Inspection Procedure Guide





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Inspection Procedure Guide

The inspection procedure guide has been compiled to act as a resource and assist you in conducting fire inspections. Time limits to rectify deficiencies have been included for your guidance and are recommendations only, as time limits for compliance are not necessarily specified in the Act or regulations.

The inspector must exercise discretion and judgement when recommending time limits and this will depend upon the severity of the hazard and the willingness of the owner to comply.

1. Exit Doors

Exit doors are to be equipped with latching hardware that will release when a force of not more than 90 Newtons is applied to the latching hardware. (Roughly translated this means about 9 kg of force or 1.68 lb/in2/sec.) All exit doors are to be such that the door can be opened from the inside without the use of keys or any specialized knowledge of the door opening device.

Items to Check:

- a) Ensure exit doors are kept free and clear of any obstruction on either side of the door.
- b) Ensure a maximum 90 Newtons pressure to open the door.
- c) Ensure there are no barrel bolts, hooks and eyes or other similar devices on exit doors and that door latches shut when released.
- d) Horizontal exit doors must open in the direction of exit travel and are to be self-closing. They are however, permitted to be held open magnetically, but must latch shut when released by activation of the fire alarm system.
- e) Draperies and mirrors are not permitted.

Recommended Time Limits to Rectify Deficiencies:

- 1) Clear any obstruction immediately.
- 2) Damaged or faulty doors to be repaired within 48 hours.

2. Exit Corridors

An exit corridor is a means of egress leading from a defined area within a building (such as suite, sales area, office) to an approved exit such as an exterior door, horizontal exit or exit stair shaft.

Items to Check:

- a) Ensure the exit corridor is kept free and clear of all storage.
- b) Ensure adequate illumination is provided.

Recommended Time Limits to Rectify Deficiencies:

- 1) Storage is to be removed immediately.
- 2) Faulty corridor lighting to be repaired within 48 hours.

3. Exit Stair Shafts

An exit stair shaft is a fire rated enclosure providing means of egress from a floor level and which terminates at grade.

Items to Check:

- a) Ensure the exit stair shaft is kept free and clear of all storage.
- b) Ensure adequate illumination is provided.
- c) Ensure handrails and stair treads are in good condition.

Recommended Time Limits to Rectify Deficiencies:

- 1) Storage is to be removed immediately.
- 2) Faulty stairwell lighting is to be repaired within 48 hours.
- 3) Repair damaged handrails and/or stair treads within 7 days.

4. Exit Signs

Exit signs are located in the following areas:

- horizontal exits
- exterior exit doors
- doors opening into an exit stair shaft
- exit corridors where a change of exit travel is indicated.

Items to Check:

- a) Ensure exit signs are illuminated at all times while the building is occupied.
- b) Ensure both AC and DC light bulbs are functional.
- c) Ensure the emergency generator is tested and exercised where applicable to the manufacturer's specifications and a log book is to be maintained.
- d) Ensure fuel supply for generator is sufficient to operate for 8 hours.

Recommended Time Limits to Rectify Deficiencies:

- 1) Replace burnt bulbs within 48 hours.
- 2) Service emergency generator within 7 days.

5. Exit Lighting

Identified exits and public corridors are to be provided with illumination to an average level of not less than 50 lx at floor level in conformance to the BC Building Code standards for illumination of exits.

Items to Check:

a) Ensure the lighting is maintained in good working order.

Recommended Time Limits to Rectify Deficiencies:

1) Repair malfunctioning lights within 48 hours.

6. Emergency Lighting

Emergency lighting can be provided in two ways:

battery packs with remote and attached light heads;

emergency generators that will illuminate specified AC fixtures or remote light heads.

Items to Check:

a) Ensure battery packs are serviced regularly and maintained in good working order – log book to be maintained.

- b) Ensure emergency generator is tested and serviced where applicable to the manufacturer's specifications and a log book is maintained.
- c) Fuel supply for the generator to be sufficient to operate for 8 hours.
- d) Check direction of individual light heads.
- e) Check for missing bulbs.

