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## No. S 546

### FIRE SAFETY ACT (CHAPTER 109A)

#### FIRE SAFETY (PETROLEUM AND FLAMMABLE MATERIALS) (AMENDMENT) REGULATIONS 2013

In exercise of the powers conferred by section 61 of the Fire Safety Act, the Minister for Home Affairs hereby makes the following Regulations:

#### **Citation and commencement**

1.—(1) These Regulations may be cited as the Fire Safety (Petroleum and Flammable Materials) (Amendment) Regulations 2013 and shall, with the exception of regulations 5, 45(b) and 25, come into operation on 1st September 2013.

(2) Regulations 5 and 45(b) shall come into operation on 1st November 2013.

(3) Regulation 25 shall come into operation on 1st March 2014.

#### **Amendment of regulation 2**

2. Regulation 2 of the Fire Safety (Petroleum and Flammable Materials) Regulations (Rg 7) (referred to in these Regulations as the principal Regulations) is amended —

(a) by deleting the definition of “approved code of practice” in paragraph (1) and substituting the following definitions:

““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

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dispensing, or conveyance by pipeline, of any class of petroleum or flammable material;

“affected areas” includes off-site affected areas;”;

(b) by inserting, immediately after the words “transport of” in the definition of “approved inspector” in paragraph (1), the words “, or pipeline used or to be used to convey,”;

(c) by deleting the definition of “Class III petroleum” in paragraph (1) and substituting the following definitions:

““Class O petroleum” means liquefied petroleum gas;

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

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

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

(d) by inserting, immediately after the word “materials” in the definition of “cylinder” in paragraph (1), the words “under pressure”;

(e) by inserting, immediately after the definition of “dealer” in paragraph (1), the following definition:

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

(f) by inserting, immediately after the words “regulation 27” in the definition of “Emergency Response Plan” in paragraph (1), the words “or 29G”;

(g) by deleting the definitions of “label” and “licence” in paragraph (1) and substituting the following definitions:

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

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

(h) by inserting, immediately after the definition of “licensee” in paragraph (1), the following definitions:

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

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

(i) by inserting, immediately after the definition of “multi-load” in paragraph (1), the following definitions:

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

(j) by inserting, immediately after the definition of “personal identifier” in paragraph (1), the following definitions:

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

“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;

“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;”;

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- (k) by inserting, immediately after the definition of “professional engineer” in paragraph (1), the following definitions:
- ““relevant pipeline” and “relevant pipeline works” have the same meanings, respectively as in the Act;
  - “restaurant” has the same meaning as in the Fire Safety (Petroleum and Flammable Materials — Exemption) Order;
  - “storage licensee” means the holder of a valid storage licence;”;
- (l) by deleting the definition of “supplier” in paragraph (1) and substituting the following definition:
- ““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;”;
- (m) by deleting the words “450 litres or above” in the definition of “tank” in paragraph (1) and substituting the words “250 litres or more”;
- (n) by inserting, immediately after the words “250 litres” in the definition of “transport of petroleum or flammable materials in package” in paragraph (1), the word “of”;
- (o) by deleting the words “approved code” in paragraph (2)(b) and substituting the words “accepted code”; and
- (p) by inserting, immediately after paragraph (2), the following paragraphs:
- “(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.

(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.”.

### **Deletion and substitution of regulation 3**

3. Regulation 3 of the principal Regulations is deleted and the following regulation substituted therefor:

#### **“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.”.

### **Amendment of regulation 4**

4. Regulation 4 of the principal Regulations is amended —

- (a) by deleting the words “quantity and class” in paragraph (3)(b)(ii) and substituting the words “inventory listing each type and the respective quantity”;
- (b) by inserting, immediately after the words “tests report” in paragraph (3)(c)(i), the words “or any equivalent test report of the tank”;

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- (c) by inserting, immediately after the words “tests report” in paragraph (3)(c)(ii), the words “or any equivalent test report”;
- (d) by deleting the words “where the petroleum or flammable material, if any, is stored under pressure, a radiographic test report” in paragraph (3)(c)(iii) and substituting the words “a radiographic test report or any equivalent test report”;
- (e) by inserting, immediately after sub-paragraph (c) of paragraph (3), the following sub-paragraph:
- “(ca) a copy of the fire safety certificate for any fire safety works done in the building;”;
- (f) by inserting, immediately after the words “risk analysis report” in paragraph (3)(e), the words “on the storage or keeping of the petroleum or flammable materials at the premises”;
- (g) by inserting, immediately after the word “require” in paragraph (3)(f), the words “in any particular case”; and
- (h) by inserting, immediately after paragraph (4), the following paragraphs:
- “(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.
- (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.”.

