BERMUDA STATUTORY INSTRUMENT

BUILDING AUTHORITY (PETROLEUM) REGULATIONS 1962

[made under sections 6 and 7 of the Board of Trade Act 1921 [repealed], brought into operation on 21 July 1926 and in force by virtue of the Board of Trade Act 1930 [repealed] and the Building Authority Act 1962 [title 20 item 2] Schedule]

ARRANGEMENT OF REGULATIONS

- 1 Interpretation
- 1A Non-application to liquefied petroleum gases

DANGEROUS PETROLEUM

- 2 Restrictions on amount of dangerous petroleum stored
- 3 Packaging of dangerous petroleum
- 4 Permit to store or package more than 10 gallons of dangerous petroleum
- 5 Approval of storage shed for dangerous petroleum
- 6 Distance of storage shed from other buildings
- 7 Package of dangerous petroleum to be kept sealed

- 3 Licence to transport portable tank of dangerous petroleum
- 9 [revoked]
- 10 Smoking unlawful
- 11 Public vehicles
- 12 Artificial light for loading of dangerous petroleum
- 13 No fuelling while passengers on board
- Notice on packages of dangerous petroleum
- 15 Stoppering of barrels of dangerous petroleum
- 16 Notices on storage shed

CONVEYANCE OF PETROLEUM

16A Permit to convey dangerous and ordinary petroleum

- 16B Spillage
- 16C Smoking or naked flame
- 16D Substance capable of causing fire or explosion
- 16E Fire extinguisher
- 16F Owner to furnish copy of regulation
- 16G Exceptions to application of regulations 16A to 16F

ORDINARY PETROLEUM

- 17 Permit to store more than 275 gallons of ordinary petroleum
- 18 Approval of storage shed for ordinary petroleum
- 19 Distance of storage shed from other buildings

STORAGE OF PETROLEUM

- 20 Restrictions on issue of licence for sale or storage
- 21 Construction of storage
- 22 Keeping of petroleum in storage shed
- 23 Sand for absorbing waste petroleum

UNDERGROUND STORAGE TANKS

- 24 Permit for underground storage tank
- 25 Siting of top of tank
- 26 Fittings of storage tank
- 27 Filling pipe and intake
- 28 Filling pipe valve
- 29 Filling pipe screen
- 30 Vent pipe
- 31 Fittings of vent pipe
- 32 Coating of storage tank

- 33 No storage tank under sidewalk or in front of building line
- 34 Bulk storage of dangerous petroleum in underground tanks

ABOVE GROUND STORAGE OF PETROLEUM IN BULK

- 35 Storage of dangerous petroleum in bulk
- 36 Storage of ordinary petroleum in bulk
- 37 Storage of fuel oil in bulk
- 38 Approval of location of storage tanks
- 39 Fittings of storage tanks for petroleum
- 40 Roofs of storage tanks for fuel oil
- 41 Embankments or walls surrounding tanks
- 42 Floors of filling and storage sheds

PRECAUTIONS TO BE TAKEN BY PERSONS IN AND ABOUT BULK INSTALLATIONS

- 43 Must abstain from acts likely to cause fire
- 44 Prohibition of smoking
- 45 Supervision by responsible agent
- 46 Inflammable materials
- 47 Fire service and fire drills
- 48 Supply of sand
- 49 Enclosures surrounding tanks to be free of water
- 50 Prompt repair of leaks

