

ARMS AND EXPLOSIVES ACT
(CHAPTER 13, SECTION 46)

ARMS AND EXPLOSIVES (EXPLOSIVES) RULES

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[14th July 2006]

PART I

PRELIMINARY

Citation

1. These Rules may be cited as the Arms and Explosives (Explosives) Rules.

Definitions

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

“attendant” means a person who accompanies the driver of a vehicle carrying any explosives during a journey to ensure the safety and security of the explosives;

“blasting explosive” means an explosive substance allocated, on classification under Part II, the UN Number 0081, 0082, 0083, 0084, 0241, 0331 or 0332;

“Civil Aviation Authority of Singapore” means the Civil Aviation Authority of Singapore established under the Civil Aviation Authority of Singapore Act (Cap. 41);

“Class 1” means the classification of dangerous goods as set out in the latest edition of the United Nations Book on Recommendations on the Transport of Dangerous Goods, Model Regulations (Ref: ST/SG/AC.10/1) prepared by the United Nations Committee of Experts on the Transport of Dangerous Goods;

“classified”, in relation to an article, a substance, a combination or a unit load, means —

(a) assigned to Class 1, a Division and a Compatibility Group and, in the case of an article or a substance, allocated a UN Number; or

(b) excluded from Class 1 and designated as, or as not, presenting a significant hazard from explosion;

“combination” means a combination in the same packaging of —

(a) 2 or more articles or substances; or

(b) one or more articles and one or more substances;

“Compatibility Group letter” means the letter in the second column of the First Schedule that is assigned to a Compatibility Group;

“consignee” means a person who makes a purchase of, or who receives, explosives from a consignor;

“consignor” means a person who hands over dangerous goods for movement;

“container” has the same meaning as in the Maritime and Port Authority of Singapore Act (Cap. 170A);

“detonating cord” means an explosive article allocated, on classification under Part II, the UN Number 0065 or 0289;

“detonating fuse” means an explosive article allocated, on classification under Part II, the UN Number 0106, 0107, 0257 or 0367;

“detonator” —

(a) means an initiator for explosives that contains a charge of high explosives fired by means of a flame, a spark, an electric current or a shock tube; and

(b) includes an explosive article allocated, on classification under Part II, the UN Number 0029, 0030, 0255, 0267, 0360, 0361, 0455 or 0456;

“Division” means a division of Class 1 set out in the first column of the Second Schedule;

“explosive article” means an article containing one or more explosive substances;

“explosive substance” means a solid or liquid substance, or a mixture of solid, liquid or solid and liquid substances, which —

(a) by chemical reaction, is capable in itself of producing gas at such a temperature, pressure and speed as to cause damage to its surroundings; or

(b) is designed to produce an effect by heat, light, sound, gas or smoke, or any combination of these, as a result of non-detonative self-sustaining exothermic chemical reaction;

“explosives” includes any explosive article or explosive substance;

“fireworks” means an explosive article allocated, on classification under Part II, any of the UN Numbers 0333 to 0337;

“gunpowder” means an explosive substance allocated, on classification under Part II, the UN Number 0027;

“hazard classification code”, in relation to an article, a substance, a combination or a unit load, means the Division number followed by the Compatibility Group letter of the article, substance, combination or unit load as assigned on classification;

“Health Sciences Authority” means the Health Sciences Authority established under the Health Sciences Authority Act (Cap. 122C);

“inner packaging”, in relation to an article, a substance or a combination which has more than one packaging surrounding it —

(a) means the packaging immediately surrounding the article, substance or combination; but

(b) does not include, in the case of an article, any envelope, case or contrivance forming part of the article;

“Inspector of Explosives” means —

(a) an analyst employed by the Health Sciences Authority; or

(b) any other suitably qualified person,

who is appointed by the Minister to be an Inspector of Explosives for the purposes of these Rules;

“label” includes any mark;

“licensed dealer” means a person licensed under rule 35 to deal in explosives;

“Maritime and Port Authority of Singapore” means the Maritime and Port Authority of Singapore established under the Maritime and Port Authority of Singapore Act (Cap. 170A);

“motor vehicle” has the same meaning as in the Road Traffic Act (Cap. 276);

“name”, in relation to an explosive article or explosive substance, means the name of the explosive article or explosive substance —

- (a) as shown in a licence issued by the Licensing Officer in respect of the manufacture or importation of the explosive article or explosive substance; or
- (b) as otherwise approved in writing by the Licensing Officer;

