

**CHAPTER 14. FLAMMABLE AND COMBUSTIBLE LIQUIDS;
PRELIMINARY PROVISIONS**

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Authority

The provisions of this Chapter 11 issued under act of April 27, 1927 (P. L. 450, No. 291) (35 P. S. §§ 1181—1194); transferred from 37 Pa. Code and renumbered as 34 Pa. Code Chapter 14 under section 4(b) of the Combustible and Flammable Liquids Act (35 P. S. § 1244(b)), unless otherwise noted.

Source

The provisions of this Chapter 11 adopted October 12, 1971, effective October 23, 1971, 1 Pa.B. 2018; transferred from 37 Pa. Code and renumbered as 34 Pa. Code Chapter 14, February 28, 2014, effective March 1, 2014, 44 Pa.B. 1233, unless otherwise noted. Immediately preceding text appears at serial pages (345100), (331313), (205613) to (205616), (293221) to (293222) and (205619) to (205622).

Cross References

This chapter cited in 25 Pa. Code § 245.503 (relating to variances); and 25 Pa. Code § 245.606 (relating to variances).

GENERAL PROVISIONS

§ 14.1. Definitions.

The following words and terms, when used in this subpart, have the following meanings, unless the context clearly indicates otherwise:

API—The American Petroleum Institute.

ASA—American Standard Code.

ASTM—American Standards for Testing and Materials.

Act—The act of April 27, 1927 (P. L. 450, No. 291) (35 P. S. §§ 1181—1194).

Aircraft service station—That portion of a property where flammable or combustible liquids used as aircraft fuel are stored or dispensed from fixed equipment and including all facilities essential thereto.

Apartment house—A building or that portion of a building containing more than two units.

Approved—Acceptance by the fire marshal of design, equipment, installation or intended use as required by this subpart.

Automotive service station—That portion of a property where flammable or combustible liquids used as motor fuels are stored and dispensed from fixed equipment into the fuel tanks of motor vehicles.

Barrel—A volume of 42 U. S. gallons.

Boiling point—The boiling point of a liquid at a pressure of 14.7 psig. Where an accurate boiling point is unavailable for the material in question, or for mixtures which do not have a constant boiling point, for purposes of this classification the initial point of a distillation performed in accordance with the ASTM standard method of test for distillation of petroleum products may be accepted in lieu of the boiling point of the liquid.

Boilover—The expulsion of crude oil from a burning tank. The light fractions of the crude oil burn off, producing a heat wave in the residue, which on reaching a water strata may result in the expulsion of a portion of the contents of the tank in the form of a froth.

Bulk plant—That portion of a property where flammable or combustible liquids are received by tank vessel, pipe line, tank car or tank vehicle, and are stored or blended in bulk for the purpose of distributing the liquids by tank vessel, pipe line, tank car, tank vehicle or container.

Centralized fuel oil distribution system—A system of piping, by which oil is supplied from a separate central supply tank or tanks to one or more buildings, mobile homes, travel trailers or other structures.

Closed container—A container so sealed by means of a lid or other device that neither liquid nor vapor will escape from it at ordinary temperatures.

Combustible liquid—A liquid having a flash point at or above 100°F and below 200°F.

Commercial or industrial establishment—A place wherein the storage, handling or use of flammable or combustible liquids is incidental to but is not the principal business or process.

Container—Any vessel of 60 U. S. gallons or less capacity; used for transporting or storing flammable or combustible liquids. A container shall be made of metal, or be of approved nonmetallic construction.

Crude petroleum—Hydrocarbon mixtures that have a flash point below 150°F and which have not been processed in a refinery.

DOT—The Department of Transportation of the Commonwealth.

Fire and Panic Act—The act of April 27, 1927 (P. L. 465, No. 299) (35 P. S. §§ 1221—1235).

Fire marshal—Director of the Pennsylvania State Police, Fire Marshal Division.

Flammable liquid—A liquid having a flash point below 100°F and having a vapor pressure not exceeding 40 pounds per square inch absolute at 100°F; such liquids shall be known as class I liquid.

