Mobile Equipment Management Procedure

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Office of the Chief Risk Officer

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Version Control Table

Version Number	Owner	Approver	Change Summary	Status
1	OCRO	OCRO	New	N/A

1. Document Background

Purpose and scope of document

The Mobile Equipment Management Procedure (hereafter known as "the Procedure") outlines the University of Ottawa (also known as "uOttawa") procedure for mobile equipment management within uOttawa premises.

The procedure applies to uOttawa employees and also serves as a reference for stakeholders at uOttawa.

The procedure does not outline all the independent requirements and potential risks or challenges relevant specific to any projects, workspaces, or situations, but rather serves as a framework to build a fit-for-purpose approach for managing the applicable risks.

Terms and definitions

Refer to the OHS Glossary for the OHS terms and definitions that apply to the documents within the management system.

Additional terms and definitions specific to this procedure are listed below.

mobile equipment: any industrial vehicle used to transport product(s), materials and/or people. Examples include but are not limited to: tracked mobile equipment, forklifts, aerial person-lifts, carts, scissor-lifts, trucks, buses, company cars, bicycles, earth-moving equipment, and motorized sweepers/scrubbers.

Conveyor systems, aircraft, watercraft, cranes, trains, and wagons are not defined as mobile equipment and require separate consideration.

Responsibilities

The responsibilities of stakeholders, including supervisors and workers, are detailed in Administrative Procedure 14-1 (Internal Responsibility Procedure for Health and Safety Issues).

Reference documents

- General OHS Program Manual
    - Hazard Identification and Risk Assessment Procedure

2. Procedure

Procedural Steps

The following procedural steps **shall be followed** when procuring, using and managing mobile equipment:

1. Identify and procure mobile equipment as necessary
2. Conduct a hazard identification and risk assessment (HIRA)
3. Implement the proper training, operation, inspection, maintenance, storage, transfer, disposal, and decommissioning, as defined by the manufacturer
4. Maintain proper records and documentation for mobile equipment

Additional steps may be required based on the project or work scope.

STEP 1 Identify and procure mobile equipment

Key activities

- Assess the need for the mobile equipment
- Prior to purchase, mobile equipment should be screened by considering: safety, health, ergonomic issues, fire and environmental exposure, as well as reputation and relative performance compared to other manufacturers
- Procure the mobile equipment following the appropriate processes

Contextual Details

Procurement of mobile equipment shall follow the processes and requirements defined by Procurement. The mobile equipment selected must be appropriate to its intended use (e.g., where can it be used). The selection criteria shall include but is not limited to:

- Energy source
- Operational limits
- Capacities
- Legible operational controls
- Reverse alarms (audible and/or visual)
- Rear view mirrors or equivalent
- Fire extinguisher
- Overhead/rollover protection
- Adequate illumination
- Seat belts
- Brake lights
- Adequate operator visibility
- Safe seating for operators and passengers
- Ergonomic design
- Safeguards
- Emergency shutdown devices
- Safety rating for the atmosphere/environment in which the equipment will be operating

STEP 2 Conduct a hazard identification and risk assessment (HIRA)

Key activities

- Obtain and complete the hazard identification and risk assessment (HIRA) for the mobile equipment

- Identify the work hazards present, including a review of current hazard identification and risk assessments (HIRA) and standard procedures in place
- If the hazard(s) of the specific work have not been previously assessed by completing a HIRA or by an equipment/activity-specific procedure (that includes the outcome of a HIRA), conduct a HIRA with reference to the Hazard Identification and Risk Assessment Procedure
- Based on the hazards identified, define appropriate measures to effectively eliminate or mitigate the risk using the appropriate methodology

Contextual Details

Supervisors of projects and workspaces within uOttawa premises shall identify and evaluate mobile equipment at the site through a preliminary qualitative survey. The survey shall consult workers and relevant committee(s) to identify additional hazards.