51 Authorization to enter tank 52 Construction of steel

tanks 53 Escape of waste oil

SUPPLEMENTAL

- 54 Display of copy of Regulations
- 55 Inspection of premises

Interpretation

- 1 (1) In these Regulations, unless the context otherwise requires—
 - "the Building Authority" means the Building Authority established under the Building Authority Act 1962 [title 20 item 2];
 - "bulk installation", hereinafter referred to as an installation, means a place specially prepared for the storage of petroleum to an amount exceeding one hundred tons;
 - "conveyance" means conveyance by road, and "conveyed" and "conveying" shall be construed accordingly;
 - "dangerous petroleum" means petroleum having a flash point below 73 degrees Fahrenheit Abel close test;
 - "fuel oil" means a petroleum used as fuel and having a flash point which is not below 150 degrees Fahrenheit Pensky-Marten close test;
 - "liquefied petroleum gases" includes any substance which is predominantly composed of any of the following hydrocarbons, or of any combination thereof, that is to say, propane, propylene, butanes (including isobutanes) or butylenes;
 - "ordinary petroleum" means any petroleum having a flash point which is not below 73 degrees Fahrenheit Abel close test and which is below 150 degrees Fahrenheit Pensky-Marten close
 - "owner" in relation to a vehicle which is the subject of a hiring agreement or a hire-purchase agreement, means the person in possession of the vehicle under that agreement;
 - "petroleum" means any inflammable liquid which is derived from petroleum, coal, shale, peat, or any other bituminous substance, or from any of their products;
 - "storage shed" means a building used for the storage of petroleum otherwise than in bulk, and includes a filling shed;
 - "vehicle" includes a trailer which does not form part of an articulated vehicle.

(2) For the purposes of these Regulations an articulated vehicle shall be treated as one vehicle.

Non-application to liquefied petroleum gases

1A These Regulations do not apply to liquefied petroleum gases.

DANGEROUS PETROLEUM

Restrictions on amount of dangerous petroleum stored

2 No person shall be in possession of or offer for sale, more than ten gallons of dangerous petroleum without a permit from the Building Authority:

Provided that nothing in this regulation shall render liable to penalty or prosecution any person who offers such dangerous petroleum for sale when such person has not at the time of such offer such dangerous petroleum in his possession.

Packaging of dangerous petroleum

3 Dangerous petroleum shall not be offered for sale except in the original sealed packages as imported into Bermuda:

Provided that glass bottles securely stoppered containing not more than one pint each, and to a total amount of five gallons, may be kept for retail purposes.

Permit to store or package more than 10 gallons of dangerous petroleum

4 For the storage or sale of dangerous petroleum in quantities in excess of ten gallons, a permit must be obtained from the Building Authority:

Provided that nothing in these Regulations shall be construed as requiring a permit for the storage of petroleum in tanks of motor boats or motor vehicles.

Approval of storage shed for dangerous petroleum

5 The location and nature of construction of the storage shed in which it is proposed to store any quantity in excess of ten gallons of

dangerous petroleum must be approved by the Building Authority before a permit is granted.

Distance of storage shed from other buildings

- 6 (1) The storage shed for quantities under fifty gallons shall be approved of by an officer duly appointed by the Building Authority.
- (2) For quantities in excess of fifty gallons but under one hundred and fifty gallons the storage shed shall be at least fifty feet from any other building used as a dwelling-house, school, or place of amusement.
- (3) For quantities in excess of one hundred and fifty gallons and under five thousand gallons the storage shed shall be at least one hundred feet from any building used as a dwelling-house, school or place of amusement.
- (4) For quantities in excess of five thousand gallons the location shall be at the discretion of the Building Authority.

Package of dangerous petroleum to be kept sealed

7 No package containing dangerous petroleum shall be opened for sale in the storage shed nor issued therefrom except in the original sealed package as imported into Bermuda.

Licence to transport portable tank of dangerous petroleum

- 8 A licence to use a portable tank of a capacity not to exceed fifty-five gallons for the transportation of dangerous petroleum shall be obtained from the Building Authority.
- 9 [revoked by BR 53/1988]

Smoking unlawful

10 No person shall smoke, or carry a lighted cigar or cigarette or pipe or naked light of any description, within a storage shed or on any premises licensed for the sale or storage of dangerous petroleum, and a sign bearing the words in conspicuous letters "SMOKING UNLAWFUL" shall be conspicuously displayed in one or more places in such storage shed.

Public vehicles

11 No dangerous petroleum shall be carried in or on any public conveyance while being used for the carriage of passengers except in the fuel tanks of motor boats or motor vehicles.

