



Material Handling Equipment

Environmental Health and Safety

Table of Contents

I.

I. Purpose

This program establishes procedures for the safe operation of material handling equipment such as forklifts, motorized pallet jacks, tractors, overhead cranes, hoisting equipment, and other similar equipment.

II. Scope

This program applies to the operation of all material handling equipment on Northwestern property by staff and contractors.

III. Responsibilities

A. Environmental Health and Safety (EHS)

- i. Review and revise this program to reflect changes in regulatory requirements as necessary.
- ii. Provide consultation and guidance when necessary.

B. Departments and Units

- i. Ensure operators attend all required training as required in Section VII.
- ii. Protect material handling equipment from unauthorized use. Keep equipment keys in a secure location and only issue to trained and authorized operators.
- iii. Maintain documentation and records required in Section VIII.
- iv. Ensure material handling equipment is inspected, operated, and maintained in accordance with Section IV and VI.
- v. Remove equipment from service when an operator identifies any condition that makes the unit unsafe to operate during inspection, maintenance, or operation.
- vi. Comply with all safety-related bulletins from the manufacturer, and communicate them to the operators.
- vii. Use reasonable diligence and make every effort to avoid contractor or other outside entity use of University-owned material handling equipment. If contractors or other outside entities will be operating a University-owned material handling equipment, contact EHS for approval.
- viii. Contact EHS to evaluate any safety concerns as specified in this program.

C. Operators

- i. Attend all training and evaluation prior to operating any material handling equipment.
- ii. Operate only those material handling equipment for which they are authorized, trained, and familiar with.
- iii. Complete a pre-use inspection prior to operation (checklists can be found on the [EHS website](#)).
- iv. Immediately cease operations when any problems, hazardous conditions, or malfunctions arise. Operations may only continue after all issues have been corrected.
- ix. Report all maintenance issues, accidents, or unsafe practices to your manager or supervisor.
- x. Follow all safety and manufacturer guidelines and instructions.

D. Contractors

- i. Adhere to the requirements of this program.
- ii. Responsible for supplying and operating their own material handling equipment.
- iii. Prohibited from operating

V. Inspections

- A. Forklifts, Motorized Pallet Jacks, Tractors, and Other Similar Equipment
 - i. Complete a pre-use inspection prior to operation and adhere to the manufacturer's guidelines for additional pre-use inspection criteria, if applicable. Completed pre-use inspection checklists must be submitted to supervisors.
 - ii. Pre-use inspection checklists are on the [EHS website](#). Other pre-use inspection checklists may be used if they meet the requirements of this program.
 - iii. Any safety defects, impairments, damage, or malfunctions must be reported to supervisors, and the material handling equipment must be immediately removed from service and tagged with a label "Dangerous: Do Not Use" similar wording until repaired or replaced.
- B. Overhead Cranes, Hoists, and Rigging Equipment (e.g., Slings, Shackles, Hooks, Swivels, Rings, Chains, Wire Ropes, Eyebolts)
 - i. Pre-Use Inspections
 - a. Complete a pre-use inspection of overhead cranes, hoists, and rigging equipment prior to operation.
 - b. Documentation of pre-use inspections are not required for rigging equipment and overhead hoists.
 - c. Pre-use inspection checklists are on the [EHS website](#). Other pre-use inspection checklists may be used if they meet the requirements of this program.
 - d. Completed pre-use inspection checklists for overhead cranes must be submitted to supervisors.
 - ii. Frequent Inspections
 - a. Complete a frequent inspection of overhead cranes and ion ps-0.001 T

- iv. Load Tests
 - a. Documented load tests are required for new or altered overhead cranes and hoists and must be conducted by a qualified third party service.
 - b. Load tests must include all items specified by the manufacturer or engineer who designed and approved the equipment.
- v. Any safety defects, impairments, damage, or malfunctions discovered during pre-use, frequent, or annual inspections, or during load tests, must be reported to department supervisors, and the equipment must be immediately removed from service and tagged with a label "Dangerous: Do Not Use" or similar wording until repaired or replaced.
- vi. Markings
 - a. The rated load of the overhead crane or hoist must be marked on the hoist or its load block and must be legible from the ground or floor.
 - b. Overhead crane and hoist controls must be marked to indicate the direction of the resultant motion.
 - c. Cranes and hoists must be marked with the name of the manufacturer, model or serial number, electrical supply specifics (for electrical-powered equipment), and rated air pressure (for air-powered equipment).
 - d. Overhead cranes and hoists must have labels with product safety information, operating procedures, and other relevant information as required by ANSI B30.16.
 - e. Rigging equipment must be marked with the name of the manufacturer, rated load, and other relevant information as required by ANSI B30.16.

6hn 30040 cT 400.0- JT) (dT 0 57.780 jT3 0 up (e) 57 p (o) 5 7 58 42 67 57 (48 7 6) 7 1 6) 2 8 . 3 4 1 6 2 6 0 2 1 6 - T d () T

manufacturer, or a vendor who specializes in material handling equipment training.

B. Retraining

Retraining is required whenever:

- i. The operator's valid training period has expired (i.e., 3 years),
- ii. The operator is observed using the material handling equipment in an unsafe manner, or the performance of the operator is deteriorated,
- iii. Introduction to new or significantly different material handling equipment,
- iv. The operator is involved in an accident or near miss incident, or
- v. A condition in the workplace changes that could affect safe operation.

VIII. Recordkeeping

Departments and units are responsible for maintaining the following records:

- A. Operator training documentation (i.e., person trained, person providing training, date of training, type of material handling equipment trained on) for as long as the operator will be operating material handling equipment.
- B. All inspection and test records must include the inspection and test performed, date any deficiencies found, corrective actions accomplished, and identification of person(s) performing the inspections and repairs.
- C. All material handling equipment inspection, maintenance, service, and repair documentation must be retained and made available for as long as the material handling equipment is in operation.
- D. Service, part, and operator manuals provided with each material handling equipment must be maintained for as long as the material handling equipment is in operation.

IX. Regulatory Authority and Related Information

Northwestern and contractors will comply with the Occupational Safety and Health Administration's (OSHA) standards, American National Standards Institute (ANSI) codes, and any other applicable codes and standards including:

[Northwestern's Control of Hazardous Energy \(Lockout/Tagout\) Program](#)

OSHA 29 CFR 1910.178– Powered Industrial Trucks

OSHA 29 CFR 1910.179– Overhead and Gantry Cranes

OSHA 29 CFR 1926.602– Material Handling Equipment

OSHA Compliance Directive CPL 23A– Compliance Assistance for the Powered Industrial Truck Operator Training Standards

ANSI B56.14 1969– Powered Industrial Trucks

ANSI B30.2 2011– Overhead and Gantry Cranes

ANSI B30.9 2014– Slings

ANSI B30.10 2010– Hooks

ANSI B30.16 2012– Overhead Hoists

ANSI B30.17 2015– Cranes and Monorails

ANSI B30.26 2004– Rigging Hardware

X. Contact