



**THE DANGEROUS GOODS (CLASS 2—GASES) REGULATIONS
1980, AMENDMENT NO. 5**

RONALD DAVISON
Administrator of the Government

ORDER IN COUNCIL

At Wellington this 19th day of October 1987

Present:

HIS EXCELLENCY THE ADMINISTRATOR OF THE GOVERNMENT IN COUNCIL

PURSUANT to section 35 of the Dangerous Goods Act 1974, His Excellency the Administrator of the Government, acting by and with the advice and consent of the Executive Council, hereby makes the following regulations.

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REGULATIONS

1. Title and commencement—(1) These regulations may be cited as the Dangerous Goods (Class 2—Gases) Regulations 1980, Amendment No. 5, and shall be read together with and deemed part of the Dangerous Goods (Class 2—Gases) Regulations 1980* (hereinafter referred to as the principal regulations).

(2) These regulations shall come into force on the 28th day after the date of their notification in the *Gazette*.

2. Regulations not to apply to certain gases and containers—Regulation 4 of the principal regulations (as amended by regulation 2 of the Dangerous Goods (Class 2—Gases) Regulations 1980, Amendment No. 1) is hereby amended by omitting from subclause (1) (b) the expression “10 litres”, and substituting the expression “5 litres”.

3. Marking of cylinders and portable tanks—Regulation 11 (1) (c) of the principal regulations is hereby amended by inserting, after the expression “periodical”, the expression “examination and”.

4. New regulations inserted—The principal regulations are hereby amended by inserting, after regulation 12, the following regulations:

“12A. **General restriction on storing cylinders and tanks**—No person shall store any cylinder or tank containing or intended to contain dangerous goods of Class 2 otherwise than in a place away from fires, naked lights, explosives, other dangerous goods, or anything liable to spontaneous combustion.

“12B. **Duty to provide fire extinguishers**—Except as otherwise provided by these regulations, every person storing or conveying dangerous goods of Class 2 shall keep in a readily accessible position one or more hand fire extinguishers as may be required by an Inspector.”

5. Charging containers with permanent gas—Regulation 13 of the principal regulations is hereby amended by omitting the expression “80 percent”, and substituting the expression “85 percent”.

6. Valves and fittings—(1) Regulation 14 of the principal regulations is hereby amended by revoking subclause (2), and substituting the following subclause:

*S.R. 1980/46
 Amendment No. 1: S.R. 1981/300
 Amendment No. 2: S.R. 1982/229
 Amendment No. 3: S.R. 1985/88
 Amendment No. 4: S.R. 1986/15

“(2) Unless otherwise approved by the Chief Inspector, the valves of cylinders to be charged with flammable gases shall be fitted with left hand outlet screw threads for the pipe or other connections, and all other valves shall have right hand outlet screw threads.”

(2) Regulation 14 (5) (a) of the principal regulations is hereby amended by omitting the expression “subclause (2)”, and substituting the expression “subclause (3)”.

7. Testing of cylinders—The principal regulations are hereby amended by revoking regulation 15, and substituting the following regulation:

“15. (1) No person shall charge any cylinder with dangerous goods of Class 2 unless the cylinder has, within the period specified in subclause (5) of this regulation,—

“(a) Passed an examination in accordance with subclause (6) of this regulation; and

“(b) Passed a hydraulic stretch test as laid down in the specification for the cylinder or as otherwise approved by the Chief Inspector as being adequate.

“(2) The periodic testing of cylinders required by these regulations shall be done only by persons authorised by the Chief Inspector as a testing station for the purpose.

“(3) Each authorised testing station shall have an approved mark of recognition, which shall be stamped on each cylinder tested together with any required test information.

“(4) Any authorised testing station breaching or contravening any requirement of these regulations may have its authorisation revoked by the Chief Inspector.

“(5) The frequency with which the hydraulic stretch test shall be conducted shall be as follows:

“(a) For any cylinder (except a cylinder referred to in any of the succeeding paragraphs of this subclause) a period of not more than 5 years:

“(b) For any cylinder for liquefied petroleum gas a period of not more than 10 years:

“(c) For any cylinder used as part of breathing apparatus (except any self-contained underwater breathing apparatus) a period of not more than 5 years:

“(d) For any cylinder used as part of any self-contained underwater breathing apparatus (except a cylinder to which paragraph (dd) of this subclause applies) a period of not more than 1 year:

“(dd) For any cylinder that—

“(i) Is used as part of any self-contained underwater breathing apparatus; and

“(ii) Is made entirely of aluminium; and

“(iii) Has passed, no less frequently than once in every year, an examination of the type referred to in subclause (6) of this regulation,—

a period of not more than 2 years:

“(e) For any cylinder which forms part of fire-fighting equipment and which has not been discharged or excessively corroded,—

“(i) An initial period of not more than 10 years from the date of manufacture; or

“(ii) If the cylinder is in good condition externally at the end of that 10 years, an initial period of not more than 20 years from the date of manufacture; and

“(iii) After the initial period has expired, a period of not more than 5 years:

“(f) For any cylinder which is not over 40 years old and which is used exclusively for air, argon, cyclopropane, ethylene, helium, hydrogen, krypton, neon, nitrogen, nitrous oxide, oxygen, xenon, and mixtures of them containing not more than 30 percent by volume of carbon dioxide having a dewpoint below -40°C at 1 atmosphere, a period of not more than 10 years.

“(6) Any person conducting an hydraulic stretch test shall first thoroughly clean the cylinder and examine it externally and, as far as practicable, internally, for surface defects, corrosion, and foreign matter. Where excessive internal corrosion is observed the cylinder shall be cleaned by wire brushing, shot blasting, flail or rumberling, scraping, boiling, or steaming. After cleaning the cylinder shall again be examined internally and immediately dried.

“(7) Upon the successful completion of every examination and every hydraulic test, the cylinder shall be stamped on the neck end with marks and figures indicating the name of the person or firm which conducted the test and the date of the test.

“(8) Nothing in this regulation shall require any cylinder which is used for the storage or conveyance of acetylene and which is filled with a porous mass to pass a hydraulic stretch test but every such cylinder shall be required to pass an examination in accordance with subclause (6) of this regulation no less frequently than once in every year.”

8. General restriction on storing and conveying dangerous goods of Class 2 (a)—Regulation 24 of the principal regulations is hereby amended by revoking subclause (3).

9. General restriction on storing and conveying dangerous goods of Class 2 (b)—Regulation 28 of the principal regulations is hereby amended by adding the following subclause:

“(4) No person shall convey any dangerous goods of Class 2 (b) in tanks unless the load tanks and ancillary equipment of the vehicle have been approved by the Chief Inspector as suitable for the service for which they are intended.”

10. Isolation distances—(1) Regulation 32 of the principal regulations (as amended by regulation 2 of the Dangerous Goods (Class 2—Gases) Regulations 1980, Amendment No. 2) is hereby amended by revoking subclause (4), and substituting the following subclause:

“(4) Notwithstanding subclause (1) of this regulation, cylinders and tanks used for the purpose of dispensing compressed natural gas at vehicle refuelling stations shall be stored in accordance with the following table:

Storage to be Isolated from	Isolation Distance For Any Quantity		
	Not Exceeding 1 100m ³ (4 500 litres)	Not Exceeding 2 450m ³ (10 000 litres)	Exceeding 2 450m ³ (10 000 litres)
	Metres	Metres	Metres
Protected works ..	2.5	4	10
Public places or sources of ignition ..	3	3	3
Dispensing point for— Dangerous goods of Class 2 (d) or Class 3 (a) ..	5	5	5
Compressed natural gas	2.5	2.5	2.5
Other dangerous goods or flammable materials ..	3	5	10 "

(2) Regulation 2 (2) of the Dangerous Goods (Class 2—Gases) Regulations 1980, Amendment No. 2 is hereby consequentially revoked.

11. Liquefied petroleum gas to be odorised—(1) Regulation 39 of the principal regulations is hereby amended by inserting, after subclause (1), the following subclause:

“(1A) Where liquefied petroleum gas is required to be odorised in accordance with subclause (1) of this regulation, the requirement shall be met if at least 1 ml of an approved material is used to odorise each 70 litres of liquefied petroleum gas.”

(2) Regulation 39 (2) (a) of the principal regulations is hereby amended by omitting the expression “150”, and substituting the expression “105”.

12. Valves and devices on tanks—Regulation 43 (1) of the principal regulations is hereby amended—

(a) By omitting from paragraph (a) the word “not”;

(b) By inserting in paragraph (b), after the word “normal”, the word “peak”;

(c) By omitting from paragraph (e) the expression “5,000 litres”, and substituting the expression “8 000 litres”.

13. Conveyance of dangerous goods of Class 2 (d)—(1) Regulation 46 (2) of the principal regulations is hereby amended by revoking paragraph (h), and substituting the following paragraph:

“(h) No person in charge of any tank wagon or tank trailer that contains or has contained dangerous goods of Class 2 (d) shall park that tank wagon or tank trailer in a public place or within 15m of a protected work, except—

“(i) For the purpose of loading or delivering the dangerous goods conveyed; or

“(ii) In the case of an emergency; or

“(iii) To enable that person to attend to his or her immediate personal needs; or

“(iv) With the approval of an Inspector.”