Based on the findings of the preliminary hazard survey, address the mobile equipment hazards by:

1. Identifying an existing assessment of the work hazard(s), reviewing the HIRA and associated standard procedure to mitigate the hazard risks.
2. If an assessment or standard procedure does not exist already, conducting a HIRA using the HIRA process outlined in the Hazard Identification and Risk Assessment Procedure

Projects and workspaces within uOttawa premises shall identify current and potential risk associated with the mobile equipment prior to use at uOttawa utilizing the HIRA process outlined in the Hazard Identification and Risk Assessment Procedure.

STEP 3 Implement the proper training, operation, inspection, maintenance, storage, transfer, disposal, and decommissioning

Key activities

- Identify and develop operating procedures specific to each mobile equipment
- Identify and develop the necessary training objectives and materials for operating the mobile equipment
- Conduct proper inspection and maintenance of the equipment

Contextual Details

Mobile Equipment Specific Training

In addition to OHS training outlined in the General OHS Program Manual, only individuals who have successfully completed both the required theoretical and practical training shall be permitted to operate the specific mobile equipment for which they were trained.

Training program(s) for specific mobile equipment should include:

- Regulatory agency requirements
- An equipment-specific training curriculum
- Examination to verify the individual's knowledge
- Proficiency testing to verify the individual's skill

- Certification or licensure, when required by regulations

Refresher training shall be developed and conducted periodically according to legal requirements or at appropriate intervals, or at least once every three years. Completion of the regular and/or refresher training program(s) must be documented based on requirements in the General OHS Program Manual and verified by the supervisor prior to work.

Operation

Safe operating practices for mobile equipment shall be established, namely:

- The requirement to operate mobile equipment only after successful completion of mandatory training and receipt of formal authorization to operate
- The requirement to inspect the mobile equipment prior to use
- The required provision and use of seatbelts, headlamps, and warning devices during operation
- The requirement to transport loads that are safe and secure
- Safe fueling or battery charging practices
- Appropriate parking and practices when leaving the vehicle unattended, including the prevention of unintentional movement of the equipment or load
- Requirement to report accidents and incidents
- Requirement to take unsafe mobile equipment out of service; and
- Prohibition from:
    - Operating equipment outside its designed operational parameters (overloading)
    - Operating mobile equipment at excessive speed
    - Transporting personnel who are not seated in a seat provided by the original equipment manufacturer
    - Raising personnel on forks or other unapproved mobile equipment attachments
    - Working under loads suspended by mobile equipment
    - Leaving an unattended piece of mobile equipment running or in an otherwise unsafe condition

Signage shall be placed to identify mobile equipment hazards (e.g., identification of pedestrian aisle ways, pedestrian or vehicle stop signs; charging/refueling stations).

Traffic patterns and flows at the site shall be identified and optimized, including inside the buildings and on the grounds.

Inspection

Mobile equipment shall undergo regular inspections prior to use, as well as an annual formal inspection by a qualified party as dictated by applicable regulations and manufacturer's recommendations.

An inspection and maintenance schedule shall be established, documented, and executed in accordance with the supplier's recommendations and/or government regulations for mobile equipment.

Only authorized individuals shall be permitted to perform maintenance on mobile equipment.

The University sets requirements to develop, communicate and enforce individual, specific pre-use inspections (e.g., use/daily/shift). These inspections may include verifications of:

- Brakes
- Steering
- Lights
- Tires
- Windshield
- Horns, alarms and other audible devices
- Guards
- Chains (carriage lifting chains)
- Forks
- Hoses
- Fluids (where appropriate)
- Fire extinguishers (where required)
- Mirrors
- Seat belts

Modification

Modifications to the structure, attachments, and use of equipment that affect capacity and safe operation without the manufacturer's prior written approval or that of a qualified professional engineer are prohibited.

STEP 4 Maintain proper records and documentation for mobile equipment

Key activities

- Document and retain assessment and inspection records
- Document and retain records of regular mobile equipment maintenance

Contextual Details

Inspections, assessments, and maintenance activities shall be documented and shall meet the requirements outlined in the General OHS Program Manual.