Artificial light for loading of dangerous petroleum

12 No dangerous petroleum shall be loaded into any motor boat or motor vehicle with the aid of any artificial light except electricity.

No fuelling while passengers on board

13 No dangerous petroleum shall be loaded into any motor boat or motor vehicle when passengers are on board.

Notice on packages of dangerous petroleum

Every package containing dangerous petroleum of more than one pint capacity when being conveyed along any public street, road or other public place, shall have displayed thereon a notice printed in conspicuous letters with the words "DANGEROUS—KEEP AWAY FROM FLAME".

Stoppering of barrels of dangerous petroleum

15 All barrels or drums containing dangerous petroleum shall be kept securely stoppered, except when the contents are being drawn off.

Notices on storage shed

There shall be conspicuously posted on the outside of every storage shed a notice having printed or painted thereon in letters at least four inches long, the words "PETROLEUM, DANGEROUS-KEEP AWAY FROM FLAME."

CONVEYANCE OF PETROLEUM

Permit to convey dangerous and ordinary petroleum

- 16A (1) Except as provided in these Regulations, no person shall convey any dangerous or ordinary petroleum unless he first applies for and obtains written permission from the Minister.
- (2) The Minister may, after consultation with the Chief Fire Officer, grant permission which may be subject to such conditions or restrictions as the Minister thinks fit and the person granted the permission shall comply with such conditions or restrictions.
- (3) The Minister may vary the conditions or restrictions or may revoke the permission for reasonable cause.

Spillage

16B Subject to regulation 16G, every person engaged in the conveyance, or the loading or unloading in connection with the conveyance,

of dangerous or ordinary petroleum shall secure so far as is reasonably possible that none of the petroleum is spilt.

Smoking or naked flame

16C Subject to regulation 16G, no person engaged in the conveyance, or the loading or unloading in connection with the conveyance, of dangerous or ordinary petroleum shall smoke or carry any naked flame.

Substance capable of causing fire or explosion

16D Subject to regulation 16G, no portable light capable of igniting inflammable vapour, no explosive substance and no substance or article capable of causing fire or explosion by spontaneous decomposition shall be carried on any vehicle conveying any dangerous or ordinary petroleum.

Fire extinguisher

16E Subject to regulation 16G, a suitable and efficient fire extinguisher shall be carried in an easily accessible position on any vehicle conveying any dangerous or ordinary petroleum.

Owner to furnish copy of regulation

16F Subject to regulation 16G, the owner of a vehicle used for the conveyance of dangerous or ordinary petroleum who employs any person in connection with the conveyance shall furnish a copy of the provisions of regulation 16A to 16G (inclusive) to, or affix a copy thereof in some places where it can conveniently be read by, that person and shall take all other measures necessary to ensure that that person is acquainted with and carries out the provisions of those Regulations.

Exceptions to application of regulations 16A to 16F

16G $\,$ Regulations 16A to 16F (inclusive) do not apply in relation to the conveyance of—

- (a) any dangerous petroleum if the total quantity of which does not exceed fifty-five gallons and the petroleum is contained—
 - (i) in only secured containers;
 - (ii) in the original sealed containers as imported into Bermuda; or
 - (iii) in closed containers of a capacity not to exceed twenty gallons each and having plainly marked thereon the words "DANGEROUS — KEEP AWAY FROM FLAME".

(b) any ordinary petroleum if the total quantity of which does not exceed two hundred and seventy-five gallons and the petroleum is contained in closed containers and having plainly marked thereon the words "DANGEROUS — KEEP AWAY FROM FLAME".

ORDINARY PETROLEUM

Permit to store more than 275 gallons of ordinary petroleum

17 No person shall be in possession of, or offer for sale, more than two hundred and seventy-five gallons of ordinary petroleum without a permit from the Building Authority:

Provided that nothing in this regulation shall render liable to penalty or prosecution any person who offers such ordinary petroleum for sale when such person has not at the time of such offer such ordinary petroleum in his possession.

