

# BBS MEMO

Ohio Board of Building Standards

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## WAREHOUSE ILLUMINATION EMERGENCY POWER

In reviewing the egress and lighting criteria for warehouse projects, there are a variety of possible configurations and several code sections that are applicable. The basis for evaluating the means of egress system and the associated lighting is based upon the code definitions for the terms used to describe the components of the system. In the initial phase the occupant load, common path of travel, and overall travel distance to exits need to be established. If it is determined that due to occupant load (Section 1015), common path of travel (Section 1014.3), or distance between exits (Section 1016) triggers the need for two or more exits from the warehouse facility then the requirements of Section 1006.3 will apply.

Once it is established that two exits are required, the storage configuration needs to be analyzed to establish the **aisle accessways** and **aisles** used as the primary paths within the facility. By definition (Section 1002), an aisle accessway is "that portion of an exit access that leads to an aisle." An aisle is an "unenclosed exit access component that defines and provides a path of egress travel." These aisles or exit accessways must lead to the exits. Typically, an aisle accessway will intersect the aisle in a 90 degree configuration. If the aisles do not have exits located at their ends then the paths (aisles) to the exits must be identified for the most efficient exiting system. This may create aisles that are perpendicular to other aisles. It is important, however, to note that the maximum travel distance must not be exceeded for the combined aisle accessway and aisle configurations.

The aisles created in a proposed warehouse layout are required to have emergency egress illumination per Section 1006.3.

A warehouse that incorporates fixed rack shelving will define the aisle accessways and aisles in a more direct way. The longitudinal rows of shelving will typically define the aisle accessways and the perpendicular paths at the ends will define aisles. When it has been determined that emergency egress illumination is required, then the applicable requirements of Section 1006.3 must be enforced, including at the exterior landings. An open warehouse project without fixed shelving, which help establish aisle accessways and aisles, must then designate aisles in other ways before establishing illumination emergency power requirements.

Based upon this information, answers to common questions would be as follows:

- Q.** Does the means of egress illumination, where emergency power is required, need to provide one foot-candle of illumination to all areas of the warehouse?
- A.** No. The code requires the **aisles** to be illuminated where two or more exits are required.
- Q.** What defines an aisle accessway in a warehouse application?
- A.** Remember that the code defines an aisle accessway as "that portion of the exit access that leads to an aisle." The aisle accessway is intended for one-way travel or limited two-way travel. When rows of product are stored in a warehouse the space between the rows that lead to main traveled routes (*aisles*) become the *aisle accessways*.
- Q.** Do aisle accessways have to be illuminated with emergency power as part of the means of egress system?
- A.** No. The code (Section 1006.3, item 1) requires aisles to be illuminated but does not reference aisle accessways.

