

**FIRE SAFETY ACT
(CHAPTER 109A, SECTION 61(1))**

**FIRE SAFETY (PETROLEUM AND FLAMMABLE
MATERIALS) REGULATIONS**

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[16th February 2005]

PART I

PRELIMINARY

Citation

1. These Regulations may be cited as the Fire Safety (Petroleum and Flammable Materials) Regulations.

Definitions

2.—(1) In these Regulations, unless the context otherwise requires —

[Deleted by S 546/2013 wef 01/09/2013]

“accepted code of practice” means any code of practice, standard, guide or manual that is accepted by the Commissioner for the purpose of providing practical guidance to persons engaged in the storage, keeping, transport or dispensing, or conveyance by pipeline, of any class of petroleum or flammable material;

[S 546/2013 wef 01/09/2013]

“affected areas” includes off-site affected areas;

[S 546/2013 wef 01/09/2013]

“approved inspector” means any person approved by the Commissioner to carry out inspections, tests and certification required by these Regulations of any premises or vehicle used or to be used in the storage or transport of, or pipeline used or to be used to convey, any petroleum or flammable material or both;

[S 546/2013 wef 01/09/2013]

“carrier”, in relation to any petroleum or flammable material, means any person undertaking the transport of the petroleum or flammable material, whether for hire or reward and whether on his own account;

“cartridge” means a non-refillable container of less than 1.4 litres water capacity designed to be disposed of when empty and constructed to an accepted code of practice and standard, but does not include cigarette lighters and similar small containers;

“Class O petroleum” means liquefied petroleum gas;

[S 546/2013 wef 01/09/2013]

“Class I petroleum” means any petroleum having a flashpoint below 23°C but does not include Class O petroleum;

[S 546/2013 wef 01/09/2013]

“Class II petroleum” means any petroleum having a flashpoint between 23°C and 60°C (both inclusive);

[S 546/2013 wef 01/09/2013]

“Class III petroleum” means any petroleum having a flashpoint above 60°C but not above 93°C;

[S 546/2013 wef 01/09/2013]

“container” means any thing which may be used to store any petroleum or flammable material, and includes any cartridge, cylinder, tank, portable tank, cargo tank, pressure receptacle or freight container;

“cylinder” means a container which has a capacity of less than 250 litres water capacity and is used to store petroleum or flammable materials under pressure;

[S 546/2013 wef 01/09/2013]

“dealer” means a person or company engaged in the business of distributing Class O petroleum in cylinders to the public;

“eating place” has the same meaning as in the Fire Safety (Petroleum and Flammable Materials — Exemption) Order (O 4);

[S 546/2013 wef 01/09/2013]

“Emergency Response Plan” means a plan prepared under regulation 27 or 29G;

[S 546/2013 wef 01/09/2013]

“factory” has the same meaning as in the Workplace Safety and Health Act (Cap. 354A);

“freight container” means an article or a transport equipment designed to facilitate the carriage of goods by one or more modes of transport without intermediate re-loading of the contents;

“Hazardous Materials Transport Driver Permit” or “permit” means a permit for a person to drive a vehicle transporting any petroleum or flammable material;

[Deleted by S 546/2013 wef 01/09/2013]

“licence” means a licence required under Part VI of the Act or these Regulations;

[S 546/2013 wef 01/09/2013]

“licensed vehicle” means a vehicle licensed to carry petroleum and flammable materials under regulation 5;

[S 546/2013 wef 01/09/2013]

“licensee” means a person who holds a valid licence;

“LPG centralised store” means any licensed premises used by a supplier to store LPG cylinders for distribution to dealers;

[S 546/2013 wef 01/09/2013]

“LPG cylinder” means a cylinder used to store liquefied petroleum gas;

[S 546/2013 wef 01/09/2013]

“multi-load”, in relation to the transport of petroleum or flammable materials in package, means a load consisting of 2 or more different types of petroleum or flammable materials in separate containers, whether or not any other material is being conveyed at the same time;

“permitted times”, in relation to the transport of petroleum or flammable materials, means the periods specified in the Fifth Schedule corresponding to such transport;

[S 546/2013 wef 01/09/2013]

“personal identifier” means an image, a measurement or a recording of a person or any part of a person, or any particulars, information or record for the purpose of identifying or authenticating the identity of a person;

“pipeline licensee” means the holder of a valid pipeline licence;

[S 546/2013 wef 01/09/2013]

“pipeline marker” means a warning sign securely anchored to the ground and placed not more than 200 metres apart to indicate the location of buried relevant pipelines;

[S 546/2013 wef 01/09/2013]

“pipeline user”, in relation to a section of a licensed pipeline, means a person, not being the pipeline licensee —

- (a) who owns or leases that section of the licensed pipeline; and
- (b) who uses that section of the licensed pipeline for the conveyance of any class of petroleum or any flammable material;

[S 546/2013 wef 01/09/2013]

“pressure receptacle” includes any cylinder, tube or closed cryogenic receptacle or any bundle of cylinders;

“professional engineer” means a person who is registered as a professional engineer under the Professional Engineers Act

(Cap. 253) and has in force a practising certificate issued under that Act;

“relevant pipeline” and “relevant pipeline works” have the same meanings, respectively as in the Act;

[S 546/2013 wef 01/09/2013]

“restaurant” has the same meaning as in the Fire Safety (Petroleum and Flammable Materials — Exemption) Order;

[S 546/2013 wef 01/09/2013]

“storage licensee” means the holder of a valid storage licence;

[S 546/2013 wef 01/09/2013]

“storage of petroleum or flammable materials in bulk” means storage other than the storage of petroleum or flammable materials in package;

“storage of petroleum or flammable materials in package” means storage of any petroleum or flammable material in one or more individual containers of less than 250 litres of water capacity each;

“supplier”, except in regulations 52, 53 and 54, means a person or company engaged in the business of distributing any class of petroleum or any flammable materials to dealers or to the public;

[S 546/2013 wef 01/09/2013]

“tank” means a container having a water capacity of 250 litres or more, including an ISO-tank, which is used to store any class of petroleum or any flammable material;

[S 546/2013 wef 01/09/2013]

“Transport Emergency Response Plan” means such plan prepared under regulation 45;

“transport of petroleum or flammable materials in bulk” means transport other than the transport of petroleum or flammable materials in package;

“transport of petroleum or flammable materials in package” means transport of any petroleum or any flammable material

in one or more individual containers of less than 250 litres of water capacity each;

[S 546/2013 wef 01/09/2013]

“vehicle” means a road tanker, tank truck, semi-trailer, trailer (including any trailer which does not form part of the vehicle) or any other vehicle intended or adapted for use on roads that may be used in the transport of petroleum or flammable materials but does not include a railroad tank car.

(2) In these Regulations —

- (a) any reference to an accepted code of practice shall be a reference to the code of practice as amended from time to time; and
- (b) if an accepted code of practice is inconsistent with these Regulations or the Act, these Regulations and the Act shall prevail to the extent of that inconsistency.

[S 546/2013 wef 01/09/2013]

(3) For the purposes of the Act —

- (a) the classes of petroleum shall be Class O petroleum, Class I petroleum, Class II petroleum and Class III petroleum, as defined in paragraph (1); and
- (b) flammable materials shall be as specified in the Fourth Schedule.

[S 546/2013 wef 01/09/2013]

(4) For the purposes of regulations 52, 53 and 54, any reference to a supplier of Class O petroleum is a reference to a person or company engaged in the business of bottling Class O petroleum into cylinders for distribution to dealers or to the public.

[S 546/2013 wef 01/09/2013]

PART II

LICENCES AND PERMITS

Application for licences and permits

3.—(1) Every application for a licence or permit, the renewal, amendment or replacement of a licence or permit, the issue of an additional copy of a licence or the transfer of a licence shall be —

- (a) made in such form as the Commissioner may require; and
- (b) accompanied by such documents and information as may be required by these Regulations as regards that licence or permit.

(2) Unless otherwise provided, these Regulations shall apply to an application for the renewal or transfer of a licence or an application for the renewal of a permit as they apply to an application for such licence or permit, respectively.

[S 546/2013 wef 01/09/2013]

Application for licence to store or keep petroleum or flammable materials

4.—(1) An application for a licence to store or keep any petroleum or flammable material or both at any premises shall be made by the person intending to store or keep the petroleum or flammable material or both.

(2) A separate application for a licence to store or keep any petroleum or flammable material or both shall be made in respect of each particular premises at which the petroleum or flammable material or both are to be stored or kept; and each such application shall also be regarded as an application for a licence for those premises to store or keep that petroleum or flammable material or both.

(3) Every application for a licence to store or keep any petroleum or flammable material or both at any premises shall be accompanied by the following documents:

- (a) a certified true copy of the relevant building plans approved by the Commissioner of Building Control

under the Building Control Act (Cap. 29) in respect of those premises;

(b) a copy of a fully dimensioned site plan and floor plan of those premises containing the following information:

- (i) the exact location of the containers or tanks in the premises;
- (ii) the inventory listing each type and the respective quantity of petroleum or flammable material, as the case may be, to be stored or kept on those premises and the mode of the proposed storage;

[S 546/2013 wef 01/09/2013]

(iii) where the application is for the storage of petroleum or flammable materials in package —

- (A) the type of material used to construct the building in which the petroleum or flammable material, as the case may be, are to be stored;
- (B) the means of ventilation and escape, and the types of electrical fittings used in the building; and
- (C) the current usage of the parts of the building other than the proposed storage area;

(iv) where the application is for the storage of petroleum or flammable materials in bulk —

- (A) the piping system, pumping equipment, separation kerb, filling connections and location of emergency isolation valves (if any);
- (B) the mode and type of material used to segregate the storage area from any other area in the building; and
- (C) the distance from the building in which the petroleum or flammable material, as the case may be, are to be stored in bulk to the nearest building, if any;

- (v) the type and location of all fire extinguishing equipment and other fire safety measures which are provided in the premises; and
 - (vi) where the place is to be used for the filling of any petroleum or flammable material into cylinders or containers, the layout of the working area containing the filling machines and conveyors (if any);
- (c) where the application is for the storage of petroleum or flammable materials in bulk —
- (i) the manufacturer's specifications and design plans of the tank and a hydrostatic test report or any equivalent test report of the tank certified in accordance with an accepted code of practice by a professional engineer in the mechanical engineering discipline or by such other person acceptable to the Commissioner;
[S 546/2013 wef 01/09/2013]
 - (ii) the pressure tests report or any equivalent test report of the piping and fittings connected to the tank certified in accordance with an accepted code of practice by a professional engineer in the mechanical engineering discipline or by such other person acceptable to the Commissioner; and
[S 546/2013 wef 01/09/2013]
 - (iii) a radiographic test report or any equivalent test report of the tank certified in accordance with an accepted code of practice by a professional engineer in the mechanical engineering discipline or by such other person acceptable to the Commissioner;
[S 546/2013 wef 01/09/2013]
- (ca) a copy of the fire safety certificate for any fire safety works done in the building;
[S 546/2013 wef 01/09/2013]

- (d) a copy of an Emergency Response Plan relating to the premises at which the petroleum or flammable material is to be stored or kept;
- (e) if required by the Commissioner, a quantitative risk assessment or any other risk analysis report on the storage or keeping of the petroleum or flammable materials at the premises from any person who in the view of the Commissioner is qualified to give such report; and

[S 546/2013 wef 01/09/2013]

- (f) such other documents as the Commissioner may require in any particular case.

[S 546/2013 wef 01/09/2013]

(4) Where the applicant for a licence to store or keep any petroleum or flammable material or both at any premises is not the owner of those premises, the application shall also be accompanied by the consent in writing of the owner of those premises or of the legal personal representative, if the owner is deceased.

(5) Sub-paragraphs (i) and (ii) of paragraph (3)(c) shall not apply to an application for the renewal of a licence to store or keep any petroleum or flammable material or both at any premises if, within the 5 years prior to that application, the applicant has complied with those provisions on at least one occasion either when making an application for the licence or for the renewal of the licence.

