

Date Issued: September 2, 2003	Page No.: 1	Document No.: SOP-Safety-04
Revision: 1.0	Subject:	Hoists and Cranes

#### 1. Introduction

The Environmental Health & Safety Standard Operating Procedure for hoists and cranes was developed by the Department of Environmental Health & Safety in accordance with the University's Policy Statement on Health and Safety and to ensure compliance with the Ontario Occupational Health & Safety Act and Regulations.

# 2. Applicable Legislation

- Ontario Occupational Health and Safety Act, Industrial Establishments, Sections 45-59
- Canadian Standards Association, Safety Code for Material Hoists, CSA-Z256-M87 (1995)
- Canadian Standards Association, Safety Standard for Operation, Maintenance and Inspection of Overhead Cranes, Gantry Cranes, Monorails, Hoists and Trolleys, B167-96

#### 3. Definitions

#### Boom

The projecting part of a backhoe, shovel, crane or similar lifting device from which a load is likely to be supported.

### Competent Worker

A worker who:

- a) is qualified because of knowledge, training and experience to perform the work,
- b) is familiar with the Occupational Health and Safety Act and with the provisions that apply to the work, and
- c) has knowledge of all potential or actual danger to health or safety in the work

### Lifting Device

A device that is used to raise or lower any material or object and includes its rails and other supports but does not include a device to which the *Elevating Devices Act* applies. This policy does specifically include pallet lift trucks (See section 10).

### **Qualified Inspector**

A representative from the manufacturer, or a professional from a service or organization who is competent to inspect hoists and riggings.



Date Issued: September 2, 2003	Page No.:	<b>Document No.:</b> SOP-Safety-04
Revision: 1.0	Subject:	Hoists and Cranes

# 4. Responsibilities

This section outlines the responsibilities within the University for the implementation of this SOP.

# **4.1 Directors, Department Heads & Managers:**

Each has the following responsibilities under this SOP:

- To ensure that pertinent supervisors and employees are notified of their responsibilities for working with hoists or cranes;
- To ensure that all employees have received instruction in the operation of hoists and cranes through courses offered by the Department of Environmental Health and Safety, and departmental instruction on the specific hoists and cranes that the employee will be operating
- To ensure that procedures, equipment and materials appropriate for the specific work locations under his/her authority are provided to protect the health and safety of all employees;
- -To ensure that all employees are given adequate supervision and instruction on the hazards of hoist and crane operation,
- -To ensure that the components of this SOP and the Occupational Health and Safety Act are implemented in all facilities under his/her authority.

#### 4.2 Supervisors

Supervisors must be knowledgeable about the hazards and standard operating procedures associated with working with hoists and cranes under his/her authority, the education and training requirements for working with hoists and cranes, the appropriate standard operating procedures for all such locations under his/her authority, as well as the other requirements of this program. He/she has the following responsibilities:

- To ensure that employees are familiar with the hazards and the standard operating procedures for working with hoists and cranes;
- To ensure that all employees act in accordance with the standard operating procedures for hoists and cranes;
- To ensure that all employees use appropriate equipment and materials for working with hoists and cranes at all times;



Date Issued: September 2, 2003	Page No.:	Document No.: SOP-Safety-04
Revision: 1.0	Subject:	Hoists and Cranes

# 4.3 Employees/Students

Employees have the following responsibilities:

- To be familiar with the hazards associated with working with hoists and cranes, the pertinent standard operating procedures for the equipment;
- To work in accordance with written standard operating procedures for hoists and cranes;
- To use the appropriate equipment and materials provided for working with hoists and cranes;
- To promptly report any known or suspected accidents, unsafe conditions or unsafe procedures to his/her supervisor.

### 5. Training

Employees and students using hoist and cranes must take the "Hoist and Crane" Training course offered through the Department of Environmental Health and Safety. Employees and students must be re-certified every two years.

Training records for courses offered through the Department of Environmental Health and Safety will be held by EH&S. Certificates will be issued to all employees and students who successfully complete the training.

Departments <u>must</u> keep records of their hoist specific training sessions. These records must include (but not limited to): Employees Name, Date of Training, and Equipment Trained on. A syllabus of the training course must be kept with the training records.