Flash point—The flash point of the liquid shall mean the temperature at which the liquid gives off vapor sufficient to form an ignitable mixture with the air near the surface of the liquid or within the vessel used as determined by the following tests procedure and apparatus:

(i) The flash point of liquids having a flash point at or below 175°F, except for fuel oils and certain viscous materials, shall be determined in accordance with the standard method of test for flash point by the Tag closed tester.

(ii) The flash point of liquids having a flash point above 175°F, except for fuel oils, shall be determined in accordance with the standard method of test for flash point by the Cleveland open cup tester.

(iii) The flash point of fuel oil, and certain viscous materials having a flash point at or below 175°F, shall be determined in accordance with the standard method of test for flash point by the Pensky-Martens closed tester.

GPM—Gallons per minute.

Inflammable—Flammable.

Liquid—When not otherwise identified, both flammable and combustible liquids.

Listed—Devices and materials that have been investigated by and meet the listing requirements of a nationally recognized testing agency. The equipment shall be identifiable by means of a label or other distinguishing marking specified in listings published by the testing agency.

Marine service station—That portion of a property where flammable or combustible liquids used as motor fuels are stored and dispensed from fixed equipment on shore, piers, wharves, barges or floating docks into the fuel tanks of motor craft, including all facilities used in that connection.

Nationally recognized testing laboratory—Includes:

(i) Underwriters Laboratories, Incorporated, 333 Pfingsten Road, Northbrook, Illinois 60062.

(ii) Factory Mutual System, 1151 Boston-Providence Turnpike, Norwood, Massachusetts 02062.

(iii) Applied Research Laboratories of Florida, Incorporated, 5371 N.W. 161 Street, Miami, Florida 33014, and such other testing laboratories as may

from time to time be added by the State Police Fire Marshal upon submission of satisfactory evidence supporting a request by a laboratory for recognition as such.

NEC—National Electrical Code.

Oil burner—A nonportable device for burning oil in heating appliances such as boilers, furnaces, water heaters, ranges and the like. A burner of this type may be furnished with or without a primary safety control; and it may be a pressure atomizing gun type, a horizontal or vertical rotary type, or a mechanical or natural draft vaporizing type.

Psig—Pounds per square inch gauge.

Person—This term shall include individuals, partnerships, corporations or associations.

Process area—That location where flammable or combustible liquids are processed, or stored as a part of current production, and may include working storage.

Processing plant—That portion of a property in which flammable or combustible liquids are mixed, heated, separated or otherwise processed as the principal business.

Refinery—A plant in which flammable or combustible liquids are produced on a commercial scale from crude petroleum, natural gasoline or other hydrocarbon sources.

Safety can—An approved container of not more than 5 gallons capacity, having a spring closing lid and spout cover, and so designed that it will safely relieve internal pressure when subject to fire exposure.

Self-service stations—That portion of property where flammable or combustible liquids used as motor fuels are stored, and subsequently dispensed from fixed equipment into the fuel tanks of motor vehicles by persons other than the service station attendant.

Special mobile equipment—Vehicles not designed or used primarily for the transportation of persons or property and only incidentally operated or moved over a highway including, but not limited to: ditch digging apparatus, well boring apparatus; earth moving and road construction and maintenance machinery, such as asphalt spreaders, bituminous mixers, bucket loaders, snowplows, ditchers, graders, finishing machines, road rollers, scarifiers, earth moving carryalls, scrapers, power shovels and drag lines; and self-propelled cranes and tractors, other than truck tractors. The term does not include house trailers, dump trucks, truck-mounted transit mixers, cranes or shovels; or other vehicles designed for the transportation of persons or property to which machinery has been attached.

Tank (atmospheric)—A storage tank which has been designed to operate at pressures from atmospheric through 1/2 psig.

Tank (low pressure)—A storage tank which has been designed to operate at pressures above 1/2 psig but not more than 15 psig.

Tank (storage)—A tank which is not connected to the oil burning appliance.

