The purpose of NFPA 101 Life Safety Code is to provide minimum requirements for the design, operation and maintenance of buildings for safety to life from fires, including smoke, fumes or panic. It contains valuable guidelines concerning hardware for doors and how they function, especially doors within the Means of Egress. Chapter 3 defines Means of Egress as a continuous and unobstructed way of travel from any point in a building or structure to a public way consisting of three separate and distinct parts, 1) the exit access, 2) the exit and 3) the exit discharge. A building is considered occupied when 10 or more persons are inside.

Chapter 4 contains general requirements that pertain to all types of buildings. 4.5.3.1 states that a minimum of two means of egress shall be provided. The article also requires them to be arranged to minimize the possibility that both might be rendered impassable by the same emergency condition. Article 4.5.3.2 requires the means of egress to be maintained free and unobstructed. No lock or fastening shall be permitted that prevents free escape from the inside of the building.

Both new and existing structures are governed by the Code. Chapter 6 classifies occupancies, or building type, by the building’s function. Examples of different occupancies are Assembly, Educational, Health Care, and Detention. Chapters 12 through 42 address requirements for specific occupancies. Although there are functional differences in each occupancy classification, 6.1.2 defines buildings or portions thereof used for gathering together 50 or more people for deliberation, worship, eating, entertainment, or used as a special amusement building as an Assembly occupancy regardless of occupant load. That means that any room or area within a building used for those purposes shall be treated as described in the chapters regarding New or Existing Assembly Occupancies.

Chapter 7 contains requirements for door openings in a means of egress. There are numerous articles that impact choices made for specifying hardware and the size, function and arrangement of openings. 7.2.1.4.2 says doors within the Means of Egress shall swing in the direction of egress travel when the occupant load is 50 or more.

7.2.1.2 explains that the clear width of an opening for swinging doors is measured between the face of the door and the stop at the narrowest point in the door opening while the door is opened 90 degrees. 7.2.1.2.4 defines the minimum width dimension—Door openings in a means of egress shall be not less than 32” in clear width. Where a pair of doors is provided, one of the doors shall provide not less than a 32” clear width opening. The articles are supplemented by diagrams in Annex A located in the back of the code book.

Keep in mind that the width of the door as stated in a hardware schedule is not the same as the opening’s clear width. Hardware choices can affect the way a door is positioned in relation to the frame when opened to 90 degrees. Swing clear hinges allow the door to be located clear of the opening, hence the name. This effectively enlarges the opening width by approximately the thickness of the door compared to standard butt hinges.

Other hardware items play an important role in satisfying the requirements of the Code. The articles in 7.2.1.5 go into great detail concerning Locks and latches. Doors shall be opened readily from the egress side and shall not require the use of a key, tool or special knowledge. The method of operation must be obvious under all lighting conditions. 7.2.1.5.9.1 requires the latch or lock to be located not less than 34” nor more than 48” above the floor.

7.2.1.5.10 describes requirements for pairs of doors. Each leaf of the pair shall be provided with its own releasing device. Devices that depend on the release of
Door and Hardware Institute
Education and Technical Services Department
14150 Newbrook Drive, Suite 200, Chantilly, VA 20151-2232
703/222-2010; Fax: 703/222-2410

Name: ____________________________________________ DHI ID number: ___________________________

Address: _________________________________________________________________________________________

City: ______________________________________ State: _____________________ Zip: _______________________

Phone: ___________________________________________________________________________________________

Retain a copy of this exercise for your Continuing Education renewal application. Answers to these problems will be posted on our website (www.dhi.org) on the first day of the next month following the issue month of the magazine.
Doors Within the Means of Egress

**To acquire CEP points, answer the following questions pertaining to egress doors:**

1. Name the chapter in NFPA 101 that lists requirements for door openings in the Means of Egress. 
   Chapter 7

2. According to NFPA 101, what is the minimum clear width of the opening for:
   a. Single Doors 32”
   b. Pairs of Doors At least one of the doors 32”

3. List the three separate parts of the Means of Egress
   1. exit access
   2. exit
   3. exit discharge

4. At what occupancy level is a door required to swing in the direction of egress? 50