**Exercise – NFPA 80 – Fire Door Assemblies**

Find the answers in NFPA 80 – 2007, and include the paragraph reference number below. (If there are any concepts you’re not clear on, I’m happy to review them with you.)

1. Which BHMA standards are referenced in NFPA 80?
2. Are the requirements of NFPA 80 considered retroactive?
3. Does NFPA 80 require glass in fire doors to meet safety standards for impact-resistance?
4. How does NFPA 80 define the term “approved”?
5. What is the largest diameter hole that may be drilled in a fire door in the field (with the exception of cylinder holes)?
6. The maximum area of an exposed lite of glass in a fire door is \_\_\_\_\_\_ square inches.
7. If a new product that meets the intent of NFPA 80 is not specifically addressed in the standard, is the use of that product prohibited?
8. In which chapter of NFPA 80 are definitions found?
9. A Class E door is used in what type of wall/location?
10. Large facilities may prefer to use the Performance-Based Option instead of inspecting each fire door assembly annually. Where are the requirements for this option found in NFPA 80?
11. Signage on a fire door is limited to \_\_\_\_\_ percent of the surface area of the door face?
12. What materials may be used for labels on fire door assemblies?
13. Are electric strikes and open back strikes allowed to be used on fire door assemblies?
14. What is the minimum penetration of wallboard into a labeled hollow metal frame?
15. Is builders hardware required to be shipped from the factory with the fire door?
16. What should be done when a fire door or window is no longer in use?
17. Are viewers in fire doors required to be labeled?
18. Does NFPA 80 address the placement of detectors?
19. Does NFPA 80 require each leaf of a dutch door to latch into the frame independently?
20. What is stated on the label for a fire door with fire exit hardware?
21. Is gasketing required to be listed when used on fire door assemblies?
22. According to NFPA 80, spring hinges should be adjusted to achieve positive latching when allowed to close freely from an open position of \_\_\_\_\_ degrees.
23. Give 2 examples of rooms where manual flush bolts may be allowed, with AHJ permission.
24. For a 3’-6” x 7’-0” x 1 ¾” fire door with a 1-hour rating, what hinge height and thickness is required?
25. Non-labeled protection plates may be installed not more than \_\_\_\_\_ inches above the bottom of the door.
26. What are the options for filling holes in fire doors?
27. Where are the inspection criteria for swinging fire doors listed?
28. Does NFPA 80 require hardware to be installed per the manufacturer’s instructions?
29. How quickly must deficiencies in fire door assemblies be repaired?
30. The operation of fire doors is divided into which 3 categories?
31. In a building of noncombustible construction, is special sill construction required for fire doors without combustible floor coverings extending through the opening?
32. Are deadbolts allowed to be used on fire doors?
33. When spring hinges are used, how many are required per door?
34. Does NFPA 80 allow louvers to be installed in fire doors?
35. On which side of the door are the perimeter and meeting stile clearances measured?
36. Does NFPA 80 allow transom lites that can be opened?
37. NFPA 80 limits the use of expansion bolts (existing wall anchors) to fire-rated frames in what type of wall construction?
38. Is a coordinator required for a pair of doors with concealed vertical rod fire exit hardware?
39. What fasteners are required for attaching mortise hinges to doors?

Answers:

1. A156.1 – 2000, A156.4 – 2000, A156.17 – 2004; paragraph 2.3.4
2. No, unless otherwise noted; paragraph 1.3.2
3. Yes; paragraph 4.4.2
4. Acceptable to the AHJ; paragraph 3.2.1
5. 1” diameter hole; paragraph 4.1.3.2
6. 1296; paragraph 4.4.5.1
7. No – the manufacturer is to supply product information to the AHJ; paragraph 1.4
8. Chapter 3
9. In exterior walls subject to moderate or light fire exposure from outside the building; paragraph D.3
10. Annex J
11. 5%; paragraph 4.1.4.1
12. Metal, paper, or plastic, or may be stamped or diecast; paragraph A.4.2.1
13. Yes – where provided for in the published listings; paragraphs 6.4.4.10 and 6.4.4.11
14. ½”; figure A.4.6.3.1
15. No; paragraph 4.6.3.2
16. The opening should be filled with construction equivalent to that of the wall; paragraph 5.1.2
17. Yes; paragraph 4.4.7
18. Yes; paragraph 4.7
19. No, the latch on the top leaf can latch into the bottom leaf if tested; figure A.4.6.3.1
20. “Fire door to be equipped with fire exit hardware.”; paragraph 4.3.3 or 6.4.4.2
21. Yes; paragraph 6.4.8
22. 30 degrees; paragraph A.6.4.1.4
23. Transformer vaults and storage rooms; paragraph 6.4.4.5.1 and Annex A – A.6.4.4.5.1
24. 4 ½” high, 0.134” thick; table 6.4.3.1
25. 16 inches; paragraph 6.4.5.3
26. Fill with the same material as the door or frame, or with steel fasteners; paragraph 5.2.15.4
27. Paragraph 5.2.4
28. Yes; paragraph 6.5.2
29. Without delay; paragraph 5.1.5.1
30. Self-closing, automatic-closing, power-operated; paragraph 6.1.4
31. No; paragraph 4.8.2
32. Yes, when not in a means of egress; paragraph 6.4.4.3.1
33. 2 spring hinges per door; paragraph 6.4.3.1.1.2
34. Yes – if they are labeled fire door louvers; paragraph 6.4.6
35. Pull side; paragraph 6.3.1.7.2
36. No – they must be fixed; paragraph 6.3.4.1.
37. Masonry walls; paragraph 6.3.1.5
38. No; paragraph 6.4.1.2.2
39. #12 x 1 ¼” flat, threaded to the head, steel wood screws; paragraph 6.4.3.2.3