

HOUSING

FIRE PREPAREDNESS WORKSHOP 1 FIRE PREVENTION



65 MINUTE MODULE

FIRE PREPAREDNESS WORKSHOP 1**Fire Prevention**

Topics	Equipment & Materials:	Total Time
1. Causes of fire 2. Understanding fire safety equipment 3. Making building safe 4. Fire watch 5. Resources	✓ Markers ✓ Flip chart ✓ Photocopies of handouts	65 Minutes

1**CAUSES OF FIRES**

ASK THE GROUP: Does anyone know the main causes of fires and where they usually happen?

In 2022, there were 223 structural fires and 380 fire incidents in SROs. Of these incidents:

- 70% were caused by “smoking materials” like cigarettes and cannabis, as well as issues with lighters, candles, and matches.
- 5% were related to electrical problems and batteries.
- 9% had to do with kitchen-related fires.

Smoking Materials (like cigarettes, pipes, and cigars)

Smoking-related fires often start when embers or cigarettes fall on furniture or bedding.

To prevent:

- Don’t smoke in bed;
- use deep smothering ashtrays,
- fill ashtrays with water before disposing of cigarette butts in the trash.
- Quit (if possible)

Presenter(s)**Section
Time**

20 Minutes

Cooking

Most kitchen fires happen when cooking is left unattended, or flammable items are placed too close to the heat.

To prevent: the key is to stay focused on cooking and try to avoid multitasking.

- Stay in the kitchen while cooking, set timers, and avoid loose clothing.
- Avoid excessively frying foods on high heat.
- Do not use your stove as a countertop or shelf.

Electrical Fires

Between 2004 and 2017, British Columbia had 28,160 residential fires, and electrical issues caused 9.4% of them. These fires resulted in 150 casualties and over \$150 million in damages.

Overloaded electrical outlets or frayed cords can generate heat and lead to fires. Here's how to prevent electrical fires:

- Try not to use cords or plugs that seem damaged; it's safer to discard them.
- Try to avoid using appliances with worn or frayed cords.
- Don't remove the third prong from a plug to fit it into a two-prong outlet (it's a safety feature).
- Use multi-outlet extenders, power bars, and surge protectors carefully.
- Don't force a plug into an outlet; loose plugs can overheat.
- Try to avoid daisy-chaining power cords (plugging extensions into extensions).
- When removing a plug, hold it by the plug itself, not the cord.
- Look for outlet wall plates that have changed colour, indicating damage.

Lithium-ion Batteries

Lithium-ion batteries are used in many portable devices like smartphones, laptops and e-bikes. These batteries produce a bit of heat when charging or in use. Sometimes, they can go into a dangerous state called "thermal runaway," heating up uncontrollably and causing fires.

Here's when they become more dangerous:

- When they are modified. Modifications can damage them and lead to problems like short circuits.
- When you use chargers from unknown origins or not designated to your batteries or devices to charge them.

To stay safe with lithium-ion batteries:

- Don't try to fix or modify them yourself.
- Use the battery and charging cord designed for your device to avoid overcharging.
- Avoid charging devices under your pillow or on flammable surfaces to let heat escape.
- Let batteries and devices cool down before recharging.
- Buy batteries from trusted sellers.
- Choose devices with a label from a qualified testing laboratory.
- Stop using the battery if you notice unusual smells, colour changes, excess heat, shape changes, leaks, or odd noises.
- Keep batteries at room temperature and dry places, away from high heat, water, and direct sunlight.

The Empress Fire was started by the explosion of an overcharged battery. Here's a video about it:

<https://bc.ctvnews.ca/lithium-ion-batteries-blamed-for-2-sro-fires-in-vancouver-1.6024231>

*SEE HANDOUT

Other Causes *(like open flames, radiators, and combustible materials)*

Fires from open flames, hot radiators, or flammable materials can happen.

To prevent:

- Don't leave open flames unattended, especially butane torches and candles.
- Don't use improper equipment to warm a room, such as a toaster oven, or a hot plate.
- Keep them away from pets;
- Don't use radiators for storage or seating;
- Keep combustible materials away from heat sources.

