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

Find the answers in NFPA 80 – 2019 and include the paragraph reference number below.

1. Which BHMA standards are referenced in NFPA 80?
2. Are the requirements of NFPA 80 generally 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 as a job-site preparation?
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 detailed 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 must be 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 so the door achieves 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 on fire doors, 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 13 inspection criteria for swinging fire doors found in NFPA 80?
28. Does NFPA 80 require hardware to be installed per the manufacturer’s installation instructions?
29. If inoperative hardware or other defective items are found during a fire door inspection, how quickly do they need to be repaired or replaced?
30. The operation of fire doors is divided into which 3 categories?
31. In a building with non-combustible floors, 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 on a fire door assembly, how many are required per door?
34. Does NFPA 80 allow automatic 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 on both doors?
39. What fasteners are required for attaching mortise hinges to doors?

Answers:

1. A156.1 – 2017, A156.4 – 2013, A156.17 – 2014, A156.26 – 2017. Paragraph 2.3.3
2. No, unless otherwise noted in the standard. Paragraph 1.3.2
3. Yes. Paragraph 4.4.2
4. Acceptable to the AHJ. Paragraph 3.2.1
5. 1-inch diameter holes (no maximum size for cylinder holes), or larger round holes as allowed by the manufacturer’s listings. Paragraph 4.1.3.2
6. 1296 square inches with no dimension exceeding 54 inches, unless otherwise tested. Paragraph 4.4.5.1
7. No – the manufacturer’s product information may be supplied to the AHJ for approval as an equivalency. 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% (The signage limitations will change in the 2022 edition of NFPA 80.) 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. 1/2 inch. Figure A.6.3.1.2
15. No. Paragraph 4.6.3.2
16. The opening should be filled with construction equivalent to that of the wall. Paragraphs 5.1.6 and K.4
17. Yes. Paragraph 4.4.7
18. Yes. Section 4.7
19. No, the latch on the top leaf can latch into the bottom leaf if tested. Figure A.4.6.3.1(f)
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 6.4.1.5
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. Install steel fasteners, fill with the same material as the door or frame, or use a material listed for this purpose and installed per the manufacturer’s procedures. Paragraph 5.5.7
27. Paragraph 5.2.3.5.2
28. Yes. Paragraph 6.5.2
29. Without delay. Paragraph 5.2.4.6
30. Self-closing, automatic-closing, power-operated. Paragraph 6.1.3.1
31. No. Paragraph 4.8.2.1
32. Yes, unless otherwise prohibited by applicable codes. Paragraph 6.4.4.3.1
33. At least 2 spring hinges per door. Paragraph 6.4.3.1.1.4
34. Yes – if they are labeled fire door louvers (note that the model codes prohibit louvers in many locations). Paragraph 6.4.6
35. Pull side. Paragraph 6.3.1.7.1
36. No – they must be fixed. Paragraph 6.3.4.1.
37. Masonry walls. Paragraph 6.3.1.5
38. No, because each leaf operates independently. 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

Rev 2022