(2) Regulation 46 of the principal regulations is hereby further amended by inserting, after subclause (2), the following subclause:

“(2A) Where any person parks a tank wagon or tank trailer in a public place or within 15m of a protected work, that person shall continue to be in charge of the tank wagon or tank trailer for the purposes of these regulations.”

14. Tank wagons—Regulation 48 of the principal regulations is hereby amended by omitting from subclause (3) the expression “30,000 litres”, and substituting the expression “35 000 litres”.

15. Vehicle refuelling stations—(1) The principal regulations are hereby amended by revoking regulation 53 (as amended by regulation 3 of the Dangerous Goods (Class 2—Gases) Regulations 1980, Amendment No. 2), and substituting the following regulation:

“53. (1) Except as may be otherwise approved by an Inspector, no person shall operate a dispensing station for the refuelling with dangerous goods of Class 2 (d) of any fuel tank attached to or forming an integral part of any motor vehicle or other item of mobile equipment unless the following conditions are complied with:

“(a) All pumps and accessory equipment are of a type suitable for use with the liquefied gas being supplied at not less than the maximum pressure to which they may be subjected and, in addition, have an excess flow valve installed as close as practicable to the joint of the fixed and flexible coupling to ensure that in the event of hose failure, the liquefied gas will be shut off:

“(b) The storage of Class 2 (d) goods serving the dispensing unit comply with the provisions of these regulations relating to storage in tanks or cylinders:

“(c) The fill connection is situated on the outside of the vehicle:

“(d) The area where vehicles or mobile equipment stand while being refuelled is so located that the part where the transfer of the liquefied gas to the fuel tank is effected is—

“(i) Not less than 3m from the storage tank or cylinder:

“(ii) Not less than 6m from any protected work, or, where the wall of the protected work has a fire resistant rating of not less than 1 hour and there are no openings in the wall within 6m of the dispensing point, 3m:

“(iii) Not less than 3m from any public place:

“(iv) Not less than 3m from any dispenser of compressed natural gas:

“(dd) Where a vehicle or mobile equipment could be refuelled while standing within 3m of a dispensing point for compressed natural gas, that area is clearly marked to the satisfaction of an Inspector to be an area where no refuelling shall be effected:

“(e) Equipment is protected from damage by reason of its location or by the provision of a guard rail or stanchions:

- “(f) When equipment is accessible to the public, the equipment is locked when unattended:
 - “(g) The nozzle of the dispensing hose is fitted with a quick acting shut-off valve with a safety-catch:
 - “(h) No source of ignition is permitted within 3m of the dispensing point while refuelling operations are taking place:
 - “(i) A conspicuous notice reading “FLAMMABLE GAS—NO SMOKING—STOP YOUR ENGINE—APPLY HANDBRAKE” shall be displayed at the dispensing station:
 - “(j) There is kept in a readily accessible position on the premises a manual fire extinguisher as required under regulation 78 of these regulations:
 - “(k) Each dispensing hose is fitted with an approved dry-break coupling.
 - “(2) The operation of any self-service dispensing unit shall be subject to the requirements of the Chief Inspector.
 - “(3) There shall, at every dispensing station for refuelling vehicles with liquefied petroleum gas, be posted in a conspicuous place adjacent to the dispensing point a list of instructions for operating the dispensing station.”
- (2) Regulation 3 of the Dangerous Goods (Class 2—Gases) Regulations 1980, Amendment No. 2 is hereby consequentially revoked.

16. Filling stations for charging or recharging of cylinders—(1) The principal regulations are hereby amended by revoking regulation 60 (as amended by regulation 5 of the Dangerous Goods (Class 2—Gases) Regulations 1980, Amendment No. 2), and substituting the following regulation:

- “60. (1) No person shall carry out the charging or recharging of cylinders with dangerous goods of Class 2 (d) except at an approved filling station.
- “(2) A filling station shall not be approved for the purposes of subclause (1) of this regulation unless it complies with the following requirements:
- “(a) The filling station shall be isolated from tanks for dangerous goods of Class 2 (d) by a distance of not less than 8m and from all protected works and public places by a distance of not less than 15m, and shall comply with the requirements of regulation 55 of these regulations with regard to construction:
 - “Provided that the distance required by this paragraph to be maintained between the filling station and any protected work or public place may be reduced to 8m where the quantity of dangerous goods of Class 2 (d) present at the filling station does not exceed 1 000 kg:
- “(b) Where a screen wall intervenes between a filling station and a protected work or public place, the isolation distances required by paragraph (a) of this subclause to be maintained between the filling station and the protected work or public place may be reduced to such lesser distance as may be approved in each case by the licensing authority, but not so as to reduce the vapour path from any opening in the filling station to any opening in a protected work or to a public place to less than 15m or, in the case of a filling station referred to in the proviso to paragraph (a) of this subclause, to 8m:
- “(c) All pumps, pipe lines, hoses, valves, and other similar appliances and fittings used in the operation of transferring dangerous goods of

Class 2 (d) from one container to another shall be of a type approved by the Chief Inspector and shall be resistant to the action of both liquid and gas.