2

UNDERSTANDING FIRE SAFETY EQUIPMENT

Fire safety equipment has come a long way and plays a crucial role in preventing fires and keeping us safe. Here's what you need to know:

Fire Alarm Panels

Building staff and landlords are responsible for it. These panels receive info from devices like sprinklers, alarms, and pull stations and activate quick responses, alerting you and sometimes the Fire Department in emergencies. Contact 311 if the panel has no power or is in trouble mode.

Presenter(s)**Section Time**

15 Minutes

Smoke Alarms

Smoke alarms have been mandatory in all B.C. homes since 1979. What you may want to do:

- Install them on the ceiling or high on the wall, 3 meters from the stove.
- Test them monthly by pressing the test button.
- Replace 9-volt batteries yearly.
- Replace smoke alarms every ten years.
- Special alarms with strobe lights and bed shakers are available for the hearing impaired.
- When you hear an alarm, act fast; you may have less than 2 minutes to escape.

Carbon Monoxide (CO) Detectors

Carbon monoxide detectors help protect you from carbon monoxide poisoning.

Here's what you need to know:

- Have a CO detector in your room or kitchen if you use things like a furnace, hot water tank, stove, or fireplace.

- Make sure it's always connected to power if it's hard-wired or plugged in.
- Test your alarms regularly by pressing the "TEST" button until it sounds; it can take up to 20 seconds.
- Replace the CO alarm every five years.
- If your CO alarm uses replaceable batteries, change them every six months.

Heat Detectors

Heat Detectors react to temperature changes. Once temperatures rise above 135 degrees F (57 C) or 194 degrees F (90 C) the alarm will be triggered.

Sprinklers

Sprinklers play important roles in suppressing ongoing fires. Once triggered, sprinklers release approximately 60 gallons of water per minute. Here's what you need to know:

- Never paint them.
- Keep 18-inch clearance.
- Make sure sprinkler heads are visible and accessible.

Fire Extinguishers

Fire extinguishers should be placed along normal paths of travel. Fire extinguishers should be under current service tags. You can tell when a fire extinguisher expires by looking at the year and month punched on the tag. The extinguisher expires one year after the date indicated on the tag.

Pull Stations

Pull stations must be within 5 ft of each exit doorway. Older buildings may not have this, but any new buildings should be up to code. They are not always connected directly to the Fire Department, so someone needs to call and inform the fire department once they are pulled.

Fire Doors

Fire doors are important because they keep fire and/or smoke in the area in which it started. They prevent fire and heated gas from spreading and thus protect your safety and properties. Their doors and frames may hold back fire for 30 - 60 minutes.

- Keep the fire doors in your building closed. Close them if they are left open.
- Close your building's hallway doors.
- Close your bedroom door at night.
- Close the door behind you when there's a fire.

Emergency Exit Signs

These signs inform tenants where to go in the event of a fire or an emergency. They should be kept illuminated and visible. In recent years, Canada has adopted a green sign instead of red for more visibility purposes.

Emergency Lighting

Emergency lighting automatically switches on when a building experiences a power outage. It should be located along a building's evacuation route near safety equipment such as alarm panels, fire extinguishers and pull stations.

Fire Hydrants

Fire Departments use them to connect to the water supply quickly. Graffiti can make these hydrants hard to find. Keep them clean and visible for the fire departments; call 311 for painting if necessary.

Fire Department Connections (FDC)

In the event of a fire, the Fire Department may need to connect to the FDC to pump additional water into the buildings' sprinkler systems. It is important to keep the connections capped with no stuff in them; call 3-1-1 to clean up if needed

3

MAKING YOUR BUILDING SAFE**No “Special Tools or Knowledge”****Scenario**

Imagine it's the middle of the night. The fire alarm is blaring and it jolts you awake. You open your door, but the hallways are dark, and filled with smoke. Panicking, you head for the fire escape, followed by your neighbours piling up behind you. You reach the fire escape, but you cannot open it.

