

# SAFE WORK



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## Elevator Room Hazards

Elevator rooms house equipment that may pose significant hazards to workers. For this reason, the Department of Labour and Immigration will begin enforcing stronger restrictions to safeguard elevator rooms across the province.

Elevator rooms contain sheaves, motors, control systems, or hydraulic systems that control the movement of the elevator. The cable (electric) system uses traction ropes to raise and lower the elevator car. The sheaves, motor, and control system are typically located in a machine room above the elevator shaft.

Access to elevator rooms is restricted to authorized personnel due to the presence of the following hazards:

- contact with moving parts,
- contact with hot parts,
- energized equipment,
- asbestos related hazards,
- confined space issues,
- work alone environment.

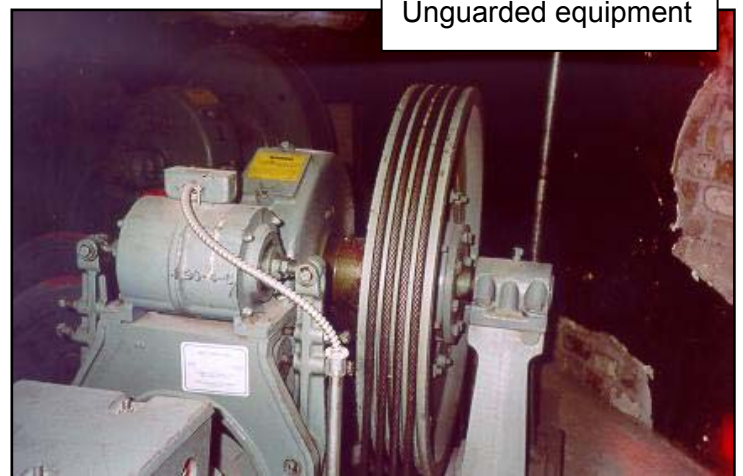
When new elevators are installed, building owners must comply with the latest edition of CSA Standard B44 – Safety Code for Elevators at the time of commissioning; if major repairs or alterations are undertaken, or if a safety matter arises. In existing elevator rooms, building owners/employers must comply with the Workplace Safety and Health Act and applicable regulations.

The latest edition of the CSA Standard, B 44–00 Safety Code for Elevators, section: “2.10.1 Guarding of Equipment” requires that:

*“In machine rooms and secondary machinery spaces, the following shall be guarded to protect against accidental contact:*

- (a) driving machine sheaves and ropes whose vertical projection upon a horizontal plane extends beyond the base of the machine;*
- (b) sheaves;*
- (c) exposed gears, sprockets, tape or rope sheaves, or drums of selectors, floor controllers, or signal machines, and their driving ropes, chains, or tapes; and*
- (d) keys, keyways, and screws in projecting shafts.*

*Handwinding wheels and flywheels that are not guarded shall have yellow markings. “*



To prevent inadvertent exposure to the above listed hazards, the following are required:

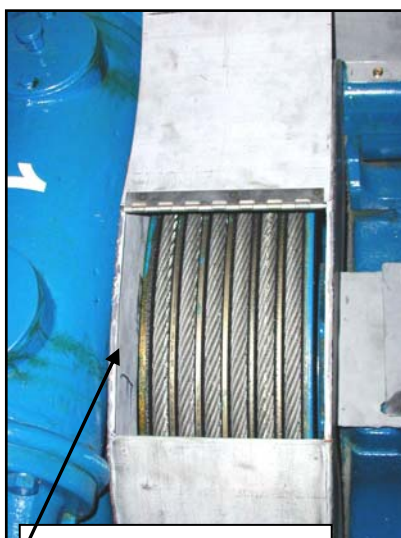
- Detailed Risk Assessments of the elevator rooms shall be undertaken to identify hazards;
- Restrictive access to elevators rooms shall be accompanied by visible signage;
- No storage of any kind shall be allowed in elevator rooms;
- Moving parts or pinch points shall be guarded with fixed guards – smart guards or interlocked systems that will restrict access to the moving parts;
- Certain moving parts have to be exposed during adjustment and inspection. Therefore, smart guards should be designed in a way that allows access by hinged protective screens or covers, or be made out of transparent material ( e.g. lexan);
- At no time, shall servicing personnel perform any type of work on live equipment;
- If confined space entry is identified by the Risk Assessment, appropriate procedures shall be developed and implemented;
- If the elevator room is identified as a working alone environment, an appropriate plan and procedures shall be developed and implemented.

### Examples of Smart Guards:

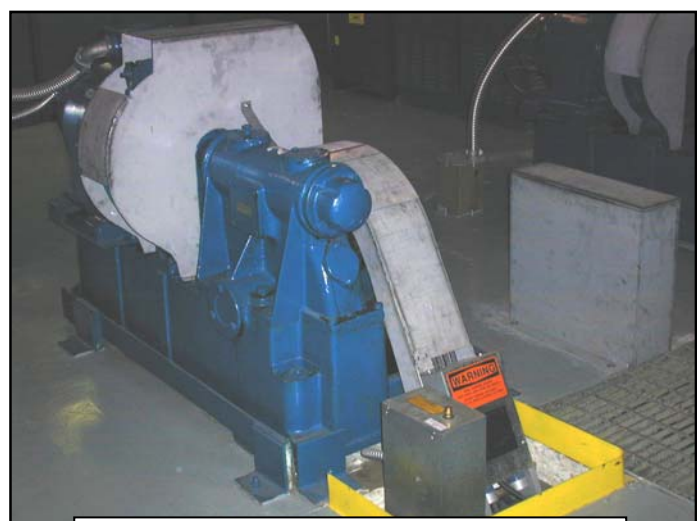


Fixed guard on sheaves  
Unguarded equipment

Easy view access hinged



View for inspection



General view of an elevator room with guarded equipment