“outer packaging”, in relation to an article, a substance or a combination —

- (a) means —
 - (i) where there is only one packaging surrounding the article, substance or combination, that packaging; or
 - (ii) where there is more than one packaging surrounding the article, substance or combination, the outermost packaging; but
- (b) does not include —
 - (i) in the case of an article, any envelope, case or contrivance forming part of the article; or
 - (ii) any type of freight container, aircraft container, container with integral pallet, aircraft pallet or vehicle;

“Port Master” has the same meaning as in the Maritime and Port Authority of Singapore Act (Cap. 170A);

“possession”, in relation to an explosive, means —

- (a) having the care, control or management of the explosive;
- (b) having the explosive in the care, control or management of another person; or
- (c) having the explosive on the person, including something carried or worn by the person,

for any purpose except —

- (d) to convey, store, import, export, dispose or supply the explosive;
- (e) to carry out blasting operations;
- (f) due to the manufacture or purchase of, or dealing in, any explosive; or
- (g) to use as ammunition in a firearm the possession of which is authorised by a licence under the Arms and Explosives (Arms) Rules (R 1);

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“road” has the same meaning as in the Road Traffic Act (Cap. 276);

“safety fuse” means a flexible cord that contains an internal burning medium by which fire is conveyed, at a continuous and uniform rate, for the purpose of firing a plain detonator or blackpowder without initiating burning in a similar fuse that may be in lateral contact alongside it;

“shot” includes a series of shots fired as part of one blast;

“shotfirer” means a person appointed in accordance with the procedures referred to in rule 57(2)(a)(ii) or 70(2)(a)(ii) to be responsible for shotfiring operations;

“shotfiring operation” includes —

- (a) checking to ensure that the blasting specification is appropriate for the site conditions at the time the blasting is to take place;
- (b) mixing explosives;
- (c) priming a cartridge;
- (d) charging and stemming a shothole;
- (e) linking or connecting a round of shots;
- (f) withdrawal and sheltering of persons;
- (g) inspecting and testing a shotfiring circuit;

(h) firing a shot; and

(i) checking for misfires;

“store” means a place which is licensed for the storage of dangerous goods or, in relation to any premises, such part of the premises as is so licensed;

“supply” means supply (whether as principal or as agent) in the course of, or for use at, work by way of —

(a) sale, offer for sale, lease, hire or hire purchase;

(b) commercial sample;

(c) transfer from a factory, warehouse or other place of work to another place of work, whether or not in the same ownership; or

(d) importation into Singapore;

“trailer” has the same meaning as in the Road Traffic Act (Cap. 276);

“trainee shotfirer” means a person appointed in accordance with the procedures referred to in rule 57(2)(a)(ii) or 70(2)(a)(ii) to undergo training in shotfiring operations under the close personal supervision of a shotfirer;

“unit load” —

(a) means a unit formed when packages or unpacked articles are assembled on or in a device which enables them to be mechanically handled as one unit; but

(b) does not include any freight container, aircraft container, container with integral pallet, aircraft pallet or vehicle;

“UN Number” means United Nations Serial Number, that is to say a four-digit number used by the United Nations to identify an explosive article or explosive substance;

“vehicle” has the same meaning as in the Road Traffic Act and includes a motor vehicle and a trailer.

(2) In these Rules, any reference to the quantity of any explosives shall be construed as a reference to the net mass of explosive substance in that explosive.

(3) In these Rules —

- (a) any reference to the carriage of explosives in a vehicle shall include a reference to the carriage of explosives on the vehicle or in a freight container attached to the vehicle;
- (b) a motor vehicle with an attached trailer shall be treated as one vehicle; and
- (c) any articles, substances or articles and substances which are carried in one vehicle shall be treated as carried together.

(4) In these Rules —

- (a) where any reference is made to the use of a vehicle (other than a trailer) for the carriage of explosives, such use shall be treated as —
 - (i) beginning with the loading of the explosives onto the vehicle for the purposes of such carriage; and
 - (ii) ending with the unloading of the explosives from the vehicle; and
- (b) where any reference is made to the use of a trailer for the carriage of explosives, such use shall be treated as —
 - (i) beginning with —
 - (A) the loading of the explosives onto the trailer for the purposes of such carriage; or
 - (B) the attaching of the trailer to a motor vehicle for the purposes of such carriage,whichever is the later in time; and
 - (ii) ending with —
 - (A) the unloading of the explosives from the trailer;or

(B) the detaching of the trailer from the motor vehicle,

whichever is the earlier in time.

Application of Rules

3.—(1) Subject to paragraphs (2) to (5), these Rules shall apply to —

- (a) any explosive article or explosive substance, whether or not in any packaging;
- (b) any combination in the same packaging of —
 - (i) 2 or more explosive articles or explosive substances; or
 - (ii) one or more explosive articles and one or more explosive substances; and
- (c) any unit load of —
 - (i) explosive articles, whether or not in any packaging;
 - (ii) packaged explosive substances; or
 - (iii) any combination in the same packaging of —
 - (A) 2 or more explosive articles or explosive substances; or
 - (B) one or more explosive articles and one or more explosive substances.

