1970. No. 249 [C]

PETROLEUM

Carbon Disulphide (Conveyance by Road)

REGULATIONS, DATED 24TH SEPTEMBER 1970, MADE BY THE MINISTER OF HOME AFFAIRS UNDER SECTION 6 OF THE PETROLEUM (CONSOLIDATION) ACT (NORTHERN IRELAND) 1929 AS APPLIED BY THE PETROLEUM (CARBON DISULPHIDE) ORDER (NORTHERN IRELAND) 1970 MADE UNDER SECTION 19 THEREOF.

I, Major the Right Honourable James Dawson Chichester-Clark, Minister of Home Affairs for Northern Ireland, in exercise of the powers conferred on me by Section 6 of the Petroleum (Consolidation) Act (Northern Ireland) 1929(a) as applied by the Petroleum (Carbon Disulphide) Order (Northern Ireland) 1970(b) do hereby make the following Regulations:—

PART I

GENERAL

Citation and Commencement

1. These Regulations may be cited as the Carbon Disulphide (Conveyance by Road) Regulations (Northern Ireland) 1970 and shall come into operation on 1st October 1970.

Interpretation

2.—(1) In these Regulations:—

"carrying tank" means the tank or, if there is more than one, tanks on a tank wagon designed for conveyance and does not include a fuel tank;

"conveyance" has the meaning assigned to it by paragraph 1 of Regulation 3 and "conveyed" and "conveying" shall be construed accordingly;

"fuel tank" means a tank which is designed for carrying fuel for use in the propulsion of a vehicle.

(2) A carrying tank or a compartment of a carrying tank shall be deemed not to exceed any specified capacity if it exceeds that capacity by reason only that it is so constructed that it would contain the volume of carbon disulphide which would fill a container of said capacity with a reasonable margin to allow for the expansion of the carbon disulphide in the event of a rise in temperature.

Application

3.—(1) These Regulations shall apply in relation to the conveyance of carbon disulphide by road, and hereafter in these Regulations the expression "conveyance" means such conveyance as aforesaid.

(2) Except in the case of a tank wagon, these Regulations shall not apply in relation to conveyance—

(a) 20 Geo. 5. c. 13 (N.I.). (b) S.R. & O. (N.I.) 1970, No. 209.

(*a*) if the quantity of carbon disulphide conveyed on any one vehicle does not exceed 28 pounds (12·7006 kilogrammes), and

(*b*) if the weight of carbon disulphide in any single container other than a metal one does not exceed 7 pounds (3·17515 kilogrammes).

General safety precautions

4. Every person engaged in the conveyance, and the loading and unloading in connection with conveyance, of carbon disulphide shall observe all precautions necessary for preventing fire or explosion.

5. Every person engaged in the conveyance, and the loading and unloading in connection with conveyance, of carbon disulphide shall secure so far as is reasonably possible that no carbon disulphide is allowed to escape into any sewer or drain.

6. A person while on or attending any vehicle conveying carbon disulphide shall not smoke.

7.—(1) No fire or artificial light capable of igniting inflammable vapour shall be allowed on any vehicle conveying carbon disulphide, and no explosive substance or any substance or article capable of causing fire or explosion shall be carried on such vehicle.

(2) Nothing in this Regulation shall apply to the carriage of petroleum-spirit or other fuel for use only in the propulsion of the vehicle.

8. A suitable and efficient fire extinguisher shall be carried in an easily accessible position on any vehicle conveying carbon disulphide.

9.—(1) Every vehicle while engaged in conveyance shall, except while halted at a place for the time being approved for the purpose by the local authority empowered under the Petroleum (Consolidation) Act (Northern Ireland) 1929 to grant petroleum-spirit licences in the area in which that place is situated, be constantly attended by the driver or some other competent person of not less than 18 years of age.

(2) A person shall be regarded as in attendance on a vehicle if he is in close proximity thereto.

PART II

CONVEYANCE IN TANK WAGONS

10. Any tank wagon used for conveyance shall comply with the provisions contained in the First Schedule and, together with its connections and fittings, shall be maintained in good condition.