Required Time Limits to Rectify Deficiencies:

- 1) Realign vandalized light heads immediately.
- 2) Replace burnt bulbs or damaged components within 48 hours.
- 3) Generators to be serviced within 7 days.

7. Fire Alarm Systems

The BC Fire Code requires fire alarm systems to be tested in accordance with CAN/ULC-S536 by personnel acceptable to the authority having jurisdiction. This includes daily checks and monthly tests by the person responsible for proper operation of the fire alarm system and yearly tests by persons acceptable to the authority having jurisdiction.

Items to Check:

- a) Ensure records are kept of the installation, maintenance, testing, failures, repairs and extension of the system.
- b) Fire alarm panel is to be kept unobstructed.
- c) Ensure A/C indicator light is illuminated.
- d) Zones on the annunciator panel are to be clearly marked.
- e) Ensure A/C circuit breaker for fire alarm panel is clearly marked if annunciator required.
- f) Dry cell batteries (if existing) are to be replaced annually.
- g) Wet cell batteries are to be replaced when the minimum rated discharge voltage is reached. (This style of battery is to be tested annually by qualified persons).
- h) Check annually all alarm stations for missing seals, glass plates, glass rods, etc.
- i) Ensure that heat and smoke detectors do not show any visual damage (for example: broken, cracked, painted over, or other obvious damage.)
- j) Ensure audible signal devices do not show any visual damage.

Recommended Time Limits to Rectify Deficiencies:

- 1) Fire alarm systems found out of order to be serviced immediately.
- 2) Required maintenance to be performed within 48 hours.
- 3) Missing components to be replaced within 48 hours.

8. Standpipe And Hose Systems

The BC Fire Code requires hose cabinets to be inspected monthly to ensure that the hose is in place and in proper working order.

- a) Ensure fire department pumper connection is free and clear, thread protector caps in place and that the female swivel coupling is in good repair, (for instance, remove or cut back shrubs).
- b) All standpipe valving is to be clearly labelled with its intended function.
- c) The main shut-off valve (post indicator or OS & Y) is to be left in the ON position.
- d) Individual riser valves to be left in the ON position.
- e) All hose cabinets to be conspicuously identified.

- f) Adjustable shut-off fog nozzle to be left in the OFF position.
- g) The ½" hose is to be re-kinked or re-racked annually. (The re-kinking and visual check of the condition of the hose should be entered in a log book).

Recommended Time Limits to Rectify Deficiencies:

- 1) Non-functioning systems to be serviced immediately.
- 2) General maintenance to be performed within 7 days.
- 3) Damaged hose or nozzles to be replaced or repaired within 7 days.

9. Sprinkler Systems

Sprinkler systems are to be tested and maintained in conformance with the BC Fire Code.

Items to Check:

- a) Ensure fire department pumper connection is free and clear and thread protector caps are in place. The female swivel couplings and flapper gates are to be maintained in good working order.
- b) All sprinkler valving to be clearly labelled with its intended function.
- c) All sprinkler valving to be left in the ON position.
- d) All sprinkler heads to be kept free of paint.
- e) Storage to be maintained at least 18" below sprinkler heads.
- f) Water flow alarm tests to be performed monthly.
- g) Log book to be kept of all tests and operations of the system.
- h) A sprinkler wrench and spare heads are to be kept on hand.
- i) The location of the inspectors test connection should be clearly marked.

Recommended Time Limits to Rectify Deficiencies:

- 1) Sprinkler systems found out of order to be serviced immediately.
- 2) Storage materials too close to sprinkler heads to be cleared within 48 hours.
- 3) General service maintenance work to be completed within 7 days.

10. Fire Extinguishers - Portable

Inspection, testing and maintenance of portable fire extinguishers to conform to N.F.P.A. 10.

