

**CHAPTER 59. D-H HAZARDOUS  
COMMERCIAL, INDUSTRIAL, OFFICE**

**OCCUPANCY GROUP**

- Sec.
- 59.1. Division D-H (hazardous occupancies).
- 59.2. Further authority.
- 59.3. Occupancy separations and mixed occupancies.
- 59.4. Prohibited occupancy mixtures.

**CONSTRUCTION TYPE—MAXIMUM STORY HEIGHT**

- 59.11. Story height.

**MEANS OF EGRESS**

- 59.21. Minimum exits.
- 59.22. Travel distance to exits.
- 59.23. Means of egress capacity.
- 59.24. Exit doors.
- 59.25. Stair towers.
- 59.26. Intercommunicating stairways.
- 59.27. Ramps.
- 59.28. Horizontal exits.
- 59.29. Escalators.

**VERTICAL OPENINGS**

- 59.31. Vertical openings.

**INTERIOR FINISH**

- 59.41. Interior finishes.

**MANUAL AND AUTOMATIC FIRE ALARM SYSTEMS**

- 59.51. Manual system.
- 59.52. Automatic system.

**EMERGENCY LIGHTING SYSTEMS**

- 59.61. Buildings more than one story.
- 59.62. Buildings with more than 75 occupants.
- 59.63. Other requirements.

**EXTINGUISHERS AND SPRINKLER SYSTEMS**

- 59.71. Fire extinguishers.
- 59.72. Automatic sprinkler protection.

**SPECIAL CONDITIONS**

- 59.81. Hazardous areas.

**Authority**

The provisions of this Chapter 59 issued under act of April 27, 1927 (P. L. 465, No. 299) (35 P. S. §§ 1221—1235), unless otherwise noted.

**Source**

The provisions of this Chapter 59 adopted May 18, 1984, effective May 19, 1984, 14 Pa.B. 1765, unless otherwise noted.

**Cross References**

This chapter cited in 7 Pa. Code § 82.17 (relating to safety—fire prevention and egress); 7 Pa. Code § 139.42 (relating to structures); 12 Pa. Code § 145.35 (relating to applicability of Fire and Panic Act); 22 Pa. Code § 31.43 (relating to buildings and equipment); 34 Pa. Code § 11.85 (relating to applicable provisions of other regulations); 34 Pa. Code § 47.125 (relating to stairs); 34 Pa. Code § 49.1 (relating to definitions); 34 Pa. Code § 49.2 (relating to jurisdiction and effective dates); 34 Pa. Code § 49.3 (relating to submission of plans); 34 Pa. Code § 49.5 (relating to certification of plans); 34 Pa. Code § 49.8 (relating to fees for building-plan examinations); 34 Pa. Code § 49.9 (relating to field inspection); 34 Pa. Code § 49.12 (relating to notice of violation and order to correct); 34 Pa. Code § 50.1 (relating to occupancy groups); 34 Pa. Code § 50.21 (relating to definitions); 34 Pa. Code § 50.24 (relating to exit doors and exit access doors); 34 Pa. Code § 50.92 (relating to historic building); 34 Pa. Code § 60.8 (relating to field inspection); 34 Pa. Code § 60.33 (relating to buildings); 55 Pa. Code § 5200.47 (relating to other applicable regulations); 55 Pa. Code § 5210.56 (relating to other applicable regulations); and 55 Pa. Code § 5320.54 (relating to seclusion and restraints).

**OCCUPANCY GROUP****§ 59.1. Division D-H (hazardous occupancies).**

Buildings primarily used for occupancies involving highly combustible, explosive or unstable products or materials that constitute a special fire, life or toxic hazard because of the forms, characteristics or volume of the materials used shall

be classified as Division D-H occupancies. A building, structure or a part thereof used for storage, warehousing, manufacturing, processing, use or sale of highly combustible products or materials, including the following and those of equal fire and life hazard shall be classified under D-H hazardous occupancies.

(1) Chemicals which pose serious flame or explosive hazards upon coming into contact with water or moisture, such as metallic sodium, metallic potassium, sodium peroxide, calcium phosphide, yellow phosphorous and metallic magnesium powder, aluminum powder, calcium carbide, red phosphorus and the like.

