
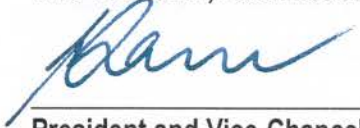


Complete Program Title: <b>Preventive Maintenance Program</b>	Risk Management Manual (RMM) Number: <b>406</b>
Approved by:  <b>Vice-President, Administration</b>  <b>President and Vice-Chancellor</b>	Date of Most Recent Approval: <b>July 2016</b>
Date of Original Approval: <b>October 2007</b>	Supersedes/Amends Program dated: <b>February 2010</b>
Responsible Executive: <b>Vice-President, Administration</b>	Enquiries: <b>Environmental and Occupational Health Support Services (EOHSS) <a href="mailto:eohtss@mcmaster.ca">eohtss@mcmaster.ca</a></b>
<b>DISCLAIMER:</b> <i>If there is a discrepancy between this electronic program and the written copy held by the program owner, the written copy prevails.</i>	

## 1 PURPOSE

- 1.1 To ensure the safety of all McMaster University faculty, staff, visitors, contractors and students.
- 1.2 To ensure the safe operation of all McMaster University machinery and equipment.
- 1.3 To comply with the Occupational Health and Safety Act and Regulations.

## 2 SCOPE

- 2.1 All equipment owned by McMaster University used by Faculty, staff, visitors, volunteers and students. This includes but is not limited to mobile equipment, production and research equipment, maintenance equipment and tools.

## 3 Related Documents

- 3.1 The Occupational Health and Safety Act, R.S.O. 1990
- 3.2 McMaster University Workplace and Environmental Health and Safety Policy, RMM #100.
- 3.3 McMaster University Risk Management System, RMM #101.

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- 3.4 McMaster University Health and Safety Training Program, RMM #300.
  - 3.5 Contracting Work Safety Program-Due Diligence Program, RMM#111.
  - 3.6 Standard Operating Procedures (SOPs) Program, RMM#301.
  - 3.7 Lockout/Tagout Program for The Control of Hazardous Energy, RMM#306.
  - 3.8 Scaffolds and Powered Elevated Work Platforms Program, RMM#307.
  - 3.9 Electrical Safety Program, RMM#316.
  - 3.10 Care and Control of Golf Carts & Other Off Road Vehicles Program, RMM#318.
  - 3.11 University Owned, Leased or Rented Vehicle Program, RMM#904.

#### 4 DEFINITIONS

- 4.1 **Qualified Inspector** – An individual who has intimate knowledge of the operation of a piece of equipment who, based on their training, experience and knowledge, is in a position to determine if the equipment is in suitable operating condition.
- 4.2 **Preventive Maintenance** – An equipment maintenance strategy based on measuring and adjusting, parts replacing, overhauling, or remanufacturing an item at a fixed interval, regardless of its condition at the time.
- 4.3 **Employer** – Person who employs one or more workers or contracts for the service of one or more workers and includes a contractor or subcontractor who performs work or supplies services and a contractor or subcontractor who undertakes with the owner, constructor, contractor or subcontractor, to perform work or supply services.
- 4.4 **Supervisor** – Person who has charge of a workplace or authority over a worker.
- 4.5 **Worker** – Any of the following but does not include an inmate of a correctional institution or like institution or facility who participates inside the facility or institution in a work project or rehabilitation program:
  - A person who performs work or supplies services for monetary compensation.
  - A secondary school student who performs work or supplies services for no monetary compensation under a work experience program authorized by the school board that operates the school in which the student is enrolled.
  - A person who performs work or supplies services for no monetary compensation under a program approved by a college of applied arts and technology, university or other post-secondary institution.
  - A person who receives training from an employer, but who, under the [Employment Standards Act, 2000](#) (ESA), is not an employee for the purposes of that act because the conditions set out in subsection 1 (2) of that act have been met.
  - Other persons who work or provide services to an employer for no money, who may be prescribed by regulation. (At this time, no such persons have been prescribed as a “worker” under the OHSA.)

- 4.6 **Mobile Equipment** – Defined as but not limited to: forklifts, cranes, scissor lifts, motor vehicles, boom trucks, loaders, jumbos, skidders, and grounds keeping equipment.
- 4.7 **Production Equipment** – Defined as but not limited to: lathes, drill presses, saws, punch, drill, brake presses, and conveyor systems.
- 4.8 **Other Industry Specific Equipment** – Defined as but not limited to: kettles, paving machines, and diamond drills.

4.9 **Acronyms:**

CSA – Canadian Standards Association

ULC – Underwriters' Laboratories of Canada

CJHSC – Central Joint Health and Safety Committee

JHSC – Joint Health and Safety Committee

EOHSS – Environmental & Occupational Health Support Services

RMSG – Risk Management Support Group

FHS– Faculty of Health Sciences Safety Office

## 5 RESPONSIBILITIES

### 5.1 Role of Senior Managers (Deans, Chairs, Directors):

Senior Managers shall:

- provide the direction and resources necessary to support the preventive maintenance program; and
- ensure that employees under their direction are aware of and comply with the 'Approval Authorities for Construction and Maintenance Projects' policy and other related University policies.