“(3) Notwithstanding subclause (2) of this regulation, a filling station may be approved for the purposes of subclause (1) of this regulation if it complies with the following requirements:

“(a) Not more than 100 kg of dangerous goods of Class 2 (d) shall be stored in cylinders on the site of the filling station; and

“(b) The dispensing point shall be located—

“(i) Not closer than 3m to a storage tank for dangerous goods of Class 2 (d); and

“(ii) Not closer than 2m to the centre line of a wall of a compound for dangerous goods of Class 3; and

“(c) The dangerous goods of Class 2 (d) and the associated filling equipment at the filling station shall be stored either—

“(i) In the open; or

“(ii) In a small shelter of substantially incombustible construction, being a shelter that is well ventilated by means of openings at both high and low levels; and

“(d) The place at which, or the shelter in which, the dangerous goods are stored shall be located in an approved position not less than 6m from any protected work and not less than 3m from any public place:

“Provided that where a screen wall intervenes between the place or shelter and the protected work or public place these distances may be reduced with the approval of an Inspector if the vapour path is not less than the distance that would apply if the reduction were not approved:

“(e) A warning notice ‘No Smoking—Keep Fire and Lights Away’, of such size as may be approved by an Inspector, shall be displayed in a conspicuous position at the place at which, or the shelter in which, the dangerous goods are stored; and

“(f) Adequate precautions shall be taken to prevent unauthorised access to cylinders and filling equipment.

“(4) No person shall charge or recharge with dangerous goods of Class 2 (d) any cylinder having a water capacity not exceeding 5 litres except—

“(a) By the decanting of the dangerous goods from another container; or

“(b) In such other manner as is approved by the Chief Inspector.

“(5) The occupier of any filling station at which the charging or recharging of cylinders with dangerous goods of Class 2 (d) is carried out shall post a list of operational instructions (including precautionary measures) in a conspicuous place at that filling station and shall maintain that list in a legible condition.”

(2) Regulation 5 of the Dangerous Goods (Class 2—Gases) Regulations 1980, Amendment No. 2 is hereby consequentially revoked.

17. Requirements where skid tanks are used—Regulation 66 (a) of the principal regulations is hereby amended by omitting the expression “10,000 litres”, and substituting the expression “8000 litres”.

18. Location of above-ground storage tanks—The principal regulations are hereby amended by revoking regulation 69, and substituting the following regulation:

“69. (1) Every above-ground storage tank for dangerous goods of Class 2 (d) shall be so located that—

“(a) It does not lie within a corridor beneath any overhead electric power lines which extends on each side of those power lines by a distance equivalent to 10 percent of the length of the distance between the supporting poles; and

“(b) It is not in a depression in the ground; and

“(c) It is not closer to any entry point of a drain than—

“(i) The distance specified in regulation 71 of these regulations as the distance by which above-ground storage tanks are required to be isolated from public places; or

“(ii) Five metres,—

whichever is the greater.

“(2) Notwithstanding anything in subclause (1) (a) of this regulation, the Chief Inspector may approve the location of any above-ground storage tank beneath any overhead power lines if the Chief Inspector is satisfied that suitable barriers exist that would prevent the overhead power lines falling on the storage tank.

“(3) Notwithstanding anything in subclause (1) (c) of this regulation, an Inspector may approve the location of any above-ground storage tank closer than 5m to an entry point of a drain, if the Inspector is satisfied that the drain is fitted with a suitable water seal.”

19. Isolation distances from protected works and public places—(1) Regulation 71 of the principal regulations is hereby amended by omitting from subclause (3) the expression “subclause (6)”, and substituting the expression “subclause (7)”.

(2) Regulation 71 of the principal regulations is hereby further amended by inserting, after subclause (3), the following subclause:

“(3A) For the purposes of subclause (3) of this regulation, a tank shall be regarded as ‘directly connected’ to another tank if it is linked to the other tank by a pipe or any other channel which—

“(a) Has no valves or other barriers to prevent the passage of liquid or vapour into the other tank; or

“(b) Has valves that cannot be operated by remote means to allow or prevent both liquid and vapour from passing along the pipe or channel into the other tank:

“Provided that a tank shall not be regarded as ‘directly connected’ to another tank by reason of paragraph (b) of this subclause if the Chief Inspector has approved the means by which the valves can be operated.”

