

EXIT SIGNS

Why are there exit signs in my building?

Exit signs are intended to guide people to exits in an emergency and may be used every day by people unfamiliar with a building to find their way out of the building.

Where are exit signs required?

As prevalent as exit signs seem to be in buildings across Alberta, the National Building Code – 2023 Alberta Edition (NBC(AE)) has the following requirements for the placement of exit signs in buildings.

Small Buildings

Every exit door must have an exit sign placed over or adjacent to it if the exit serves:

- a building more than 3 storeys in building height,
- a building having more than 150 people inclusive of all areas, or
- a room or floor area that has a fire escape as part of a required means of egress.

Large Buildings

Every exit door must have an exit sign providing visual information placed over or adjacent to it if the exit serves:

- a building more than 2 storeys in building height,
- a building having more than 150 people inclusive of all areas, or
- a room or floor area that has a fire escape as part of a required means of egress.

In addition, an exit sign shall be placed over or adjacent to every egress doorway from rooms with an occupant load of more than 60 in occupancies that, when occupied, have lighting levels below that which would provide easy identification of the egress doorway. These include motion picture theatres, opera houses, television studios that admit a viewing audience, theatres (including experimental theatres), licensed beverage establishments, and other similar assembly-use occupancies.

Exit signs must be visible when approaching an exit. Where no exit is visible from a public corridor, from a corridor used by the public in an assembly, care, treatment or detention occupancy or from principal routes serving an open floor area having more than 150 people, exit signs with a directional arrow (*see Diagram 4*) or pointer indicating the direction of egress shall be provided.

When a visual exit sign is required in large buildings, there must also be an exit sign with tactile information installed. An exit sign displaying the word "EXIT" in tactile form shall be mounted on the approach side of exit doors, in the direction of travel to the exit.



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Relocatable Industrial Accommodations

The placement for exit signs in relocatable industrial accommodations must be installed at each exit location that serves a building with 20 or more occupants and the sign shall be illuminated.

Which version of exit signs should I have installed in my building?

If exit signs are required, the “building code of the day” (i.e. the Alberta Building Code (ABC) or NBC(AE) at the time the building was constructed) is the edition year of the building code that will pertain to the type of exit sign to be installed.

Prior to the ABC 2014, exit signs had the word “EXIT” displayed in plain legible letters. For internally illuminated signs, the letters were either red on a contrasting background (see *Diagram 1*) or contrasting letters on a red background (see *Diagram 2*). If the signs were externally illuminated, the letters were white on a red background or red letters on a contrasting background that is white or a light tint.

When the ABC 2014 edition was adopted, the exit signs changed from the word “EXIT” to a picture of a green “running man” (see *Diagram 3*) exiting to the left or right depending on where the exit is located. These exit signs shall be continuously illuminated either internally or externally.

Why do I see different versions of exit signs in my building?

If a part of a building is renovated after 2014, the building authority having jurisdiction (AHJ) may require new exit signs be installed in the area being renovated. However, areas in that same building that are not renovated would not require the exit signs to be replaced. This may result in a mix of different versions of exit signs in a building.

What are the requirements for exit signs with tactile information?

Tactile information exit signs must have Braille and tactile characters in accordance with CSA B651, “Accessible design for the built environment.”

Installation of the signs shall be on the wall closest to the latch side of the door or on the nearest wall on the right side of the door, where there is no wall at the latch side.

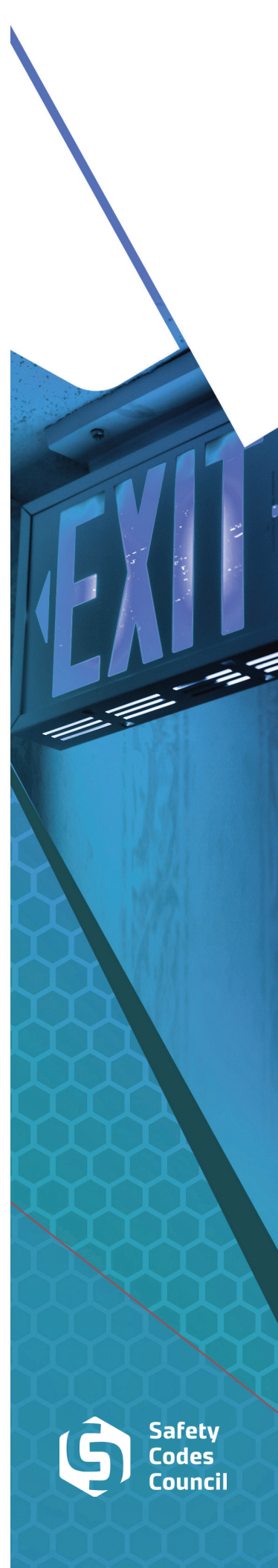
The signs shall be centred 1500 mm above the finished floor with the edge of the sign located not more than 300 mm from the door.