Tank (supply)—A tank connected directly, or by a pump to the oil burning appliance.

Tank vehicle—A vehicle, other than railroad tank cars and boats, whether self propelled or without motive power, used for the transportation of flammable or combustible liquids in cargo tanks having a liquid capacity in excess of 100 gallons mounted on the vehicle or built as an integral part thereof.

Unstable (reactive) liquid—A liquid which in the pure state or as commercially produced or transported will vigorously polymerize, decompose, condense or will become self-reactive under conditions of shock, pressure or temperature.

Vapor pressure—The pressure, measured in pounds per square inch absolute exerted by a volatile liquid as determined by the Reid standard method of test for vapor pressure of petroleum products.

Ventilation—As specified in this subpart, this term pertains to the prevention of fire and explosion. It is considered adequate if it is sufficient to prevent accumulation of significant quantities of vapor-air mixtures in concentration over 1/4 of the lower flammable limit.

Source

The provisions of this § 11.1 adopted October 12, 1971, effective October 23, 1971, 1 Pa.B. 2018; amended June 22, 1984, effective June 18, 1984, 14 Pa.B. 2131; transferred from 37 Pa. Code and renumbered as 34 Pa. Code § 14.1, February 28, 2014, effective March 1, 2014, 44 Pa.B. 1233. Immediately preceding text appears at serial pages (331313) and (205613) to (205616).

§ 14.2. Scope of prohibitions.

A person may not have, use, store, sell or keep in any place or building gasoline, naphtha, kerosene, fuel oil, flammable or combustible liquid or other substance of like character under any name designated, in violation of the act or this subpart.

Source

The provisions of this § 11.2 adopted October 12, 1971, effective October 23, 1971, 1 Pa.B. 2018; transferred from 37 Pa. Code and renumbered as 34 Pa. Code § 14.2, February 28, 2014, effective March 1, 2014, 44 Pa.B. 1233. Immediately preceding text appears at serial page (205616).

§ 14.3. Scope of approval required.

Except as provided in § 14a.161(b) (relating to general provisions), a person may not have, use, store, sell or keep in any place or building gasoline, naphtha, kerosene, fuel oil, flammable or combustible liquid or other substance of like character under any name designated in excess of 30 gallons aggregate capacity, nor may a person install, replace or relocate a tank, pump or drawing-off device for use with the liquids, unless written approval, as prescribed by §§ 14.11—14.13 (relating to approval), is obtained from the fire marshal.

Source

The provisions of this § 11.3 adopted October 12, 1971, effective October 23, 1971, 1 Pa.B. 2018; amended June 22, 1984, effective June 18, 1984, 14 Pa.B. 2131; transferred from 37 Pa. Code and renumbered as 34 Pa. Code § 14.3, February 28, 2014, effective March 1, 2014, 44 Pa.B. 1233. Immediately preceding text appears at serial page (205616).

Cross References

This section cited in 34 Pa. Code § 14.11 (relating to submission of application).

§ 14.4. Application.

(a) This subpart applies to flammable and combustible liquids having a flash point below 200°F, but does not apply to liquids and facilities at refineries.

(b) While this subpart does not apply to liquids having a flash point of 200°F or above, it may apply as a basis for the storage of the liquids, especially with reference to such features as container design, construction, venting and piping.

(c) This subpart applies throughout this Commonwealth, except in Philadelphia County and Allegheny County, and does not supersede additional regulations or requirements not in conflict with this subpart promulgated under authority of law by a political subdivision. If this subpart is in conflict with a regulation or requirement promulgated by a political subdivision, this subpart is applicable.

(d) The portions of this subpart applicable to inside and beneath building storage and use for commercial purposes does not supersede additional regulations or requirements not in conflict with this subpart established by local ordinance.

(e) Under the act, the Department of Labor and Industry has established requirements for the construction of buildings, exclusive of private residences and parcels thereof, except in cities of the First Class, Second Class and Second Class A, which shall supplement this subpart.