(2) These Rules shall apply in relation to the supply of any explosive article, explosive substance, combination or unit load referred to in paragraph (1) only in so far as that explosive article, explosive substance, combination or unit load is supplied with a view to producing a practical effect by explosion or a pyrotechnic effect.

(3) Part II shall not apply to any article, substance, combination or unit load which is in transit on any aircraft or vessel if —

- (a) it is not to be unloaded in Singapore;
- (b) before it enters Singapore, notification of its nature is given to the Licensing Officer and —

- (i) where it is in transit on an aircraft, to the Civil Aviation Authority of Singapore; or
 - (ii) where it is in transit on a vessel, to the Maritime and Port Authority of Singapore;
 - (c) it is an article lawfully carried on board the aircraft or vessel for the purpose of safety;
 - (d) it is carried on board a vessel which is a warship;
 - (e) it is being transhipped from one aircraft to another for the purpose of being conveyed to a place outside Singapore and there is compliance with the classification and labelling provisions of the Technical Instructions for the Safe Transport of Dangerous Goods by Air published by the Council of the International Civil Aviation Organisation, as revised or re-issued from time to time; or
 - (f) it is being transhipped from one vessel to another for the purpose of being conveyed to a place outside Singapore and there is compliance with the classification and labelling provisions of the International Maritime Dangerous Goods Code published by the International Maritime Organisation, as revised or re-issued from time to time.
- (4) Part II shall not apply to any article or substance —
- (a) which is used in a manufacturing process, or which is being manufactured, examined or tested, at a place of manufacture; or
 - (b) which has been removed from its packaging for immediate use.
- (5) These Rules shall not apply to any explosive nuclear device or any component thereof.

PART II

CLASSIFICATION, PACKAGING AND LABELLING OF
EXPLOSIVES**Requirements for conveyance, storage or supply**

4.—(1) Every person who conveys, stores or supplies any article, substance, combination or unit load to which these Rules apply shall ensure that this Part is complied with in relation to the article, substance, combination or unit load and its packaging, if any.

(2) No article, substance, combination or unit load to which these Rules apply shall be conveyed, stored or supplied unless —

- (a) it has been classified according to its composition and the form and packaging, if any, in which it is to be conveyed, stored or supplied;
- (b) it and its packaging, if any, comply with rules 5 to 9 and the Third Schedule;
- (c) its packaging, if any, is sealed; and
- (d) it is properly packed for carriage.

**Labelling of article, substance or combination assigned to
Class 1**

5.—(1) A packaged article, substance or combination to which these Rules apply which is assigned on classification to Class 1, Division 1.1, 1.2 or 1.3 shall bear 2 labels on its outer packaging, one in accordance with paragraphs 1, 2, 10 and 11 of the Third Schedule and the other in accordance with paragraph 12 of the Third Schedule.

(2) An unpackaged article to which this Part applies which is assigned on classification to Class 1, Division 1.1, 1.2 or 1.3 shall bear 2 labels, one in accordance with paragraphs 3, 10 and 11 of the Third Schedule and the other in accordance with paragraph 13 of the Third Schedule.

(3) A packaged article, substance or combination to which these Rules apply which is assigned on classification to Class 1, Division 1.4 or 1.5 shall bear 2 labels on its outer packaging, one

in accordance with paragraphs 4 to 7, 10 and 11 of the Third Schedule and the other in accordance with paragraph 12 of the Third Schedule.

(4) An unpackaged article to which this Part applies which is assigned on classification to Class 1, Division 1.4 shall bear 2 labels, one in accordance with paragraphs 8, 10 and 11 of the Third Schedule and the other in accordance with paragraph 13 of the Third Schedule.

Labelling of article, substance or combination excluded from Class 1 but presenting significant hazard from explosion

6. An article, whether packaged or not, a packaged substance or a combination to which these Rules apply, which on classification is excluded from Class 1 but designated as presenting a significant hazard from explosion, shall be labelled in accordance with paragraphs 9 to 11 of the Third Schedule when it is conveyed or stored.

Labelling of outer and inner packaging

7.—(1) In addition to any labelling required under rule 5, an outer packaging of an explosive article listed in the Fourth Schedule or an explosive substance listed in the Fifth Schedule shall be labelled in accordance with paragraph 14 of the Third Schedule.