Departments must also train employees on <u>each</u> piece of equipment that they will use. When new or replacement equipment is purchased, employees must be trained on that equipment prior to use. A "Record of Training – Specific Equipment – Hoists and Cranes" (Appendix 1) must be completed and kept in Departmental records.

# 6. Registration

All cranes and hoists must be registered with the department of Environmental Health and Safety through their website <a href="https://www.queensu.ca/forms/ehs-lift-equipment-registration">https://www.queensu.ca/forms/ehs-lift-equipment-registration</a>



Date Issued: September 2, 2003	Page No.:	Document No.: SOP-Safety-04
Revision: 1.0	Subject:	Hoists and Cranes

# 7. Inspections

A qualified inspector must inspect lifting devices before being placed in service. A copy of the inspection report must be filed with the Department of Environmental Health & Safety.

Annual Inspections will be co-ordinated by Environmental Health and Safety. A qualified inspector will inspect devices. A qualified inspector shall inspect load chains, wire ropes, slings and other accessories annually. Environmental Health and Safety shall maintain a permanent record of each inspection. A copy of the most recent inspection must be posted in the department.

A permanent record must be kept of all inspections of, tests of, repairs to, modifications to and maintenance of a crane or hoisting device.

The operator or a designated person shall conduct visual inspections at least monthly. The results of the inspection shall be recorded in a logbook.

The following items shall be examined for defects, malfunctions and damage during the monthly inspection:

- a) all operational functions;
- b) leakage in lines, tanks, valves, pumps, and other parts of air or hydraulic systems;
- c) deformed, worn, or cracked hooks;
- d) hook latches;
- e) hoist ropes;
- f) limit device(s) for function;
- g) function labels for operator control; and
- h) all brakes

### 8. Operating Guidelines

The following are some general operating guidelines that govern the use of hoists and cranes:

- a) No lifts may be performed where the load passes over another person.
- b) In general, hoists and cranes will only be used during normal operating hours and be lockedout when not in use.
- c) The use of hoist and cranes after normal operating hours must have prior approval of the operator's supervisor and the Departmental Manager.
- d) Only persons designated as competent and certified crane operators may operate hoisting equipment after normal working hours and **must not do so alone**.



Date Issued: September 2, 2003	Page No.: 5	<b>Document No.:</b> SOP-Safety-04
Revision: 1.0	Subject:	Hoists and Cranes

e) Persons in care and control of any hoisting equipment are responsible for the safety of all personnel in the near vicinity.

It may be necessary to develop additional operating guidelines within the department depending on the nature of the equipment and materials being handed.

# 9. Auditing

The Department of Environmental Health & Safety reserves the right to audit departmental compliance with this policy through an inspection of the documentation outlined in the various sections of this policy.

#### 10. Pallet Lift Trucks

Pallet lift trucks must be registered with the Department of Environmental Health & Safety through their website <a href="https://www.queensu.ca/forms/ehs-lift-equipment-registration">https://www.queensu.ca/forms/ehs-lift-equipment-registration</a>

Departments must also train employees on <u>each</u> pallet truck that they will use. When new or replacement equipment is purchased, employees must be trained on that equipment prior to use. A "Record of Training – Specific Equipment – Pallet Lift Trucks" (Appendix 2) must be completed and kept in Departmental records.

# Record of Specific Training Hoists and Cranes

Crane or Hoist Manufacturer:			
Model:	Serial Number:		
Description of Equipment and ho	isting operation:		
I have read and understood the and Cranes, and the Department manual for the above-mentione these documents.	e Queen's University Stand ntal Policies. I have also re	lard Operating Procedure ad and understood the op	s – Hoists erating
Name (Please Print):			
Student/Worker's Signature:		Date:	-
Supervisor's Signature:		Date:	-
Departmental Manager's Signatu	re:	Date:	

# Record of Specific Training Pallet Lift Trucks

Pallet Lift Truck Manufacturer:		
Model:	Serial Number:	
Description of Equipment and lifti	ng operation:	-
		<u> </u>
	the operating manual for the above-mentioned piece of edures as set forth in these documents.	Î
Name (Please Print):		
Student/Worker's Signature:	Date:	
Supervisor's Signature:	Date:	
Departmental Manager's Signatur	e: Date:	