11. Any opening for filling or emptying the carrying tank of a tank wagon shall at all times during conveyance be kept securely closed and the covers thereof kept locked.

12. During the operation of filling or emptying the carrying tank of a tank wagon the vehicle shall be constantly attended by the driver thereof or by some other competent person of not less than 18 years of age, and the person attending shall secure that the following precautions are observed, that is to say:—

(*a*) the engine of the tank wagon shall be stopped the whole time that the operation of filling or emptying is proceeding and shall not be run until the carrying tank of the tank wagon and any tank into which carbon disulphide is being delivered, or from which any carbon disulphide is being taken, has been securely closed, and

(*b*) adequate provision shall be made to prevent the accumulation of a dangerous static charge of electricity.

13. No equipment or other article shall be placed in the space required by paragraph 3 of the First Schedule to be between the carrying tank of a tank wagon and the fire resisting shield required to be provided by sub-paragraph (*b*) of paragraph 2 of the said Schedule and the said space shall be kept clear and unobstructed.

14. The cover for the valve for the attachment of the pressure pipe required to be fitted by sub-paragraph (2) of paragraph 7 of the First Schedule shall at all times, except during the operation of emptying the carrying tank, be kept closed and locked, and the keys shall be retained by the driver or another responsible person.

15. No carbon disulphide shall be conveyed on any tank wagon except in the carrying tank of the vehicle.

16. A carrying tank shall not be filled with carbon disulphide except so as to leave empty a space of at least six per cent. of the capacity of the tank.

17. No trailer shall be attached to any tank wagon during conveyance.

PART III

CONVEYANCE ON VEHICLES OTHER THAN TANK WAGONS

18. In this Part the expression "vehicle" does not include a tank wagon.

19. Carbon disulphide shall not be conveyed on any vehicle unless it is in—

(*a*) iron or mild steel containers not exceeding 50 gallons (227·3 litres) in capacity, constructed in accordance with the provisions of the Second Schedule maintained in good condition and securely closed so as to prevent leakage, or

(*b*) glass or earthenware containers stoppered and hermetically sealed, each containing not more than 5 pints (2·84 litres) of carbon disulphide, each bottle being securely packed in a strong wooden case in sawdust, kieselguhr or other suitable material and being separated from any other bottle by wooden partitions, the wooden case containing not more than a total of 3 gallons (13·638 litres) of carbon disulphide.

20. A container shall not be filled with carbon disulphide except so as to leave empty a space of at least 7½ per cent. of the capacity of the container.

21.—(1) Iron or steel containers shall be carried on any vehicle with the bung uppermost.

(2) Where, in order to comply with paragraph (1) containers have to be carried in such a manner that, but for the provisions of this paragraph, they might roll about, each container shall either be packed in a strong wooden perforated case or crate or be carried on a cradle or on runners fixed to the floor of the vehicle.

22.—(1) Containers filled with carbon disulphide and cases containing bottles of carbon disulphide shall not during conveyance on any vehicle be allowed to project beyond the sides or back of the vehicle.

(2) Except in a case where the vehicle has sides and a back of a height adequate to prevent the load from falling off during conveyance the load shall be securely fastened to the vehicle by ropes or otherwise.

23. No person shall deliver or cause to be delivered any carbon disulphide to any carrier for conveyance on a vehicle unless it is already in such a container as is mentioned in Regulation 19 packed, in the case of such a container as is mentioned in paragraph (*b*) thereof, in the manner required by that paragraph, nor unless the requirement of Regulation 20 is complied with.

PART IV

SUPPLEMENTARY

24. The owner of a vehicle used for conveyance who employs any person in connection with conveyance shall furnish a copy of these Regulations to, or affix a copy thereof in some place where it can be conveniently 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 these Regulations.

25.—(1) It shall be the duty of every local authority empowered under the Petroleum (Consolidation) Act (Northern Ireland) 1929 to grant petroleum-spirit licences, to enforce within their district the provisions of these Regulations, and the owner of a vehicle used for conveyance and any person on whom obligations are imposed by these Regulations shall provide all reasonable facilities to a duly authorised officer of such local authority as aforesaid for the purpose of ascertaining whether the provisions of these Regulations are duly observed.