(2) Processes which produce dust, lint or other particles or matter liable to instantaneous ignition or explosion.

(3) Ammonia, chlorine, phosgene, carbon bisulphide, and other toxic irritants or corrosives and fume hazard gases such as acetylene, ether, ethyl chloride, ethylene, liquified hydro-carbons, ethyl chloride gas, and similar gases.

(4) Naphtha, ether, benzol, styrene, butadiene, collodion, ethyl, acetate, amyl acetone, amyl alcohol, kerosene, turpentine, petroleum paint (including paint mixing and spraying rooms), varnish, dryer, gasoline, alcohol, oil in bulk quantities and similar highly flammable liquid. (Paint spray booth approved by the Department shall be classified as D-O occupancies).

(5) Manufacture and processing of imitation leather, paint, and other pyroxylin products.

(6) Storage of nitrocellulose, or products composed in whole or in part of nitrocellulose or similar flammable materials, such as films, combs, pens, pencils, toilet articles, and the like.

(7) Hydrochloric, nitric, sulphuric and hydrofluoric acids.

(8) Asphalt, tar pitch, resin, waxes and fats, either alone or combined with other materials.

(9) Flammable fibrous materials such as hay, straw, broomcorn, hemp, tow, jute, sisal, excelsior, kapok, hair, oakum, and the like.

(10) Processing or storing of artificial flowers, matches, mattresses, rubber, cork, brooms, carpet linings, paper, pasteboard, feathers, cotton, including cotton rag sorting rooms, shoddy mills, oil refineries, distilleries, sugar refineries, cereal, flour, grist and starch mills, rendering plants, drying rooms, and occupancies of equal fire and life hazard.

### § 59.2. Further authority.

The Department will have the authority to alter this Chapter and to impose any other regulations and restrictions considered necessary for protection of life and limb.

### § 59.3. Occupancy separations and mixed occupancies.

When a D-H occupancy shares a structure with one or more occupancies, the structure shall be governed in one of the following manners:

(1) *Separation.* When each occupancy is separated from all other occupancies by fire walls, each portion thus separated shall be considered a separate building, and limitations for separate buildings shall govern.

(2) *Mixed occupancy.* Structures with multiple occupancies which are not separated shall be considered mixed occupancies and shall be governed by the most restrictive of the various limitations of the occupancies.

**§ 59.4. Prohibited occupancy mixtures.**

D-H, Hazardous Occupancies, shall not be permitted in the same structure housing Group A, B, or C occupancies.

**CONSTRUCTION TYPE—MAXIMUM STORY HEIGHT**

**§ 59.11. Story height.**

D-H occupancies shall be governed by the story height limitations in the following table:

<i>Construction Type</i>	<i>Maximum Story Height</i>
Fireresistive	3 Stories
Noncombustible	1 Story*
Protected Heavy Timber	1 Story
Ordinary	1 Story
Wood Frame	1 Story

(b) \*An additional story shall be permitted in noncombustible construction when the building is 1-hour rated construction or totally protected by an automatic sprinkler system. The maximum story height may be increased by one story.

(c) Noncombustible construction shall be considered 1-hour rated construction when bearing walls, columns, beams, other supporting members, ceiling/roof assemblies, floor/ceiling assemblies, stairways, and other openings through floors are of 1-hour rated construction.

(d) The maximum floor area shall not exceed 50,000 square feet unless the floor area is separated by 2-hour fire walls into individual areas not to exceed 50,000 square feet. The undivided floor area may be increased to 100,000 square feet in buildings protected with a total automatic sprinkler system.

**MEANS OF EGRESS**

**§ 59.21. Minimum exits.**

There shall be a minimum of two exits reasonably remote from each other. All required exits shall be exit discharge doors to the outside stair towers or ramps.

**§ 59.22. Travel distance to exits.**

Exits shall be arranged so that the total length of travel from any point to reach an exit will not exceed 100 feet. Exits shall be so arranged that one exit is not more than 150 feet from another exit. Dead ends and occupancy areas with a single path of egress travel should be eliminated where possible but in no case shall any of these occupancy areas be more than 50 feet from an exit.

**§ 59.23. Means of egress capacity.**

Units of width shall comply with § 50.23 (relating to means of egress capacity).