[S 546/2013 wef 01/09/2013]

(6) Sub-paragraph (iii) of paragraph (3)(c) shall not apply to an application for the renewal of a licence to store or keep any petroleum or flammable material or both at any premises if, within the 10 years prior to that application, the applicant has complied with those provisions on at least one occasion either when making an application for the licence or for the renewal of the licence.

[S 546/2013 wef 01/09/2013]

Application for pipeline licence

4A.—(1) An application for a pipeline licence to convey any class of petroleum or flammable material through any section of a relevant

pipeline shall be made by the pipeline owner of that section of the relevant pipeline.

(2) Every application for a pipeline licence shall be accompanied by the following documents:

- (a) a copy of the fire safety certificate for the relevant pipeline or, if there is no fire safety certificate for the relevant pipeline, the document specified in paragraph (3);
- (b) a copy of the as-built plan of the relevant pipeline, indicating the location of pipeline markers;
- (c) if required by the Commissioner, a quantitative risk assessment or any other risk analysis report on the conveyance of petroleum or flammable materials through the section of the relevant pipeline from any person who in the view of the Commissioner is qualified to give such report;
- (d) a copy each of the manufacturer's specifications and design plans and relevant test reports (such as radiographic and pressure tests) relating to the pipeline, duly certified in accordance with an accepted code of practice by a professional engineer in the mechanical engineering discipline or by any other person acceptable to the Commissioner;
- (e) a copy of the Emergency Response Plan required under regulation 29G relating to the relevant pipeline;
- (f) a copy of the annual inspection and maintenance report for the relevant pipeline; and
- (g) such other documents as the Commissioner may require in any particular case.

(3) The document specified for the purposes of paragraph (2)(a) in the case where there is no fire safety certificate is a copy of the plan of the relevant pipeline (including all existing relevant pipelines within the same pipetrack or piperack) containing the following:

- (a) a fully-dimensioned site plan, with layout plans, elevations and sectional views, including (where the relevant pipeline

or any existing relevant pipeline within the same pipetrack or piperack is an underground pipeline) the underground plans, elevations and sectional views of such underground pipelines;

- (b) details of the relevant pipeline, including the capacity, thickness, material type, size, joints and connections, labelling and colour code;
- (c) details of the types and quantity of petroleum and flammable materials to be conveyed between each consecutive pair of emergency isolation valves on the relevant pipeline, and the respective flow rate, pressure, temperature and Safety Data Sheet relating to each type of petroleum or flammable material conveyed;
- (d) location and details of the emergency isolation valves and procedures to handle surge pressures;
- (e) location and details of leakage monitoring, detection and control systems (such as systems to shut-off relevant pumps and isolation valves automatically) and over-pressure protection system (such as automatic depressurisation and venting systems); and
- (f) location and details of fire protection systems and measures (such as fire hydrant and fire water monitors), other safety systems and measures (such as secondary containment for the entire pipeline or pipeline corridor) and ancillary safety equipment.

[S 546/2013 wef 01/11/2013]

Application for licence to transport petroleum or flammable materials

5.—(1) An application for a licence to transport any petroleum or flammable material or both in a vehicle shall be made by the person intending to transport the petroleum or flammable material or both.

(2) A separate application for a licence to transport any petroleum or flammable material or both shall be made in respect of each particular vehicle in which the petroleum or flammable material or

both are to be transported; and each such application shall also be regarded as an application for a licence for that vehicle to transport the petroleum or flammable material or both.

(3) Subject to paragraphs (4) and (5), every application for a licence to transport any petroleum or flammable material or both in a vehicle shall be accompanied by the following documents:

- (a) a test certificate on the roadworthiness of the vehicle issued by the Land Transport Authority of Singapore under section 90 of the Road Traffic Act (Cap. 276);
- (b) a copy of the Transport Emergency Response Plan for that vehicle;
- (c) a certificate of inspection of that vehicle from an approved inspector;
- (d) a list of drivers to be employed by the applicant to transport petroleum or flammable materials in that vehicle;

[S 546/2013 wef 01/09/2013]

- (e) if required by the Commissioner, a quantitative risk assessment or any other risk analysis report on the transport of the petroleum or flammable materials in the vehicle from any person who in the view of the Commissioner is qualified to give such report; and

[S 546/2013 wef 01/09/2013]

- (f) such other documents or particulars as the Commissioner may require in any particular case.

[S 546/2013 wef 01/09/2013]

(4) Where the application is for a licence to transport any petroleum or flammable material or both in bulk, the application shall be accompanied by the following additional documents:

- (a) the manufacturer's specifications and design plans of the tank to be used in the transport;
- (b) a hydrostatic test report or any equivalent test report, certified in accordance with an accepted code of practice by a professional engineer in the mechanical engineering

discipline or by such other person acceptable to the Commissioner;

[S 546/2013 wef 01/09/2013]

- (ba) a radiographic test report or any equivalent test report of the tank, certified in accordance with an accepted code of practice by a professional engineer in the mechanical engineering discipline or by any other person acceptable to the Commissioner; and

[S 546/2013 wef 01/09/2013]

- (c) a copy of the plan of the vehicle showing the following particulars:

- (i) the location of the vehicle engine, fuel tank, exhaust system and pipe, batteries and pump or compressor (if any) and where any of these components are encased, the type of material used to encase them, and the type of material that is used to construct the rear portion of the driver's cab facing the tank;
- (ii) the water capacity of the vehicle's tank;
- (iii) the location and nature of all openings, fittings, gauges, emergency shut-off valves, excess flow valves, or any other safety valves or devices and their means of closure and capacities, where applicable; and
- (iv) the location, size and type of all fire extinguishers provided in the vehicle.

(5) Where the application is for a licence to transport petroleum or flammable materials in package, the application shall be accompanied by the following additional documents:

- (a) a letter from the applicant certifying that —
- (i) he has checked the vehicle which is to be used to transport the petroleum or flammable material; and
 - (ii) he is satisfied that the condition of the vehicle is in compliance with the Act and these Regulations; and

(b) a letter of authorisation from the supplier of the petroleum to be transported, if the applicant is not a supplier.

(6) Where the applicant for a licence to transport any petroleum or flammable material or both in any vehicle is not the owner of the vehicle, the application shall also be accompanied by the consent in writing of the owner of the vehicle or of the legal personal representative, if the owner is deceased.

(7) Paragraph (4)(b) shall not apply to an application for the renewal of a licence to transport any petroleum or flammable material or both in a vehicle if, within the 5 years prior to that application, the applicant has complied with that provision on at least one occasion either when making an application for the licence or an application for the renewal of the licence.

[S 546/2013 wef 01/09/2013]

(8) Paragraph (4)(ba) shall not apply to an application for the renewal of a licence to transport any petroleum or flammable material or both in a vehicle if, within the 10 years prior to that application, the applicant has complied with that provision on at least one occasion either when making an application for the licence or an application for the renewal of the licence.

[S 546/2013 wef 01/09/2013]

Application for Hazardous Materials Transport Driver Permit

6.—(1) An application for a Hazardous Materials Transport Driver Permit shall be made —

- (a) by a licensee who is the holder of a licence to transport any petroleum or flammable material or both; and
- (b) on behalf of each driver employed by the licensee to drive any vehicle used or to be used to transport any petroleum or flammable material or both.

(2) Every application for a permit shall be accompanied by the following documents:

- (a) documentary proof of each driver's attendance at the Hazardous Materials Transport Driver Course and any

other similar course as may be specified by the Commissioner;

- (b) such personal identifier of each driver as the Commissioner may require; and
- (c) such other documents as the Commissioner may require in any particular case.

[S 546/2013 wef 01/09/2013]

Duration of licence or permit

7.—(1) Unless earlier cancelled, every licence shall be in force for such period as is specified in the licence, which shall not exceed 3 years.

(2) Unless earlier cancelled, every permit shall be in force for a period of 24 months or such shorter period as is specified in the permit.

Transfer of licence or permit

8.—(1) No licence shall be transferable except with the prior consent in writing of the Commissioner.

(2) The Hazardous Materials Transport Driver Permit shall not be transferable.

Replacement of licence or permit and copy of licence

9.—(1) If the Commissioner is satisfied that a licence or permit has been lost or stolen, or inadvertently destroyed or defaced, the Commissioner may on the application of the licensee issue a replacement licence or permit to the licensee or holder of the permit.

(2) The Commissioner may, on the application of the licensee, issue an additional copy of the licence to the licensee.

[S 546/2013 wef 01/09/2013]

Notification of change in licence or permit particulars

10. If there is any change in the particulars set out in the application for the issue of a licence or permit, or a transfer (or, if there has been

more than one transfer, the last transfer) of a licence, the holder of that licence or permit shall, as soon as practicable —

- (a) notify the Commissioner; and
- (b) apply to the Commissioner for an appropriate amendment of the licence or permit, as the case may be, if, as a result of the change, any of the particulars set out in it are no longer appropriate.

Licence to be exhibited

11.—(1) Every holder of a licence of any premises for the storage or keeping at any premises of any petroleum or flammable material or both shall display his licence at all times in a prominent and accessible place on those premises.

(2) Every holder of a licence of a vehicle to transport any petroleum or flammable material or both shall display his licence at all times in a prominent and accessible place in the driver's cab of the vehicle.

Licence, etc., to be produced for inspection

12.—(1) Every licensee shall himself, or acting through his agent or employee, at all times afford free access to the Commissioner or any officer duly authorised by the Commissioner to inspect any part of the licensed premises, the licensed pipeline or the vehicle used to transport the petroleum or flammable material, as the case may be.

[S 546/2013 wef 01/09/2013]

(2) Every holder of a licence or permit shall produce his licence or permit when required to do so by the Commissioner.

Cancellation of licence or permit on cessation of regulated activity

13.—(1) Every licensee shall inform the Commissioner in writing within 14 days after the date of his ceasing —

- (a) to import, store or keep petroleum or flammable materials at the licensed premises;
- (b) to convey petroleum or flammable materials through the licensed pipeline;

- (c) to transport any petroleum or flammable material; or
- (d) to use any licensed vehicle to transport petroleum or flammable material.

[S 546/2013 wef 01/09/2013]

(2) Every holder of a permit shall inform the Commissioner in writing within 14 days after the date of his ceasing to be employed by a licensee as a driver to transport petroleum or flammable material.

[S 546/2013 wef 01/09/2013]

(3) Every holder of a licence shall, before the cancellation of his licence, ensure that —

- (a) all storage systems and installations including tanks, pumps, compressors, piping systems or any other equipment used in conveying, filling, dispensing or storage of any petroleum or flammable material are safely removed;

[S 546/2013 wef 01/09/2013]

- (b) all tanks used in the transport of any petroleum or flammable material are purged and certified clean; and

[S 546/2013 wef 01/09/2013]

- (c) all pipelines used in the conveyance of any petroleum or flammable materials are purged and certified clean.

[S 546/2013 wef 01/09/2013]

Fees

14.—(1) The fees for a licence or permit, the renewal, amendment or replacement of a licence or permit, the issue of an additional copy of a licence or for the transfer of a licence shall be as specified in the First Schedule.

(2) Where a licence is for a period of less than 12 months, the Commissioner may charge a proportionate fee therefor; and in charging such proportionate fee, any part of a month shall be reckoned as one month.

(3) No fee, or any part thereof, specified in the First Schedule shall be refundable.

[S 546/2013 wef 01/09/2013]

PART III

IMPORT OF PETROLEUM AND FLAMMABLE MATERIALS

Import of petroleum or flammable materials in excess of Second Schedule quantity requires licence

15. The import of any class of petroleum or any flammable material in excess of the respective quantities specified in the Second Schedule shall require a licence to import.

Import of petroleum or flammable materials in cylinder

15A. The Commissioner shall not grant any licence for the import in cylinders of Class O petroleum or compressed natural gas unless the Commissioner is satisfied that —

- (a) fire safety will not be compromised by the import or distribution in Singapore of such cylinders;
- (b) the construction of the cylinder is safe; and
- (c) the applicant for the import licence has adequate resources and facilities in Singapore to maintain the safety of the cylinders.

