



City of
Burnaby

City of Burnaby Fire Department
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Building Maintenance

General information for Building Maintenance as taken from the B.C. Fire Code and other related codes.

City of Burnaby Bylaw No. 11860

TESTING, INSPECTION AND MAINTENANCE OF FIRE PROTECTION SYSTEMS

- 46A. (1) Only service agencies referred to in section 46B (1) may test, inspect or perform maintenance on a fire protection system, fire pump, emergency fire protection power system or commercial kitchen exhaust system.
- (2) Where a service agency has tested, inspected or performed maintenance as described in subsection (1) it shall affix to the equipment in respect of which its services were provided a tag showing its name, the date upon which the work was performed, and the signature, stamp and certification number of the technician doing the work and the date on which the work was performed.
- (3) Service agencies shall service portable fire extinguishers only in “A Standard for the Regulation of the Servicing of Portable Fire Extinguishers”. (Bylaw No. 13174)

APPROVED SERVICE AGENCIES

- 46B. (1) Only service agencies whose technicians are certified by the Applied Scientist Technologists and Technicians of BC or the Canadian Fire Alarm Association, or recognized certification agency for the specific type of fire protection equipment, may carry out any of the services described in Section 46A.
- (2) Notwithstanding subsection (1), where the work or services of any service agency has been improperly performed or carried out the Fire Chief may reject such work or servicing. (Bylaw No. 13174)

General

This document provides for:

- Safety of the occupants in existing buildings
- Elimination or control of fire hazards in and around buildings
- Installation and maintenance of certain life safety systems in buildings
- Installation and maintenance of posted signs and information
- Establishing of a fire safety plan in occupancies where it is considered necessary

Responsibility

Unless otherwise specified, the owner or the owner's authorized agent shall be responsible for carrying out the provisions of this Code and for records of all tests and maintenance. These records, which include annual servicing by qualified personnel, must be available to the fire inspector.

Smoke Alarms

Smoke alarms shall be inspected, tested and maintained in conformance with CAN/ULC-S552, "Maintenance and Testing of Smoke Alarms."

3. MAINTENANCE AND TESTING OF SMOKE-ALARMS

3.1 GENERAL

3.1.1 Each *smoke-alarm* shall be visually inspected to ensure that the *smoke-alarm* is securely fastened to the ceiling or wall.

3.1.2 Each *smoke-alarm* shall be visibly inspected to ensure that it is not obstructed in a manner that would prevent smoke from reaching or entering the *smoke-alarm*. The ventilation holes of the *smoke-alarm* shall be kept clean.

3.1.3 When *interconnected smoke-alarms* are being tested either in accordance with Clause 3.2.2 or by means of the test button, all *smoke-alarms* shall sound when any one of the *smoke-alarms* is tested. Each interconnected *smoke-alarm* shall be individually tested.

3.1.4 Testing and inspections shall be carried in accordance with the manufacturer's recommendations (refer also to Clause 3.1.5), or where the manufacturer's instructions are not available, testing shall be performed in accordance with Subsection 3.2, Annual Maintenance and Testing. Additionally, testing and inspections shall be performed in accordance with Subsection 3.3, Replacement; and Subsection 3.4, Additional Testing.

Note: More frequent testing provides a greater assurance of operability. More frequent cleaning by vacuuming keeps the smoke-alarm cleaner and less prone to nuisance alarms.

3.1.5 The results of inspections and tests shall be documented.

3.2 MAINTENANCE AND ANNUAL TESTING

3.2.1 The exterior of the *smoke-alarm* shall be vacuumed with a household vacuum cleaner. A brush attachment may assist in removing accumulated dust on the cover.

Caution: AC powered *smoke-alarms* should only be vacuumed externally and no attempt should be made to open the case.

3.2.2 After vacuuming, each *smoke-alarm* shall be tested using smoke or simulated smoke intended to test *smoke-alarms*. Smoke may be generated with a smoldering incense stick, punk stick or a cotton string in a suitable metal or fire resistant container.

Caution 1: Dispose of smoldering material used in this test in a manner that does not create a fire hazard.

Caution 2: Open flames should not be used to test the operation of *smoke-alarms*.

3.2.3 Battery operated *smoke-alarms* shall be inspected to ensure that the battery is securely connected to the batter clips.

3.2.4 *Smoke-alarm* batteries shall be inspected to ensure that the battery terminals have not corroded and batteries have not leaked. Where batteries are leaking or corroded, the *smoke-alarm* shall be replaced.

3.2.5 The *smoke-alarm* battery shall be inspected to ensure that it is the correct type recommended by the manufacturer. *Smoke-alarms* requiring alkaline type batteries shall have only alkaline batteries installed. Rechargeable batteries shall not be used in *smoke-alarms* unless specifically recommended by the manufacturer.

A1.5 REPLACEMENT OF SMOKE-ALARMS AFTER 10 YEARS OF SERVICE

A1.5.1 *Smoke-alarms* contain electronic parts that may fail and components that can deteriorate over time. Therefore, *smoke-alarms* have a limited service life. In order to prolong the service life and to provide optimal performance, *smoke-alarms* should be tested and cleaned periodically. (Refer to the user manual provided by the manufacturer for instructions on caring for your *smoke-alarms*). It is strongly recommended that *smoke-alarms* be replaced within 10 years of original installation.

Damage to Fire Separations

Where fire separations are damaged so as to affect their integrity, they shall be repaired so that the integrity of the fire separation is maintained.