(2) An inner packaging of an explosive substance listed in the Fifth Schedule shall be labelled in accordance with paragraph 15 of the Third Schedule.

Labelling and arranging of unit load

8.—(1) A unit load to which these Rules apply shall be labelled or arranged as follows:

- (a) if the same hazard classification code applies to all articles, substances or combinations in the unit load (being articles, substances or combinations to which these Rules apply) —
 - (i) in the case of a unit load assembled on or in a device with a base or straps, the articles, substances or combinations shall be placed on the base or straps so that the labels on the articles, or on the outer packaging of the articles, substances or

combinations, are as visible as if the labels were on each vertical face of the load itself; or

(ii) in any other case, the articles, substances or combinations shall be arranged so that the label on —

(A) at least one such article; or

(B) at least one outer packaging of the articles, substances or combinations,

is visible on each vertical face of the load;

(b) if 2 or more hazard classification codes apply to different articles, substances or combinations in the unit load (being articles, substances or combinations to which these Rules apply) —

(i) in the case of a unit load assembled on or in a device with a base or straps —

(A) the labels specified in paragraph (2) shall be placed on the base or straps so that the labels are as visible as if the labels were on each vertical face of the load; or

(B) if it is impracticable to fix the labels on the base or straps, the labels shall be placed on each vertical face of the load; or

(ii) in any other case, the labels specified in paragraph (2) shall be placed on each vertical face of the load.

(2) For the purposes of paragraph (1)(b) —

(a) where the unit load as a whole is assigned on classification to Class 1, Division 1.1, 1.2 or 1.3, the labels shall be in accordance with paragraphs 1, 2, 10 and 11 of the Third Schedule;

(b) where the unit load as a whole is assigned on classification to Class 1, Division 1.4 or 1.5, the labels shall be in

accordance with paragraphs 4 to 7, 10 and 11 of the Third Schedule; or

- (c) where the unit load as a whole on classification is excluded from Class 1 but designated as presenting a significant hazard from explosion, the labels shall be in accordance with paragraphs 9, 10 and 11 of the Third Schedule.

Manner of labelling

9.—(1) Subject to paragraph (2), the requirements of rules 5, 6, 7 and 8 and the Third Schedule shall be implemented by applying durable labelling —

- (a) directly onto the outside surface of the packaging, article, base or strap, as the case may be; or
- (b) onto a piece of paper or other suitable material which is securely fixed to, and the whole of which is in contact with, the outside surface of the packaging, article, base or strap, as the case may be.

(2) Where, by reason of the size of the packaging, article, base or strap, as the case may be, it is necessary to reduce the size of the label in order to comply with paragraph (1), a full sized label may be affixed to the packaging, article, base or strap in some other safe and suitable manner.

PART III

CARRIAGE OF EXPLOSIVES BY ROAD

Application and definitions of this Part

10.—(1) This Part shall apply to the carriage of explosives by road.

(2) In this Part, “operator”, in relation to a vehicle, means —

- (a) the owner of the vehicle; or
- (b) where the vehicle is on hire or lease to any other person, that other person.

Restrictions on carriage

11.—(1) No person shall carry in a vehicle explosives in Compatibility Group K together with explosives in any other Compatibility Group.

(2) No person shall carry unclassified explosives in a vehicle unless such carriage —

(a) is solely in connection with an application for the classification of the explosives; and

(b) is in accordance with such conditions as may be approved in writing for the time being by the Licensing Officer.

(3) No explosives shall be carried on a public road —

(a) on weekdays from 7 a.m. to 9.30 a.m. and from 5 p.m. to 7.30 p.m.; or

(b) on weekends from 7 a.m. to 9 a.m. and from 12 noon to 2.30 p.m.

Use of public transport prohibited

12. No person shall carry explosives in any mode of public transport used to carry passengers for hire or reward.

Suitability of vehicle for carriage of explosives

13.—(1) The operator or driver of a vehicle used for the carriage of explosives shall ensure that the vehicle is suitable for the safety and security of any explosives carried, having regard to the type and quantity of the explosives.

(2) The operator or driver of the vehicle shall ensure that the vehicle does not at any time carry explosives of a type specified in the first column of the Sixth Schedule in excess of the quantity specified —

(a) where the vehicle is a private light goods vehicle, in the second column thereof;

(b) where the vehicle is an ordinary goods vehicle, in the third column thereof; or

(c) where the vehicle is a special goods vehicle, in the fourth column thereof,

for that type of explosives.

(3) Where explosives in different Compatibility Groups or Divisions are carried together, the Sixth Schedule shall be applied in accordance with paragraphs 1, 2(a) and 3 of the Seventh Schedule.

