

**University of Toronto
Department of Civil Engineering
Structural Testing Laboratories**

POLICY ON USE OF PERSONAL PROTECTIVE EQUIPMENT

1. GENERAL

This policy is intended to facilitate implementation of the governing policies of the University of Toronto (U of T Health and Safety Policy, and standards governing protective footwear, headwear, eye and facewear, and hearing protection), applicable CSA standards, and the Ontario Health and Safety Act and its associated Regulations (in particular the regulations on Industrial Establishments and Construction Projects). Copies of the relevant standards can be found in the Structures Laboratory Safety Manual, located in GB31 (Engineering Stores).

2. APPLICATION

The spaces covered by this policy include:

- a) The Mark Huggins Structural Testing Laboratories, including associated areas for rebar storage, pump rooms, storage ramps etc., but excluding the classrooms of the Cadario Facility (GB117/217) and their connecting stairway.
- b) The Sandford Fleming Structural Testing Laboratories, excluding mezzanine level facilities.
- c) The testing laboratory in GB12.
- d) Ancillary facilities associated with the Structural Testing Laboratories including the Machine Shop (GB19) and Wood Shop (GB29).

This policy applies to everyone entering the Structures Laboratory, including staff, students, and faculty and their guests.

3. POLICY

- a) The Manager and the Academic Coordinator of the Structural Testing Laboratory shall review this Policy annually during the first week of April, with a written report on this review filed with the Department's Joint Health & Safety Committee and copied in the Structures Laboratory Safety Manual.
- b) Foot Protection: All persons shall wear CSA approved protective footwear ("green patch" shoes or boots) at all times while in any of the identified spaces. This type of footwear includes both a protective steel toe and steel shank. Specific exclusions to this blanket policy are discussed below. The footwear will be provided by the Department for all technical staff who are required to enter the laboratories as part of their duties. All others must provide their own footwear.
- c) Head Protection: Protective headwear (CSA approved hard hats) is required at all times in areas 2(a) and 2(b) specified above, except the MTS test room GB16B. Specific exclusions

to this blanket policy are discussed below. Hard hats will be provided by the Department for all technical staff, faculty and graduate students working in the laboratories. In addition, hard hats will be provided for guests not covered by one of the exclusions discussed below.

- d) Eye & Face Protection: All persons shall wear CSA approved protective eyewear and face protection in accordance with UofT Policy on Protective Eye and Facewear Standard at all times while in any of the identified spaces (in particular, the minimum acceptable level of protection is spectacle-type safety glasses with permanently attached sideshields). Specific exclusions to this blanket policy are discussed below. Faculty and their graduate students as well as guests will be able to sign out from the Stores appropriate eye and/or face protection as required.
- e) Hearing Protection: Hearing protection is required while operating any of the machinery in the Wood Shop. It is also required when operating any equipment that produces an excessive amount of noise such as a jack hammer, coring drill, etc. Hearing protection will be provided by the Department for all technical staff who require it to perform their duties. Faculty and their graduate students as well as guests will be able to sign out appropriate hearing protection as required from the Stores.
- f) Other: Use of additional personal protective equipment in specified areas shall be documented in the Structures Laboratory Safety Manual and signs shall be posted in the appropriate areas. This equipment includes, but is not limited to, Tyvec suits for protection from contact with epoxy, gloves to protect hands, and respirators while using designated chemicals. The Department will provide this equipment to all technical staff who require it to perform their duties. Faculty will provide specialized equipment for themselves and their graduate students.

