

Subject: OPERATION OF ELEVATORS Number: FMOP 2-9
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1.0 Background

Elevators and lifts are essential for vertical movement of students, staff, faculty, equipment and the general public throughout multi-story buildings across Brock's campuses. Reliable operation is ensured by effective, regular preventive maintenance and inspections by qualified persons, and to ensure compliance with regulations.

Elevator entrapment is a rare occurrence, but due to the fact that elevators are mechanical devices equipped with very sensitive safety devices, this occasionally happens. Therefore Facilities Management and Campus Security need to be prepared to deal with this type of potential emergency.

2.0 Purpose of Procedure

The purpose of this Brock University Facilities Management Operating Procedure is to provide and assign responsibilities to ensure safe, consistent response to elevator operational problems in Brock University buildings and to ensure that there is minimal elevator downtime as is possible.

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Facilities Management Operating Procedures

3.0 Roles and Responsibilities

3.1. Qualified and Competent Personnel

- Only *qualified and competent personnel* (e.g. certified elevator mechanics) are authorized to perform work on elevating devices as per Ontario Regulation 222/01 (Certification and Training of Elevating Devices Mechanics).
- A May 16, 2008 communication (See Annex A) from the TSSA clarifies that no one can attempt rescue operations unless specifically trained to do so in accordance with rescue standards established by the TSSA.

3.2. Facilities Management

- Establish and manage maintenance contract with Elevator Service Provider to provide for regular maintenance by *qualified* persons (see above definition) to ensure compliance with TSSA regulations, and for reliable operation of the elevators.
- Log/interpret/document elevator outage statistics and work with Elevator Service Provider to ensure the required high level of service as outlined in the contract is provided.
- Arrange for TSSA ongoing and special inspections as required. Post TSSA Elevating Device Licenses in the elevators/lifting devices.
- Review TSSA elevator log books as required.
- During business hours, contact Elevator Service provider for elevator outages and entrapments.
- During business hours, respond to site for any elevator entrapments. Coordinate with Security for communication with trapped occupants.
- Respond to site for unsafe conditions.
- During business hours, provide signage for elevator outage in excess of 60 minutes and alternative accessibility directions.
- Ensure the Director of the TSSA is notified by means of "Elevating Device Reporting Form" (ANNEX C) for all incidents as defined by Section 36 of Ontario Regulation 209/01.
(FM Business Hours - 7:30am to 4:30pm Monday to Friday)

3.3. Department of Residences (Elevators in Vallee (1), Earp (2), Lowenberger (2) Residences)

- During business hours, contact Facilities Management for elevator outages and entrapments.
- Provide signage for elevator outage in excess of 60 minutes and alternative accessibility directions.
- After FM business hours (7:30am to 4:30pm Monday to Friday), direct Campus Security to contact service provider for outages or urgent elevator issues. For repairs of a less urgent nature contact Facilities Management to arrange service during normal business hours.

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3.4. Campus Security

- During off-hours, weekends and holidays contact Elevator Service Provider for any elevator outages.
- Respond to site for any elevator entrapments or unsafe conditions.
- During off-hours, weekends and holidays, provide signage for elevator outage in excess of 60 minutes and alternative accessibility directions.
- For entrapments of passengers, communicate directly through elevator emergency phone to trapped occupants. Notify Facilities Management during business hours.
- During off-hours, weekends and holidays, notify Facilities Management of any occasion if Elevator Service Provider cannot respond within allotted time durations as specified in section 3.5.

3.5. Elevator Service Provider (contracted)

- Maintain Brock University's elevators, lifts and dumbwaiters as per relevant legislation and CSA Standard B44.2 Maintenance Requirements and Intervals for Elevators, Escalators, Dumbwaiters and industry best practices as outlined in the contract. Notify Brock of any changes to regulations to required inspections or maintenance.
- Maintain Brock's Barrier Free lifts as per relevant legislation and industry best practices (CSA B355-09, Lifts for Person with Physical Disabilities)
- Answer all non-emergency elevator call-backs within 90 minutes
- Respond within 30 minutes of notification of elevator entrapments during normal working hours and within 60 minutes of notification of elevator entrapments during after 4:00 pm and on weekends.
- Maintain equipment to provide an overall Operational Level of 98.0% minimum as determined by the following formula;

$$\frac{(\text{Total Time available for all units} - \text{Down Time for all units}) \times 100}{\text{Total Time available for all units}} = \text{Oper. Level}$$

- Ensure the Director of the TSSA is notified by means of "Elevating Device Reporting Form" (ANNEX C) for all incidents as required. An "Incident" is defined by Ontario Regulation 209/01 Section 36 as "an occurrence involving an elevator system, an elevating device or a component of an elevating device resulting in an adverse consequence to persons or property." This includes a death, a major or minor injury to a person, or anytime an elevating device is found to be in a condition where the safe operation of the equipment is affected, or where there is an immediate hazard to the safety of persons or property.