ASK THE GROUP: What do you think the problem is?

This was meant to keep outsiders away, but it made it harder for everyone to get out in case of an emergency quickly and easily. You don't want to have special tools or know-how to open a latched exit during a crisis. A simple task may become difficult in a stressful situation like a fire.

Heavy Clutter and Collections:

Clutter in small spaces like SRO rooms is common, but it's important to keep pathways clear for quick evacuation during emergencies. A unit with clear pathways helps first responders reach you and ensures fire safety equipment works well.

Hand out the CLUTTER IMAGE RATING

Consider keeping your room on a scale of 1-3.

Here are some tips to make your room safer:

- Have a clear pathway or clean floor in your room to ensure that first responders can open your door and easily reach you.
- Be cautious with loft beds, as they can block sprinklers.
- Install shelves to keep things organized.

Presenter(s)**Section Time**

10 Minutes

*Hand out and review
FIRE SAFETY CHECKLIST*



4

FIRE WATCH

ASK THE GROUP: Does anyone know what a fire watch is?

A fire watch is when someone is assigned to an area to ensure safety during temporary shutdowns of the fire protection system. This person's job is to prevent fires, call the fire department if needed, and help people evacuate during emergencies.

When is a Fire Watch Needed?

You need a fire watch when the fire protection system in your building is shut off or temporarily turned off for inspections, maintenance, or repairs.

When Should a Fire Watch End?

The fire watch can end when the fire protection equipment is fully repaired, tested, and working correctly.

How to Conduct a Fire Watch?

The building owner or manager is responsible for the fire watch. They must notify everyone when a fire watch is in place. A copy of the fire watch notice as well as the fire watch procedures should be posted on the front gate to notify occupants. **SEE HANDOUT**

A fire watch can be done by a licensed company or occupants as ordered by the owner. Those conducting the fire watch should wear vests and can use an air horn or whistle if there is an alarm. Keep a log of the fire watch activities. **SEE HANDOUT**

They should have enough staff to check all parts of the building regularly. For residential buildings a walkthrough should happen:

- From 11 pm to 8 am, check every 15 minutes.
- From 8 am to 11 pm, check every 30 minutes.

Presenter(s)**Section
Time**

15 Minutes

The handouts include:

- Fire Watch Requirements:** A form for building owners/managers to sign, detailing the fire watch period, location, and responsible person.
- Fire Watch Procedures:** A checklist of tasks for the fire watch person, including checking fire alarm systems, fire extinguishers, and fire exits.
- Fire Watch Log:** A table for recording fire watch activities, with columns for time, floor, and fire watch status.

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5

RESOURCES

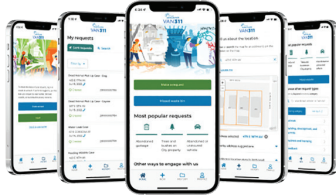
If you're unsure about the safety of your building, you can try the following options:

By Phone (Calling):

- 3-1-1 Fire-related concerns
- 9-1-1 Fire-related emergencies

Apps:

- Van311



On the Internet:

- <https://van311.ca> Submit your request without registering.

Presenter(s)

**Section
Time**

5 Minutes

Lithium ion batteries blamed for 2 SRO fires in Vancouver



Emergency crews respond to a fire at the Hotel Empress on Hastings Street on June 11, 2022. Authorities determined an E-bike exploded, causing a man to fall out of a window to his death. (FILE)

Andrew Weichel

CTVNewsVancouver.ca Reporter and Supervising Digital Producer

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Published Aug. 11, 2022 5:53 p.m. PDT

Firefighters responded to two fires at single-room occupancy hotels in Vancouver this week, both caused by lithium ion batteries – an increasing concern across the city.

Vancouver Fire Rescue Services said the first blaze broke out Monday night, resulting in smoke and water damage to multiple units of the SRO. The second fire was sparked one day later at another address.