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**New regulation 4A**

5. The principal Regulations are amended by inserting, immediately after regulation 4, the following regulation:

**“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

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(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.”.



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**Amendment of regulation 5**

6. Regulation 5 of the principal Regulations is amended —
- (a) by inserting, immediately after the words “flammable materials” in paragraph (3)(d), the words “in that vehicle”;
  - (b) by inserting, immediately after the words “risk analysis report” in paragraph (3)(e), the words “on the transport of the petroleum or flammable materials in the vehicle”;
  - (c) by inserting, immediately after the word “require” in paragraph (3)(f), the words “in any particular case”;
  - (d) by deleting sub-paragraph (b) of paragraph (4) and substituting the following sub-paragraphs:
    - “(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;
    - (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”;
  - (e) by inserting, immediately after paragraph (6), the following paragraphs:
    - “(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.
    - (8) Paragraph (4)(ba) shall not apply to an application for the renewal of a licence to transport any petroleum or

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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.”.

### **Amendment of regulation 6**

7. Regulation 6(2) of the principal Regulations is amended by deleting sub-paragraph (c) and substituting the following sub-paragraph:

“(c) such other documents as the Commissioner may require in any particular case.”.

### **Deletion and substitution of regulation 9**

8. Regulation 9 of the principal Regulations is deleted and the following regulation substituted therefor:

#### **“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.”.

### **Amendment of regulation 12**

9. Regulation 12 of the principal Regulations is amended by deleting paragraph (1) and substituting the following paragraph:

“(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.”.

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**Amendment of regulation 13**

**10.** Regulation 13 of the principal Regulations is amended —

(a) by deleting paragraphs (1) and (2) and substituting the following paragraphs:

“(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.

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

(b) by deleting sub-paragraphs (a) and (b) of paragraph (3) and substituting the following sub-paragraphs:

- “(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;
- (b) all tanks used in the transport of any petroleum or flammable material are purged and certified clean; and
- (c) all pipelines used in the conveyance of any petroleum or flammable materials are purged and certified clean.”.

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**Deletion and substitution of regulation 14**

11. Regulation 14 of the principal Regulations is deleted and the following regulation substituted therefor:

**“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.”.

**New regulation 15A**

12. The principal Regulations are amended by inserting, immediately after regulation 15, the following regulation:

**“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.”.

**Deletion and substitution of regulation 18**

13. Regulation 18 of the principal Regulations is deleted and the following regulation substituted therefor:

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**“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.”.

**Deletion and substitution of regulation 19**

**14.** Regulation 19 of the principal Regulations is deleted and the following regulation substituted therefor:

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**“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.”.

**Amendment of regulation 20**

**15.** Regulation 20 of the principal Regulations is amended —

- (a) by deleting the words “holder of a licence to store or keep any petroleum or flammable material or both at the premises specified in his licence” and substituting the words “storage licensee for any licensed premises”;
- (b) by deleting the word “premises” wherever it appears in paragraphs (a) and (b) and substituting in each case the words “licensed premises”;
- (c) by deleting the words “or that is not” in paragraph (b) and substituting the words “unless it is”; and
- (d) by deleting the word “premises” in the regulation heading and substituting the words “licensed premises”.

**Amendment of regulation 21**

**16.** Regulation 21 of the principal Regulations is amended —

- (a) by deleting the words “holder of a licence to store or keep any petroleum or flammable material or both at the premises specified in his licence” and substituting the words “storage licensee for any licensed premises”;
- (b) by deleting the words “premises licensed for the storage or keeping of any petroleum or flammable material or both” in paragraph (a) and substituting the words “licensed premises”; and
- (c) by deleting the word “premises” in paragraph (b) and substituting the words “licensed premises”.

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**Amendment of regulation 22**

17. Regulation 22 of the principal Regulations is amended —

- (a) by deleting the words “premises licensed for the storage or keeping of any petroleum or flammable material or both, the holder of the licence to store or keep any petroleum or flammable material or both at those premises” and substituting the words “licensed premises, the storage licensee for the licensed premises”; and
- (b) by deleting word “premises” in paragraphs (b) and (c) and substituting in each case the words “licensed premises”.

