.14.8 Operators will drive cautiously on uneven or slippery surfaces.

3.14.9 Operators will ensure the load is pointed uphill where the gradient is greater than 10 percent.

3.14.10 Operators will ensure fire protection equipment is carried with the vehicle and is in proper working order.

3.15 Pre-start requirements. Operators:

3.15.1 The Operator will verify that all brakes, controls, gauges, lights, seat belts, and routine operational features are in proper working order. They shall be examined before and after each shift. Defects when found shall be immediately reported and corrected.

3.15.2 The Operator will remove the truck from service any time it is found to be in need of, has been restored to safe operating condition.

3.15.3 The Operator will check for leaks and perform necessary operator maintenance before starting vehicle.

3.15.4 The Operator will report deficiencies to maintenance.

3.15.5 The Operator will ensure they know the load capacity and stay within it.

3.15.6 The Operator will be cognizant of the planned route and aware of areas with inadequate headroom, lighting, obstructions, and floor surface problems.

3.15.7 The Operator will wear the same level of personal protective equipment as the personnel they are directly working with.

3.15.8 The Operator will not engage in stunt driving or horseplay.

3.15.9 The Operator will slow down for wet and slippery floors.

3.15.10 The Operator will properly secure dockboard or bridgeplates before they are driven over. Dock board or bridge plates will be driven over carefully and slowly and their rated capacity never exceeded.

3.15.11 The Operator will approach any elevators slowly, and then enter squarely after the elevator car is properly leveled. Once on the elevator, the controls shall be neutralized, power shut off, and the brakes set until the desired level is reached.

3.15.12 Motorized hand trucks must enter elevators or other confined areas with load end forward.

3.15.13 Driving over loose objects on the roadway surface shall be avoided.

3.15.14 When negotiating turns, speed shall be reduced to a safe level by means of turning the hand steering wheel in a smooth, sweeping motion. Except when maneuvering at a very low speed, the hand steering wheel shall be turned at a moderate, even rate.

3.15.15 The Operator will use extreme care tilting the load forward or backward, particularly when high tier levels are required. 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 creating tiers, only enough backward tilt to stabilize the load shall be used.

3.16 Loading/Unloading requirements. Operators:

3.16.1 The Operator will ensure load is within the trucks rated capacity.

3.16.2 The Operator will place load squarely on forks until load touches carriage.

3.16.3 The Operator will ensure load is stable and centered on forks, and stack or tie loose or uneven loads (or ensure proper personnel accomplish this prior to loading).

3.16.4 The Operator will secure the vehicle when not in use to prevent unauthorized personnel from operating the vehicle.

3.16.5 The Operator will tilt the mast back to lift load.

3.16.6 The Operator will proceed straight into trailers or railcars to load/unload.

3.16.7 The Operator will ensure if loading/unloading onto trucks that the wheels are chocked, brakes are engaged, and loading platform is positioned properly.

3.16.8 The Operator will ensure if loading/unloading onto or from racks the proper safe weight or height-to-load ratio is maintained.

3.16.9 The Operator will ensure if loading/unloading onto or from stacked materials the proper safe weight or height-to-load ratio is maintained.

3.17 Parking requirements. Operators:

3.17.1 The Operator must select flat parking surfaces, away from traffic where the vehicle does not block, doors, pedestrian routes, aisles, exits, etc.

3.17.2 The Operator must not leave a truck unattended or be more than 25 feet from the vehicle without:

3.17.2.1 Fully lowering load-engaging means, neutralizing controls, shutting off power, setting the brakes, and removing the keys.

3.17.2.2 Blocking the wheels if parked on an incline.

3.18 Refueling requirements. Operators:

3.18.1 Refuel only in assigned, ventilated areas containing no ignition sources.

3.18.2 Turn off engine.

3.18.3 Have fire suppression and cleanup equipment available.

3.18.4 Extinguish smoking materials.

3.18.5 Use acid-resistant material-handling equipment and wear corrosion-resistant PPE during battery charging/changing.

3.18.5.1 Remove battery cap slowly and leave open.

3.18.5.2 Pour acid into water, not water into acid.

3.18.6 Follow the vehicle manufacturer's instructions for gas or propane fueling.

3.18.7 <u>Never</u> use open flame to check fuel level.