In both cases, authorities said an E-bike with a lithium battery was being charged by a modified or makeshift charger – not the manufacturer's supplied or recommended power source.

"It's creating excessive heating and thermal runaway effects within these batteries, and there's so much energy and potential energy inside them that they will explode," said Capt. Matthew

Trudeau. "It looks like fireworks going off, and the effects can be pretty devastating."

Fortunately, sprinkler systems contained both of the fires to individual SRO units until crews could arrive and finish dousing the flames.

Lithium ion batteries have been a growing concern for Vancouver firefighters, who said the city has seen a 500 per cent increase in battery-associated fires since 2016.

Lithium batteries have also been linked to five fire-related deaths so far this year – more than any other fire source.

On June 11, another E-bike exploded at the Hotel Empress in the Downtown Eastside, killing one man who fell from a window.

Trudeau noted the batteries don't need to be improperly charged to pose a potential danger.

"They do have a risk inherent with them," he said. "We've seen battery fires in laptops, in bikes. We've seen them from all kinds of sources – and that's proving to be very challenging, and it's occurring at a fairly high rate."

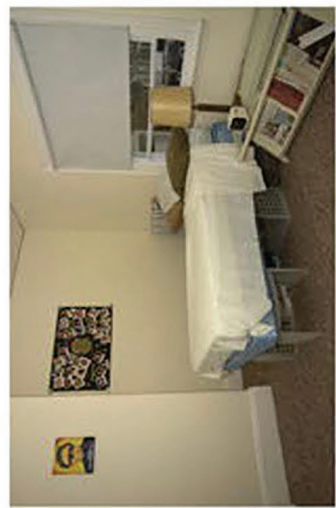
But the use of modified chargers is particularly risky. Crews have found some chargers with modified wires, or alligator clips attached, so they can power devices they were not intended to charge.

Trudeau said he's currently collecting data on battery-associated fires in the city – including the total damage caused by lithium-powered devices – to better understand how firefighters and the public can reduce the risks.