Approval of storage shed for ordinary petroleum

18 The location and nature of construction of the storage shed in which it is proposed to store any quantity in excess of two hundred and seventy-five gallons of ordinary petroleum shall be approved of by the Building Authority before a licence is granted.

Distance of storage shed from other buildings

- 19 (1) The storage shed for quantities in excess of two hundred and seventy-five gallons shall be at least ten feet from any other building used as a dwelling-house, school or place of public amusement.
- (2) For quantities in excess of five thousand gallons and up to twenty thousand gallons the storage shed shall be at least twenty feet from any building used as a dwelling-house, school or place of public amusement.
- (3) For quantities in excess of twenty thousand gallons and up to fifty thousand gallons the storage shed shall be at least fifty feet from any building used as a dwelling-house, school or place of public amusement.
- (4) If the clear space is over fifty feet, the quantity of ordinary petroleum which may be stored shall be unlimited.

STORAGE OF PETROLEUM

Restrictions on issue of licence for sale or storage

- 20 No licence or permit shall be issued for the sale or storage of petroleum in any building—
 - (a) which is occupied as a dwelling-house, school or place of public amusement or assembly; or
 - (b) in which explosives are stored or kept for sale; or
 - (c) where dry goods or other material of a highly inflammable nature are manufactured, stored or kept for sale: or
 - (d) where the building used for the storage of petroleum is lighted by any artificial means other than electricity; or
 - (c) on any floor above the ground floor of any building except with the special permission of the Building Authority.

Construction of storage shed

- 21 (1) The walls, roof and floor of the storage shall be constructed of uninflammable material such as brick, concrete, stone, slate or iron, but the beams, rafters, doors, window-frames, may be constructed of wood.
- (2) The floor shall be of sand or earth, except in the case of ordinary petroleum when it may be of stone or concrete at the discretion of the Building Authority.

Keeping of petroleum in storage shed

All petroleum stored in a storage shed shall be kept only in receptacles constructed of tin, zinc, or galvanized iron or steel, securely sealed or stoppered, in capacity not to exceed fifty-five gallons each package.

Sand for absorbing waste petroleum

23 Sand suitable for absorbing waste petroleum shall always be kept in the storage shed, and after being so used shall be removed to a safe place at least one hundred feet from the storage shed and there burnt free from petroleum.

UNDERGROUND STORAGE TANKS

Permit for underground storage tank

- 24 (1) Petroleum may be stored in steel or iron storage tanks buried underground, for which a licence has been obtained from the Building Authority.
- (2) Any such storage tank shall be of steel or iron at least one quarter-inch in thickness and its situation must be approved of by the Building Authority.

Siting of top of tank

The top of the storage tank must be at least two feet below the ground level or, if buried within ten feet of a building with a cellar, the top of the tank must be two feet at least below the cellar floor.

Fittings of storage tank

- 26 (1) The storage tank shall be fitted with a filling pipe, a drawing-off pipe and a vent pipe.
 - (2) All pipes shall be made of galvanized wrought iron or steel.
- (3) All joints shall be screwed and made up with a mixture of litharge and glycerine.

Filling pipe and intake

- 27 (1) The filling pipe shall be at least two inches in diameter and the intake shall be located in a heavy metal box, sunk below the level of the ground.
 - (2) The intake shall be kept locked when not in use.

Filling pipe valve

28 The filling pipe shall be fitted with a cock or valve fitted with a coupling for attaching to hose, and with a screw cap to close opening when not in use.

Filling pipe screen

29 The filling pipe shall be fitted with a screen made of two thicknesses of twenty mesh brass wire gauze, placed immediately below the filling cock or valve.

Vent pipe

30 The vent pipe shall be at least one inch in diameter and shall

run from the tank to the outer air at least ten feet above the roof of any building that is within ten feet radius.

Fittings of vent pipe

31 The vent pipe shall be capped with a double goose neck, hood or cowl, and shall be provided with a screen made of two thicknesses of twenty mesh brass wire gauze, placed immediately below the goose neck.