(4) Nothing in paragraph (2) shall be construed as allowing a greater quantity of explosives to be carried than that for which the vehicle is suitable under paragraph (1).

(5) In this rule and the Sixth Schedule —

“ordinary goods vehicle” means a vehicle the maximum authorised mass of which exceeds 3,500 kg;

“private light goods vehicle” means a vehicle —

(a) the maximum authorised mass of which does not exceed 3,500 kg; and

(b) which may be —

(i) closed or sheeted; and

(ii) fuelled by petrol or diesel,

and includes a land rover, a saloon car or an estate car which is not a passenger-carrying vehicle for hire or lease;

“special goods vehicle” means a goods vehicle specially constructed with safety features to allow the carriage of larger quantities of ammunition than allowed in an ordinary goods vehicle;

“vehicle” includes any freight container used for the carriage of explosives which is attached to a vehicle.

Carriage of explosives in different Compatibility Groups

14.—(1) The operator or driver of a vehicle used for the carriage of explosives shall ensure that —

(a) explosives in different Compatibility Groups are not carried together unless —

- (i) such carriage is permitted under rule 4(1) of the Seventh Schedule; or
 - (ii) subject to paragraph (2), effective measures have been taken to ensure that such carriage is no more dangerous than the carriage of the same quantity of explosives in any one of those Compatibility Groups;
 - (b) different explosive substances and explosive articles in the same Compatibility Group are not carried together unless —
 - (i) such carriage is permitted under rule 4(1) of the Seventh Schedule; or
 - (ii) subject to paragraph (2), effective measures have been taken to ensure that such carriage is no more dangerous than the carriage of the same quantity of any one type of those explosive substances or explosive articles; and
 - (c) unclassified explosives are not carried with any classified explosives not belonging to Compatibility Group S.
- (2) Notwithstanding paragraph (1)(a)(ii) and (b)(ii), the operator or driver of a vehicle used for the carriage of explosives shall ensure that —
- (a) explosives in Compatibility Groups A, H and L are not carried together or with explosives in any other Compatibility Group; and
 - (b) explosives in Compatibility Group L are not carried with a different type of explosives in the same Compatibility Group.
- (3) The operator or driver of a vehicle used for the carriage of explosives shall ensure that the explosives are not carried with any other dangerous substance unless all reasonably practicable measures have been taken to prevent the explosives from being brought into contact with, or otherwise endangering or being endangered by, that substance.

Marking of vehicle carrying explosives

15.—(1) The operator and the driver of a vehicle used for the carriage of explosives shall each ensure that the vehicle is marked in accordance with the Eighth Schedule.

(2) Where explosives in different Divisions and Compatibility Groups are carried together, the Eighth Schedule shall be applied in accordance with paragraphs 1, 2(b) and 3 of the Seventh Schedule.

Duties of consignor and operator of vehicle

16.—(1) The operator of a vehicle used for the carriage of explosives shall ensure that he has obtained from the consignor of the explosives, or a person acting on behalf of the consignor, such information as will enable the operator to discharge his duties under these Rules.

(2) The consignor shall ensure that the information referred to in paragraph (1) —

(a) is provided to the operator of the vehicle in writing; and

(b) is accurate and sufficient for the purposes of that paragraph.

(3) Where the consignor does not reside in Singapore, the consignor shall appoint an agent in Singapore to discharge his duties under paragraph (2).

(4) Paragraphs (1), (2) and (3) shall not apply if the consignor and the operator of the vehicle are the same person.

(5) The operator of a vehicle used for the carriage of explosives shall not remove any explosives from the consignor's premises unless he is ready to immediately deliver the explosives to the consignee or other person referred to in rule 20(1)(c).

Information on explosives

17.—(1) The operator of a vehicle used for the carriage of explosives shall ensure that the driver or any attendant of the vehicle has in his possession the following information in writing at the start of the journey:

- (a) in the case of classified explosives, the Division and Compatibility Group of each type of explosives carried;
 - (b) the net mass (in tonnes or kilograms) of each type of explosives carried or, where the operator of the vehicle does not know and cannot reasonably ascertain what the net mass is, the gross mass (in tonnes or kilograms);
 - (c) in the case of explosives in Compatibility Group C, D or G, whether the explosives carried are explosive substances or explosive articles, and the name and address of each of the consignor, the operator of the vehicle and the consignee;
 - (d) such other information as will enable the driver and any attendant to know the nature of the dangers to which the explosives carried may give rise and the action to be taken in an emergency.
- (2) The driver and any attendant of the vehicle shall not carry any explosives in the vehicle unless —
- (a) the information referred to in paragraph (1) is kept in the vehicle from the start to the end of the journey and is readily available at all times during the carriage of the explosives; and
 - (b) any information in writing relating to any other explosives not being carried at that time is removed from the vehicle or placed in a secure closed container clearly marked to show that the information does not relate to the explosives then being carried.
- (3) The driver or any attendant of the vehicle shall show to any police officer the information referred to in paragraph (1) if he is requested to do so.
- (4) Nothing in paragraph (2)(a) shall prevent the temporary removal of the information referred to in paragraph (1) from the vehicle for the purposes of showing or otherwise communicating the information to any police officer or any officer of the Ministry of Defence or the Singapore Civil Defence Force attending to any emergency involving the vehicle or the explosives in the vehicle.