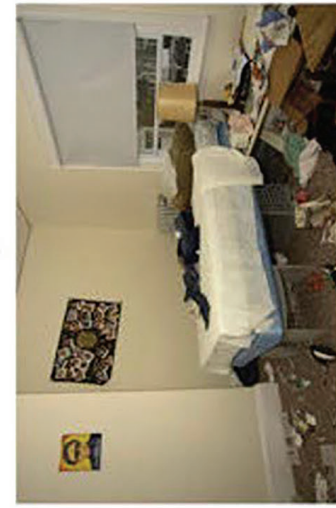
**LEVELS OF IMAGE #6 OR MORE SHOULD BE REPORTED TO 311 AS
A HOARDING CONCERN**

Clutter Image Rating: Bedroom

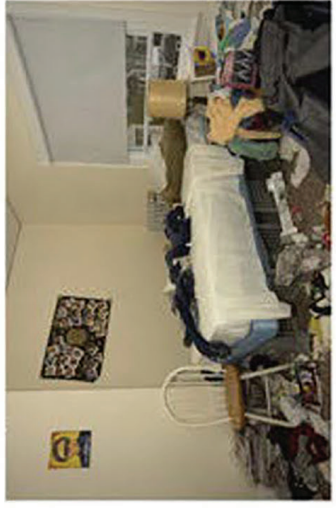
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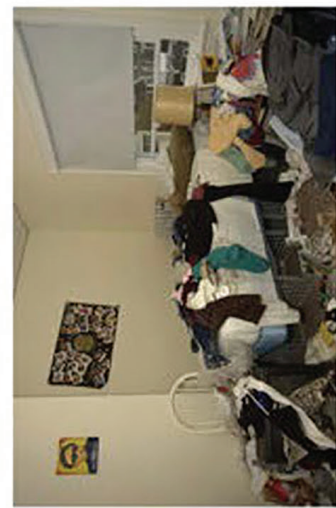
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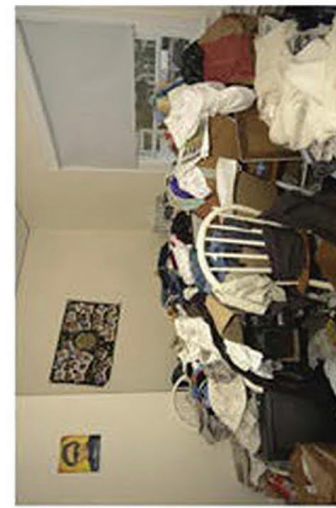
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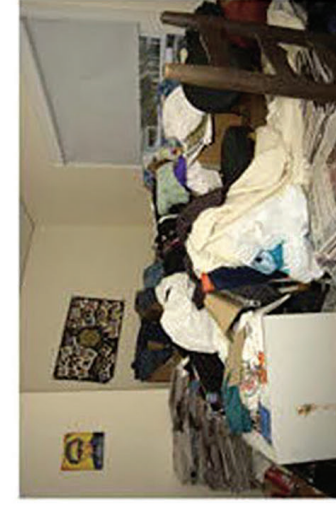
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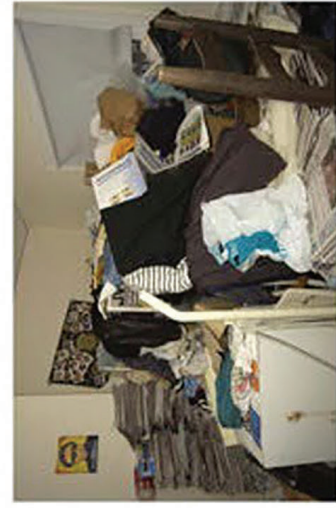
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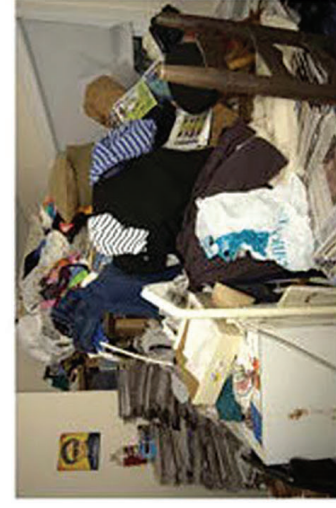
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FIRE SAFETY CHECKLIST



IN YOUR UNIT:

- ☐ **Smoke Detectors:** Make sure smoke detectors are working and connected.
- ☐ **Electrical Outlets:** Ensure outlets in the room are functioning properly and not burnt.
- ☐ **Clear Path:** Keep a clear path from your door to the window.
- ☐ **Door Functionality:** Ensure door hinges work, and doors can be closed properly.
- ☐ **Windows:** Ensure windows can be easily opened if needed.
- ☐ **Sprinkler System:** Do not hang anything off the sprinkler system.

IN YOUR BUILDING:

- ☐ **Hallways:** Keep hallways clear and well-lit.
- ☐ **Fire Escape:** Ensure the exterior fire escape is clear and accessible.
- ☐ **Stairwells:** Keep stairwells clear and well-lit.
- ☐ **Fire Doors:** Ensure that fire doors are closed, latched, undamaged, and clearly marked.
- ☐ **Exit Units:** Make sure exit units are unlocked and not blocked.
- ☐ **Building Number:** Ensure the building number is visible and legible for firefighters to locate easily.
- ☐ **Fire Extinguishers:** Make sure that fire extinguishers are full and have a current service tag.
- ☐ **Fire Department Connections:** Ensure connections are capped and free from obstructions.
- ☐ **Fire Hydrants:** Keep fire hydrants clear from graffiti or any coverings.





Vancouver Fire Rescue Services Fire Watch Requirements

Date: _____ Time Issued: _____ Building Address: _____

Notice Issued to: _____ Ph. No. _____ Signature of Recipient: _____

Vancouver Fire By-law, Division B, Sentence 6.1.1.4.(1) states “When any portion of a fire protection system is temporarily shut down, alternative measures shall be taken to ensure that protection is maintained.”