Coating of storage tank

32 Each storage tank shall be coated with tar, or some other rust resisting material, on the outside before being embedded in the earth.

No storage tank under sidewalk or in front of building line

33 No storage tank shall be placed under the side-walk, or in front of the building line.

Bulk storage of dangerous petroleum in underground tanks

- 34 (1) Dangerous petroleum may be stored in bulk in tanks buried underground of a greater capacity than 5,000 gallons only in accordance with the following conditions—
 - (a) the distance of a storage tank from any other storage tank buried underground is not less than 20 feet;
 - (b) the distance of a storage tank from any other storage tank situated above the ground, and which contains dangerous petroleum is not less than 50 feet;
 - (c) the distance of a storage tank from any part of the boundary of the premises upon which it is situated is not less than 50 feet; and
 - (d) the spaces between storage tanks are filled and made as airtight as possible.
- (2) Tanks for the storage of dangerous petroleum shall not be used except under the authority of a permit issued by the Building Authority. The design and construction of such tanks shall conform to accepted and sound engineering practice, with adequate factors of safety, and on completion they shall be inspected by an officer duly appointed by the Building Authority who shall report to the Building Authority thereon, and the Building Authority shall then grant or refuse to grant a permit for the use of such tanks.
- (3) Storage tanks shall be adequately protected against corrosion having regard to the soil, water table, and other prevailing conditions at the site where the tanks are buried.

- (4) The tops of tanks shall be covered with a reinforced concrete slab of not less than 9 inches in thickness, the slab to be covered with fill of not less than 3 feet in depth.
- (5) All pumps shall be of the explosive proof type. All pipe-lines, valves and fittings shall be of good quality material, and shall conform to sound engineering practice and have an adequate factor of safety for the purpose for which they are required.
- (6) Tanks shall be fitted with adequate vents to permit pressure or vacuum release when filling or discharging operations are in progress, or for any extraordinary temperature changes due to climatic conditions. When such vents are fitted with gauze, steps shall be taken at appropriate intervals to ensure that the passage of air through the gauze is not restricted.
- (7) When manholes are provided to facilitate the cleaning of tanks, they shall be of adequate size to permit a man to enter and leave the tank when wearing full protective clothing, and shall be not less than 24 inches in diameter.

ABOVE-GROUND STORAGE OF PETROLEUM IN BULK

Storage of dangerous petroleum in bulk

- 35 (1) Dangerous petroleum may be stored in steel storage tanks above ground, of a capacity not greater than thirty thousand gallons for each tank.
- (2) The distance between a storage tank containing dangerous petroleum and any other storage tank containing petroleum or any filling shed, or shed used for the storage of petroleum, shall be at least one hundred feet.
- (3) Notwithstanding the foregoing provisions of this regulation the Building Authority may, subject to compliance with the following conditions, grant licences for the storage, in tanks above ground, of dangerous petroleum in quantities greater than thirty thousand gallons, that is to say—
 - (a) the grant of the licence must be approved by the Governor:
 - (b) the application, together with particulars of the conditions, if any, which it is proposed should be imposed upon the issue of the licence, must be laid before the

Senate and the House of Assembly not less than thirty days before the end of the Session; and if either House, within thirty days, determines that the licence should not be issued and conveys such determination to. the Governor by message, then the Building Authority shall not grant the licence;

(c) should either House of the Legislature desire that the proposed conditions should be amended or that additional conditions should be imposed that House may send a message to that effect to the Governor, prior to the expiration of the above-mentioned period of thirty days, in which case the licence shall not issue until such amendments have been made thereto.

Storage of ordinary petroleum in bulk

36 Ordinary petroleum may be stored in steel tanks above ground of any capacity provided the tanks are at least twenty-five feet distant from any other storage tank containing ordinary petroleum or fuel oil.

Storage of fuel oil in bulk

- 37 (1) Fuel oil may be stored in steel tanks above ground of any capacity provided the tanks are at least twenty feet distant from any other tank containing fuel oil or ordinary petroleum.
- (2) Storage tanks of a capacity less than one hundred and fifty tons shall not be less than five feet distant from any other storage tank containing fuel oil, but shall be not less than twenty-five feet from any other storage tank containing ordinary petroleum.