What are the power requirements for exit signs?

Internally illuminated signs can be powered by an electrical circuit or be self-illuminated.

Externally illuminated signs are photoluminescent and have the property of emitting light that continues for a length of time after excitation by visible or invisible light has been removed.

If a photoluminescent exit sign exists, it must be labelled in accordance with the time duration for which it has been tested and listed and it must illuminate for the time it is rated for.



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Self-illuminated or self-luminous exit signs means they are illuminated by a self-contained energy source other than a battery, such as radioactive tritium gas. Operation is independent of external power supplies or other external forms of energy.

The circuitry serving lighting for externally and internally illuminated exit signs must serve no equipment other than emergency equipment and be connected to an emergency power supply. The emergency power supply can be from batteries or generators that will assume the electrical load automatically upon failure of the regular power. There are different time requirements for emergency power depending on the type of occupancy:

- 2 hours for high buildings,
- 1 hour for a care, home-type care, treatment or detention occupancy that is not a high building,
- 1 hour for a residential occupancy that is up to six storeys and sprinklered,
- 1 hour for a personal/business occupancy that is up to six storeys and sprinklered,
- 30 minutes for a building of any other occupancy.

It is also important to take into consideration areas where power outages are frequent and may be of long duration. These local conditions should be taken into account in determining the type of system required for supplying emergency power for lighting. This should be studied and taken into account at the planning stage of a building project in conjunction with the local fire safety and building officials.

For a definition of what constitutes as a high building, please contact your local Building Safety Codes Officer/AHJ.

What are the maintenance requirement for exit signs?

Maintenance of exit signs fall under the National Fire Code – 2023 Alberta Edition (NFC(AE)). Exit signs shall be checked to ensure that all lights are lit. If they are not illuminated, they shall be repaired immediately.

Emergency Power Supply by Battery

Exit signs relying on battery power must be inspected monthly to ensure exit signs will be visible upon failure of the primary power supply. They should also be checked at intervals of 12 months to ensure the exit signs will be visible for the duration equal to the design criterion upon failure of the primary power supply.

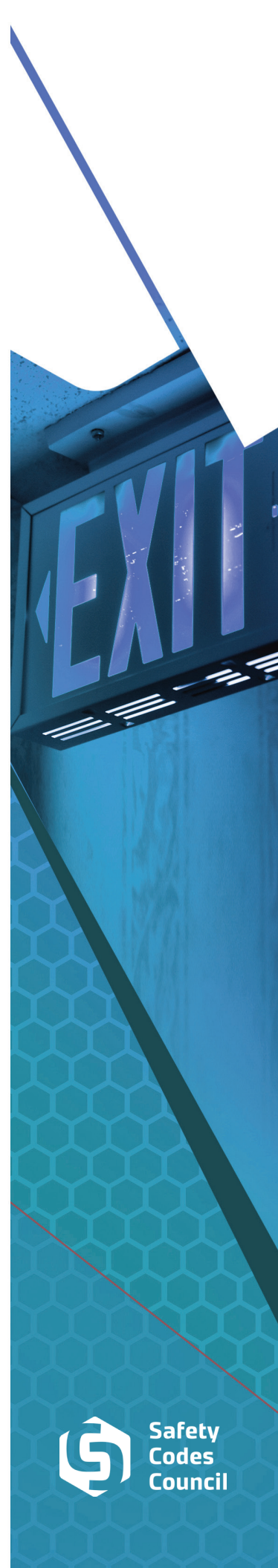
The batteries should be inspected to ensure the terminal connections are clean and tight, the terminal clamps are clean, tight (as per the manufacturer's specifications) and the battery surface is kept clean and dry.

Emergency Power Supply by Generator

Exit signs should be checked during normal generator maintenance intervals.

Self-luminous Exit Signs

Self-luminous exit signs must be plainly and permanently marked where the marking will be visible after installation with their date of replacement based on the half life of the contained radioactive material. Once that date is reached, the signs shall be replaced.



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Photoluminescent Exit Signs

Photoluminescent exit signs must include instructions to periodically clean the sign face with a damp cloth or as otherwise recommended by the manufacturer. The instructions shall also include the requirements to conduct periodic visibility inspections to ensure that the signs are clear and legible.

If the signs are unable to remain illuminated for the labelled rated time, they must be replaced.

It is an NFC(AE) requirement to keep a record of all inspection and maintenance requirements for exit signs. The records must be kept on the premises for five years from the time the inspection and maintenance was completed.



Diagram 1 - Exit Sign



Diagram 2 - Exit Sign



Diagram 3 - Running Man Exit (Left)



Diagram 4 - Exit Arrow Indicator

Contact

Please contact the local authority having jurisdiction for any questions regarding this Safety Tip.