FIRE PROTECTION GUIDE

SECTION C-2

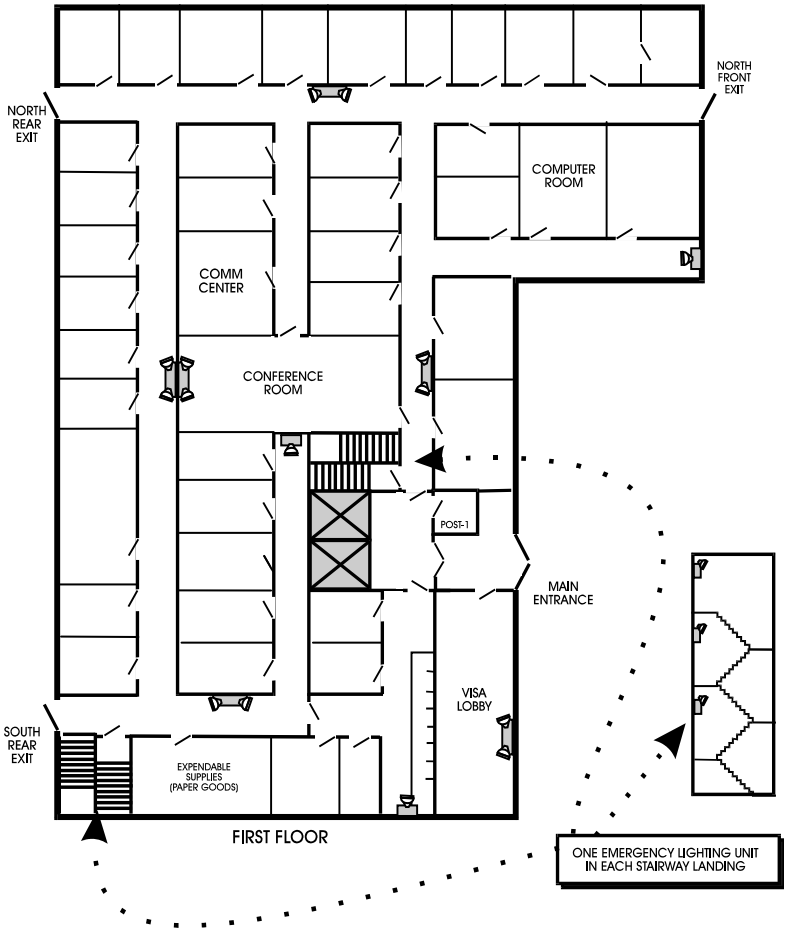
EMERGENCY LIGHTING

EMERGENCY LIGHTING

INTRODUCTION:

Emergency lighting is designed to provide short term lighting to allow occupants to safely evacuate buildings during power failures and/or other emergencies. Emergency lighting shall be installed to enable occupants to readily use available means of egress such as stairs, corridors, and exits by providing emergency illumination for no less than $1^{1/2}$ hours. Emergency lighting units shall be arranged to provide initial illumination that is not less than an average of 1 ft-candle (10 lux) and, at any point, not less than 0.1 ft-candle (1 lux), measured along the path of egress at floor level. Illumination levels shall be permitted to decline to not less than an average of 0.6 ft-candle (6 lux) and, at any point, not less than 0.06 ft-candle (0.6 lux) at the end of the $1^{1/2}$ hours.

EMERGENCY LIGHTING INSTALLATIONS



EMERGENCY LIGHT REQUIREMENTS

The emergency lighting system shall be arranged to provide the required illumination automatically in the event of any of the following:

(1) Interruption of normal lighting such as any failure of a public utility or other outside electrical power supply

(2) Opening of a circuit breaker or fuse

(3) Manual act(s), including accidental opening of a switch controlling normal lighting facilities

BATTERY OPERATED EMERGENCY LIGHTS

Battery-operated emergency lights shall only use reliable types of rechargeable batteries provided with suitable facilities for maintaining them in properly charged condition. Batteries shall be approved for their intended use and shall comply with NFPA 70, The National Electrical Code®.

EMERGENCY LIGHT OPERATION

The emergency lighting system shall be either continuously in operation or shall be capable of repeated automatic operation without manual intervention.

EMERGENCY LIGHT TEST AND INSPECTION

A functional test shall be conducted on every emergency lighting system at 30-day intervals for not less than 30 seconds. An annual test shall be conducted on every battery-powered emergency lighting system for not less than $1^{1/2}$ hours. Equipment shall be fully operational for the duration of the test. Written records of visual inspections and tests shall be kept by the owner for inspection by the authority having jurisdiction.

EXECPTION: Self-testing/self-diagnostic, battery-operated emergency lighting equipment that automatically performs a test for not less than 30 seconds and diagnostic routine not less than once every 30 days and indicates failures by a status indicator shall be exempt from the 30-day functional test, provided that a visual inspection is performed at 30-day intervals.

PURCHASING EMERGENCY LIGHTS

Emergency lights, shall be purchased by Post. The following information is necessary for purchasing emergency lights. NOTE: Emergency Lights are not designed to illuminate the entire facility; they shall only be installed in exit access corridors and exit stairwells.

1. The number of units required. This may be noted in the Fire Inspection Report. Remember that these lights have two heads. By mounting the unit on the end of hallways, one light beam can be directed into one corridor and the other light can be directed into the other corridor or stairwell.

2. To provide a safe and operational emergency light, the voltage of the electrical service in the building must be noted. This will be either 110 volt or 220 volt.

3. Also required is the operating hertz of the electrical system. This will be either 50 Hz or 60 Hz.

4. The last required information is the wattage of the bulbs in the lighting units. Most 110 volt lights are 30 watt and 220 volt lights are 50 watt, however wattage is dependent upon the amount of light needed for a particular area and units may be ordered with different wattage.

PURCHASING EMERGENCY LIGHTING UNITS

QUANTITY	VOLTAGE	HERTZ
_____	_____	_____

NOTE: *110-VOLT LIGHTS ARE GENERALLY 30 WATT, AND 220-VOLT LIGHTS ARE 50 WATT*

REFERENCES:

The reference material for this section of the OBO/OPS/FIR Fire Protection Guide was taken, primarily from NFPA 101 edition 2015, *Life Safety Code,* and NFPA 70, *National Electric Code.*

This document complies with NFPA 101 edition 2015

Formatted: Font: (Default) Arial