**Deletion and substitution of regulation 23**

18. Regulation 23 of the principal Regulations is deleted and the following regulation substituted therefor:

**“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.”.

**Deletion and substitution of regulation 24**

19. Regulation 24 of the principal Regulations is deleted and the following regulation substituted therefor:

**“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.”.

### **Amendment of regulation 25**

**20.** Regulation 25 of the principal Regulations is amended —

(a) by deleting paragraph (1) and substituting the following paragraph:

“(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,



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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.”;

- (b) by deleting the words “holder of the licence” in paragraph (2) and substituting the words “storage licensee”;
- (c) by deleting paragraph (3) and substituting the following paragraph:

“(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.”; and

- (d) by deleting the words “holder of the licence shall not deploy” in paragraph (4) and substituting the words “storage licensee shall not deploy or shall cease to deploy”.

### **Amendment of regulation 26**

**21.** Regulation 26 of the principal Regulations is amended —

- (a) by deleting the words “holder of a licence to store or keep any petroleum or flammable material or both at the premises specified in his licence” in paragraph (1) and substituting the words “storage licensee for any licensed premises”;
- (b) by deleting the words “those premises” in paragraphs (1) and (2)(a) and substituting in each case the words “those licensed premises”; and
- (c) by deleting sub-paragraph (c) of paragraph (2) and substituting the following sub-paragraph:

“(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.”.

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**Amendment of regulation 27**

**22.** Regulation 27 of the principal Regulations is amended —

- (a) by deleting the words “holder of a licence to store or keep any petroleum or flammable material or both at the premises specified in his licence” in paragraph (1) and substituting the words “storage licensee for any licensed premises”;
- (b) by inserting, immediately after the word “deal” in paragraphs (1) and (4), the word “effectively”;
- (c) by deleting the words “those premises” in paragraphs (1), (8) and (9) and substituting in each case the words “those licensed premises”;
- (d) by deleting the words “shall be submitted to the Commissioner for approval” in paragraph (2) and substituting the words “submitted to the Commissioner”;
- (e) by deleting paragraph (3) and substituting the following paragraph:

“(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.”;
- (f) by deleting the words “, including the off-site affected areas” in paragraph (4)(d);
- (g) by deleting the words “holder of any licence to store or keep any petroleum or flammable material or both at the premises specified in his licence” in paragraph (5) and substituting in the words “storage licensee”;
- (h) by deleting the words “those premises” in paragraph (5) and substituting the words “the licensed premises”;
- (i) by deleting the words “holder of the licence” in paragraph (6) and substituting the words “storage licensee concerned”;
- (j) by deleting the words “for approval” in paragraph (6);
- (k) by deleting the words “holder of the licence” in paragraph (7) and substituting the words “storage licensee”; and

- (*l*) by deleting the words “holder of the licence to store or keep any petroleum or flammable material or both at the premises specified in his licence” in paragraphs (8) and (9) and substituting in each case the words “storage licensee”.

### **Amendment of regulation 28**

**23.** Regulation 28 of the principal Regulations is amended —

- (*a*) by deleting the words “Any person who is licensed under the Act to store any petroleum or flammable material or both and” in paragraph (1) and substituting the words “Every storage licensee”;
- (*b*) by deleting the word “licensee” wherever it appears in paragraph (1)(*a*) and substituting in each case the words “storage licensee”;
- (*c*) by deleting the word “close” in paragraph (1)(*l*) and substituting the word “closed”; and
- (*d*) by deleting the words “A person who is licensed under the Act to store any petroleum or flammable material or both and” in paragraph (2) and substituting the words “Every storage licensee”.

### **Amendment of regulation 29**

**24.** Regulation 29 of the principal Regulations is amended —

- (*a*) by deleting the words “a licence to store or keep any petroleum or flammable material or both at the premises specified in his licence” in paragraphs (1) and (2) and substituting in each case the words “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.”;
- (*b*) by inserting, immediately after the words “supplied, any” in paragraph (1), the words “class of”;
- (*c*) by inserting, immediately after the word “premises” in paragraph (2)(*a*), the words “or from vehicles used to transport the petroleum or flammable materials, as the case may be”; and

(d) by deleting sub-paragraphs (b) and (c) of paragraph (2) and substituting the following sub-paragraphs:

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

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

### **New Part VA**

**25.** The principal Regulations are amended by inserting, immediately after regulation 29, the following Part:

#### **“PART VA**

#### **CONVEYANCE OF PETROLEUM AND FLAMMABLE MATERIALS BY PIPELINE**

#### **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 —

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- (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.