Safety during carriage

18.—(1) The operator and the driver of a vehicle used for the carriage of explosives and any attendant having custody or control of the explosives during the carriage shall each take such steps as are reasonable —

- (a) to prevent accidents and to minimise the harmful effects of any accident which may occur; and
- (b) to prevent unauthorised access to, or removal of, all or any part of the explosives.

(2) The operator and the driver of a vehicle used for the carriage of explosives shall each ensure that a competent attendant is present in the vehicle when the driver is not present during any stop within —

- (a) a factory or magazine licensed or exempted under the Act or authorised in writing by the Minister; or
- (b) any premises under the control of the Ministry of Defence.

(3) The operator and the driver of a vehicle used for the carriage of explosives shall each ensure that the route used by the vehicle is a route specified by the Licensing Officer.

(4) The operator and the driver of a vehicle used for the carriage of explosives shall each ensure that no explosives are conveyed through a road tunnel or an underpass.

Accident involving vehicle carrying explosives

19.—(1) The driver of a vehicle used for the carriage of explosives or, if he is not present, the attendant having custody or control of the explosives shall, in the event of —

- (a) any spillage of the explosives which constitutes a risk to safety;
- (b) any damage to the explosives or their packaging which constitutes a risk to safety;
- (c) the vehicle overturning; or
- (d) a fire or an explosion on the vehicle,

ensure that the police, the Singapore Civil Defence Force and the operator of the vehicle are informed by the quickest practicable means.

(2) On being informed of the occurrence of any event referred to in paragraph (1), the operator of the vehicle shall inform the Licensing Officer by the quickest practicable means of the occurrence of that event.

(3) On the occurrence of any event referred to in paragraph (1), the operator and the driver of the vehicle (or if the driver is not present, the attendant having custody or control of the explosives) shall each ensure that all proper precautions are taken for the security of the explosives and the safety of persons likely to be affected by any ignition of the explosives.

Carriage and delivery of explosives

20.—(1) The operator and the driver of a vehicle used for the carriage of explosives shall each ensure that —

- (a) the carriage is completed within a reasonable period having regard to the distance involved and there is no unnecessary stop or detour during the journey;
- (b) the explosives are unloaded from the vehicle as soon as practicable after they arrive at that place of delivery;
- (c) subject to paragraph (2), the explosives are delivered to —
 - (i) the consignee or his agent; or
 - (ii) any other person who accepts custody of the explosives at —
 - (A) a factory or magazine licensed or exempted under the Act or authorised in writing by the Minister;
 - (B) any premises under the control of the Ministry of Defence; or
 - (C) a designated parking area in an airport, a harbour, a port or a port area,

for onward delivery to the consignee or his agent;

- (d) any attached trailer or freight container containing the explosives is not detached from the vehicle —
 - (i) unless the vehicle is in —
 - (A) a factory or magazine licensed or exempted under the Act or authorised in writing by the Minister;
 - (B) any premises under the control of the Ministry of Defence; or
 - (C) a designated parking area in an airport, a harbour, a port or a port area; or
 - (ii) except in an emergency; and
- (e) the explosives are carried on such routes as the Licensing Officer may approve.

(2) Where the explosives cannot be delivered in accordance with paragraph (1)(c), the operator and the driver of the vehicle shall each ensure that the explosives are returned to the consignor or his agent.

Hazmat training

21.—(1) The operator of a vehicle used for the carriage of explosives shall ensure that the driver of the vehicle —

- (a) has received adequate training and instruction from the Hazmat Unit of the Singapore Civil Defence Force to enable him to understand —
 - (i) the nature of the dangers which the explosives may give rise to;
 - (ii) the action to be taken in an emergency; and
 - (iii) the requirements under these Rules with respect to the carrying of documents, the routes to be taken, the labelling of the vehicle and the delivery of the explosives; and
- (b) has been issued a Hazmat permit by the Hazmat Unit.

(2) The operator of the vehicle shall keep a record of any such training and instruction received —

- (a) by himself, if he is a driver or an attendant of the vehicle; and
- (b) by each driver or attendant of the vehicle who is employed by him.

