

GUIDE

Emergency Response Planning: Shelter-In-Place Instructions

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Acknowledgements

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Disclaimer

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Introduction

Shelter-In-Place is the practice of going or remaining safely indoors during an outdoor release of a hazardous substance.

Shelter-In-Place has been demonstrated to be the most effective response during the first few hours of a substance release where the public would be at higher risk outdoors.¹ Sheltering creates an indoor buffer to protect you from higher (more toxic) concentrations that may exist outdoors. It is based on using a building that is not too drafty for typical Canadian winter weather conditions.

The goal of ***Shelter-In-Place*** is to reduce the movement of air into and out of the building until either the hazard has passed or other appropriate emergency actions can be taken (such as evacuation).

An event such as a fire, motor vehicle accident, train derailment, industrial incident, or a natural disaster may cause a hazardous substance release. As a result, emergency responders may request that you ***Shelter-In-Place***.

Here are some examples of when you may be asked to ***Shelter-In-Place***:

- √ An outdoor release may affect your building
- √ There is not enough time or warning to safely evacuate
- √ The release is expected to pass over the area quickly
- √ The source and nature of the release has yet to be determined
- √ A safe evacuation route has yet to be verified
- √ When it is safe to evacuate but you need assistance

Those who have been advised to ***Shelter-In-Place*** will be notified if additional measures are required, and when it is “all-clear”.

¹ See List of References at the end of this document

Shelter-In-Place Instructions

- Immediately gather everyone indoors and stay there
- Close and lock all windows and outside doors
 - If convenient, tape the gaps around the exterior door frames
- Extinguish indoor wood burning fires
 - If possible, close flue dampers
- Turn off** appliances or equipment that either:
 - Blows out or uses indoor air, such as
 - ▷ Bathroom and kitchen exhaust fans
 - ▷ Built-in vacuum systems
 - ▷ Clothes dryers
 - ▷ Gas fireplaces
 - ▷ Gas stoves
 - Sucks in outside air, such as:
 - ▷ Heating ventilation and air conditioning (HVAC) systems for apartments, commercial or public facilities
 - ▷ Fans for heat recovery ventilators or energy recovery ventilators (HRV / ERV)
- Turn down** furnace thermostats to the minimum setting and **turn off** air conditioners
- Leave open all inside doors
- Avoid using the telephone, except for emergencies, so that you can be contacted by (*company / public agency name*) emergency response personnel
 - Call the (*company / public agency name*) emergency numbers you have been provided:
 - ▷ If you are experiencing symptoms or smelling odours (so that we can address your concerns and adjust our response priorities)
 - ▷ If you have contacted fire, police or ambulance (so that we can coordinate our response)
- Stay tuned to local radio and television for possible information updates
- Even if you see people outside do not leave until told to do so
- If you are unable to follow these instructions, please notify (*company / public agency name*) emergency response personnel
- After the hazardous substance has passed through the area you will receive an "all-clear" message from (*company / public agency name*) emergency response personnel. You may also receive, if required, instructions to:
 - Ventilate your building by opening all windows and doors; turning on fans and turning up thermostats. During this time the air outside may be fresher and you may choose to leave your building while ventilating.
 - Once the building is completely ventilated, return all equipment to normal settings and operation.

Shelter-In-Place Scripted Telephone Instructions (To be used by Company or Public Agency Emergency Response Personnel)

HELLO, THIS IS *(responder's name)* _____ CALLING FROM *(company/agency name)* _____.

IS THIS THE *(name of residence/business)* _____ AT *(telephone number)* _____ ?

(company/agency name) _____ IS RESPONDING TO A *(potential)* EMERGENCY IN THE _____ AREA.

FOR YOUR SAFETY, IT IS EXTREMELY IMPORTANT THAT YOU, AND THOSE WITH YOU, STAY INDOORS UNTIL THE POTENTIAL HAZARD NO LONGER EXISTS, OR YOU ARE ADVISED TO EVACUATE.

TO HELP US UNDERSTAND YOUR IMMEDIATE NEEDS WE NEED TO KNOW:

- HOW MANY PEOPLE ARE AT YOUR LOCATION NOW? *(adults)* _____ *(children)* _____
- IS THERE ANYONE YOU CANNOT CONTACT TO GET INDOORS? *(yes/no)* _____
 - If yes, ask the resident WHAT IS THE LOCATION OF THE PERSON(S)? _____
 - ▷ Then tell the resident BE ASSURED WE WILL BE SENDING SOMEONE TO FIND THE PERSON(S) AS SOON AS POSSIBLE.
- DO YOU HAVE CHILDREN IN SCHOOL AT THIS TIME? *(yes/no)* _____
 - If yes, ask the resident WHAT CHILDREN ARE IN WHICH SCHOOL(S)? _____
 - ▷ Then tell the resident BE ASSURED THE SCHOOL(S) WILL BE CONTACTED AND INSTRUCTED TO KEEP THE CHILDREN AT SCHOOL, OR TO RETURN THE BUS BACK TO THE SCHOOL.
- DO YOU HAVE THE "SHELTER-IN-PLACE" INSTRUCTIONS PREVIOUSLY GIVEN TO YOU? *(yes/no)* _____
 - If no, request the resident to PLEASE TAKE THE FOLLOWING ACTIONS IMMEDIATELY:
 1. GATHER EVERYONE INDOORS AND STAY THERE
 2. CLOSE AND KEEP CLOSED ALL WINDOWS AND OUTSIDE DOORS
 3. TURN YOUR FURNACE DOWN TO ITS MINIMUM SETTING AND TURN OFF AIR CONDITIONERS
 4. TURN OFF OTHER FANS, APPLIANCES OR EQUIPMENT THAT EITHER:
 - ▷ USES INDOOR AIR,
 - ▷ BLOWS OUT INDOOR AIR OR;
 - ▷ SUCKS IN OUTSIDE AIR
 5. PLEASE AVOID THE USE OF YOUR TELEPHONE, SO WE CAN CONTACT YOU AGAIN WITH ADDITIONAL INFORMATION
 - If yes, request the resident to PLEASE FOLLOW THE "SHELTER-IN-PLACE" INSTRUCTIONS.

IF YOU HAVE URGENT QUESTIONS, CALL ME AT *(responder's telephone number)* _____.

THANK YOU FOR YOUR COOPERATION.

List of References

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- Wilson, D.J. (1988) "Variation of Indoor Shelter Effectiveness Caused by Air Leakage Variability in Houses in Canada and the USA", *Proceedings U.S. EPA/FEMA Conference on the Effective Use of In-Place Sheltering as a Potential Option to Evacuation During Chemical Release Emergencies*, Emitsburg, Maryland, Nov. 30 - Dec. 1, 1988.
- Wilson, D.J. (1991) "Effectiveness of Indoor Sheltering During Long Duration Toxic Gas Releases", *Emergency Response ER'91 Technological Response to Dangerous Substances Accidents*, MIACC, May 28-30, Calgary, 10 pages
- Wilson, D.J. and Morrison, B. (2000) *Ordering Shelter or Evacuation during an Outdoor Toxic Gas Release Incident: The CAFC Decision Flow Chart@ Fire-Rescue 2000: Technical Paper: Annual Meeting of the Canadian Association of Fire Chiefs, Montreal, August 13 B 18, 2000*, 11 pages.