### **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.

### **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;

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- (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.

### **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.

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### **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.

### **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

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- (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.

### **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);



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- (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.

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**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.”.

**Amendment of regulation 31**

**26.** Regulation 31 of the principal Regulations is amended —

- (a) by deleting the words “ “Singapore Standard (SS286)” ” in paragraph (f) and substituting the words “ “Singapore Standard on Hazard Communication for Hazardous Chemicals and Dangerous Substances” ”;
- (b) by deleting the word “approved” in paragraph (h);
- (c) by deleting the word “and” at the end of paragraph (h); and
- (d) by deleting paragraph (i) and substituting the following paragraphs:

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- “(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
- (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.”.

### **Amendment of regulation 32**

27. Regulation 32 of the principal Regulations is amended by deleting the words “restricted hours” in paragraph (f) and substituting the words “permitted times for the transport of such cylinders”.

### **Amendment of regulation 33**

28. Regulation 33 of the principal Regulations is amended by deleting the words “time restrictions on” in paragraph (d)(vi) and substituting the words “permitted times for the”.

### **Amendment of regulation 34**

29. Regulation 34 of the principal Regulations is amended by deleting the words “Class I or II petroleum in bulk” in paragraph (b)(ii) and substituting the words “Class I, II or III petroleum or any flammable liquid in bulk”.

### **Amendment of regulation 35**

30. Regulation 35 of the principal Regulations is amended —

- (a) by inserting, immediately after the words “permit and” in paragraph (a), the words “any other persons”; and
- (c) by deleting the words “hours authorised by these Regulations” in paragraph (b)(vi) and substituting the words “permitted times”.

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**Amendment of regulation 36**

- 31.** Regulation 36 of the principal Regulations is amended —
- (a) by deleting the words “of the road that his vehicle is travelling on” in paragraph (g) and substituting the words “under written law”;
  - (b) by deleting the word “approved” in paragraph (d); and
  - (c) by deleting the words “hours authorised by these Regulations” in paragraph (i) and substituting the words “permitted times”.

**Amendment of regulation 38**

- 32.** Regulation 38 of the principal Regulations is amended —
- (a) by deleting paragraph (1) and substituting the following paragraph:

“(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.”;

and
  - (b) by deleting the word “Hours” in the regulation heading and substituting the words “Permitted times”.

**Amendment of regulation 42**

**33.** Regulation 42(3) of the principal Regulations is amended by deleting the words “and in bulk” and substituting the words “or in bulk”.

**Amendment of regulation 45**

- 34.** Regulation 45 of the principal Regulations is amended —
- (a) by deleting the words “for approval” in paragraphs (2) and (6);
  - (b) by deleting the words “, including the off-site affected areas” in paragraph (4)(d); and

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(c) by deleting sub-paragraphs (g), (h) and (i) of paragraph (4) and substituting the following sub-paragraphs:

“(g) permitted times for the transport of the petroleum or flammable materials;

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

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

#### **Amendment of regulation 46**

35. Regulation 46 of the principal Regulations is amended by deleting the words “ “Singapore Standard (SS286)” ” in paragraphs (1)(a) and (4) and substituting in each case the words “ “Singapore Standard on Hazard Communication for Hazardous Chemicals and Dangerous Substances” ”.

#### **Amendment of regulation 48**

36. Regulation 48 of the principal Regulations is amended by deleting the words “approved code” and substituting the words “accepted code”.

#### **Amendment of regulation 51**

37. Regulation 51(1) of the principal Regulations is amended —

(a) by deleting the word “and” at the end of sub-paragraph (b); and

(b) by deleting the full-stop at the end of sub-paragraph (c) and substituting the word “; and”, and by inserting immediately thereafter the following sub-paragraph:

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

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**Amendment of regulation 52**

**38.** Regulation 52 of the principal Regulations is amended —

- (a) by deleting the words “approved code” in paragraph (1) and substituting the words “accepted code”; and
- (b) by inserting, immediately after paragraph (7), the following paragraphs:

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

(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.”.

**Deletion and substitution of regulation 53**

**39.** Regulation 53 of the principal Regulations is deleted and the following regulation substituted therefor:

**“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),

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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

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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.”.