(3) Regulation 71 of the principal regulations is hereby further amended by revoking subclause (9), and substituting the following subclause:

“(9) No tank for the storage of dangerous goods of Class 2 (d) shall be located—

“(a) Within a compound enclosing a tank for the storage of dangerous goods of Class 3, or within 3m of the centre line of a wall of any such compound; or

“(b) Less than 6m from any above-ground tank or to an integral part of the storage equipment of an underground tank for the storage

of dangerous goods of Class 3 that has a water capacity not exceeding 100 000 litres; or

- “(c) Less than 15m from any above-ground tank or to any integral part of the storage equipment of an underground tank for the storage of dangerous goods of Class 3 that has a water capacity exceeding 100 000 litres; or
- “(d) Less than 6m from any container of dangerous goods of Class 2 (b) that has a water capacity not exceeding 100 000 litres; or
- “(e) Less than 15m from any container of dangerous goods of Class 2 (b) that has a water capacity exceeding 100 000 litres.”

20. Isolation distances for filling tanks from tank wagons and rail tank cars—Regulation 74 of the principal regulations is hereby amended by omitting from subclause (1) the words “the table in subclause (2) of”.

21. Installation of heating or lighting system employing liquefied petroleum gas—Regulation 77 (1) of the principal regulations is hereby amended by revoking paragraph (j), and substituting the following paragraphs:

- “(j) An approved type of automatic pressure-regulating valve shall be installed between the fuel supply container and the burner:
- “(ja) Except as required by paragraph (c) or as provided by paragraph (jb) of this regulation, gas shall not be permitted to enter a protected work under a greater pressure than 150 kPa:
- “(jb) Where any person installs any heating or lighting system in a protected work in a building used for industrial purposes using equipment approved by an Inspector, gas shall not be permitted to enter that protected work under a greater pressure than that approved by an Inspector (which pressure may be greater than 150 kPa).”

22. Fire-fighting apparatus—The principal regulations are hereby amended by revoking regulation 78, and substituting the following regulation:

“78. (1) Adequate fire-extinguishing apparatus in accordance with the requirements of Part X of these regulations shall be installed at filling stations and storage places for dangerous goods of Class 2(d) and alongside systems burning liquefied petroleum gas.

“(2) Where a quantity of liquefied flammable gas not exceeding 100 kg is stored for domestic purposes or used in a system burning liquefied petroleum gas for domestic purposes, subclause (1) of this regulation shall not apply in respect of the storage place of that gas or in respect of the system burning that gas.

“(3) At every tank installation for storage of dangerous goods of Class 2 (d) there shall be provided, in accordance with subclauses (4) to (9) of this regulation, an approved system of fire protection.

“(4) Except as provided in subclause (7) of this regulation, an approved system of fire protection shall, in the case of a tank installation which has a water capacity not exceeding 12 000 litres, consist of a hydrant system incorporating a 20 mm hose of sufficient length to enable water to be directed to all sides of the tank or tanks. The hose shall be fitted with a water spray nozzle.

“(5) Except as provided in subclause (9) of this regulation, an approved system of fire protection shall, in the case of a tank installation which has a water capacity exceeding 12 000 litres, consist of—

“(a) A fixed water spray system complying with subclause (6) of this regulation; or

“(b) Such other system as may be approved by the Chief Inspector.

“(6) A fixed water spray system required by this regulation—

“(a) Shall be capable of delivering water at a rate of 600 litres per square metre an hour to the whole surface of the tank; and

“(b) Shall be an automatic system; and

“(c) Shall be capable of manual control from a safe position.

“(7) Where the Chief Inspector considers, after considering a fire safety report, that due to any of the circumstances referred to in subclause (8) of this regulation a tank installation which has a water capacity not exceeding 12 000 litres should be fitted with a fixed water spray system or any other system of fire protection, the Chief Inspector may require any such system to be provided.

“(8) The circumstances referred to in subclause (7) of this regulation are—

“(a) Any hazards within the storage site:

“(b) Any exposure to and from other property:

“(c) The available water supply for fire fighting and fire protection:

“(d) The likely response time and resources of the local units of the New Zealand Fire Service.

“(9) Where the Chief Inspector considers that a tank installation which has a water capacity exceeding 12 000 litres should not be required to be fitted with a fixed water spray system, the Chief Inspector may approve the provision of a hydrant system rather than a fixed water spray system.”