**§ 59.24. Exit doors.**

Exit discharge doors leading to the outside shall comply with § 50.24 (relating to exit doors and exit access doors).

**§ 59.25. Stair towers.**

Stair towers shall comply with § 50.25 (relating to stair towers).

**§ 59.26. Intercommunicating stairways.**

Intercommunicating stairways may be used to communicate from story to story; however, they shall not be counted as exits.

**§ 59.27. Ramps.**

Ramps shall comply with § 50.27 (relating to ramps).

**§ 59.28. Horizontal exits.**

Horizontal exits shall comply with § 50.28 (relating to horizontal exits).

**§ 59.29. Escalators.**

Escalators shall be permitted for communication from one story to another but shall not be counted as exits.

**VERTICAL OPENINGS****§ 59.31. Vertical openings.**

Vertical openings shall comply with §§ 50.31—50.34 (relating to vertical openings).

**INTERIOR FINISH****§ 59.41. Interior finishes.**

Interior finishes shall be Class A or Class B for exit corridors and stair towers.

**MANUAL AND AUTOMATIC FIRE ALARM SYSTEMS****§ 59.51. Manual system.**

Manual fire alarms shall be provided in buildings more than one story in height.

**§ 59.52. Automatic system.**

Automatic fire alarm systems are not required except that they may be required when the D-H occupancy shares a structure with another occupancy group as a mixed occupancy.

**EMERGENCY LIGHTING SYSTEMS****§ 59.61. Buildings more than one story.**

Emergency lighting shall be required for buildings more than one story in height.

**Cross References**

This section cited in 34 Pa. Code § 59.63 (relating to other requirements).

**§ 59.62. Buildings with more than 75 occupants.**

Emergency lighting shall be required for buildings with more than 75 occupants.

**Cross References**

This section cited in 34 Pa. Code § 59.63 (relating to other requirements).

**§ 59.63. Other requirements.**

Emergency lighting, when required by §§ 59.61 or 59.62 (relating to buildings more than one story; and buildings with more than 75 occupants) shall be provided as follows:

- (1) Exitways, corridors, stairways, passageways, halls, landings of stairs, exit doors, including angles and intersections, and other means of egress.
- (2) Rooms used by more than 50 persons.
- (3) To illuminate exit or directional exit signs.
- (4) Rooms in which emergency lighting equipment is located.
- (5) Exterior light over required exit discharge.

**EXTINGUISHERS AND SPRINKLER SYSTEMS****§ 59.71. Fire extinguishers.**

A minimum of one fire extinguisher with a minimum 4-A rating shall be provided for each 4,000 square feet or fraction thereof, but in no case shall there be

less than one fire extinguisher per floor including basement. Fire extinguishers shall be located so that it shall not be necessary to travel more than 75 feet in any direction to reach the nearest unit.

**§ 59.72. Automatic sprinkler protection.**

Automatic sprinkler protection shall comply with § 50.72 (relating to automatic sprinkler systems).

**SPECIAL CONDITIONS**

**§ 59.81. Hazardous areas.**

(a) Boiler or furnace rooms, repair or maintenance rooms, trash rooms, and rooms or spaces used for the storage of combustible materials in quantities deemed hazardous by the Department shall be separated from other areas of the building by 1-hour partitions, floors, and ceilings. Openings shall be protected by C label door assemblies.

(b) American Gas Association approved gas fired forced air furnaces and space heaters; U.L. approved electrical resistive coil heating furnaces and U.L. approved oil fired forced air furnaces and space heaters need not be enclosed.

(c) In rooms and spaces within buildings of group D-H occupancy, involving explosion hazards, venting areas shall be provided to afford not less than 1 square foot of relief area to 50 cubic feet of room volume. Venting may be provided by wall areas of light noncombustible materials, top-hinged windows or panels or other pressure relieving devices arranged to open outward under predetermined pressure.

(d) Approved paint spray booths which are either equipped with an adequate exhaust system, to be operated before paint may be applied and continued in operation until the paint is dry, or which are equipped with an approved water paint vehicle recirculating system shall not be considered D-H occupancies.

[Next page is 60-1.]

59-8

(211272) No. 258 May 96

*Copyright © 1996 Commonwealth of Pennsylvania*