

Emergency Lighting

The National Fire Protection Association Life Safety Code (NFPA 101), requires emergency illumination of the means of egress based upon occupancy criteria. Well-designed emergency lighting, using a source of power independent from the normal building service, automatically provides the necessary illumination in the event of interruption of power to normal lighting.

Reliability of exit illumination is most important. NFPA 70, the National Electric Code, details recommended good practices in the installation of emergency lighting equipment.

Where electric battery operated emergency lights are used, suitable facilities are needed to keep the batteries properly charged. Periodic testing should also be completed to ensure that the system will function properly when activated.

If normal building lighting fails, well-arranged emergency lighting provides necessary exit floor illumination automatically, with no appreciable interruption of illumination during the changeover. Where a generator is provided, a delay of up to ten seconds is considered acceptable.

Emergency lighting should be provided for a minimum period of one and a half hours. Where self-contained emergency electric generating units are provided, they may be used to supply power to the emergency lighting system, as well as to other critical areas of the occupancy.

General requirements

Emergency lighting facilities for means of egress should be provided for the following occupancies and locations:

- Educational – All interior stairs and corridors; all normally occupied areas except administrative areas, general class rooms, mechanical rooms and storage areas; throughout flexible and open-plan buildings; in all building areas that are windowless.
- Health care – All, throughout entire building.
- Detention and Correctional Occupancies – All, throughout entire building.
- Hotels and Dormitories – All, throughout entire building, except where each guest room has a direct exit to the outside at grade level.
- Apartment Buildings – All greater than three stories high, or having more than 12 units, except where every living unit has a direct exit to the outside at grade level.
- Mercantile – All Class A (more than 30,000 square feet floor area or more than three floor levels) and Class B (between 3,000 and 30,000 square feet floor area) stores.
- Business – All, when building is two or more stories in height; occupancy is subject to 100 or more occupants above or below level of exit discharge; or occupancy is subject to 1,000 or more occupants.
- Industrial – All, except: special purpose industrial occupancies which are not routinely occupied; structures occupied only in daylight hours with skylights and/or windows arranged to provide the required level of illumination to all means of egress.

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- Storage – All, except: structures which are not routinely occupied; structures occupied only in daylight hours with skylights and/or windows arranged to provide the required level of illumination to all means of egress.
- Unusual Structures – All, except: open structures; towers with ladders for exits, locations not routinely occupied; structures occupied only in daylight hours with skylights and/or windows arranged to provide the required level of illumination to all means of egress.

Additional Requirements

- Emergency lighting facilities should be arranged to maintain a minimum of 1 footcandle for a period of 1 1/2 hours in the event of normal lighting failure. Illumination may decline to 0.6 foot candle at the end of the emergency lighting time duration.
- An emergency lighting system should be arranged to provide the required illumination automatically in the event of any interruption of normal lighting, such as public utility failure, opening of a circuit breaker or fuse, or any manual acts, such as accidental opening of a switch controlling natural lighting facilities.
- An emergency lighting system should be either continuous operation or capable of repeated activation without manual intervention.
- Emergency lighting systems should be tested on a monthly basis, for a test duration of at least 30 seconds. An annual test should be completed for the full 1 1/2 hour duration. Equipment should be fully operational for the duration of the test. All testing should be documented.

The loss prevention information and advice presented in this brochure are intended only to advise our insureds and their managers of a variety of methods and strategies based on generally accepted safe practices, for controlling potentially loss producing situations commonly occurring in business premises and/or operations. They are not intended to warrant that all potential hazards or conditions have been evaluated or can be controlled. They are not intended as an offer to write insurance coverage for such conditions or exposures, or to simply that Great American Insurance Company will write such coverage. The liability of Great American Insurance Company is limited to the specific terms, limits and conditions of the insurance policies issued.
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