(3) The operator of the vehicle shall make available to each driver or attendant of the vehicle who is employed by him a copy of the record of any such training and instruction received by that driver or attendant.

Minimum age

22. No person below the age of 18 years shall —

- (a) use any vehicle for the carriage of explosives;
- (b) be employed as the driver or attendant of such a vehicle;
- (c) be given any responsibility relating to the security of the explosives; or
- (d) be allowed to board such a vehicle, except in the presence and under the supervision of a person who is at least 18 years of age.

PART IV

STORAGE OF EXPLOSIVES

Definitions of this Part

23. In this Part —

“licensed disposal operator” means the holder of a licence referred to in rule 63;

“magazine” means a magazine or hulk for the storage or safe custody of explosives.

Licence to store explosives

24.—(1) Every application by a person under section 13 of the Act for a licence to store any explosives in any place shall be made to the Licensing Officer.

(2) The Licensing Officer may, after satisfying himself that the place is suitable and that due precaution for security and public safety have been taken, issue the licence.

(3) The licence shall —

(a) [*Deleted by S 800/2020 wef 21/09/2020*]

(b) contain such conditions or restrictions as the Licensing Officer may impose; and

(c) be valid for a period of 2 years from the date of issue, or such shorter period as the Licensing Officer may determine.

[*S 174/2017 wef 24/04/2017*]

Storage of explosives

25.—(1) Subject to paragraphs (2), (3) and (4), no explosives shall be stored in any place that is not an authorised magazine.

(2) Paragraph (1) shall not apply to the storage by any person of not more than 500 blank cartridges and not more than 50 cartridges for small arms if a licence has been granted under the Act to that person authorising the storage of those cartridges by that person.

(3) Paragraph (1) shall not apply to the storage in a factory manufacturing explosives of such quantities of explosives as are reasonably required for or incidental to the manufacture of explosives.

(4) Paragraph (1) shall not apply to the storage in any place of safety cartridges for industrial fastening tools if —

(a) not more than 5,000 rounds of safety cartridges are stored in that place; and

(b) the aggregate mass of explosive substances in those safety cartridges does not exceed 5 kilograms.

Marking of magazine

26.—(1) The licensee of an authorised magazine shall ensure that paragraphs (2) and (3) are complied with in relation to the magazine.

(2) The words “DANGEROUS-EXPLOSIVES” shall be painted —

- (a) in a conspicuous colour;
- (b) in each of the 4 official languages;
- (c) in legible lettering; and
- (d) using characters which are not less than 75 mm in height,

outside every entrance to a magazine which is not within an area licensed for the manufacture of explosives.

(3) A notice, in each of the 4 official languages, prohibiting smoking and prohibiting the use of a naked flame shall be conspicuously displayed outside each magazine.

Guarding of magazine

27. The licensee of an authorised magazine shall, at his own expense, maintain such number of armed guards at the magazine as he is required to by the Licensing Officer.

Hot work repairs

28. No hot work repairs shall be carried out in or to any magazine unless —

- (a) all explosives have been removed from the magazine; and
- (b) every part of the magazine where explosive substances are stored has been thoroughly washed and cleaned.

Prohibition on smoking, etc.

29. No person shall smoke or expose any naked flame in any magazine or within 10 metres of the magazine.

Safety precautions

- 30.** The licensee of a magazine shall take all proper precautions —
- (a) to prevent any fire or explosion from taking place in the magazine;
 - (b) to prevent any unauthorised person from entering the magazine; and
 - (c) where explosives that are liable to become dangerous on interaction with water are stored in the magazine, to exclude water from every part of the magazine where such explosives are stored.

Expired, deteriorated and damaged explosives

31.—(1) The licensee of a magazine shall ensure that all expired explosives and all explosives which are unsafe for storage are immediately removed from the magazine and sent to a licensed disposal operator for disposal.

(2) The licensee shall immediately report to the Licensing Officer any discovery of any deterioration of or damage to explosives.

(3) The licensee shall cause all explosives which have suffered deterioration or damage to be removed from the magazine and destroyed in such manner as the Licensing Officer may direct.

Directions on storage of explosives

32.—(1) The Licensing Officer may give directions as to the method of storing any explosives in any magazine.

(2) The licensee of a magazine shall comply with any directions given under paragraph (1) within such period as the Licensing Officer may direct.

Storage of explosives in different Compatibility Groups

33.—(1) Subject to paragraph (2), explosives in different Compatibility Groups shall, if stored together, be stored in accordance with the Seventh Schedule.