(2) Any such local authority as aforesaid may institute proceedings for any offence against these Regulations committed in the area of that authority.

Dated this 24th day of September 1970.

J. D. Chichester-Clark,
Minister of Home Affairs
for Northern Ireland.

FIRST SCHEDULE Regulation 10

Construction of Tank Wagons

1. The body of a tank wagon and its fittings and the carrying tank shall be constructed strongly and of fire resisting materials.

2. A tank wagon shall be mechanically propelled by an internal combustion engine, and

(*a*) a quick action cut-off valve shall be fitted to the fuel pipe in an easily accessible and clearly marked position:

Provided that this sub-paragraph shall not apply to a tank wagon in which no gravity fuel tank is incorporated in the fuel feed system and the fuel feed pump is driven directly from the engine of the tank wagon or electrically with a cut-off switch, if the ignition switch or, as the case may be, the cut-off switch is in an easily accessible and clearly marked position;

(*b*) the engine and electric batteries shall be efficiently screened from the body of the tank wagon by a fire resisting shield carried down to within twelve inches (30·48 centimetres) of the ground and upwards to the top of the tank or, if the roof of the cab is of fire resisting construction and is without an opening, to the top of the cab;

(*c*) in any case where the fuel used to propel a tank wagon gives off an inflammable vapour at a temperature less than 150° Fahrenheit (65·4° Centigrade) the fuel tank shall not be behind the aforesaid shield unless the following requirements are complied with, that is to say:—

(i) the fuel tank is protected from blows by stout steel guards or by the frame of the vehicle,

(ii) the cover of the filling hole of the fuel tank is provided with a lock, and

(iii) a fuel feed apparatus placed in front of the fire resisting shield is used to lift the contents of the fuel tank;

(*d*) in any case where windows are provided in the aforesaid shield, they shall be fitted in fire resisting framing with wired glass and shall not be capable of being opened; and

(*e*) the exhaust system of the tank wagon shall be wholly in front of the aforesaid shield;

3.—(1) There shall be a space of not less than six inches (15·24 centimetres) between the carrying tank and the fire resisting shield required to be provided by sub-paragraph (*b*) of paragraph 2 which shall be clear except for any part of the framework or vallances used to screen the sides of the carrying tank.

(2) Where any such vallances are used as aforesaid, their ends shall be insulated from the said shield by a layer of heat resisting material, and the vallances shall not be so constructed that, by reason of their being turned inwards, the aforesaid space is enclosed at the top or bottom.

4. The carrying tank shall either be a component part of the frame of the tank wagon or be securely attached thereto.

5. The capacity of the carrying tank of a tank wagon shall not exceed two thousand gallons (90·92 hectolitres), or, in the case of a tank wagon not having on any axle any wheel of which the tyre when fully inflated is separated by a space of less than six inches (15·24 centimetres) from the tyre when fully inflated of any other wheel on that axle, two thousand seven hundred gallons (122·74 hectolitres), and a carrying tank of more than seven hundred gallons (31·82 hectolitres) capacity shall be divided into self-contained compartments no one of which shall be of more than seven hundred gallons (31·82 hectolitres) capacity.

6. The following requirements shall be complied with in connection with the lighting of any tank wagon, that is to say:—

(*a*) the pressure shall not exceed twenty-four volts;

(*b*) the circuit shall be heavily insulated and be independent of the chassis;

(*c*) the wiring shall be so fixed and protected as to reduce as far as possible any risk of damage;

(*d*) the battery shall be in an easily accessible position;

(*e*) means of cutting off the current close to the battery by a double pole switch or other suitable method shall be provided in an easily accessible position; and

(*f*) in any case where the vehicle is required by sub-paragraph (*b*) of paragraph 2 to be provided with a fire resisting shield, the generator, battery, switches and fuses shall be carried in front of that shield.

7.—(1) Discharge valves shall be situated only at the top of a carrying tank and the system of discharge shall be by the pressure of an inert gas or water.