23. Precautions in respect of pipes and hoses—The principal regulations are hereby amended by revoking regulation 79, and substituting the following regulation:

“79. (1) Piping used for conveying dangerous goods of Class 2 (d), whether as liquid or gas, shall be of an approved type resistant to the action of the liquid or gas.

“(2) Pipework for liquid petroleum gas shall—

“(a) Be seamless; and

“(b) Be designed to allow for expansion and contraction of the pipework and of any tank or fitting to which it is connected; and

“(c) Comply with any pressure vessel requirements of the Marine Division of the Ministry of Transport.

“(3) Flexible hose shall—

“(a) Be of an approved type; and

“(b) Be marked with—

“(i) The design working pressure together with the expression ‘LP Gas’ or ‘lpg’; or

“(ii) The number of the specification to which it was manufactured; and

“(c) In the case of a hose which may be subjected to container pressure, have a burst pressure of not less than 9800 kPa; and

“(d) In the case of hose assemblies, be tested to not more than the design working pressure without leaking.

“(4) Flexible pipe shall—

“(a) Be of an approved metallic construction; and

“(b) Have a minimum working pressure rating of 2600 kPa at 100°C.

“(5) Flexible pipe connections shall—

“(a) Be used only where necessary to absorb vibration; and

“(b) Not exceed 1m in length.

“(6) A relief valve, discharging to a safe location, shall be installed between 2 shut-off valves—

“(a) In every pipe used for transfer of dangerous goods of Class 2 (d) in their liquid phase; and

“(b) If required by the Chief Inspector, in any pipe used for transfer of dangerous goods of Class 2 (d) in their gas phase.

“(7) Hoses used for transfer of dangerous goods of Class 2 (d) shall be fabricated of material resistant to the liquid being transferred in either its liquid or gas phase.

“(8) Any person using a hose for transfer of dangerous goods of Class 2 (d) shall check before use on any day that it is in serviceable condition and shall, if the hose is required to be electrically conductive, periodically have the hose checked for electrical continuity.

“(9) No person shall construct any pipeline for transfer of dangerous goods of Class 2 (d) beyond the premises on which the dangerous goods are stored, except in accordance with plans and specifications that have been approved by the Chief Inspector.

“(10) No person shall construct any pipeline used for the transfer of dangerous goods of Class 2 (d) to or from a harbour or any waterway, except in accordance with designs and specifications that have been approved by the Chief Inspector.

“(11) The Chief Inspector may impose such conditions as he or she considers necessary with regard to the operation of transferring goods along any pipeline referred to in subclause (10) of this regulation.

“(12) Every person commits an offence against these regulations who fails to comply with any condition imposed pursuant to subclause (11) of this regulation.”

24. Testing of transfer systems—Regulation 80 of the principal regulations is hereby amended—

(a) By omitting from subclause (1) the expression “at not less than twice the anticipated working pressure”, and substituting the expression “in accordance with design specifications”;

(b) By omitting from subclause (3) (b) the expression “of 3500 kPa”, and substituting the expression “equal to the design working pressures”.

25. Fittings of tanks for conveyance or storage of anhydrous ammonia—The principal regulations are hereby amended by revoking regulation 94, and substituting the following regulation:

“94. No person shall convey or store dangerous goods of Class 2 (f) in any tank unless that tank is equipped with fittings as prescribed in regulation 43 of these regulations.”

26. Requirements of tank wagons for anhydrous ammonia—The principal regulations are hereby amended by revoking regulation 95, and substituting the following regulation:

“95. (1) Every tank wagon for dangerous goods of Class 2 (f) shall comply with such of the provisions of these regulations as would apply if those goods were dangerous goods of Class 2 (d).

“(2) Notwithstanding anything in subclause (1) of this regulation, the label required by regulation 4 (4) of the Dangerous Goods (Labelling) Regulations 1978* shall be that specifying a toxic gas.”

27. Name of gas to be shown on tank wagon, rail tank car, or storage tank—The principal regulations are hereby amended by revoking regulation 96, and substituting the following regulation:

“96. In addition to the label required by the Dangerous Goods (Labelling) Regulations 1978*, every tank for the conveyance or storage of dangerous goods of Class 2 (f) in bulk shall have marked on the tank in large letters the name of the gas.”

28. Piping and hoses—Regulation 101 of the principal regulations is hereby amended by omitting from subclause (2) the word “Rubber”, and substituting the word “Flexible”.

29. Vehicles for conveyance of liquid oxygen—Regulation 106 of the principal regulations is hereby amended by inserting, after the words “in bulk shall be”, the words “of an approved type and”.