Items to Check:

- a) Extinguishers to be examined monthly to ensure they are in the proper locations and have no apparent defects.
- b) Service and maintenance tags are to be securely attached to the extinguisher.
- c) Check gauge pin, seal and service tag.
- d) Ensure the appropriate type is installed

Recommended Time Limits to Rectify Deficiencies:

- 1) Extinguishers out of service for maintenance or recharge are to be replaced within 7 days by spare extinguishers having the same classification and at least an equal rating.
- 2) Missing extinguishers are to be replaced within 7 days.

11. Electrical Rooms

Electrical rooms to be kept free and clear at all times.

- a) Storage is not permitted in electrical rooms.
- b) Access door to the electrical room is to be kept closed.
- c) Ensure fire alarm circuit breaker or disconnect switch is clearly identified.
- d) One metre clearance in all directions around electrical equipment

Recommended Time Limits to Rectify Deficiencies:

- 1. Remove storage materials within 48 hours.
- 2. Damaged or defective access doors to be repaired within 48 hours.
- 3. Fire alarm circuit breakers should be identified within 7 days.

12. Boiler Rooms

Boiler rooms are to be kept free and clear at all times.

Items to Check:

- a) Storage not permitted in boiler rooms.
- b) Sprinkler heads in oil fired boiler rooms are required to be charged.
- c) Boiler room door to be solid core and kept closed, with a self closing device to return the door to the closed position after each use.
- d) Ensure fire damper sills are free and clear and fusible links are in good repair.
- e) Check oil burning equipment for oil leaks.
- f) Ensure smoke pipe connection is sound.
- g) Ensure combustion air and relief air ducts are kept free and clear of any obstructions and that the fusible links are in good repair.

Recommended Time Limits to Rectify Deficiencies:

- 1) Clear fire dampers, combustion air and relief air ducts immediately.
- 2) Remove storage materials within 48 hours.
- 3) General maintenance to be completed within 7 days.

13. Storage Rooms

Storage rooms are to be maintained in a neat and orderly fashion; 36" access aisles are to be maintained in large storage rooms.

Items to Check:

- a) Storage room doors to be solid core, kept closed and to be equipped with self closing devices.
- b) Ensure storage materials have proper clearance from sprinkler heads (18") and adequate clearance from light fixtures.

Recommended Time Limits to Rectify Deficiencies:

- 1) Obvious fire hazards to be rectified immediately.
- 2) General maintenance to be completed within 7 days.

14. Laundry Rooms

Laundry rooms to be maintained in a neat and orderly fashion.

- a) Laundry room doors to be solid core, kept closed and to be equipped with self-closing devices.
- b) Ensure dryer lint traps are cleaned regularly.

c) Ensure electrical connections are safe.

Recommended Time Limits to Rectify Deficiencies:

- 1) Obvious fire hazards are to be rectified immediately.
- 2) General maintenance to be completed within 7 days.

15. Refuse Chutes & Refuse Rooms

These areas are to be maintained in a neat and orderly fashion.

Items to Check:

- a) Ensure access doors to refuse chutes close when released.
- b) Vestibules that provide access to the refuse chute door are to be kept free and clear of all storage. The access door to this vestibule is to be equipped with a self closing device and is to latch shut when released.
- c) Ensure fusible links on fire dampers are maintained in good working order.
- d) Sprinkler heads in refuse rooms where the refuse chute terminates are to be kept free and clear and are required to be charged (unless dry system).
- e) Refuse room doors are to be equipped with self closers.

Recommended Time Limits to Rectify Deficiencies:

- 1) Obvious fire hazards to be rectified immediately.
- 2) Damaged access doors to refuse chutes to be repaired within 48 hours.
- 3) General maintenance to be completed within 7 days.

16. Housekeeping

Combustible waste materials in buildings shall not be permitted to accumulate in quantities or locations which will constitute a fire hazard. Exit corridors and stairwells to be kept free and clear at all times.