#### **Amendment of regulation 54**

**40.** Regulation 54 of the principal Regulations is amended —

(a) by deleting sub-paragraph (a) of paragraph (2) and substituting the following sub-paragraph:

“(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”;

(b) by deleting the words “the records” in paragraph (2)(b) and substituting the words “such record”;

(c) by deleting the words “date in which the dealer has ceased” in paragraph (3) and substituting the words “date on which the dealer ceases”; and

(d) by inserting, immediately after the word “petroleum” in paragraph (3), the words “for the supplier”.



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**Amendment of regulation 55**

**41.** Regulation 55(1) of the principal Regulations is amended —

- (a) by deleting the words “premises licensed to store or keep petroleum or flammable material” and substituting the words “licensed premises”; and
- (b) by deleting sub-paragraph (a) and substituting the following sub-paragraph:

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

**Amendment of regulation 56**

**42.** Regulation 56(1) of the principal Regulations is amended by deleting the words “No holder of a licence to store or keep or to transport any petroleum or flammable material shall” and substituting the words “The holder of a storage licence or a licence to transport any petroleum or flammable material or a pipeline licensee shall not”.

**New regulation 57A**

**43.** The principal Regulations are amended by inserting, immediately after regulation 57, the following regulation:

**“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.”.

#### **Amendment of regulation 58**

**44.** Regulation 58 of the principal Regulations is amended —

- (a) by inserting, immediately after the word “material”, the words “, or convey petroleum or flammable materials through a pipeline,”; and
- (b) by deleting the words “when storing, keeping or transporting” in the regulation heading and substituting the words “in the storage, keeping, transport or conveyance of”.

#### **Amendment of First Schedule**

**45.** The First Schedule to the principal Regulations is amended —

- (a) by deleting the words “Regulation 3” in the Schedule reference and substituting the words “Regulation 14”;
- (b) by deleting item 6 in Part I and substituting the following items:

- |  |                   |
|--|-------------------|
| “ 6. Pipeline licence  | \$350 per licence |
| 7. Licence to import any<br>petroleum or flammable<br>material or both | \$70 per licence. |

”; and

- (c) by inserting, immediately after Part II, the following Part:

“PART III  
GENERAL

<i>First column</i>	<i>Second column</i>
1. Replacement of licence under regulation 9(1)	\$5 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 per copy
4. Amendment of licence or permit under regulation 10 (including any transfer of licence giving rise to the amendment)	\$10 per licence or permit.

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### **New Fourth and Fifth Schedules**

**46.** The principal Regulations are amended by inserting, immediately after the Third Schedule, the following Schedules:

“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

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<i>S/N</i>	<i>Flammable Materials</i>
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
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

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<i>S/N</i>	<i>Flammable Materials</i>
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
54.	Cesium (Caesium)
55.	Chlorobutane
56.	2-Chloropropane
57.	2-Chloropropene
58.	Chlorosilanes, except — Hexachlorodisilane Phenyltrichlorosilane Tetrachlorosilane
59.	Compressed Natural Gas (CNG)
60.	Cyclobutane

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<i>S/N</i>	<i>Flammable Materials</i>
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-Dihdropyran
75.	1,2-Dimethoxyethane
76.	1,1-Dimethoxyethane
77.	Dimethyl carbonate
78.	Dimethyl disulfide
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]

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<i>S/N</i>	<i>Flammable Materials</i>
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
107.	Ethylbenzene
108.	Ethyldichlorosilane
109.	Ethylene
110.	1-Ethylpiperidine
111.	Ferrocenium
112.	Fluorobenzene
113.	Fluorotoluene
114.	Furan
115.	Hafnium powder

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<i>S/N</i>	<i>Flammable Materials</i>
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
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



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<i>S/N</i>	<i>Flammable Materials</i>
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
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

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<i>S/N</i>	<i>Flammable Materials</i>
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
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

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<i>S/N</i>	<i>Flammable Materials</i>
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
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

<i>S/N</i>	<i>Flammable Materials</i>
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.

## 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 —	

<i>S/N</i>	<i>Description</i>	<i>Permitted Times</i>
	(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.

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Made this 23rd day of August 2013.

TAN TEE HOW  
*Permanent Secretary,*  
*Ministry of Home Affairs,*  
*Singapore.*

[MHA 112/2/030; AG/LLRD/SL/109A/2010/10 Vol. 3]