

## SECTION 26 52 00: EMERGENCY LIGHTING

### 1. GENERAL

- A. This section details the basis of design for building emergency lighting in new construction and existing facility renovations.
- B. In addition to code–required locations, provide emergency lighting in large classrooms, places of assembly, public bathrooms, serving assembly spaces, research labs, central building mechanical and electrical rooms, and any areas where hazardous tasks are performed.
- C. Selection of lighting fixtures for normal and emergency use shall minimize the number of different lamp types utilized and required to be stocked by Operations staff.
- D. Emergency egress lighting to be powered by the Life Safety branch automatic transfer switch (ATS) in buildings where a standby generator is installed. In buildings where no generator or Life Safety branch circuits are installed, utilize central inverter(s) or emergency lighting battery units.
- E. Life Safety & Egress Lighting:
  1. Residential housing (multi-family apartments)
    - i. Provide a central inverter or central battery unit(s) for service to local emergency heads and exit signage.
    - ii. For the latter, minimize the quantity of individual battery units installed (e.g. to provide a single battery unit to serve the overall floor level or stairwell landings).
  2. Small office, classroom, residence hall and other non-critical facilities
    - i. Provide central inverters for powering of required egress lighting and exit signage.
    - ii. In larger facilities, multiple inverters (e.g. one inverter per floor) are allowed.
- F. Fluorescent emergency ballasts (Bodine brand) are not allowed.
- G. Spare Parts:
  - Provide spare fixtures, lamps and ballasts in quantities equal to 5% of the amount used on the project.
  - Coordinate with Brown PM for lockable space within the building for the storage of spare lamps and spent lamps to be recycled.
  - For special lamps, provide attic stock of six spare lamps.
- H. Emergency Circuit Switching:
  1. May vary depending on type of facility and will be confirmed during design.
  2. Certain facilities, such as research and lab, typically require 24/7 unswitched control of emergency lighting, otherwise known as night light circuits.
  3. Large assembly spaces with central lighting controls typically require emergency lighting to be controlled on/off/dimmed. Provide override controls such as transfer relays, to override “on” emergency lights in the event of a power failure.
  4. Small assembly spaces where it is desired to normally switch emergency lighting “off” for presentations, etc., provide override controls such as transfer relays, to override “on” emergency lights in the event of a power failure.

### 2. BATTERY UNITS

- A. Where installed, to be 12-volt type and have built-in self-test features with alarm on test failure.
- B. Avoid the use of multiple battery units; centralize emergency lighting power supply with a single battery unit (with zone relays for multiple circuits) wherever possible.
- C. Battery units shall have maintenance-free batteries.
- D. Manufacturers:
  - EmergiLite
  - Beghille

### 3. INVERTERS

- A. Must match building utilization voltage for lighting circuits, and avoid the use of step-down transformers.
- B. Provide inverter with local distribution panel on larger size units for individual breaker control of emergency lighting circuits, main input circuit breaker, integral bypass switch to allow for system testing and battery replacement without affecting downstream loads, and built-in self-test features with alarm on test failure.
- C. Size inverter with 15% spare capacity to allow for future system connections.
- D. Manufacturers:
  - Meyers
  - EmergiLite
  - Beghille

### 4. EXIT SIGNS

- A. Signs to be light emitting diode (LED).
- B. Self-luminous type exit signs are not acceptable.
- C. Residence Halls:
  - Install with sign recessed or with sign back mounted flush to the wall or building surface.
  - Do not install with ceiling canopy or side mount connection to wall. Consider triangular plywood backboards for signs mounted on walls where ceiling height allows.
- D. Signs in retrofit applications to match existing installed building exit signs for style and configuration.
- E. Connect exit signs to central inverter circuits or to output of battery units for standby power source. Avoid use of exit signs with integral batteries.