3.6. St. Catharines Fire Department (Emergency Services)

- On request, in the event of no response from qualified elevator mechanic, SCFD will respond to an elevator entrapment. They are not qualified to manually open an elevator car, but will attempt a rescue only if imminent life safety of occupants is concerned.

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3.7. Technical Standards Safety Authority (TSSA)

- The TSSA, mandated by the Province of Ontario, is a risk-based prevention-oriented organization that provides a variety of safety services, including licensing and registration; inspection activities, prosecution, training and certification; engineering design review; public education; and safety management consultation. The TSSA is responsible for regulating the safety of the provinces' more than 43,000 elevating devices in Ontario. These include elevators, escalators, moving walks, lifts for persons with physical disabilities, passenger ropeways, construction hoists and ski lifts.
- Issue annual elevator licenses to Brock University when all requirements are confirmed by Brock's contracted Elevator Service Provider.

4.0 Procedures

4.1 Elevator Problem (During Business Hours)

Facilities Management Customer Service is contacted (ext. 3717) to report an operational issue with an elevator. Facilities Management will contact the elevator maintenance service provider to schedule appropriate service. If the elevator is anticipated out-of-service for longer than 60 minutes, "Elevator Out-of-Service" signage will be posted by Facilities Management, as well as a Campus wide notification will be sent. Alternate travel routes (accessibility) will also be communicated if alternates are available. Elevator back-in-service will be communicated by the same routing once the issue is resolved. Operational downtime information is entered by Customer Services in FM Elevator Operations Database.

4.2 Elevator Entrapment, Open Shaft, Unsafe Operation (During Business Hours)

Campus Security is notified of unsafe elevator operation, or elevator entrapment notification by means of in-car emergency phone. Campus Security notifies Facilities Management. They will remain on the emergency phone to assure passengers that help is on the way and continue to ascertain the condition of the trapped individuals. Facilities Management contacts the Elevator Service Provider and communicates the expected arrival time to Campus Security. If at any time the trapped individual(s) become distressed or their physical well-being is in question, Campus Security will contact St. Catharines Emergency Services (911). Facilities Management will be responsible for Campus-wide communication as per section 4.1 and updating the FM Elevator Operations Database.

4.3 Elevator Problem (After hours, weekends and holidays)

Campus Security is contacted to report an operational issue with an elevator. Campus Security (Department of Residences) will determine if the elevator is critical to University operations, and if so, will immediately contact the Elevator Service Provider for after-hours repair; if the elevator is deemed non-critical then Campus Security will advise Facilities Management to contact the service provider during business hours. If the elevator will be out of service for longer than 60 minutes, "Elevator Out-of-Service" signage will be posted by Campus Security. Operational downtime information is entered in FM Elevator Operations Database by Facilities Management Customer Services.

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4.4 Elevator Entrapment, Open Shaft or any Unsafe Operation (After hours, weekends and holidays)

Campus Security is notified of unsafe elevator operation. Elevator entrapment notification by passengers is by means of in-car emergency phone. Campus Security contacts the Elevator Service Provider and remains in contact to assure passengers that help is on the way and continues to ascertain the condition of the trapped individuals. If at any time the trapped individual(s) become distressed or their physical well-being is in question, Campus Security will contact St. Catharines Emergency Services (911). Facilities Management Customer Service will update the FM Elevator Operations Database.

5.0 References

- Ontario Occupational Health and Safety Act, R.S.O. 1990 Ontario
- Ontario Regulation 252/08 - Elevating Devices
- Technical Standards and Safety Act, 2000 (Ontario)
- Certification and Training of Elevating Devices Mechanics Regulation (O.Reg 222/01)
- Canadian Standards Association B44 - Safety Code for Elevators
- Director's Guideline - Reporting of Incidents
- Brock University Campus Security Operating Procedure (CSOP) 15-1
- Brock University Facilities Management Operating Procedure (FMOP) 1-5 Notice of Temporary Disruptions

Annexes

Annex A - TSSA Communication May 16, 2008 "The Key to Opening Elevator Doors"

Annex B - List of Elevators

Annex C - TSSA Elevating Devices Incident Reporting Form