Damage to Closures

Where closures are damaged so as to affect the integrity of their fire-protection rating, such damaged closures shall be repaired so that the integrity of the closures is maintained.

Inspection and Maintenance

Defects that interfere with the operation of closures in fire separations shall be corrected, and such closures shall be maintained to ensure that they are operable at all times.

Maintain closures by:

- Keeping fusible links and other heat activated devices undamaged and free of paint and dirt
- Keeping guides, bearings and stay rolls clean and lubricated
- Making necessary adjustments and repairs to door hardware and accessories to ensure proper closing and latching
- Repairing or replacing inoperative parts of hold-open devices and automatic releasing device

Doors in fire separations shall be inspected at intervals not greater than 24 h to ensure that they remain closed unless the door is equipped with a hold-open device conforming to the British Columbia Building Code.

Doors in fire separations shall be operated at intervals not greater than one (1) month to ensure that they are properly maintained in accordance with Sentence (1), as specified in the fire safety plan prepared in conformance with Section 2.8.

Closures in fire separations shall not be obstructed, blocked, wedged open, or altered in any way that would prevent the normal operation of the closure.

Fire dampers and fire stop flaps shall be inspected at intervals not greater than twelve (12) months to ensure that they are in place and are not obviously damaged or obstructed.

Fire Door Signs

Every door used as a closure with a required fire protection rating shall have a permanent sign acceptable to the authority having jurisdiction, posted on the visible side of the door when it is in the open position, with the words "FIRE DOOR KEEP CLOSED". Except where the door is:

- located between a corridor and an adjacent sleeping room in hospitals or nursing homes,
- located between a corridor and an adjacent classroom,
- located between a public corridor and a suite of Group C or D occupancy, or
- fitted with an acceptable hold-open device designed to be released by a signal from a fire detector, fire alarm system or sprinkler system.

Accumulation of Combustible Materials

Combustible waste materials in and around buildings shall not be permitted to accumulate in quantities or locations that will constitute an undue fire hazard.

Combustible materials, other than those for which the location, room or space is designed, shall not be permitted to accumulate in any part of an elevator shaft, ventilation shaft, means of egress, service room or service space.

Horizontal concealed spaces, such as crawl spaces and ceiling spaces, shall not be used for the storage of combustible materials.

Combustible materials shall not be stored on a roof or adjacent to any building so as to create a fire hazard to the building or its occupants.

Outdoor storage receptacles such as dumpsters, used for combustible materials shall be located so that they do not create an undue fire hazard to surrounding *buildings*.

Lint Traps for Laundry Equipment

Lint traps in laundry equipment shall be cleaned after each use of the equipment.

Maintenance of Fire Department Access

Streets, yards and roadways provided for fire department access shall be maintained so as to be ready for use at all times by fire department vehicles.

Vehicles shall not be parked to obstruct access by fire department vehicles and signs shall be posted prohibiting such parking.

Chimneys, Flues and Flue Pipes

Every chimney, flue and flue pipe shall be inspected to identify any dangerous condition:

- at intervals not greater than twelve (12) months,
- at the time of addition of any appliance, and
- after any chimney fire

Chimneys, flues and flue pipes shall be cleaned as often as necessary to keep them free from dangerous accumulations of combustible deposits.

Maintenance

Means of egress shall be maintained in good repair and free of obstructions.

Exterior Passageways and Exit Stairs

Exterior passageways and exterior exit stairs serving occupied buildings shall be maintained free of snow and ice accumulations.

Exit Doors

All doors forming part of a means of egress shall be tested at intervals not greater than one (1) month to ensure that they are operable. When doors are equipped with electromagnetic locks, these locks shall be tested at intervals not greater than twelve (12) months.

Exit Lighting, Exit Signs and Emergency Lighting

Exit lighting and exit signs shall be illuminated during times the building is occupied. Emergency lighting shall be maintained in operating condition.

Fire Drill Procedures

The procedure for conducting fire drills shall be determined by the person who is responsible or in charge of the building, taking into consideration:

- The building occupancy and its fire hazards
- The safety features provided in the building
- The desirable degree of participation of occupants other than supervisory staff
- The number and degree of experience of participating supervisory staff
- The features of fire emergency systems installed in *buildings* within the scope of Subsection 3.2.6. of Division B of the British Columbia Building Code, and
- The requirements of the fire department.

***Fire Drill Frequency**

Fire drills shall be held at intervals not greater than twelve (12) months for the supervisory staff, except that:

- a) in day-care centres and in Group B major occupancies, such drills shall be held at intervals not greater than one (1) month,
- b) in schools attended by children, total evacuation fire drills shall be held at least 3times in each of the fall and spring school terms, and
- c) in buildings within the scope of Subsection 3.2.6. (high rise buildings) of the British Columbia Code, such drills shall be held at intervals **not greater than two (2) months.**

Records

- 1) Where this Code requires that tests, inspections, maintenance or operational procedures be performed on a fire safety system, records shall be made and the original or a copy shall be retained at the premises for examination by the authority having jurisdiction.
- 2) The initial verification or test reports for each system shall be retained throughout the life of the systems.
- 3) Records of the tests, inspections, maintenance or operational procedures undertaken after the initial tests referred to in Sentence (2) shall be retained so that at least the current and the immediately preceding records are available.
- 4) Notwithstanding the conditions stated in Sentence (3), no records shall be destroyed within two years of having been prepared.