[S 546/2013 wef 01/09/2013]

Conveyance or container used to import

16. Every container, tank, freight container or road tanker to be used to import any petroleum or flammable material in excess of the quantities specified in the Second Schedule shall be designed, constructed, maintained and labelled in accordance with an accepted code of practice specified by the Commissioner.

Collection of imported petroleum and flammable materials

17.—(1) Where any petroleum or flammable material is being imported into Singapore, the importer, or his duly authorised agent, shall take delivery of the petroleum or flammable material only at —

- (a) a wharf in Singapore if the petroleum or flammable material is being imported into Singapore by water;
- (b) an air cargo terminal in Singapore if the petroleum or flammable material is being imported into Singapore by air; or
- (c) Tuas Checkpoint or such other place specified by the Commissioner as a substitute if Tuas Checkpoint is closed, if the petroleum or flammable material is being imported into Singapore by road.

(2) No petroleum or flammable material shall be imported into Singapore by rail.

PART IV

STORAGE OF PETROLEUM AND FLAMMABLE MATERIALS

Record of petroleum and flammable materials stored

18.—(1) The storage licensee for any licensed premises shall keep and maintain up-to-date records of all petroleum and flammable materials stored or kept at the licensed premises, which shall include —

- (a) a list of all petroleum and flammable materials stored or handled at the licensed premises;
- (b) the total quantity of each type of petroleum and flammable material stored at the licensed premises;
- (c) the actual quantity of any petroleum or flammable material stored in each tank and container on those licensed premises;
- (d) the Safety Data Sheet (otherwise known by its acronym SDS) for both petroleum and flammable materials;

- (e) the records of the movement of all petroleum and flammable materials stored at the licensed premises; and
- (f) such other information as the Commissioner may require in any particular case.

(2) The storage licensee shall —

- (a) keep the records referred to in paragraph (1) in such form and manner as may be determined by the Commissioner;
- (b) retain each record referred to in paragraph (1) for a minimum period of 3 years after that record was made or until the petroleum or flammable materials to which the record relates have ceased to be stored at the licensed premises, whichever occurs later; and
- (c) upon request, provide the Commissioner with a copy of such record, whether electronically or otherwise.

[S 546/2013 wef 01/09/2013]

Construction of licensed premises

19. The storage licensee for any licensed premises shall ensure that the ventilation, means of escape, structural fire precautions, fire prevention and extinguishing systems of the licensed premises shall be constructed and installed in accordance with the provisions of the Fire Safety (Building and Pipeline Fire Safety) Regulations (Rg 1) and an accepted code of practice.

[S 546/2013 wef 01/09/2013]

Precautions to be observed in relation to licensed premises

20. The storage licensee for any licensed premises —

- (a) shall take all practicable steps to prevent the occurrence on the licensed premises of accidents through fire, explosion, leakage or ignition of any petroleum or flammable material or vapours thereof or other causes; and

[S 546/2013 wef 01/09/2013]

- (b) shall not do or allow the doing of any act in or on those licensed premises that may cause fire, explosion or any other dangerous occurrences, unless it is reasonably

necessary for the purpose of, or incidental to, the storage or keeping of petroleum or flammable material at those licensed premises.

[S 546/2013 wef 01/09/2013]

Means of access and escape to be kept clear

21. The storage licensee for any licensed premises shall take, so far as is reasonably practicable, such steps as are necessary to ensure that —

- (a) all the entrances, passageways, exits and other means of escape in the licensed premises are free from obstruction at all times; and

[S 546/2013 wef 01/09/2013]

- (b) those licensed premises are accessible at all times to fire engines, ambulances or other emergency vehicles.

[S 546/2013 wef 01/09/2013]

Stacking requirements

22. Where containers of any petroleum or flammable material are stacked in any licensed premises, the storage licensee for the licensed premises shall ensure that the stacking shall be done in a manner that —

- (a) will limit the spread of any fire that occurs;
- (b) will not endanger the occupants of the licensed premises in the course of their work; and

[S 546/2013 wef 01/09/2013]

- (c) will not hinder access to the licensed premises by any fire engine, ambulance or other emergency vehicle.

[S 546/2013 wef 01/09/2013]

Protection and maintenance of licensed premises

23. The storage licensee for any licensed premises shall —

- (a) take all practicable precautions to prevent persons from entering the licensed premises or having access to any

petroleum or flammable material in or on the licensed premises, except with the licensee's permission;

- (b) keep the licensed premises clean and in good condition; and
- (c) keep the licensed premises clear of dry grass, unmown grass, vegetation, undergrowth, debris, combustible material and any fire hazards.

[S 546/2013 wef 01/09/2013]

Fire protection, detection and mitigation measures for licensed premises

24.—(1) The storage licensee for any licensed premises shall provide, implement and maintain such fire protection, detection and mitigation measures, materials and equipment in the licensed premises as the Commissioner may reasonably require for the purposes of fire safety.

(2) For the purposes of managing fire safety risks in the vicinity of the licensed premises, the Commissioner may direct the storage licensee to provide to any other person information relevant to the assessment of the need for fire protection, detection and mitigation measures, materials or equipment in the vicinity of the licensed premises.

(3) The storage licensee shall also ensure that all persons who are required to handle the petroleum or flammable material within the licensed premises are conversant with the laws, the accepted codes of practice and the actions to be taken in the event of any fire, explosion, leakage or other similar emergency.

(4) The storage licensee shall also provide and maintain such types and quantities of sensors as may be required by the Commissioner in those licensed premises.

[S 546/2013 wef 01/09/2013]

Provision of Company Emergency Response Team

25.—(1) Where any licensed premises are used to store or keep —

- (a) more than 5,000 litres of petroleum;

- (b) more than 5,000 litres of liquid flammable material;
- (c) more than 5,000 kg of solid flammable material;
- (d) more than 5,000 kg of gaseous flammable material; or
- (e) substances which are in mixed states, the aggregate weight of which is more than 5,000 kg,

the storage licensee for the licensed premises shall establish and maintain an in-house, on-site Company Emergency Response Team (referred to in this regulation as the Team) comprising such number of persons as the Commissioner may direct.

[S 546/2013 wef 01/09/2013]

(2) Such storage licensee shall ensure that the Team is competent in handling incidents involving any petroleum or flammable material in the event of any fire, explosion, leakage or other similar emergency.

[S 546/2013 wef 01/09/2013]

(3) The Commissioner may at any time require the storage licensee to send any member of the Team for its licensed premises to take and pass, at such frequency as the Commissioner may determine, such competency tests as the Commissioner may specify.

[S 546/2013 wef 01/09/2013]

(4) If any of the member of the Team fails to pass any competency test referred to in paragraph (3), the storage licensee shall not deploy or shall cease to deploy the person as a member of the Team until such time the person has successfully passed the competency test.

[S 546/2013 wef 01/09/2013]

(5) The Commissioner may subject the Team to periodic assessment of the emergency preparedness of the Team at such frequency as may be determined by the Commissioner.

Security measures for licensed premises

26.—(1) The Commissioner may direct the storage licensee for any licensed premises to adopt such security measures as the Commissioner considers fit for those licensed premises.

[S 546/2013 wef 01/09/2013]

(2) Such measures may include —

(a) the reduction of the quantity of petroleum and flammable materials stored at those licensed premises within such time as may be specified by the Commissioner;

[S 546/2013 wef 01/09/2013]

(b) the installation of security equipment including close circuit cameras at appropriate locations within the licensed premises; and

(c) reasonably practicable measures to prevent any unauthorised person from entering the licensed premises, from gaining access to any petroleum or flammable material in or on the licensed premises or from performing any unauthorised activity on those licensed premises.

[S 546/2013 wef 01/09/2013]

Emergency Response Plan

27.—(1) The storage licensee for any licensed premises shall prepare and keep up-to-date an Emergency Response Plan to deal effectively with any spillage, leakage, accidental discharge or emergency which may arise from the storage of the petroleum or flammable material at those licensed premises.

[S 546/2013 wef 01/09/2013]

(2) The Emergency Response Plan shall be prepared in accordance with such guidelines as may be issued by the Commissioner and submitted to the Commissioner.

[S 546/2013 wef 01/09/2013]

(3) The storage licensee shall ensure that the contents of the Emergency Response Plan are made known to all persons working at the licensed premises.

[S 546/2013 wef 01/09/2013]

(4) The contents of an Emergency Response Plan shall deal effectively with off-site impact, if any, and shall cover the following areas and be in the format specified by the Commissioner:

- (a) identification of likely accident scenarios and establishment of the likely impact zones;
- (b) notification and activation procedures;
- (c) response actions to contain and control the release and to mitigate the impact zones;
- (d) monitoring of the affected areas;

[S 546/2013 wef 01/09/2013]

- (e) procedures for decontamination and clean-up of affected areas;
- (f) names of personnel with their assigned roles and responsibilities in dealing with the emergency (including the decontamination and clean-up of the affected areas);
- (g) list of emergency response equipment, including protective gears, fire-fighting equipment, oversized drums, emergency containers or tankers, absorbents, neutralising agents, monitoring equipment and clean-up equipment, made available for dealing with the emergency; and
- (h) any other information as required by the Commissioner.

[S 546/2013 wef 01/09/2013]

(5) The Commissioner may require the storage licensee to review, test or improve his Emergency Response Plan for the licensed premises within a time period specified by the Commissioner.

[S 546/2013 wef 01/09/2013]

(6) Where any change occurs which affects or is likely to affect the validity or effectiveness of the Emergency Response Plan, the storage licensee concerned shall, within one month of being aware of such a change, revise and re-submit the revised Emergency Response Plan to the Commissioner.

[S 546/2013 wef 01/09/2013]

(7) Where the Commissioner is of the opinion that any Emergency Response Plan submitted under this regulation is inadequate to deal with any emergency which may occur at the licensed premises, the Commissioner may direct the storage licensee concerned to amend

the Emergency Response Plan in such manner as the Commissioner considers fit.

[S 546/2013 wef 01/09/2013]

(8) The storage licensee shall ensure that those licensed premises shall have at all times trained personnel and adequate equipment to deal with any emergencies or accidents which may arise.

[S 546/2013 wef 01/09/2013]

(9) The storage licensee shall implement the Emergency Response Plan in the event of any emergency at those licensed premises involving the petroleum or flammable material stored or kept thereat.

[S 546/2013 wef 01/09/2013]

PART V

DISPENSING OF PETROLEUM AND FLAMMABLE MATERIALS

Duties of operator of dispensing station

28.—(1) Every storage licensee who operates a petroleum or flammable material dispensing station shall ensure that —

(a) no person, other than a person authorised by the storage licensee or under the close supervision of a person authorised by the storage licensee who has knowledge of and experience with the dispensing of petroleum or flammable materials, shall be permitted to operate any dispensing equipment at the dispensing station;

[S 546/2013 wef 01/09/2013]

(b) the dispensing of any petroleum or flammable material from a tanker into any storage tank of the dispensing station is carried out under the close supervision of a person who has knowledge of and experience with the dispensing of such petroleum or material, as the case may be, from a tanker to the storage tank;

(c) the dispensing of any petroleum or flammable material into any storage tank of the dispensing station is only carried out —

- (i) if the tank has been checked immediately prior to dispensing and found to be capable of receiving the fuels without overflowing; and
 - (ii) where the storage tank has an opening for the measurement of the liquid level in the storage tank, if the opening has been securely closed;
- (d) any petroleum or flammable material shall not be dispensed into the fuel tank of any vehicle if the engine of the vehicle is running;
- (e) the maximum quantity of petroleum that is dispensed into a container (other than a fuel tank of a vehicle or the tank of a tanker) shall not exceed 20 litres on any single occasion, unless the written approval of the Commissioner has been obtained;
- (f) the maximum quantity of flammable material that is dispensed into a container shall not exceed such maximum quantity as may be specified by the Commissioner unless the written approval of the Commissioner has been obtained;
- (g) no vehicle used to transport any petroleum or flammable material or both is parked within the dispensing station except for the purpose of refueling or dispensing;
- (h) no lighted candle, lighted cigarette, burning of joss sticks, joss paper or any other naked light, fire or flame is permitted within the precincts of a dispensing station at any time;
- (i) warning notices “Switch Off Engine”, “No Smoking” and “No Naked Lights” are prominently displayed at the dispensing area or within the precincts of the dispensing station;
- (j) upon the receipt of a notice from the Commissioner requiring the use of security barriers at the petroleum or flammable material dispensing station, security barriers in the form of bollards with thick chains are installed and used at all entrances and exits of the petroleum or

flammable material dispensing station during all dispensing operations involving tankers, until further notice from the Commissioner;

- (k) all access points to all underground petroleum or flammable material storage tanks within the respective dispensing station are secured by means of locking devices or other security measures to prevent unauthorised access;
- (l) sufficient numbers of closed circuit cameras are installed at the petroleum or flammable material dispensing station to cover the forecourt, backcourt, workshop, dispensing areas and other critical areas of the petroleum or flammable material dispensing station; and

[S 546/2013 wef 01/09/2013]

- (m) such other directions of the Commissioner relating to fire safety, security, storage, transport, dispensing or handling of petroleum and flammable materials are complied with.