### 5.2 Role of Supervisors (Academic and Administrative):

Supervisors shall:

- maintain a current list of equipment for their area;  
from the list determine the equipment in the workplace that requires preventive maintenance. Supervisors should consider equipment that requires scheduled servicing;
- ensure that there exists a schedule for preventive maintenance along with a list of qualified inspectors that will be performing the inspections and/or workers who will be performing the preventive maintenance work;

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- keep a record of the preventive maintenance along with the qualified inspector and worker who were involved with the preventive maintenance;
  - review any deficiencies;
  - noted any recommendations on form;
  - assign person to perform corrective measures;
  - set a timeframe for corrective measures; and
  - follow-up on corrective actions.

### 5.3 **Role of Individuals (Faculty, Staff, Students and Volunteers):**

Individuals shall:

- work with equipment in a safe manner to ensure that no undue damage is caused to either themselves or the equipment; and
- report any damage or existence of hazard to their supervisor.

### 5.4 **Environmental & Occupational Health Support Services and Faculty of Health Sciences Safety Office as appropriate:**

EOHSS and/or FHS safety office shall:

- Provide advice and support on preventative maintenance activities; and update the Preventive Maintenance Program on a scheduled basis.

### 5.5 **Role of Contractors:**

Contractors shall:

- work in compliance with the OHS Act and McMaster University RMM Programs; and
- perform preventive maintenance duties as contracted for McMaster University and its various departments.

### 5.6 **Role of Joint Health and Safety Committees:**

JHSCs shall:

- review the effectiveness of the preventive maintenance program during inspection, as it relates to compliance with safety standards and legislative requirements.

## 5.7 **Role of Central Joint Health and Safety Committee:**

The CJHSC shall:

- review the Preventive Maintenance Program on a scheduled basis.

## 6 **PROCEDURAL GUIDELINES**

### 6.1 **Maintaining a preventive maintenance inventory and schedule**

- Supervisors will review mobile equipment, production equipment, other industry specific equipment and maintenance equipment under their authority and determine if there is a requirement for a preventive maintenance schedule for this equipment based on best practices, as well as manufacture's recommendations and industry standards, and legislative requirements. If it is determined that equipment needs to be on the preventive maintenance program then the supervisor will complete the form in Appendix C or the equivalent electronic version for their preventive maintenance inventory list record.
- The supervisor will then assign the preventive maintenance of the equipment to a schedule and assign a qualified inspector to perform the preventive maintenance activities. If a qualified inspector does not exist, than one will be trained or purchased through contract or purchase order from a contractor external to the department or university.
- EOHSS or the FHS safety office should be consulted in all instances where a question arises as to the need for such preventive maintenance.
- Should a department and/or supervisor choose to keep records electronically, EOHSS or FHS safety office as appropriate should be consulted to review the data base and records to ensure compliance with this Preventive Maintenance Program.

### 6.2 **Records**

- Recording all completed and all missed preventive maintenance is imperative for a successful preventive maintenance program.
- The Qualified Inspector will complete the preventative maintenance record found in Appendix A or equivalent electronic version of Appendix A when performing preventive maintenance activities.
- Should remedial action beyond the ability of the Qualified Inspector be required, then completion of follow-up inspector's recommendations form found in Appendix B or equivalent electronic version of Appendix B will also be required. It is the responsibility of the Supervisor to keep permanent records of all preventive maintenance records.

- Should a department and/or supervisor choose to keep records electronically, then EOHSS or FHS as appropriate should be consulted to review the data base and records to ensure compliance with this Preventive Maintenance Program.
- Records of preventative maintenance shall be kept for 7 years.

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**Appendix A:**

**Preventative Maintenance Record**

Date	Inspector's Name

Item being Inspected: \_\_\_\_\_

Description of work performed:

Are there any deficiencies with the item being inspected:    Yes     No

If yes please describe:

Recommendations for correcting the deficiencies (if applicable):

Inspector's Signature:

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## Appendix B

### Follow-up of Inspector's Recommendations

(To be filled out by the individual responsible for remedial actions taken)

Date	Name

Item being followed up on:

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Date of Initial Inspection: \_\_\_\_\_

Recommendations given by the Inspector:

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Action(s) taken to correct the deficiencies:

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Date of corrective actions (as mentioned above): \_\_\_\_\_



**Appendix C**

**Inventory List Sample**

<u>Items that require servicing, adjusting or replacing of their components</u>	<u>Frequency of serving, adjusting or replacing of components</u>	<u>Manufacture's Standards to be met</u>	<u>Industry Standards to be met</u>	<u>Legislated Requirements</u>	<u>Location of Item in Facility</u>
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					