Approval of location of storage tanks

38 The location and nature of construction of any installation for the storage of petroleum in steel tanks above ground must be approved of by the Building Authority.

Fittings of storage tanks for petroleum

39 Storage tanks containing dangerous petroleum or ordinary petroleum shall be fitted with steel roofs made gas-tight and provided with adequate ventilating openings, protected by double diaphragms of twenty mesh brass wire gauze.

Roofs of storage tanks for fuel oil

The roofs of fuel oil tanks may be of wood covered with some form of fire-resisting material.

Embankments or walls surrounding tanks

All bulk storage tanks shall be surrounded with an embankment or wall, and the enclosure so formed shall be capable of containing an amount of oil equal to the capacity of the tank or tanks within the enclosure

Floors of filling and storage sheds

42 Filling or storage sheds within the enclosure of the installation shall have their floors sunk to a depth of two feet below the ground level, or the building itself shall be surrounded with an embankment not less than two feet high.

PRECAUTIONS TO BE TAKEN BY PERSONS IN AND ABOUT BULK INSTALLATIONS

Must abstain from acts likely to cause fire

Every person managing or employed on or in connection with an installation or storage shed, shall abstain from any act whatsoever which tends to cause fire or explosion and which is not reasonably necessary, and shall prevent any other person from doing such act.

Prohibition of smoking

No smoking shall be permitted in a storage shed or in or about an installation except in such place as may be specially set apart for the purpose; and suitable notices to this effect shall be conspicuously posted on the premises.

Supervision by responsible agent

45 All operations within the installation or storage shed shall be conducted under the supervision of a responsible agent of the owners of the premises.

Inflammable materials

- 46 (1) The ground in the interior of an installation or storage shed shall be kept clean and free from goods of an inflammable nature, waste vegetation and rubbish.
- (2) Goods of an inflammable nature shall only be stored under conditions approved by the Building Authority.

Fire service and fire drills

47 An efficient fire service shall be provided in each installation and the employees shall be instructed periodically in the use of the various fire appliances,

Supply of sand

48 An adequate supply of sand or dry earth shall always be kept ready for immediate use in an installation or storage shed for the purpose of extinguishing fire.

Enclosures surrounding tanks to be free of water

49 All enclosures surrounding tanks shall be kept free from water.

Prompt repair of leaks

All leaks in tanks shall be promptly repaired.

Authorization to enter tank

- 51 (1) No person shall enter any tank without the authority of the manager of the installation.
- (2) Before a tank is entered or repairs undertaken which would expose the interior atmosphere to contact with hot rivets or other source of artificial heat the tank shall be thoroughly ventilated and found free from vapour and test by a competent person, who shall furnish a certificate to this effect.
- (3) Until a tank is certified free from dangerous vapour only portable safety lamps, oil or electric, of types approved for use in fiery coal mines shall be taken into it, and until such certificate has been granted the use of naked lights or electric lights with wandering leads is prohibited.

Construction of steel tanks

- 52 Steel tanks—
 - (a) shall be constructed of mild steel plates properly riveted together and caulked; and
 - (b) shall be designed according to sound engineering practice.

Escape of waste oil

53 Every precaution shall be taken to prevent waste oil from passing down drains or watercourses and from reaching shipping in harbours or water where there is no tidal scour,

SUPPLEMENTAL

Display of copy of Regulations

There shall be hung in a conspicuous place in every installation a copy of these Regulations.

Inspection of premises

All storage sheds and bulk installations shall be subject to inspection at all reasonable times by an officer duly appointed by the Building Authority, or by any member of the Building Authority.

[Amended by 1962: 1 1968:221 BR 53/1988]

Note: These Regulations were originally entitled "The Board of Trade (Petroleum) Regulations, 1926" and their title was altered to the present by the Building Authority Act 1962 [title 20 item 2]