4. EXCEPTIONAL CONDITIONS

The following shall apply to the specified conditions:

- a) Class Demonstrations and Public Tours: Demonstration tests for classroom instruction or public tours may be conducted in the Laboratories. The following steps shall be taken so that students/public and the staff- and/or faculty-member host(s) may be exempt from the foot, head, and eye protection policies: (1) for the duration of these demonstrations, normal laboratory operations shall cease in the laboratory being used and any overhead cranes shall be locked off; (2) the proposed activities for the demonstration or tour will be subject to a prior hazards assessment by the Laboratory Manager, who will designate safe areas for the students/public and host(s), and who will keep a written record of the hazard assessment and the designated area in the Laboratory's Safety Manual (see Manual for a Hazard Assessment Template); and (3) rope barriers shall be erected to direct students/public to the designated area and the host(s) shall be responsible for ensuring students/public remain in the designated area.
- b) Other: Other situations where variance from the policy are requested are to be specifically communicated with supporting documentation indicating reasons for and timeframe of the variance, and must be approved by the Laboratory Manager, the Academic Coordinator, and the Joint Health and Safety Committee. A written record of these variances is to be kept in the Structural Testing Laboratory Safety Manual as well as in the minutes of the JH&S Committee.

5. TRAINING

All users of the Structural Testing Laboratories are to receive appropriate training in the scope and application of standard personal protective equipment, including hard hats, safety shoes, protective eyewear, hearing protection, and respirators. Specialized training will be given as appropriate for particular circumstances and activities. The trainer shall be the Laboratory Manager or a person determined by the Manager to be competent as a trainer. Brief tests shall be administered after the training sessions to ensure retention of the salient concepts. A written record of those trained, the trainers, and the training dates shall be kept in the laboratory's Safety Manual.

Integral to the training described above is the issue of monitoring for compliance. The training sessions for all users will stress the concept of self-policing - i.e. ensuring that anyone present in the areas defined above is complying with the stated policy. Enforcement (described below) will also be discussed in the general training session.

Guests are to be informed by the staff- and/or faculty-member host(s) of the limitations and restrictions to laboratory access inherent in the Exceptional Conditions noted above. Appropriate signage shall be posted at all key entrances to the laboratories as well as at appropriate internal locations to highlight the need for personal protective equipment.

6. ENFORCEMENT

Any user who does not comply with this policy shall be reported to the Laboratory Manager. Anyone found in the designated areas without the proper safety equipment will be removed from the laboratory and will have their laboratory privileges suspended. Where laboratory privileges have been suspended, a meeting shall be convened between the user, the user's supervisor, the Laboratory Manager and the Academic Coordinator. At the meeting, the safety problems will be identified and an appropriate course of action will be determined so as to ensure that the laboratory user works safely. In extreme cases, where a laboratory user fails to comply with the directions of the Laboratory Manager, the matter will be referred to the Department Chair.

HAZARD ASSESSMENT FORM FOR CLASS DEMONSTRATIONS AND PUBLIC TOURS

1. DESCRIPTION OF CLASS DEMONSTRATION OR PUBLIC TOUR

(include, at least: date of demonstration or tour, name of host, number of people involved and their affiliation, purpose of demonstration or tour, location in lab, and any specific equipment to be used)

2. SKETCH OF PROPOSED DESIGNATED AREA FOR GUESTS AND DESCRIPTION OF ANY SPECIAL STEPS TAKEN TO PROTECT THE GUESTS

(include, at least: date of demonstration or tour, name of host, number of people involved and their affiliation, purpose of demonstration or tour, location in lab, and any specific equipment to be used)

3. REQUIREMENT FOR HEAD PROTECTION

(identify potential for head injury and type of head protection required, if any, to mitigate this potential hazard)

4. REQUIREMENT FOR EYE PROTECTION

(identify potential for eye injury and type of eye protection required, if any, to mitigate this potential hazard)

5. REQUIREMENT FOR HEARING PROTECTION

(identify potential for hearing injury and type of hearing protection required, if any, to mitigate this potential hazard)

6. REQUIREMENT FOR PROTECTIVE FOOTWEAR

(identify potential for foot injury and type of protective footwear required, if any, to mitigate this potential hazard)

7. REQUIREMENT FOR GROSS BODY PROTECTION

(identify potential for gross body injury and steps required, if any, to mitigate this potential hazard)