[S 546/2013 wef 01/09/2013]

(2) Every storage licensee who operates a petroleum or flammable material dispensing station installed with self-service dispensing pumps shall, in addition to the duties set out in Part IV, ensure that —

- (a) the instructions, which may include pictorial signs if applicable, for operating the dispensing equipment are displayed conspicuously in the dispensing area;
- (b) the person on duty and any console operator shall at all times —
 - (i) station themselves in such a position so as to have a clear and unobstructed view of the dispensing area; and
 - (ii) be able to communicate with any person at the dispensing area;
- (c) the dispensing nozzle provided at the self-service dispensing pumps are of the manual type and are not affixed with any automatic locking device; and

- (d) there is at all times proper storage and usage of petroleum or flammable material when dispensing or in the sale or supply of petroleum or flammable material to individuals and motorists.

[S 546/2013 wef 01/09/2013]

(3) No person who is in a petroleum or flammable material dispensing station shall —

- (a) smoke or use open fires or any other naked light, fire or flame within the precincts of the dispensing station at any time; and
- (b) dispense petroleum or flammable materials or both into the fuel tank of any vehicle while the engine of the vehicle is running.

Sale and supply of petroleum and flammable materials

29.—(1) The holder of a storage licence for any licensed premises, or a licence to transport any petroleum or flammable material or both as a carrier, supplier or dealer, shall not sell or supply, or cause to be sold or supplied, any class of petroleum or flammable material exceeding the amounts specified in the Second Schedule to any person unless he has checked and is satisfied that the purchaser or recipient is the holder of a valid licence to store or keep, or to transport, the petroleum or flammable material or both.

[S 546/2013 wef 01/09/2013]

(2) The holder of a storage licence for any licensed premises, or a licence to transport any petroleum or flammable material or both as a carrier, supplier or dealer, shall —

- (a) keep and maintain a record, in such form as the Commissioner may require, of all purchases, deliveries, sale and supply of any petroleum or flammable material or both at the licensed premises or from vehicles used to transport the petroleum or flammable materials, as the case may be;

[S 546/2013 wef 01/09/2013]

- (b) retain each record for a period of 3 years after the record was made; and

[S 546/2013 wef 01/09/2013]

- (c) upon request, provide the Commissioner with a copy of such records, whether electronically or otherwise.

[S 546/2013 wef 01/09/2013]

(3) Nothing in this regulation shall apply to the sale or supply of petroleum by the dispensing of such petroleum directly into the fuel tank of a motor vehicle.

PART VA

CONVEYANCE OF PETROLEUM AND FLAMMABLE MATERIALS BY PIPELINE

[S 546/2013 wef 01/03/2014]

Records on use and maintenance of licensed pipeline

29A.—(1) The pipeline licensee for a licensed pipeline and the pipeline user of a licensed pipeline shall keep and maintain up-to-date records of all petroleum and flammable materials conveyed through the licensed pipeline, which shall include —

- (a) a list of all petroleum and flammable materials conveyed through the licensed pipeline;
- (b) the plan detailing the route of the licensed pipeline and its operating conditions;
- (c) the Safety Data Sheet (otherwise known by its acronym SDS) for both petroleum and flammable materials, where applicable; and
- (d) such other information as the Commissioner may require in any particular case.

(2) The pipeline licensee shall keep and maintain up-to-date records of all safety checks conducted on its licensed pipeline.

(3) The pipeline licensee or the pipeline user, as the case may be, shall also —

- (a) keep the records referred to in paragraph (1) or (2) in such form and manner as may be determined by the Commissioner;
- (b) retain each record referred to in paragraph (1) or (2) for a minimum period of 3 years after that record was made; and
- (c) upon request, provide the Commissioner with a copy of such record, whether electronically or otherwise.

[S 546/2013 wef 01/03/2014]

General precautions

29B. The pipeline licensee —

- (a) shall take all practicable steps to prevent the occurrence, in the vicinity of its licensed pipeline, of accidents through fire, explosion, leakage or ignition of any petroleum or flammable material or vapours thereof or through other causes; and
- (b) shall not do or cause the doing of any act, in the vicinity of its licensed pipeline, that may cause fire, explosion or any other dangerous occurrences unless it is reasonably necessary for the purpose of, or incidental to, the conveyance of petroleum or flammable material through the licensed pipeline.

[S 546/2013 wef 01/03/2014]

Protection, inspection and maintenance of licensed pipelines

29C. The pipeline licensee shall —

- (a) take all practicable steps to prevent persons from having access to its licensed pipeline, except with the permission of the pipeline licensee;
- (b) keep its licensed pipeline in good operational condition;
- (c) keep the vicinity of its licensed pipeline clear of dry grass, unmown grass, vegetation, undergrowth, debris, combustible material and any fire hazards;

- (d) not allow any lighted candle, lighted cigarette, burning of joss sticks or joss paper or any other naked light, fire or flame within the immediate vicinity of its licensed pipeline at any time, unless it is necessary for relevant pipeline works;
- (e) ensure that warning notices “No Smoking” and “No Naked Lights” are prominently displayed within the immediate vicinity of its licensed pipeline;
- (f) label its licensed pipeline in accordance with an accepted code of practice;
- (g) provide and maintain pipeline markers for any of its licensed pipelines which are buried and display Emergency Information Panels in accordance with an accepted code of practice for above ground pipelines; and
- (h) ensure that all persons who are permitted to carry out works, inspection or maintenance works on its licensed pipeline are competent and conversant with the laws, the accepted codes of practice and the actions to be taken in the event of any fire, explosion, leakage or other similar emergency.

[S 546/2013 wef 01/03/2014]

Fire protection, detection and mitigation measures

29D.—(1) The pipeline licensee shall provide, implement and maintain such fire protection, detection and mitigation measures, materials and equipment in the vicinity of its licensed pipeline as the Commissioner may reasonably require for the purposes of fire safety.

(2) For the purposes of managing fire safety risks in the vicinity of a licensed pipeline, the Commissioner may direct the pipeline licensee for that licensed pipeline or any pipeline user of that licensed pipeline to provide to any other person information relevant to the assessment of the need for fire protection, detection and mitigation measures, materials and equipment in the vicinity of the licensed pipeline.

[S 546/2013 wef 01/03/2014]

Company Emergency Response Team

29E.—(1) The pipeline licensee shall establish and maintain an in-house, on-site Company Emergency Response Team (referred to in this regulation as the Team) comprising such number of persons as the Commissioner may direct.

(2) Such pipeline licensee shall ensure that the Team is competent in handling incidents involving any petroleum or flammable material in the event of any fire, explosion, leakage or other similar emergency.

(3) The Commissioner may at any time require the pipeline licensee to send any member of the Team to take and pass, at such frequency as he may determine, such competency tests as the Commissioner may specify.

(4) If any member of the Team fails to pass any competency test referred to in paragraph (3), the pipeline licensee shall not deploy or shall cease to deploy the person as a member of the Team until the person has successfully passed the competency test.

(5) The Commissioner may subject the Team to periodic assessment of the emergency preparedness of the Team at such frequency as may be determined by the Commissioner.

[S 546/2013 wef 01/03/2014]

Security measures

29F.—(1) The Commissioner may direct the pipeline licensee to adopt such security measures as the Commissioner considers fit for its licensed pipeline.

(2) Such measures may include —

- (a) such reduction in the rate of conveyance of petroleum and flammable materials through the pipeline as may be specified by the Commissioner;
- (b) the installation of security equipment including closed circuit cameras and security barriers at appropriate locations within the vicinity of the licensed pipeline; and

- (c) the taking of reasonably practicable measures to prevent any unauthorised person from gaining access to or performing any unauthorised activity in relation to the licensed pipeline.

[S 546/2013 wef 01/03/2014]

Emergency Response Plan

29G.—(1) The pipeline licensee shall prepare and keep up-to-date an Emergency Response Plan to deal effectively with any spillage, leakage, accidental discharge or emergency which may arise from the conveyance of petroleum or flammable materials through its licensed pipeline.

(2) The Emergency Response Plan shall be prepared in such form and in accordance with such guidelines as may be issued by the Commissioner and shall be submitted to the Commissioner.

(3) The pipeline licensee shall ensure that the contents of the Emergency Response Plan are made known to all persons whose work involves its licensed pipeline or are carried out in the immediate vicinity of its licensed pipeline.

(4) The Emergency Response Plan shall include the following in connection with the licensed pipeline to which the Emergency Response Plan relates:

- (a) identification of likely accident scenarios and establishment of the likely impact zones;
- (b) notification and activation procedures;
- (c) response actions to contain and control the release of petroleum and flammable materials and to mitigate the potential impact zones;
- (d) procedures for monitoring of the affected areas;
- (e) procedures for decontamination and clean-up of affected areas;
- (f) names of personnel with their assigned roles and responsibilities in dealing with any spillage, leakage,

accidental discharge or emergency (including the decontamination and clean-up of the affected areas);

- (g) list of emergency response equipment, including protective gear, fire-fighting equipment, oversized drums, emergency containers or tankers, absorbents, neutralising agents, monitoring equipment and clean-up equipment, available for dealing with any spillage, leakage, accidental discharge or emergency;
- (h) detailed layout plans of the licensed pipelines, including the documents and information referred to in regulation 4A(3); and
- (i) any other information as the Commissioner may require in any particular case.

(5) The Commissioner may require the pipeline licensee to review, test or improve his Emergency Response Plan within a time period specified by the Commissioner.

(6) Where any change occurs which affects or is likely to affect the validity or effectiveness of the Emergency Response Plan, the pipeline licensee shall, within one month of becoming aware of such a change, revise and re-submit the revised Emergency Response Plan to the Commissioner.

(7) Where the Commissioner is of the opinion that any Emergency Response Plan submitted under this regulation is inadequate to deal with any spillage, leakage, accidental discharge or emergency which may occur in connection with the licensed pipeline to which the Emergency Response Plan relates, the Commissioner may direct the pipeline licensee concerned to amend the Emergency Response Plan in such manner as the Commissioner considers fit.

(8) The pipeline licensee shall ensure that there are at all times trained personnel and adequate equipment to deal with any spillage, leakage, accidental discharge, emergencies or accidents which may arise in connection with its licensed pipeline.

(9) The pipeline licensee shall implement the Emergency Response Plan in the event of any spillage, leakage, accidental discharge or

emergency which may affect the normal and safe operation of its licensed pipeline.

[S 546/2013 wef 01/03/2014]

Duties of pipeline user

29H.—(1) The pipeline user of a licensed pipeline shall, upon request of the Commissioner, render reasonable and necessary assistance to enable the pipeline licensee for the licensed pipeline to carry out its duties under the Act, to prevent or mitigate leakage or spillage of petroleum or flammable materials conveyed through the licensed pipeline or to control or extinguish any fire or related emergency which may affect the vicinity of the licensed pipeline.