30. Isolation distances—The principal regulations are hereby amended by revoking regulation 108, and substituting the following regulation:

“108. (1) Except as may be approved or required by the Chief Inspector, every container for the storage of dangerous goods of Class 2 (g) in bulk shall be isolated from structures and installations by distances not less than those specified in the following table:

Facility to be Isolated	Isolation Distances from Oxygen Tanks With a Water Capacity	
	Not Exceeding 10 000 litres	Exceeding 10 000 litres
	Metres	Metres
Above-ground storage of Class 3 (a) or Class 3 (b) in quantities—		
(a) Not exceeding 5000 litres water capacity	10	20
(b) Exceeding 5000 litres water capacity	20	40

Facility to be Isolated	Isolation Distances from Oxygen Tanks With a Water Capacity	
	Not Exceeding 10 000 litres	Exceeding 10 000 litres
	Metres	Metres
Above-ground storage of Class 3 (c) in quantities—		
(a) Not exceeding 5000 litres water capacity	5	10
(b) Exceeding 5000 litres water capacity	10	20
Fill and vent openings of flammable liquids in underground tanks	5	10
Containers of liquefied flammable gases—		
(a) Not exceeding 2500 litres water capacity	10	15
(b) Exceeding 2500 litres water capacity	10	20
Any other combustible materials (including buildings not protected by sprinkler systems)	15	20
Buildings protected by sprinkler systems	8	8
Any hospital or institution where non-ambulatory patients are accommodated, or any place of public assembly other than a public place	15	20
Any public place	5	10
Any regularly used vehicle parking area	5	20
Any flammable gas or liquid line ..	3	4

“(2) Notwithstanding anything in subclause (1) of this regulation, a container for the storage of dangerous goods of Class 2 (g) in bulk may be isolated from a protected work or public place (other than a hospital or institution where non-ambulatory patients are accommodated, or any place of public assembly) by not less than 1 m if the following conditions are satisfied:

“(a) A screen wall is constructed between the container and the protected work or public place in such a manner that it interrupts the line of sight between uninsulated portions of the container, together with its associated equipment, and the protected work or public place; and

“(b) The screen wall is constructed of reinforced concrete not less than 150 mm thick, or of similar approved material; and

“(c) The vapour path between the container and any opening into a building is not less than 6 m.”

31. Maintenance and testing—Regulation 120 (2) of the principal regulations is hereby amended by omitting the expression “15 (2) (e)”, and substituting the expression “15 (5) (e)”.

32. Units of capacity of hand fire extinguishers—Regulation 123 of the principal regulations is hereby amended—

- (a) By omitting from paragraph (a) the expression “1.3 kg”, and substituting the expression “1.8 kg”; and
- (b) By omitting from paragraph (b) the expression “9 litres”, and substituting the expression “9 kg”.

33. Storage of used containers exceeding 5 litres—Regulation 133 of the principal regulations is hereby amended by omitting the expression “Class 2 (d)”, and substituting the expression “Class 2”.

34. Sale or disposal of containers exceeding 1 litre—The principal regulations are hereby amended by revoking regulation 135, and substituting the following regulation:

“135. No person shall sell or otherwise dispose of or permit the disposal of any container of capacity exceeding 1 litre that has contained dangerous goods of Class 2, unless that person has—

- “(a) Ensured that all dangerous goods and flammable vapour or gas have been removed by an approved method; or
- “(b) Given notification in writing to the person given possession of the container that it has held those dangerous goods and is liable to contain flammable or explosive liquid or vapour or gas.”

C. J. HILL,
Acting for Clerk of the Executive Council.

EXPLANATORY NOTE

This note is not part of the regulations, but is intended to indicate their general effect.

These regulations amend the Dangerous Goods (Class 2—Gases) Regulations 1980.

Regulation 1 relates to the Title and commencement.

Regulation 2 applies the regulations to any cylinder for compressed or dissolved acetylene with a water capacity when empty exceeding 5 litres.

Regulation 3 requires cylinders and portable tanks to be marked with the date of each examination and the identification mark of the person or firm who made the test.

Regulation 4 inserts 2 new regulations. The new regulation 12A imposes a general restriction on the storage of cylinders and tanks containing Class 2 dangerous goods. The new regulation 12B requires persons storing or conveying such goods to keep hand fire extinguishers.

Regulation 5 amends the requirements for the filling of containers with permanent gas with the effect that the gas, at an assumed maximum temperature of 65°C, must not exert a pressure in the container exceeding 85 percent of the hydrostatic test pressure.

Regulation 6 amends the requirements with respect to right hand and left hand outlet screw threads on valves of cylinders to be filled with flammable gases.