(f) This subpart is not applicable to the storage, use and the like of flammable or combustible liquids in fuel tanks, or containers or reservoirs—that is, windshield washer solvent, brake fluid and the like—which are integral components of motor vehicles. Storage in the tanks, containers or reservoirs shall comply with 67 Pa. Code (relating to transportation).

Source

The provisions of this § 11.4 adopted October 12, 1971, effective October 23, 1971, 1 Pa.B. 2018; amended June 22, 1984, effective June 18, 1984, 14 Pa.B. 2131; transferred from 37 Pa. Code and renumbered as 34 Pa. Code § 14.4, February 28, 2014, effective March 1, 2014, 44 Pa.B. 1233. Immediately preceding text appears at serial pages (205616) and (293221).

§ 14.5. Retroactivity.

This subpart is not retroactive unless, after investigation, the fire marshal deems it necessary to exercise the powers set forth in § 14.22 (relating to powers of the fire marshal). Approvals previously issued shall be continued in full force

and effect if the requirements of this subpart in force at the time of the approval are met, except that this subpart may be applied retroactively whenever the fire marshal, after investigation and in order to protect life and property, deems it necessary to exercise the powers set forth in § 14.22.

Source

The provisions of this § 11.5 adopted October 12, 1971, effective October 23, 1971, 1 Pa.B. 2018; transferred from 37 Pa. Code and renumbered as 34 Pa. Code § 14.5, February 28, 2014, effective March 1, 2014, 44 Pa.B. 1233. Immediately preceding text appears at serial page (293221).

§ 14.6. Classes of flammable and combustible liquids.

(a) Flammable liquids shall be divided into the following classes:

(1) Class I liquids include those having flash points below 100°F and may be subdivided as follows:

(i) Class IA includes those having flash points below 73°F and having a boiling point below 100°F.

(ii) Class IB includes those having flash points below 73°F and having a boiling point at or above 100°F.

(iii) Class IC includes those having flash points at or above 73°F and below 100°F.

(b) Combustible liquids shall be subdivided as follows:

(1) Class II liquids include those having flash points at or above 100°F and below 140°F.

(2) Class III liquids include those having flash points at or above 140°F and below 200°F.

(c) The volatility of liquids is increased when heated to temperatures equal to or higher than their flash points. When so heated, class II and class III (combustible liquids) shall be subject to the applicable requirements for class I and class II liquids. This subpart may also be applied to high flash point liquids, which otherwise would be outside of the scope when they are so heated.

Source

The provisions of this § 11.6 adopted October 12, 1971, effective October 23, 1971, 1 Pa.B. 2018; amended June 22, 1984, effective June 18, 1984, 14 Pa.B. 2131; transferred from 37 Pa. Code and renumbered as 34 Pa. Code § 14.6, February 28, 2014, effective March 1, 2014, 44 Pa.B. 1233. Immediately preceding text appears at serial pages (293221) to (293222).

§ 14.7. Container construction.

A container shall be made of metal or of approved nonmetallic construction, except for those containers described in paragraphs (1)—(3). Nonmetallic containers used for storage of flammable or combustible liquids shall conspicuously display an embossment (by the manufacturer) of the logogram of a nationally

recognized testing laboratory. Drums shall meet the construction requirements of applicable United States Department of Transportation regulations contained in 49 CFR (1979).

- (1) Plastic or glass containers having an individual capacity of not more than 1 pint may be used for packaged flammable or combustible liquids.
- (2) Plastic or glass containers having an individual capacity of not more than 1 gallon may be used for medicines, beverages, foodstuff and toiletries that are flammable or combustible liquids.
- (3) Plastic or glass containers having an individual capacity of not more than 1 gallon may be used for flammable or combustible liquids whose chemical purity would be contaminated by metal containers.

Source

The provisions of this § 11.7 adopted October 12, 1971, effective October 23, 1971, 1 Pa.B. 2018; amended June 22, 1984, effective June 18, 1984, 14 Pa.B. 2131; transferred from 37 Pa. Code and renumbered as 34 Pa. Code § 14.7, February 28, 2014, effective March 1, 2014, 44 Pa.B. 1233. Immediately preceding text appears at serial page (293222).