(2) The assistance required under paragraph (1) may include any or all of the following:

- (a) the provision of any information necessary to plan and implement preventive measures or for operational action;
- (b) the isolation of pipeline valves under the control of the pipeline user of the licensed pipeline to prevent leakage or spillage of petroleum or flammable materials conveyed through the licensed pipeline;
- (c) the suspension of use of the licensed pipeline by the pipeline user to enable maintenance and repairs to the licensed pipeline reasonably required for the purposes of fire safety.

[S 546/2013 wef 01/03/2014]

PART VI

TRANSPORT OF PETROLEUM AND FLAMMABLE MATERIALS

Transport of petroleum or flammable materials in excess of Second Schedule quantity requires licence

30. The transport of any class of petroleum or any flammable material in excess of the respective quantities specified in the Second Schedule shall require a licence to transport.

Duties of person licensed to transport in relation to vehicle

31. Any person who is licensed to transport any petroleum or flammable material or both, as a carrier, supplier or dealer shall, before using any vehicle to transport any petroleum or flammable materials in package, check the vehicle and ensure that it meets all the following requirements:

- (a) that the platform of the vehicle is lined with timber or is timber constructed so as to minimise contact between the metal parts of the platform and any container on that vehicle;
 - (b) that the protective railings lining the platform of the vehicle are at least one metre in height in order to secure any container on that vehicle and to prevent the container from falling off the vehicle when the vehicle is in motion;
 - (c) that the glass at the back of the driver cabin is of wired glass or toughened or safety glass of not less than 6 millimetres in thickness so as to act as a fire shield;
 - (d) that the battery is covered with appropriate insulation material to prevent electrical sparks emanating there from igniting any flammable vapour;
 - (e) that the exhaust pipe is extended at least 150 millimetres outwards away from the vehicle tailbox or is directed downward to keep vehicle exhaust away from any container;
 - (f) that a label according to the standard issued by SPRING Singapore known as Singapore Standard on Hazard Communication for Hazardous Chemicals and Dangerous Substances is conspicuously displayed at the front, sides and back of the vehicle and that a warning sign as shown in the Third Schedule is conspicuously displayed at the back of the vehicle;
- [S 546/2013 wef 01/09/2013]*
- (g) that the vehicle is equipped with one 9 kg dry chemical powder fire extinguisher and —

- (i) a one kg dry chemical fire extinguisher; or
- (ii) a 2.3 kg carbon dioxide fire extinguisher;
- (h) that the vehicle is equipped with all other emergency equipment as stated in the Transport Emergency Response Plan;

[S 546/2013 wef 01/09/2013]

- (i) that precautionary measures are in place to safeguard the vehicle from any unauthorised person gaining access to or stealing the vehicle when the vehicle is loaded with petroleum and flammable materials; and

[S 546/2013 wef 01/09/2013]

- (j) that adequate fire protection, detection and mitigating measures and equipment are installed in the vehicle as the Commissioner may reasonably require for the purposes of fire safety.

[S 546/2013 wef 01/09/2013]

Obligations of person licensed to transport in packages

32. The holder of a licence to transport petroleum or flammable materials in packages, as a carrier, supplier or dealer shall ensure that —

- (a) the transport is carried out in accordance with the requirements specified in an accepted code of practice, these Regulations and any other condition that the Commissioner may consider necessary in the interests of public safety;
- (b) the containers are placed in an upright position or, where it is not possible to do so, in a position which will minimise leakage from the containers;
- (c) the containers are secured in such a manner as to prevent movement, tipping over or physical damage;
- (d) leaking, unsealed or improperly sealed containers are not transported in any vehicle;

- (e) where a container is found to be leaking in the course of transport, the driver or the person having charge of the container shall take all possible actions to contain the leakage and the defective container shall be conveyed to a safe place for decanting and repairs when it is safe to do so; and
- (f) no empty cylinders shall be transported after the permitted times for the transport of such cylinders.

[S 546/2013 wef 01/09/2013]

Obligations of person licensed to transport petroleum or flammable materials in bulk

33. A person licensed to transport petroleum or flammable materials in bulk, as a carrier or supplier shall ensure that —

- (a) the transport, filling and disposal of any petroleum or flammable material are carried out in accordance with the requirements specified in an accepted code of practice, these Regulations and any other condition that the Commissioner may consider necessary in the interests of public safety;
- (b) any tanker used to transport petroleum or flammable materials in bulk is roadworthy and fit to transport the petroleum or flammable materials, and that the amount of grease, oil and other petroleum or flammable materials in or on the tanker is kept to the minimum;
- (c) the tank containing the petroleum or flammable materials being transported is free from leaks;
- (d) the driver of the tanker and any person accompanying him in the tanker possesses the requisite knowledge of or skill in —
 - (i) the driving and operating of a tanker;
 - (ii) the filling and dispensing of petroleum or flammable materials to or from a tanker;

- (iii) the potential hazards and dangers, especially of fire and explosion, of the class of petroleum or flammable materials being transported;
- (iv) the use of the tanker's portable fire extinguishers;
- (v) the routes of transport approved by the Commissioner; and
- (vi) the permitted times for the transport of petroleum in bulk;

[S 546/2013 wef 01/09/2013]

- (e) the driver of the tanker carries out an inspection of the tank to ensure that all valves are closed and all hoses are kept in their proper positions on the vehicle and are not exposed to potential damage before proceeding to transport the petroleum and flammable materials;
- (f) the filling of petroleum and flammable materials into tanks is only carried out in licensed premises and through the hose pipes provided for the purpose; and
- (g) the dispensing of petroleum and flammable materials is not carried out if smoking, naked flame, fire or any other source of ignition is present within 5 metres of the tanker.

Maximum laden weight of vehicle transporting petroleum

34. The laden weight of any vehicle transporting petroleum in packages or in bulk shall not exceed —

- (a) the maximum laden weight of the vehicle as approved by the Registrar of Vehicles; or
- (b) any of the following quantities:
 - (i) 18 kilolitres water capacity in the case of transportation of Class O petroleum in bulk;
 - (ii) 28.4 kilolitres water capacity in the case of transportation of Class I, II or III petroleum or any flammable liquid in bulk,

[S 546/2013 wef 01/09/2013]

whichever is the lower.

Passenger in vehicle transporting petroleum or flammable materials prohibited

35. The holder of a licence to transport any petroleum or flammable material or both as a carrier, supplier or dealer shall ensure that —

- (a) no passenger, other than a driver who is a holder of a permit and any other persons authorised by the licensee to act as the crew of the vehicle, is permitted to ride in or on a vehicle carrying petroleum or flammable material or both for transport; and

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- (b) the driver and other crew are all trained in and are conversant with —

- (i) the operating of the vehicle;
- (ii) the filling and dispensing of petroleum or flammable material to or from the vehicle;
- (iii) the potential hazards and dangers, especially of fire and explosion, of the class of petroleum or flammable material being transported;
- (iv) the use of the vehicle's portable fire extinguishers and emergency equipment;
- (v) the routes of transport approved by the Commissioner;
- (vi) the permitted times for the transport of petroleum and flammable materials; and

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- (vii) the emergency response procedures as documented in the Transport Emergency Response Plan.

Responsibilities of driver

36. The driver of a vehicle used to transport petroleum or flammable material or both shall —

- (a) carry with him at all times the original copy of his valid permit when transporting petroleum or flammable material or both, as the case may be;
- (b) keep in the cabin of the vehicle the original copy of the valid licence to transport petroleum or flammable material or both, as the case may be;
- (c) ensure that the original copy of the valid licence to transport petroleum or flammable material or both, as the case may be, is prominently displayed in the driver's cab of the vehicle used to transport the petroleum or flammable material or both;
- (d) keep in the cabin of the vehicle a copy of the Transport Emergency Response Plan;

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- (e) have detailed knowledge of the contents of the Transport Emergency Response Plan;
- (f) take adequate precautions to prevent the ignition of flammable vapours whilst in or around the vehicle during transport of the petroleum or flammable material or both from open flames, lightning, smoking, cutting and welding, hot surfaces, frictional heat, static electrical sparks, spontaneous ignition including heat producing chemical reactions and radiant heat and all other sources of ignition;
- (g) adhere to the speed limit under written law;

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- (h) adhere to the routes of transport approved by the Commissioner;
- (i) adhere to the permitted times for the transport of petroleum and flammable materials; and

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- (j) comply with any other requirements as directed by the Commissioner.

Routes of transport

37. No petroleum or flammable material shall be transported by the holder of a licence to transport any petroleum or flammable material, or by the holder of a permit to drive a vehicle transporting any petroleum or flammable material, except along such routes as are approved by the Commissioner.

Permitted times of transport

38.—(1) No person shall transport any petroleum or flammable materials in package or in bulk outside of the respective periods specified in the Fifth Schedule, except with the specific approval of the Commissioner.

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(2) A dealer of Class O petroleum may only transport Class O petroleum stored in a cylinder between 7 a.m. and 9 p.m. (both times inclusive) within the same day.

(3) For the purposes of paragraph (1), where —

- (a) any vehicle is transporting any empty cylinder or container that was used to carry petroleum or flammable material; or
- (b) any empty tank of a road tanker, tank container, or an empty compartment thereof, which had contained any petroleum or flammable material is not certified by an approved inspector as clean,

the holder of the licence to transport any petroleum or flammable material or both in that vehicle shall be regarded as transporting petroleum or flammable materials in package or in bulk.

Precautions against fire, explosion or leakage

39. The holder of a licence to transport any petroleum or flammable material as a carrier, supplier or dealer, and the holder of a permit to drive a vehicle transporting any petroleum or flammable material, shall ensure that —

- (a) adequate precautionary measures are taken to prevent the petroleum or flammable material from spilling, dropping or being accidentally discharged during transport;

- (b) all precautions necessary for preventing a fire or an explosion are being observed; and
- (c) suitable and efficient fire extinguishers are carried in an easily accessible position on every vehicle transporting the petroleum or flammable material.

Vehicle used for transport of petroleum and flammable materials

40.—(1) Subject to paragraph (2), the holder of a licence to transport petroleum or flammable materials or both as a carrier, supplier or dealer must ensure that the petroleum or flammable materials or both shall be carried on a vehicle which —

- (a) is constructed to carry goods; and
- (b) has adequate ventilation to prevent the accumulation of any flammable vapours in the vehicle.

(2) Where any Class O petroleum or any gaseous flammable material is being transported on land, the holder of a licence to transport petroleum or flammable materials or both must also ensure that the petroleum or flammable materials or both shall be carried on a vehicle which does not have a roof covering, whether permanent or otherwise.

Loading and unloading of petroleum and flammable materials

41.—(1) The holder of a licence to transport petroleum or flammable materials or both as a carrier, supplier or dealer shall ensure that —

- (a) the loading and unloading of any petroleum or flammable material for storage and keeping is carried out only at premises licensed for such storage or keeping;
- (b) the engine of the vehicle is shut off during loading and unloading operations where pumps or other appliances are required to be operated;
- (c) where tanks are to be filled or discharged —
 - (i) the vehicle chassis must first be earthed; and

(ii) the rate of filling must be limited to prevent any electrostatic discharge which may cause ignition of flammable vapours; and

(d) all openings in a tank and all discharge or filling openings fitted with valves or caps must be properly secured prior to any transport.

(2) No person shall cause any tank or compartment to be filled with any petroleum or flammable material exceeding its capacity.

Prohibitions on vehicles carrying petroleum and flammable materials

42.—(1) No holder of a licence to transport petroleum or flammable materials or both as a carrier, supplier or dealer shall permit any vehicle carrying petroleum or flammable materials in package or in bulk to be parked or left unattended on any street, highway, public road, or at any residential premises or place to which the public has access, except for the purpose of delivering the petroleum or flammable materials.