Items to Check:

- a) Ensure paints, solvents, and other products. are stored in a neat and orderly manner. (All flammable and combustible liquids to be stored in approved storage tanks or containers).
- b) Commercial refuse containers to be situated away from any combustible building or structure.
- c) Lids on commercial refuse containers to be kept closed.
- d) Receptacles for the storage of combustible materials to be non-combustible complete with a tight fitting lid. These receptacles must have a flanged bottom or legs at least 2 inches high when placed upon combustible floors.
- e) Chimneys, fireplaces, and fuel burning equipment including incinerators to be serviced, cleaned and maintained in good working order.

Recommended Time Limits to Rectify Deficiencies:

- 1) Obvious fire hazards to be rectified immediately.
- 2) General maintenance to be completed within 7 days.

17. Firefighting Vehicle Access

Fire Department access to buildings is to conform to the BC Fire Code.

a) Streets, yards, and private roadways provided for Fire Department access shall be maintained so as to be ready for use at all times by Fire Department vehicles.

Recommended Time Limits to Rectify Deficiencies:

1) Obstructed access roads and lanes, etc. to be cleared immediately.

18. Commercial Cooking Equipment

Commercial cooking equipment exhaust and fire protection systems are to be installed and maintained in conformance with N.F.P.A. 96 Installation of Equipment for the Removal of Smoke and Grease Laden Vapours from Commercial Cooking Equipment.

Items to Check:

- a) Ensure the fire extinguishing system is fully charged, tagged and that all tamper-seals are intact.
- b) The fire extinguishing system is to be serviced once every 6 months by competent persons.
- c) All non-quartz fusible links are to be replaced annually.
- d) Hoods, grease removal devices (filters), fans, ducts and other appurtenances shall be cleaned at frequent intervals to prevent excessive build up of grease or oily sludge. This will be determined by the frequency of use.
- e) At least one 20 BC rated portable fire extinguisher is to be located in the kitchen area.
- f) Ensure exhaust fan is turned on while cooking equipment is used.
- g) Nozzles are clean and centred for every cooking appliance or adjusted according to manufacturer's specifications.

Recommended Time Limits to Rectify Deficiencies:

- 1) Commercial cooking fire extinguishing systems that are not operational are to be serviced within 48 hours.
- 2) General maintenance is to be completed within 7 days.

19. Storage and Use Of Flammable Liquids.

Storage and use of flammable and combustible liquids is to conform to the BC Fire Code.

Storage, handling and use of flammable and combustible liquids at service stations are to conform to the BC Fire Code.

- a) General storage is limited to approved containers only.
- b) Ensure flammable and combustible liquids are not stored in or adjacent to exits, elevators or principal routes that provide access to exits (BC Fire Code).
- c) Not more than 30 litres (6.6 imperial gallons) of flammable liquids permitted to be stored in assembly and residential occupancies (BC Fire Code). Flammable liquids stored in assembly and residential occupancies must be kept in approved portable containers and stored in approved safety storage facilities which conform to the BC Fire Code. Storage on exterior balconies is not permitted.
- d) Not more than 10 litres (2.2 imperial gallons) of flammable liquid are permitted to be stored in a dwelling unit (BC Fire Code article 4.2.4.5).
- e) Storage of flammable and combustible liquids in mercantile areas accessible to the public is limited to quantities needed for display and merchandising purposes (BC Fire Code).

- f) Flammable and combustible liquids used in business and personal services, educational and institutional occupancies is limited to reasonable amounts of material essential for the operation of office equipment, maintenance, demonstration or experimental work (BC Fire Code).
- g) Service stations to be inspected as follows:
 - o ensure gas pumps, hoses and nozzles are in good repair (BC Fire Code)
 - o No Smoking signs are to be posted at each dispensing location (BC Fire Code)
 - o at least 2 portable fire extinguishers of a 40 BC rating are to be maintained in good repair (BC Fire Code)
 - o the storage of waste oil shall conform to the BC Fire Code
 - o ensure sumps are cleaned on a regular basis
 - o ensure portable welding and cutting equipment is maintained in good repair (BC Fire Code).

Recommended Time Limits to Rectify Deficiencies:

- 1) Obvious fire hazards to be rectified immediately.
- 2) General maintenance to be completed within 7 days.