Cross References

This section cited in 34 Pa. Code § 14.7 (relating to applicability).

APPROVAL

§ 14.11. Submission of application.

Applications for the written approval required by § 14.3 (relating to scope of approval required) shall be made on a form to be supplied by the fire marshal and shall contain the following information:

- (1) Detailed specifications as to the type of equipment to be installed.
- (2) Detailed specifications and a sketch or plan as to the location of the equipment or installation described in paragraph (1) shall contain the following items and information:
 - (i) A sketch in duplicate shall accompany the application for underground installation of individual tanks having a capacity of 5,000 gallons or less.
 - (ii) A scaled drawing of 20 feet to the inch covering a radius of not less than 150 feet shall be submitted in duplicate for all underground installations of individual tanks having a capacity of more than 5,000 gallons.
 - (iii) A scaled drawing of 40 feet to the inch covering a radius of not less than 300 feet shall be submitted in duplicate for all aboveground installations.
 - (iv) Plans and sketches required by this section shall include the location of tanks, drawing-off devices, location of attended self-service consoles and emergency controls, including main power shut-off switch or switches, course of piping, existing tanks, if any, pump house, unloading sidings,

streets and roadways, the extent of property lines, position, and description of buildings within the prescribed radii, the slope or grade of the land together with any waterways, streams or other special topographical features.

(3) The application shall be signed by the applicant or an authorized representative.

Source

The provisions of this § 11.11 adopted October 12, 1971, effective October 23, 1971, 1 Pa.B. 2018; amended June 22, 1984, effective June 18, 1984, 14 Pa.B. 2131; transferred from 37 Pa. Code and renumbered as 34 Pa. Code § 14.11, February 28, 2014, effective March 1, 2014, 44 Pa.B. 1233. Immediately preceding text appears at serial page (205619).

Cross References

This section cited in 34 Pa. Code § 14.3 (relating to scope of approval required); and 34 Pa. Code § 14.12 (relating to investigation of application).

§ 14.12. Investigation of application.

Upon the filing of an application as provided by § 14.11 (relating to submission of application), the fire marshal shall investigate the matters contained in the application and shall have the right to inspect the equipment to be installed, the proposed location of the installation, and may require additional engineering or laboratory reports or other information as he may deem necessary.

Source

The provisions of this § 11.12 adopted October 12, 1971, effective October 23, 1971, 1 Pa.B. 2018; transferred from 37 Pa. Code and renumbered as 34 Pa. Code § 14.12, February 28, 2014, effective March 1, 2014, 44 Pa.B. 1233. Immediately preceding text appears at serial pages (205619) to (205620).

Cross References

This section cited in 34 Pa. Code § 14.3 (relating to scope of approval required).

§ 14.13. Approval of application.

If the fire marshal is satisfied that the application for possessing, using, storing, selling and keeping of gasoline, naphtha, kerosene, fuel oil, flammable or combustible liquid, or other substance of like character under any name designated meets the requirements of this subpart, he shall issue his written approval. Action under thereto shall be taken by the applicant within 1 year from the date of the approval.

Source

The provisions of this § 11.13 adopted October 12, 1971, effective October 23, 1971, 1 Pa.B. 2018; transferred from 37 Pa. Code and renumbered as 34 Pa. Code § 14.13, February 28, 2014, effective March 1, 2014, 44 Pa.B. 1233. Immediately preceding text appears at serial page (205620).

Cross References

This section cited in 34 Pa. Code § 14.3 (relating to scope of approval required).

COMPLIANCE**§ 14.21. Inspection and inventory records.**

(a) The fire marshal, or a State police officer acting in behalf of the fire marshal, shall have the right to inspect a place or building in which flammable or combustible liquids are possessed, used, stored or kept in order that he may determine if this subpart is being observed and if an undue hazard from fire or explosion exists on the premises. The written approval required by this subpart may not be deemed to eliminate the right of inspection conferred by this section. The written approval or copy thereof, shall be displayed at the site of the installation.