(2) No holder of a licence to transport petroleum or flammable materials or both as a carrier, supplier or dealer shall permit any vehicle carrying any petroleum or flammable material in package or in bulk to be parked at any time at any car park located in a building.

(3) The holder of a licence to transport petroleum or flammable materials or both as a carrier, supplier or dealer shall ensure that any vehicle carrying any petroleum or flammable material in package or in bulk shall be parked overnight at such licensed premises as the Commissioner may approve, and at no other premises.

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(4) The holder of a permit to drive a vehicle transporting any petroleum or flammable material shall not drive any vehicle carrying any petroleum or flammable material in bulk into or up a ramp leading to any building or part of a building used as a multi-storey car park, multi-storey workshop and factory, or as a factory within a building.

Supervision of vehicles carrying petroleum and flammable materials

43. The holder of a licence to transport petroleum or flammable materials as a carrier, supplier or dealer and the driver of a vehicle transporting any petroleum and flammable material in package or in bulk shall ensure that the vehicle, when not driven is —

- (a) parked in a safe place; or
- (b) supervised at all times by him or by the holder of a permit.

Tracking of vehicles carrying petroleum and flammable materials

44.—(1) The Commissioner may, as a condition for the issue of a licence under the Act, require any vehicle transporting petroleum or flammable materials to be fitted with such operational tracking device, immobilisation device and orange-coloured licence plate as the Commissioner may approve.

(2) No person shall tamper with or remove any such operational tracking device or immobilisation device fitted in or on a vehicle licensed to transport petroleum or flammable materials.

Transport Emergency Response Plan

45.—(1) A person licensed to transport petroleum or flammable materials as a carrier, supplier or dealer shall, at the time of application of his licence, prepare and keep up-to-date an adequate Transport Emergency Response Plan to deal with any spillage, leakage, release, accident or emergency which may arise from the transport of petroleum or flammable materials.

(2) The Transport Emergency Response Plan shall be prepared in accordance with such guidelines as may be issued by the Commissioner and shall be submitted to the Commissioner.

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(3) A person licensed to transport petroleum or flammable materials shall ensure that the driver and the vehicle crew have adequate knowledge of the Transport Emergency Response Plan.

(4) The contents of a Transport Emergency Response Plan shall deal with off-site impact, if any, and shall cover the following areas in the format specified by the Commissioner:

- (a) identification of the likely accident scenarios and establishment of the likely impact zones;
- (b) notification and activation procedures;
- (c) response actions to contain and control the release and to mitigate the impact zones;
- (d) monitoring of the affected areas;

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- (e) procedures for decontamination and clean-up of affected areas;
- (f) list of emergency response equipment, including protective gears, made available for dealing with the emergency;
- (g) permitted times for the transport of the petroleum or flammable materials;

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- (h) the routes of transport approved by the Commissioner; and

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- (i) such other information as the Commissioner may require in any particular case.

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(5) The Commissioner may require the holder of a licence to transport petroleum or flammable materials to review, test or improve his Transport Emergency Response Plan within a time period specified by the Commissioner.

(6) Where any change occurs which affects or is likely to affect the validity or effectiveness of the Transport Emergency Response Plan, the licensee shall, within one month of becoming aware of such a change, revise and re-submit the revised Transport Emergency Response Plan to the Commissioner.

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(7) The licensee shall, during the transport of any class of petroleum or flammable material, ensure that the appropriate equipment are available to deal with any emergencies or accidents which may arise.

(8) The licensee shall implement the Transport Emergency Response Plan in the event of an emergency.

PART VII

SPECIAL REQUIREMENTS

Emergency information panel and warning labels

46.—(1) Every holder of a licence to store or keep, or to transport any petroleum or flammable material or both as a carrier, supplier or dealer, shall ensure that every container, tank, road tanker, freight container, or other vehicle used by him to store or transport any petroleum or flammable material is affixed with and has displayed on it —

- (a) the appropriate emergency information panel or warning labels as prescribed in the code of labelling specified in the standard issued by SPRING Singapore known as “Singapore Standard on Hazard Communication for Hazardous Chemicals and Dangerous Substances”; and

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- (b) such other labels as may be directed by the Commissioner.

(2) Every such licensee shall ensure that sufficient numbers of appropriate emergency information panels and warning labels are installed at the approved storage area for petroleum or flammable materials.

(3) The emergency information panel or warning label shall be —

- (a) made of material which is weather and corrosion resistant;
- (b) indelibly marked;
- (c) either rigid or fixed to be rigid;
- (d) marked on or securely attached to the road tanker, freight container, tank container or other vehicle in a substantially

vertical plane, and if the means of attachment is by a frame, that frame shall carry no other emergency information panels or labels; and

- (e) kept clean and free from obstruction, except that a rear emergency information panel or warning label may be mounted behind a ladder of light construction which does not prevent the information on the panel or label from being easily read.

(4) Where a multi-load is transported in a road tanker, in separate tanks or in compartments of a tank, or in a compartment tank container, the licensee shall ensure that on each such tank or compartment which contains any petroleum and flammable material, an appropriate emergency information panel or warning label prescribed in the code of labelling specified in the standard issued by SPRING Singapore known as “Singapore Standard on Hazard Communication for Hazardous Chemicals and Dangerous Substances” and such other labels as may be directed by the Commissioner are displayed and the requirements of paragraph (5) shall apply to such panels or labels.

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(5) Every such licensee shall ensure that the emergency information panel or warning label is —

- (a) displayed on the road tanker, freight container, tank container or other vehicle at all times when petroleum and flammable materials are being transported; and
- (b) removed when the road tanker, freight container, tank container or other vehicle is not used for transporting any petroleum or flammable material.

(6) Paragraph (5)(a) shall also apply to any empty tank of a road tanker, empty tank or container or compartment thereof that is not certified by an approved inspector as clean.

Tank plate details

47. The holder of a licence to store or keep any petroleum or flammable material, or to transport as a carrier, supplier or dealer, any

petroleum or flammable material or both shall ensure that a corrosion resistant plate, of a size not less than 100 millimetres x 160 millimetres and with lettering measuring not less than 3 millimetres in height, shall —

- (a) be permanently and conspicuously affixed to one side of any tank used to store petroleum and flammable materials; and
- (b) contain the following information:
 - (i) the manufacturer's name;
 - (ii) the serial number of the tank;
 - (iii) the design code;
 - (iv) the water capacity in kilolitres;
 - (v) the maximum safe working pressure of vapour;
 - (vi) the year of manufacture;
 - (vii) the dates of initial hydrostatic test and subsequent re-tests;
 - (viii) the hydrostatic test pressure at the time of the test or re-tests; and
 - (ix) the name of petroleum and flammable materials stored, if applicable.

Containers used to comply with code of practice

48. Every holder of a licence to store or keep any petroleum or flammable material, or to transport as a carrier, supplier or dealer any petroleum or flammable material, or both, shall take all reasonable practicable steps to ensure that the container to be used in the storage or transport of petroleum and flammable materials is designed and constructed in accordance with an accepted code of practice and such other specification as may be directed by the Commissioner.

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Testing of container

49. The Commissioner may —

- (a) require any holder of a licence to store or keep any petroleum or flammable material, or to transport any petroleum or flammable material, to send any container used in the storage or transport of petroleum or flammable material for testing; and
- (b) inspect the container at any time to determine whether the container is fit for the storage or transport of petroleum or flammable material.

Storage of unused container

50. Every holder of a licence to store or keep any petroleum or flammable material, or to transport as a carrier, supplier or dealer any petroleum or flammable material or both, shall ensure that any container that is no longer used in the storage or transport of any petroleum or flammable material is kept securely closed and stored only in licensed premises or in a place approved by the Commissioner.

Filling and dispensing equipment

51.—(1) Every holder of a licence to store or keep any petroleum or flammable material, or to transport as a carrier, supplier or dealer any petroleum or flammable material or both, shall take all reasonable practicable steps to ensure that all storage systems and installations including tanks, pumps, compressors, piping systems or any other equipment used in filling, dispensing or storage of petroleum or flammable materials shall be —

- (a) designed, fabricated and installed in accordance with an accepted code of practice;
- (b) suitable for the grade of petroleum and flammable materials with which the piping systems or equipment that are used;

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- (c) constructed and installed in a manner that will minimise the possibility of accidental damage to the piping systems or equipment; and

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- (d) maintained and serviced to ensure safe operations at all times.

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(2) Every holder of a licence to store or keep any petroleum or flammable material, or to transport as a carrier, supplier or dealer any petroleum or flammable material or both, shall ensure that each tank, piping or valve has acceptable means of identification to indicate the petroleum and flammable materials with which the tank, piping or valve is intended to be used for.

Cylinders used in storing Class O petroleum and flammable materials

52.—(1) No person shall use any cylinder to store Class O petroleum or any flammable material unless the cylinder, including the valves and fittings, is certified by an approved inspector as having passed the tests specified in an accepted code of practice.

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(2) The dealer and supplier of the Class O petroleum, and the owner of the flammable material, shall ensure that all cylinders owned, used or distributed by them are permanently marked with the date of any test or inspection required under an accepted code of practice.

(3) No person shall —

- (a) alter, modify or deface;
- (b) make any addition to; or
- (c) partly remove, erase or obliterate,

the name of the supplier and such information on any cylinder which is used to store any Class O petroleum or flammable material.

(4) No person shall distribute any cylinder containing any Class O petroleum or flammable material to the public unless the cylinder is bottled by and obtained from a supplier of the Class O petroleum or

flammable material whose premises is approved by the Commissioner to be used for dispensing of the Class O petroleum or flammable material into cylinders.

(5) The supplier of the Class O petroleum and the owner of the flammable materials shall ensure that all cylinders owned, used or distributed by them are requalified periodically for continued service in accordance with an accepted code of practice.

(6) The maximum gross weight of cylinders containing Class O petroleum that may be transported on any vehicle used for transport of Class O petroleum from Class O petroleum bottling plant to Class O petroleum centralised store shall not exceed 10,000 kg.

(7) The holder of a licence to transport any petroleum or flammable material or both shall ensure that the maximum gross weight of any cylinder containing Class O petroleum to be transported on any vehicle used by any dealer in the distribution of Class O petroleum to the public shall not exceed 5,000 kg.

(8) Cylinders used to store Class O petroleum and any flammable material shall be colour-coded according to an accepted code of practice.

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(9) No person shall dispose of any cylinder for Class O petroleum or flammable materials unless the cylinder has been disabled by —

- (a) removing the cylinder valve; and
- (b) cutting open the cylinder or drilling holes through the cylinder.

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Duties of supplier and dealer of Class O petroleum

53.—(1) Every supplier and dealer shall ensure that all cylinders containing Class O petroleum, including the valves and fittings, which are owned, used or distributed by them comply with the accepted code of practice.

(2) Every supplier and dealer who installs a hose to be connected to any LPG cylinder shall ensure that every hose is printed with an

expiry date of the hose and shall not install any hose after the expiry date of that hose.

(3) Before the supplier or dealer supplies any LPG cylinder to a household, a restaurant or an eating establishment, the supplier or dealer (as the case may be) shall carry out safety checks on the liquefied petroleum gas system to be connected to the cylinder (referred to in this regulation as the connected LPG system), whether or not the supplier or dealer installed the connected LPG system, if that supplier or dealer (as the case may be) has not conducted a safety check on the LPG system within 12 months before he supplies the LPG cylinder.

(4) The supplier or dealer carrying out a safety check on any LPG system installed in a household shall —

- (a) record the date on which the safety check was conducted on a checklist in such form as the Commissioner may require;
- (b) obtain the written acknowledgement, on the checklist from an adult member of the household, that the safety check has been conducted; and
- (c) affix the checklist to the LPG cylinder in such manner as the Commissioner may require.

(5) If a safety check reveals that any part of the connected LPG system is unsafe for use, the supplier or dealer shall not supply any LPG cylinder to the household for use with the unsafe part unless the supplier or dealer —

- (a) has informed an adult member of the household that the unsafe part may result in gas leakage, fire or injuries and advised him to replace the unsafe part; and
- (b) has obtained a written acknowledgement from an adult member of the household that the adult member has been informed and advised as described in sub-paragraph (a).