Fire Protection System Shutdown

1. When a Fire Protection System is out of service, the building shall be provided with an *acceptable* Fire Watch. This is for all occupants and all areas of the building left unprotected by the shutdown, until the fire alarm system or sprinkler system has been returned to service.
2. Fire Protection Systems shall be repaired or replaced by an *acceptable* service company and returned to service as soon as possible. Many acceptable 24 hour service companies are available.
3. The Company monitoring the fire alarm system **MUST** be notified when a fire protection system is out of service **AND** when it is repaired and returned to service.
4. Check all egress and exit doors are clear of obstructions on both sides, and are readily openable. Magnetic locks on doors, and magnetic hold open devices on fire separation doors, are not allowed to be operating when the fire alarm system is out of service.
5. High hazard occupancies may need to keep a Fire Watch **AND** cease operations until repairs are completed.
6. When a sprinkler system is shut down, measures that can be taken include the provision of emergency hose lines and portable extinguishers, and extra fire watch service.
7. **THIS NOTICE MUST** be posted in a conspicuous location in the main entrance to the building. Copies of this notice must be posted at other main access points including inside elevators and stairs.
8. When a fire protection system is out of service for more than **4 continuous hours** in a 24 hour period, as well as when the system is returned to service, the fire department must be notified by calling **9-1-1 and ASK FOR FIRE DISPATCH**.

City of Vancouver Contacts for Fire-related Issues

To report a fire – **EMERGENCY, call 9-1-1.**

To report a fire issue – **URGENT but non-emergency**, such as a blocked or locked fire exit, or fire alarm not working, or sprinkler system not working, please call

- a) during business hours, the Fire Prevention Office at 604-873-7593
- b) outside of business hours, call **9-1-1 and ASK FOR FIRE DISPATCH**

To report a fire issue – not urgent and non-emergency, call 3-1-1

(See Other Side)



Vancouver Fire Rescue Services Fire Watch Requirements

FIRE WATCH PROCEDURES

1. Any person with a disability in the building requiring assistance? Yes ☐ No ☐
If yes, write down all names and their locations in the Fire Watch Log.
2. Promptly inform all building occupants of the Fire Protection System shut downs or equipment out of service and post this Notice throughout the building as described above.
3. At least 2 persons and if the building is larger, more people, shall provide a Fire Watch. Fire watch may be conducted by a professional fire watch service, or by occupants in the building designated by the building owner(s) or building's Fire Safety Director and trained in their duties.
4. The persons performing the Fire Watch must have a designated supervisor and shall:
 - a) Be easily identifiable to building occupants by uniform or clothing
 - b) Be familiar with the operation of fire and life safety systems in the building.
 - c) Be able, and capable, of promptly notifying emergency agencies and occupants of an incident.
 - d) Have radio contact between each other using established emergency communications protocol.
 - e) When required to notify the Fire Department, be identified by names and phone numbers for immediate contact.
 - f) The Fire Watch shall be in attendance at all times when fire protection systems are out of service, and have sufficient staff to patrol all areas of the building involved, using the following as a minimum:

Non-residential buildings: during normal business open hours, **every 30 minutes**; other times **every 60 minutes**.

Buildings with sleeping accommodation:

 - i) between 2100-0800 hrs. (11 pm until 8 am) **every 15 minutes**
 - ii) between 0800-2100 hrs. (8 am until 11 pm) **every 30 minutes**
 - g) The Fire Watch shall have an *acceptable* method of alerting building occupants, making them and VFRS aware of what it will be (eg, Air Horn etc.).
5. Maintain a chronological, written log of activities on site for VFRS, for the duration of the Fire Watch. Use a new "Fire Watch Log" sheet for each day. Use additional sheets for additional floors or areas where necessary.



Vancouver Fire Rescue Services Fire Watch Log

Building Address: _____ Date: _____

Contact/Person on Fire Watch: _____ Phone: _____

Persons with a disability requiring assistance:

Name and Location	Name and Location
_____	_____
_____	_____
_____	_____

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