Regulation 7 substitutes a new regulation relating to the testing of cylinders. It clarifies the requirements relating to visual examinations, and amends the requirements relating to the testing of aluminium cylinders used as part of any self-contained underwater breathing apparatus, and certain cylinders used for the storage or conveyance of acetylene.

Regulation 8 is consequential upon *regulation 4*.

Regulation 9 provides that no person shall convey Class 2 (b) dangerous goods in tanks unless the load tanks and ancillary equipment of the vehicle have been approved by the Chief Inspector.

Regulation 10 applies regulation 32 (4) of the principal regulations (which relates to the storage of cylinders used for dispensing compressed natural gas at vehicle refuelling stations) to tanks as well as cylinders, and prescribes a new isolation distance in respect of dispensing points for LPG and other liquefied flammable gas.

Regulation 11 prescribes the ratio of odorant for the odorisation of LPG. It also provides that automatic alarms required to be installed in the vicinity of storage tanks containing unodorised LPG shall be required to produce a sound of not less than 105 decibels. The previous minimum was a sound of not less than 150 decibels.

Regulation 12 amends the requirements relating to valves and devices on tanks for the conveyance or storage of liquefied flammable gas.

Regulation 13 amends the restrictions on parking tank wagons containing LPG or other liquefied flammable gas. Regulation 46 (2) (h) of the principal regulations previously restricted parking within 30 m of any protected work or 8 m from a public place except for the purpose of loading or delivering the goods. This amendment restricts parking in a public place or within 15 m of a protected work except in specified circumstances.

Regulation 14 increases the maximum water capacity of LPG and other liquefied flammable gas tank wagons from 30 000 litres to 35 000 litres.

Regulation 15 amends the conditions of operation of vehicle refuelling stations for LPG and other liquefied flammable gas.

Regulation 16 prescribes alternative conditions for the approval of filling stations for the filling of cylinders with LPG or other liquefied flammable gas, and prescribes the methods by which cylinders having a water capacity not exceeding 5 litres are to be filled.

Regulation 17 reduces the maximum permitted water capacity of skid tanks for the conveyance or storage of LPG or other liquefied flammable gas from 10 000 litres to 8000 litres.

Regulation 18 amends the requirements relating to the location of above-ground storage tanks for LPG or other liquefied flammable gas.

Regulation 19: Subclause (1) corrects a typographical error.

Subclause (2) defines the term "directly connected" in relation to tanks.

Subclause (3) amends the distances by which tanks for the storage of LPG and other liquefied flammable gas must be isolated from other dangerous goods.

Regulation 20 permits allowance to be made for the construction of screen walls in calculating isolation distances for filling tanks with LPG or other liquefied flammable gas from protected works and public places.

Regulation 21 increases the pressure under which LPG may enter a protected work in certain circumstances.

Regulation 22 amends the requirements for fire-extinguishing apparatus at tank installations for the storage of LPG and other liquefied flammable gas.

Regulation 23 amends the requirements relating to pipes and hoses used for conveying LPG or other liquefied flammable gas.

Regulation 24 provides that systems for the transferring of LPG and other liquefied flammable gas shall be tested by running a pressure test in accordance with design specifications instead of at not less than twice the anticipated working pressure. It also provides that hose used in the transfer system shall be hydrostatically tested at a pressure equal to the design working pressures instead of at a pressure of 3500 kPa.

Regulation 25 applies regulation 94 of the principal regulations (which prescribes the fittings with which tanks for anhydrous ammonia are to be equipped) to storage tanks.

Regulation 26 provides that tank wagons for anhydrous ammonia shall, in accordance with the Dangerous Goods (Labelling) Regulations 1978, bear labels specifying toxic gas.

Regulation 27 applies regulation 96 of the principal regulations (which provides that tanks for anhydrous ammonia shall be marked with the name of the gas) to storage tanks.

Regulation 28 applies regulation 101 (2) of the principal regulations (which prescribes requirements for hoses used to transfer anhydrous ammonia) to all flexible hoses rather than rubber hoses only.

Regulation 29 provides that vehicles used for the conveyance of liquid oxygen in bulk shall be of a type approved by an Inspector.

Regulation 30 relates to the distance by which storage containers for liquid oxygen in bulk shall be isolated from certain facilities.

Regulation 31 corrects a typographical error.

Regulation 32 amends the prescribed required capacity of certain hand fire extinguishers.

Regulation 33 applies regulation 133 of the principal regulations (which relates to the storage of used containers exceeding 5 litres) to all Class 2 dangerous goods.

Regulation 34 prohibits the sale or disposal, except in accordance with certain conditions, of containers of capacity exceeding 1 litre that have contained any Class 2 dangerous goods.

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These regulations are administered in the Department of Labour.