(6) The supplier or dealer who installs an LPG system or LPG cylinder at any household, restaurant or eating establishment shall

conduct safety training for all users of that LPG system or LPG cylinder, as the case may be.

(7) In addition to the requirements in paragraph (6), the supplier shall conduct safety training for his dealers on the usage of LPG systems and LPG cylinders installed by the supplier or dealer.

(8) The supplier and dealer shall maintain a record of all safety checks and trainings conducted under this regulation and retain the records for a period of 5 years after the date of installation of the LPG system or LPG cylinder, as the case may be.

(9) The supplier shall as soon as practicable notify each of his dealers in writing of the relevant legislation, accepted code of practice and circulars issued by the Commissioner.

(10) The supplier and dealer shall conduct their operations in a safe manner so as not to give rise to undue risks to any person from their supply of Class O petroleum.

(11) The supplier and dealer shall not supply LPG cylinders to be connected to a LPG manifold system unless a fire safety certificate has been issued in respect of the LPG manifold system.

(12) The dealer shall, before storing LPG cylinders of a supplier's brand at an LPG centralised store owned by the dealer, obtain a letter of authorisation from the supplier to store LPG cylinders of the supplier's brand at that LPG centralised store.

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Appointment of dealers of Class O petroleum

54.—(1) A supplier shall not appoint a person to be his dealer unless that person holds a valid licence under the Act to transport petroleum.

(2) Subject to paragraph (1), a supplier of Class O petroleum shall —

- (a) keep records of each of his dealers for a period of 2 years after they cease to be his dealers in such form as the Commissioner may require; and

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- (b) upon request, provide the Commissioner with a copy of such record, whether electronically or otherwise.

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(3) A supplier shall notify the Commissioner in writing, within 7 working days from the date on which the dealer ceases to engage in the transport and distribution of Class O petroleum for the supplier.

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(4) Upon receipt of the notification under paragraph (3), the Commissioner shall cancel the licence issued to the dealer for the transport of petroleum.

(5) A dealer shall only transport and distribute Class O petroleum in cylinders which are provided to him by his supplier.

Notification of loss, theft, fire, explosion, leakage, accident or accidental discharge of petroleum or flammable materials

55.—(1) In the event of any loss, theft, fire, explosion, leakage, accident or accidental discharge of any petroleum and flammable material at any licensed premises, or in any vehicle used to transport petroleum and flammable materials, the licensee shall immediately, himself or acting through his agent or employee —

- (a) take adequate and effective actions and mitigating measures to control and contain the leakage or discharge of petroleum or flammable material; and

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- (b) inform the Commissioner of the incident.

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(2) The licensee shall also take necessary actions or cause such actions to be taken to have the affected areas and resources sufficiently decontaminated, cleaned and restored to normal.

(3) The licensee shall, as soon as practicable, furnish to the Commissioner a detailed report in writing on the following:

- (a) the circumstances leading to the loss, theft, fire, explosion, leakage or accidental discharge of such petroleum and flammable materials;

- (b) the immediate actions and mitigating measures taken by him to control and contain the discharge and the measures taken by him to restore the affected areas to normalcy; and
- (c) the measures taken by him to prevent a recurrence of a similar nature.

(4) Any tank or vehicle used for the storage or transport of any petroleum or flammable material and which was involved in any of the incidents specified in paragraph (1), shall be subjected to any certification tests specified by the Commissioner.

(5) The licensee shall not use any tank or vehicle which was involved in any incident specified in paragraph (1) to store or transport any petroleum or flammable material unless the written permission of the Commissioner has been obtained for such tank or vehicle.

Release of petroleum and flammable materials into public drains prohibited

56.—(1) The holder of a storage licence or a licence to transport any petroleum or flammable material or a pipeline licensee shall not cause or permit any petroleum or flammable material to flow into any public drain or sewer.

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(2) In the event of any accidental release of petroleum or flammable materials into any public drain or sewer, the licensee shall as soon as practicable have the affected areas cleaned-up and restored to normal.

PART VIII

MISCELLANEOUS

Power of Commissioner to issue directions

57. The Commissioner may from time to time issue directions requiring a licensee to comply with such other requirements as he may determine including requirements which are specified in an accepted code of practice.

Changes affecting quantitative risk assessment

57A.—(1) Except with the approval of the Commissioner, the holder of a licence shall not make any change which affects or is likely to affect the validity of any quantitative risk assessment or other risk analysis report which was submitted to the Commissioner under regulation 4(3)(e), 4A(2)(c) or 5(3)(e), as the case may be, in support of the application for the licence.

(2) An application for approval under paragraph (1) shall be accompanied by a quantitative risk assessment or other risk analysis report, which takes account of the changes, from any person who in the view of the Commissioner is qualified to give such report.

(3) Unless the change has been approved by the Commissioner under paragraph (1), the holder of a licence shall —

- (a) immediately upon becoming aware of any change which affects or is likely to affect the validity of any quantitative risk assessment or other risk analysis report referred to in paragraph (1), notify the Commissioner of the change; and
- (b) submit to the Commissioner within such reasonable time as the Commissioner may direct, a quantitative risk assessment or other risk analysis report, which takes account of the changes, from any person who in the view of the Commissioner is qualified to give such report.

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Negligent conduct in the storage, keeping, transport or conveyance of petroleum or flammable materials

58. No person shall store, keep or transport any petroleum or flammable material, or convey petroleum or flammable materials through a pipeline, in a manner so rash or negligent as to endanger human life, or to be likely to cause hurt or injury to any other person.

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Offence and penalty

59. Any person who contravenes any of the provisions of these Regulations shall be guilty of an offence and shall be liable on

conviction to a fine not exceeding \$10,000 or to imprisonment for a term not exceeding 6 months or to both.

Saving and transitional provisions

60.—(1) Any licence granted under the revoked Fire Safety (Petroleum) Regulations (Rg 7, 2001 Ed.) shall continue and be deemed to have been granted under the corresponding provisions of these Regulations.

(2) Any application or other document lodged for approval under the provisions of the revoked Fire Safety (Petroleum) Regulations before 16th February 2005 and which application was not approved before that date shall, where applicable, be deemed to be an application or a document lodged for approval under the corresponding provision of these Regulations.

(3) These Regulations shall not affect any order, requirement, direction or approval of the Commissioner issued or given under the revoked Fire Safety (Petroleum) Regulations before 16th February 2005.

(4) Any licence, permit or approval granted under section 22 of the Environmental Protection and Management Act (Cap. 94A) or any subsidiary legislation made thereunder to import, to store and use or to transport —

- (a) Acrolein;
- (b) Benzene;
- (c) Carbon Disulphide;
- (d) Chlorosilanes, excepting —

Hexachlorodisilane;

Phenyltrichlorosilane;

Tetrachlorosilane;

- (e) Disilane;
- (f) Propylene imine;
- (g) Propylene Oxide;

- (h) Silane;
- (i) Styrene Monomer;
- (j) Vinyl Bromide;
- (k) Vinyl Chloride; or
- (l) Nitriles,

and that is in force immediately before 16th February 2005 shall, unless earlier cancelled and in so far as it is not inconsistent with these Regulations —

- (i) continue and be deemed to be a licence granted under the corresponding provisions of these Regulations;
- (ii) be subject to the terms and conditions specified in the licence; and
- (iii) expire on the date it would have expired if these Regulations had not been enacted.

FIRST SCHEDULE

Regulation 14

FEES

PART I

LICENCES

<i>First column</i>	<i>Second column</i>
	<i>Annual fee payable</i>
1. Licence to transport any petroleum or flammable material or both	\$77 per licensed vehicle
2. Licence to store or keep solid flammable material in a quantity —	
(a) not exceeding 200 kg	\$77 per licensed premises
(b) exceeding 200 kg but not exceeding 5,000 kg	\$132 per licensed premises
(c) for every subsequent 5,000 kg or part thereof	\$33 per licensed premises

FIRST SCHEDULE — *continued*

3. Licence to store or keep petroleum or liquid flammable material in a quantity —
 - (a) not exceeding 500 litres \$77 per licensed premises
 - (b) exceeding 500 litres but not exceeding 5,000 litres \$132 per licensed premises
 - (c) exceeding 5,000 litres but not exceeding 50,000 litres \$264 per licensed premises
 - (d) exceeding 50,000 litres but not exceeding 250,000 litres \$660 per licensed premises
 - (e) exceeding 250,000 litres but not exceeding 450,000 litres \$1,320 per licensed premises
 - (f) for every subsequent 450,000 litres or part thereof \$82 per licensed premises
4. Licence to store or keep gaseous flammable material in a quantity —
 - (a) not exceeding 50 kg \$77 per licensed premises
 - (b) exceeding 50 kg but not exceeding 5,000 kg \$132 per licensed premises
 - (c) for every subsequent 5,000 kg or part thereof \$33 per licensed premises
5. Licence to store or keep any petroleum and flammable material The total applicable fees specified in item 2, 3 or 4 for each premises at which the petroleum and flammable material are stored
6. Pipeline licence \$350 per licence
7. Licence to import any petroleum or flammable material or both \$70 per licence.

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FIRST SCHEDULE — *continued*

PART II

PERMITS

<i>First column</i>	<i>Second column</i>
1. Hazardous Materials Transport Driver Permit	\$10
2. Renewal of any Hazardous Materials Transport Driver Permit	\$10.

PART III

GENERAL

<i>First column</i>	<i>Second column</i>
1. Replacement of licence under regulation 9(1)	\$5.50 per replacement
2. Replacement of permit under regulation 9(1) —	
(a) 1st replacement	\$50 per replacement
(b) 2nd replacement	\$120 per replacement
(c) 3rd or subsequent replacement	\$250 per replacement
3. Additional copy of licence under regulation 9(2)	\$5.50 per copy
4. Amendment of licence or permit under regulation 10 (including any transfer of licence giving rise to the amendment)	\$11 per licence or permit.

[S 546/2013 wef 01/09/2013]

[S 552/2013 wef 01/11/2013]

SECOND SCHEDULE

Regulations 15, 16, 29 and 30

QUANTITIES REQUIRING IMPORT AND TRANSPORT LICENCE

PART I

PETROLEUM

1. Import by land or transport in a vehicle exceeding the following quantities:

SECOND SCHEDULE — *continued*

<i>Class of petroleum</i>	<i>Quantity</i>
(a) Class O petroleum	Total of 130 kg (gross weight) in not more than 2 cylinders
(b) Class I petroleum	20 litres
(c) Class II petroleum	200 litres
(d) Class III petroleum	200 litres

2. The transport of mixed classes of petroleum and flammable materials regardless of quantity.

PART II

FLAMMABLE MATERIAL

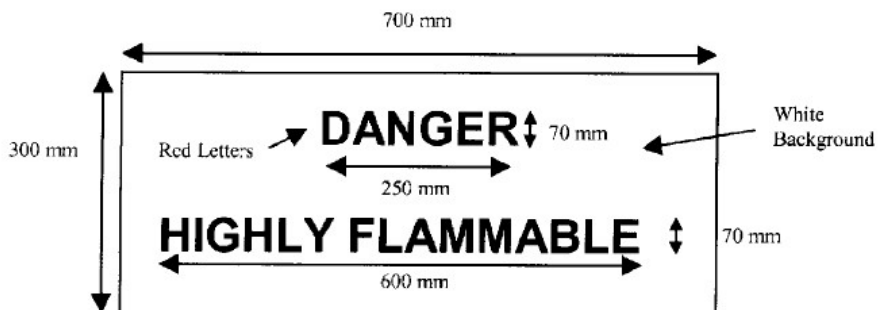
1. Import by land or transport in a vehicle exceeding the following quantities:

<i>Flammable material</i>	<i>Quantity</i>
(a) Solid flammable material	10 kg
(b) Liquid flammable material	20 litres
(c) Gaseous flammable material	130 kg (gross weight) in not more than 2 cylinders