(2) The valve for the attachment of the pressure pipe shall be fitted with a cover which is provided with a lock.

8. Any filling pipe and any discharge pipe shall be carried down as nearly as is practicable to the bottom of the carrying tank and terminated in such a way as to provide at all times a liquid seal at the bottom of the pipe.

9. Any dipping pipe shall be carried down as nearly as is practicable to the bottom of the carrying tank, and any opening in a dipping pipe other than the upper orifice shall, in such manner as to form an efficient flame trap, be covered with fine wire gauze of not less than twenty-eight meshes to the linear inch (2·54 centimetres).

10. Ventilating openings, if separate from the dipping pipes, shall, in such a manner as to form an efficient flame trap, be covered with fine wire gauze of not less than twenty-eight meshes to the linear inch (2·54 centimetres) and shall be protected by covers when not in use.

SECOND SCHEDULE Regulation 19

Specification of Iron or Steel Containers

1. If a container of a capacity not exceeding one gallon (4·546 litres) is provided with a screw bung with a leather washer or faced joint it shall not be necessary for it to comply with the following requirements except paragraph 9.

2. A container of a capacity specified in the first column of the Table appended to this paragraph shall have a body of a thickness not less than that specified opposite thereto in the second column thereof, and ends of a thickness not less than that specified opposite thereto in the third column thereof:

Provided that in the case of a container in the form of a barrel of not less than ten gallons (45·46 litres) capacity, if the material from which the body was made was, before rolling in the process of manufacture, of the appropriate thickness, the barrel shall be deemed to comply with the requirements of this paragraph as to the thickness of the body notwithstanding that that thickness was reduced by the said rolling if it was not so reduced at any point to less than ninety per cent. of the appropriate thickness.

In this proviso the expression "the appropriate thickness" in relation to the body of a barrel of any capacity means the thickness which would be required by this paragraph but for this proviso for the body of a barrel of that capacity.

Capacity	Thickness of body	Thickness of ends
Not exceeding ten gallons	14 Birmingham Gauge (1·994 millimetres)	14 Birmingham Gauge (1·994 millimetres)
Exceeding ten but not exceeding thirty gallons	12 Birmingham Gauge (2·517 millimetres)	10 Birmingham Gauge (3·175 millimetres)
Exceeding thirty gallons	9 Birmingham Gauge (3·551 millimetres)	7 Birmingham Gauge (4·480 millimetres)

3. The seams of any container shall be welded or riveted and sweated with lead so as to make a solid joint.

4. The pitch of any rivet of a container shall not exceed one inch (2·54 centimetres).

5.—(*a*) A container in the form of a drum shall be strengthened and protected at each end by a strong iron or steel chime-hoop welded or riveted to the body of the drum.

(*b*) Such a container as aforesaid if of more than twenty-five gallons (113·65 litres) in capacity shall have two solid rolling hoops welded or securely shrunk on to the body of the drum, and the said hoops shall project sufficiently to protect the bung from damage when the drum is rolled.

6.—(*a*) A container in the form of a barrel shall have a bilge of not less than one-fifteenth of its length.

(*b*) The chime at each end of such a container as aforesaid shall consist of the body of the barrel, the flange of the end and an inner and outer chime-hoop, strongly and durably welded together.

7.—(*a*) A container shall be provided with a boss welded or riveted and sweated to the body or end of the container.

(*b*) The said boss shall be closed by a well fitting wrought iron or forged steel screw bung with a leather washer:

Provided that in the case of a container of not more than ten gallons (45·46 litres) in capacity and in the form of a drum a faced joint made tight with soap may be used instead of a leather washer.

8. A container shall be capable of withstanding an hydraulic pressure of twenty pounds per square inch (9·07185 kilogrammes per square 6·4516 centimetres) above that of the atmosphere without injury or leakage.

9. A container shall be galvanised or painted externally.

EXPLANATORY NOTE

(*This note is not part of the Regulations but is intended to indicate their general purport.*)

These Regulations stipulate the conditions under which carbon disulphide may be transported by road.