(b) Accurate daily inventory records shall be maintained and reconciled on flammable and combustible liquid storage tanks for indication of possible leakage from tanks or piping. The preceding 12 months daily inventory records shall be readily available for inspection by the fire marshal and shall include, as a minimum, records showing, by product, daily reconciliation between sales, use, receipts and inventory on hand.

(c) Daily inventory shall be maintained for each tank system at each location by the operator. Daily inventories need not be maintained on those days that an installation is not in operation, but may not exceed 15 days.

(d) Inventory shall be based on the actual daily measurement and recording of tank product and water levels and the daily recording of actual sales, use and receipts. Daily measurements shall be made by gauge, gauge stick or by readout from an automated gauging system. The inventory records shall include daily computation of gain or loss. The mere recording of pump meter readings and product delivery receipt shall not constitute adequate inventory records.

(e) The operator of the location shall be responsible to notify the owner or persons in control of the facility to take action to correct any abnormal loss or gain not explainable by spillage, temperature variations or other causes.

Source

The provisions of this § 11.21 adopted October 12, 1971, effective October 23, 1971, 1 Pa.B. 2018; amended June 22, 1984, effective June 18, 1984, 14 Pa.B. 2131; transferred from 37 Pa. Code and renumbered as 34 Pa. Code § 14.21, February 28, 2014, effective March 1, 2014, 44 Pa.B. 1233. Immediately preceding text appears at serial pages (205620) to (205621).

§ 14.22. Powers of the fire marshal.

(a) The fire marshal shall have the power to protect life and property, and he may exercise the power more than once with reference to a given place, building or other facility. If by reason of a change in topography, building construction, relocation of highways or other conditions, the fire marshal determines that more stringent measures shall be taken to protect life or property, he shall have the power to require compliance with the reasonable changes he deems necessary, notwithstanding the fact that the place, building or other facility has been previously approved or was erected, installed or set up prior to April 27, 1927.

(b) The fire marshal shall have power to modify the provisions of this subpart when it may be warranted and when the modification may be deemed to be equivalent to the requirements affected or be otherwise merited. The fire marshal shall have power to apply the additional requirements with reference to a particular application not specifically covered in this subpart when, in his judgment, it is deemed necessary to minimize any explosion or fire hazard.

(c) The fire marshal shall be notified within 24 hours of a fire that results from the use of flammable or combustible liquid equipment. Notification shall be accomplished by contacting the nearest State police station.

Source

The provisions of this § 11.22 adopted October 12, 1971, effective October 23, 1971, 1 Pa.B. 2018; amended June 22, 1984, effective June 18, 1984, 14 Pa.B. 2131; transferred from 37 Pa. Code and renumbered as 34 Pa. Code § 14.22, February 28, 2014, effective March 1, 2014, 44 Pa.B. 1233. Immediately preceding text appears at serial page (205621).

Cross References

This section cited in 34 Pa. Code § 14.5 (relating to retroactivity).

§ 14.23. Fines and other penalties.

An order of removal or remedy shall be made immediately against a person, firm, association or corporation violating, failing or refusing to comply with this subpart. Failure to comply with the order shall be punishable under summary proceedings with a penalty of \$50 to \$200 plus the costs of prosecution. If there is default of the fine and costs of prosecution, there may be imprisonment of 1 day for each dollar of fine and costs unpaid. However, imprisonment may be imposed for failure to pay all or any part of a fine imposed under this subpart only when the violator fails to show that the nonpayment is caused by indigence or a lack of sufficient funds.

Source

The provisions of this § 11.23 adopted October 12, 1971, effective October 23, 1971, 1 Pa.B. 2018; transferred from 37 Pa. Code and renumbered as 34 Pa. Code § 14.23, February 28, 2014, effective March 1, 2014, 44 Pa.B. 1233. Immediately preceding text appears at serial pages (205621) to (205622).

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