3.18.8 Try to prevent spills, clean any spills promptly, replace fuel cap before starting or moving vehicle.

3.18.9 Take empty propane tanks to an authorized compressed gas container disposal/storage area and follow Case Western Reserve University policy for disposal/storage.

4. Configuration program.

4.1 No modifications or additions which affect capacity and safe operation shall be performed without the manufacturers' prior written approval. Capacity, operation, maintenance instruction plates, tags, or decals shall be changed accordingly.

4.2 If the truck is equipped with front-end attachments other than factory installed attachments, the truck will be marked to identify the attachments and show the approximate weight of the truck and attachment combination at maximum elevation with load laterally centered.

4.3 All nameplates and markings will be verified as being in place and maintained in a legible condition.

4.4 When it is needed to determine a proper configuration to purchase a powered industrial truck, Case Western Reserve University will adhere to the following guidelines. The atmosphere or location where the truck will be used will have to be classified as to whether it is hazardous or non-hazardous prior to the consideration of the type industrial truck to be purchased. 29 CFR 1910.148 and the proposed manufacturer should be consulted to determine the most suitable vehicle. The following is a list of designation types.

4.4.1 D designated units are diesel powered units.

4.4.2 DS designated units are diesel powered units that are provided with additional safeguards to the exhaust, fuel and electrical systems.

4.4.3 The DY designated units are diesel powered units that have all the safeguards of the DS units and in addition do not have any electrical equipment including the ignition and are equipped with temperature limitation features.

4.4.4 The E designated units are electrically powered units that have minimum acceptable safeguards against inherent fire hazards.

4.4.5 The ES designated units are electrically powered units that, in addition to all of the requirements for the E units, are provided with additional safeguards to the electrical system to prevent emission of hazardous sparks and to limit surface temperatures. They may be used in some locations where the use of an E unit may not be considered suitable.

4.4.6 The EE designated units are electrically powered units that have, in addition to all of the requirements for the F and ES units, the electric motors and all other electrical equipment completely enclosed. In certain locations the FE unit may be used where the use of an E and ES unit may not be considered suitable.

4.4.7 The EX designated units are electrically powered units that differ from the F, ES, or FE units in that the electrical fittings and equipment are so designed, constructed and assembled that the units may be used in certain atmospheres containing flammable vapors or dusts.

4.4.8 The 0 designated units are gasoline powered units having minimum acceptable safeguards against inherent fire hazards.

4.4.9 The OS designated units are gasoline powered units that are provided with additional safeguards to the exhaust, fuel, and electrical systems. They may be used in some locations where the use of a 0 unit may not be considered suitable.

4.4.10 The LP designated unit is similar to the U unit except that liquefied petroleum gas is used for fuel instead of gasoline.

FOR THE WEEK OF: / /			TRUCK #				
VISUAL EXAM	**MON.**	**TUE.**	**WED.**	**THU.**	**FRI**	**SAT.**	**SUN.**
ENGINE							
Crankcase oil							
Belts							
Wires							
Fuel_line							
COMPONENTS							
Fuel Tank							
LPG tank straps							
Gauges, Temperature							
Gauges, Hour							
Gauges, Speed							
Gauges,_Battery							
Brake_Fluid							
Hydraulic Fluid							
Hydraulic Lines							
Tires, Wheels, Rims							
Forks							
Mast Chains							
BODY							
Lights,_Head							
Lights,_Tail							
Lights,_Signal							
Lights, Warning							
Fire_Extinguisher							
Seat							
Seat Belt							
Overhead Cage							
Operating Instructions							
Lifting Capacity							
OPERATIONAL							
Horn							
Back-Up_Warning Device							
Steering							
Parking Brake							
Service Brake							
Gear_Shift_Lever							
Transmission							
Adjusted_Seat							
Seat_Safety_Switch							
Mast_Lift Up/Down							
Mast_Tilt							
Mast_Side/Squeeze							

OK=V } Not Applicable =N/A Not OK=X

SIGNATURE OF INSPECTORS FOR EACH DAY:

MONDAY	THURSDAY
TUESDAY	FRIDAY
WEDNESDAY	SATURDAY
	SUNDAY