2. The transport of mixed classes of petroleum and flammable materials regardless of quantity.

THIRD SCHEDULE

Regulation 31(f)



WARNING SIGN

FOURTH SCHEDULE

Regulation 2(3)(b)

FLAMMABLE MATERIALS

<i>S/N</i>	<i>Flammable Materials</i>
1.	Acetal
2.	Acetone
3.	Acetyl chloride
4.	Acetylene
5.	Aldehydes
6.	Allyl acetate
7.	Allyl bromide
8.	Allyl chloride
9.	Allyl formate
10.	Allyl iodide
11.	Aluminium alkyl halides
12.	Aluminium alkyl hydrides
13.	Aluminium alkyls
14.	Aluminium borohydride
15.	Aluminium carbide
16.	Aluminium ferrosilicon powder
17.	Aluminium hydride
18.	Aluminium powder, uncoated
19.	Amines
20.	2-Amino-4,6-Dinitrophenol, wetted [with not less than 20% water, by mass]
21.	Ammonium picrate
22.	Amyl chloride
23.	Amyl nitrite
24.	Azodicarbonamide
25.	Barium

FOURTH SCHEDULE — *continued*

S/N

Flammable Materials

26. Barium azide, wetted [with not less than 50% water, by mass]
27. Benzotrifluoride
28. Boron trifluoride dimethyl etherate
29. 1-Bromobutane
30. Bromomethylpropane
31. 2-Bromopentane
32. Bromopropanes
33. 3-Bromopropyne
34. Bromotrifluoroethylene
35. Butadienes
36. Butanedione
37. Butane
38. Butanol
39. Butene
40. Butyl acetate
41. n-Butyl formate
42. Tert-Butyl hypochlorite
43. Butyl nitrites
44. 1,2-Butylene oxide
45. Butyryl chloride
46. Calcium
47. Calcium carbide
48. Calcium dithionite (Calcium hydrosulfite)
49. Calcium hydride
50. Calcium or Calcium alloys
51. Calcium silicide
52. Carbon disulfide
53. Cerium

FOURTH SCHEDULE — *continued*

S/N Flammable Materials

54. Cesium (Caesium)
55. Chlorobutane
56. 2-Chloropropane
57. 2-Chloropropene
58. Chlorosilanes, except —
 - Hexachlorodisilane
 - Phenyltrichlorosilane
 - Tetrachlorosilane
59. Compressed Natural Gas (CNG)
60. Cyclobutane
61. Cyclopropane
62. Decaborane
63. Deuterium
64. 1,2-Di-(dimethylamino)ethane
65. Diacetone alcohol
66. 1,1-Dichloroethane
67. 1,2-Dichloroethylene
68. 1,2-Dichloropropane
69. Dichloropropene
70. Diethoxymethane
71. 3,3-Diethoxypropene
72. Diethyl sulfide
73. Diethylzinc
74. 2,3-Dihydropyran
75. 1,2-Dimethoxyethane
76. 1,1-Dimethoxyethane
77. Dimethyl carbonate
78. Dimethyl disulfide

FOURTH SCHEDULE — *continued*

S/N

Flammable Materials

79. Dimethyl sulfide
80. 2,3-Dimethylbutane
81. Dimethylcyclohexane
82. Dimethyldiethoxysilane
83. Dimethyldioxane
84. 2,2-Dimethylpropane
85. Dimethylzinc
86. Dinitrophenol, wetted [with not less than 15% water, by mass]
87. Dinitrophenolates, wetted [with not less than 15% water, by mass]
88. Dinitroresorcinol, wetted [with not less than 15% water, by mass]
89. Dioxane
90. Dioxolane
91. Dipicryl sulfide
92. Esters
93. Ethane
94. Ethanol
95. Ethers
96. Ethyl acetate
97. Ethyl acrylate
98. Ethyl borate
99. Ethyl chloride
100. Ethyl crotonate
101. Ethyl formate
102. Ethyl isobutyrate
103. Ethyl methacrylate
104. Ethyl nitrite
105. Ethyl propionate
106. Ethylacetylene

FOURTH SCHEDULE — *continued*

S/N Flammable Materials

107. Ethylbenzene
108. Ethyldichlorosilane
109. Ethylene
110. 1-Ethylpiperidine
111. Ferrocium
112. Fluorobenzene
113. Fluorotoluene
114. Furan
115. Hafnium powder
116. Hexadiene
117. Hexamethyleneimine
118. Hydrogen
119. 2-Iodobutane
120. Iodomethylpropane
121. Isobutyl acetate
122. Isobutyl formate
123. Isobutyryl chloride
124. Isoprene
125. Isopropanol (Isopropyl alcohol)
126. Isopropenyl acetate
127. Isopropyl acetate
128. Isopropyl isobutyrate
129. Isopropyl nitrate
130. Isopropyl propionate
131. Lead phosphite, dibasic
132. Lithium
133. Lithium alkyls
134. Lithium aluminum hydride

FOURTH SCHEDULE — *continued*

<i>S/N</i>	<i>Flammable Materials</i>
135.	Lithium borohydride
136.	Lithium ferrosilicon
137.	Lithium hydride
138.	Lithium nitride
139.	Lithium silicon
140.	Magnesium alkyls
141.	Magnesium diamide
142.	Magnesium diphenyl
143.	Magnesium hydride
144.	Magnesium or Magnesium alloys
145.	Magnesium silicide
146.	Methane
147.	Methanol
148.	Methyl acetate
149.	Methyl acetylene
150.	Methyl acrylate
151.	Methyl allyl chloride
152.	Methyl butane
153.	Methyl butyrate
154.	Methyl Ethyl Ketone (MEK)
155.	Methyl formate
156.	Methyl isovalerate
157.	Methyl magnesium bromide
158.	Methyl methacrylate monomer
159.	Methyl propionate
160.	Methylal
161.	3-Methylbutan-2-one
162.	Methyldichlorosilane

FOURTH SCHEDULE — *continued*

<i>S/N</i>	<i>Flammable Materials</i>
163.	2-Methylfuran
164.	n-methylmorpholine
165.	Methylpentadiene
166.	1-Methylpiperidine
167.	Methyltetrahydrofuran
168.	Nitriles
169.	Nitrocellulose, wetted [with not less than 25% water, by mass]
170.	Nitroguanidine, wetted [with not less than 20% water, by mass]
171.	Nitromethane
172.	p-Nitrosodimethylaniline
173.	Nitrostarch, wetted [with not less than 20% water, by mass]
174.	Pentaborane
175.	Pentanol
176.	Phosphorus heptasulfide
177.	Phosphorus pentasulfide
178.	Phosphorus sesquisulfide
179.	Phosphorus trisulfide
180.	Phosphorus
181.	Potassium or Potassium alloys
182.	Potassium borohydride
183.	Potassium dithionite (Potassium hydrosulfite)
184.	Potassium sodium alloys
185.	Potassium sulfide
186.	Propadiene
187.	Propane
188.	Propanethiol
189.	n-Propanol
190.	Propionyl chloride

FOURTH SCHEDULE — *continued*

S/N

Flammable Materials

191. n-Propyl acetate
192. Propyl chloride
193. Propyl formate
194. Propylene
195. n-Propyl nitrate
196. Propylene oxide
197. Propyleneimine
198. Pyridine
199. Pyrrolidine
200. Rubidium
201. Silane
202. Silver picrate
203. Sodium
204. Sodium aluminum hydride
205. Sodium borohydride
206. Sodium dinitro-o-cresolate, wetted [with not less than 15% water, by mass]
207. Sodium dithionite (Sodium hydrosulfite)
208. Sodium hydride
209. Sodium hydrosulfide
210. Sodium methylate
211. Sodium picramate, wetted [with not less than 20% water, by mass]
212. Sodium sulfide
213. Strontium
214. Tetrahydrofuran
215. 1,2,3,6-Tetrahydropyridine
216. Tetrahydrothiophene
217. Tetramethylsilane

FOURTH SCHEDULE — *continued*

<i>S/N</i>	<i>Flammable Materials</i>
218.	Thioacetic acid
219.	Thiophene
220.	Thiourea dioxide
221.	Titanium hydride
222.	Titanium powder
223.	Titanium trichloride
224.	Tributylphosphane
225.	Triisopropyl borate
226.	Trimethyl borate
227.	Trinitrobenzene, wetted [with not less than 30% water, by mass]
228.	Trinitrobenzoic acid, wetted [with not less than 30% water, by mass]
229.	Trinitrophenol, wetted [with not less than 30% water, by mass]
230.	Trinitrotoluene, wetted [with not less than 30% water, by mass]
231.	Urea nitrate, wetted [with not less than 20% water, by mass]
232.	Vinyl acetate
233.	Vinyl acetylene
234.	Vinyl bromide
235.	Vinyl butyrate
236.	Vinyl chloride
237.	Vinyl fluoride
238.	Vinylidene chloride
239.	Xanthalates
240.	Zinc powder or Zinc dust
241.	Zirconium hydride
242.	Zirconium picramate, wetted [with not less than 20% water, by mass]
243.	Zirconium powder.

[S 546/2013 wef 01/09/2013]

FIFTH SCHEDULE

Regulations 2(1) and 38(1)

PERMITTED TIMES FOR TRANSPORT

<i>S/N</i>	<i>Description</i>	<i>Permitted Times</i>
1.	Petroleum and flammable materials generally, unless any other item in this table applies	7 a.m. to 7 p.m.
2.	LPG cylinders for domestic purposes or use at an eating place or a restaurant	7 a.m. to 9 p.m.
3.	Diesel or acetylene —	
	(a) less than 3 metric tonnes, to industrial premises or construction sites	Any time
	(b) 3 metric tonnes or more, to industrial premises or construction sites, only if the Commissioner is given 24 hours' prior notice of the proposed time of transport	Any time
4.	Petroleum and flammable materials in tube trailers	9 a.m. to 5 p.m.
5.	Petroleum and flammable materials transported within Jurong Industrial Estate, Tuas Industrial Estate and Jurong Island	Any time
6.	Petroleum and flammable materials for transshipment transported between Brani Terminal, Pasir Panjang Terminal or Keppel Terminal, only if the Commissioner is given 24 hours' prior notice of the proposed time of transport	Any time
7.	Petroleum and flammable materials transported, via Woodlands Checkpoint	None
8.	Petroleum and flammable materials transported, via Tuas Checkpoint	7 a.m. to 7 p.m.

[S 546/2013 wef 01/09/2013]

[G.N. Nos. S 81/2005; S 625/2006]

LEGISLATIVE HISTORY
FIRE SAFETY (PETROLEUM AND FLAMMABLE
MATERIALS) REGULATIONS
(CHAPTER 109A, RG 7)

This Legislative History is provided for the convenience of users of the Fire Safety (Petroleum and Flammable Materials) Regulations. It is not part of these Regulations.

1. G. N. No. S 81/2005 — Fire Safety (Petroleum and Flammable Materials) Regulations 2005

Date of commencement : 16 February 2005

2. G. N. No. S 625/2006 — Fire Safety (Petroleum and Flammable Materials) (Amendment) Regulations 2006

Date of commencement : 15 November 2006

3. 2008 Revised Edition — Fire Safety (Petroleum and Flammable Materials) Regulations

Date of operation : 2 June 2008

4. G. N. No. S 546/2013 — Fire Safety (Petroleum and Flammable Materials) (Amendment) Regulations 2013

Date of commencement : 1 September 2013 (except Regulations 5, 45(b) and 25)

5. G. N. No. S 546/2013 — Fire Safety (Petroleum and Flammable Materials) (Amendment) Regulations 2013

Date of commencement : 1 November 2013 (Regulations 5 and 45(b))

6. G.N. No. S 552/2013 — Fire Safety (Petroleum and Flammable Materials) (Amendment No. 2) Regulations 2013

Date of commencement : 1 November 2013

7. G. N. No. S 546/2013 — Fire Safety (Petroleum and Flammable Materials) (Amendment) Regulations 2013

Date of commencement : 1 March 2014 (Regulation 25)