(2) Explosives in different Compatibility Groups may be stored in a manner which deviates from the Seventh Schedule if the Licensing Officer has given his approval for the deviation.

Accounting for explosives

34.—(1) The licensee of a magazine shall keep in or near the room where the explosives are stored (referred to in this rule as the store) a stock record in such form as the Licensing Officer may direct.

(2) The person responsible for the custody of the keys to the store shall ensure that paragraphs (3), (4) and (5) are complied with in relation to the stock record.

(3) Every stock record shall be kept up to date, and shall show the amount and description of each type of explosives brought into the store, the date on which the explosives were brought into the store and the source from which the explosives were obtained.

(4) Every removal of explosives from the store shall be recorded in the stock record in such manner as to enable the balance of each type of explosives to be readily ascertained.

(5) Each entry in the stock record shall be written in ink and shall be initialled by the person responsible for the custody of the keys to the store.

(6) Any person who contravenes paragraph (1) or (2) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$2,000.

PART V

DEALING IN EXPLOSIVES

Licence to deal in explosives

35. A licence to deal in explosives is valid for a period of 2 years from the date of issue, or such shorter period as the Licensing Officer may determine.

[S 800/2020 wef 21/09/2020]

Stock and sales book to be kept for inspection

36.—(1) Every licensed dealer shall maintain a stock and sales book which complies with rule 37 and which shall be open to the inspection of the Licensing Officer or any police officer during business hours.

(2) A licensed dealer shall on demand furnish the Licensing Officer or police officer with copies of any entries which he is required by the Licensing Officer or police officer to provide.

(3) Any person who contravenes paragraph (1) or (2) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$2,000.

Particulars to be kept in stock and sales book

37. The stock and sales book shall contain —

- (a) the date on which any explosives were taken into stock;
- (b) the number of the licence to import explosives (if the explosives were imported) or the name of the person from whom the explosives were purchased or received;
- (c) the description of the explosives;
- (d) the quantity of each description of explosives taken into stock;
- (e) the date of the sale or transfer of any explosives;
- (f) the name, NRIC, foreign identification or passport number and address of the person to whom, or the name and address of the company to which, the explosives were sold or transferred;
- (g) the number of the licence to purchase or export explosives; and
- (h) the quantity of each description of explosives sold, exported or transferred.

Submission of returns

38.—(1) Every licensed dealer shall submit to the Licensing Officer such returns on stock and sales of explosives as the Licensing Officer may require.

(2) Any person who contravenes paragraph (1) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$2,000.

PART VI

PURCHASE OF EXPLOSIVES

Licence to purchase explosives

39. A licence to purchase explosives is subject to the restrictions set out in the licence.

[S 800/2020 wef 21/09/2020]

Licence required for delivery or removal of explosives

40.—(1) No person shall take delivery of any explosives from a licensed dealer —

(a) without a licence to purchase the explosives; or

(b) beyond the extent permitted by the licence.

(2) No licensed dealer shall deliver to any person any explosives —

(a) unless that person has been issued a licence to purchase the explosives and has delivered the licence to the licensed dealer; or

(b) beyond the extent permitted by the licence.

(3) Every person wishing to remove any explosives for blasting work or pyrotechnic effects shall apply to the Licensing Officer for a licence to remove explosives.

[S 800/2020 wef 21/09/2020]

(4) No explosives shall be removed for blasting work or pyrotechnic effects without the licence referred to in paragraph (3).

(5) Any person who contravenes paragraph (1) or (2), or does any act in contravention of paragraph (4), shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

(6) A licence to remove explosives mentioned in paragraph (3) remains in force for 30 days starting from its date of issue.

[S 800/2020 wef 21/09/2020]

Return of purchaser's licence

41.—(1) Every licensed dealer shall on the first day of every month forward to the Licensing Officer all licences to purchase explosives which are licences received by him during the previous month.

(2) Any person who contravenes paragraph (1) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$2,000.

Duration of licence

42. A licence to purchase explosives shall remain in force for 30 days from its date of issue and no longer.

[S 800/2020 wef 21/09/2020]

PART VII

IMPORTATION AND EXPORTATION OF EXPLOSIVES

Licence to import or export explosives

43.—(1) A person must not import into or export from Singapore any explosives without a licence to import or export explosives.

(2) A licence to import or export explosives is subject to the restrictions set out in the licence.

(3) A licence to import or export explosives remains in force for 30 days starting from its date of issue.

[S 800/2020 wef 21/09/2020]

Report on import or export of explosives

44. The Licensing Officer may, in his discretion, require a licensed dealer to submit a report from an Inspector of Explosives on any

explosives to be imported into or exported from Singapore confirming the explosives are safe for carriage.

Port Master's powers

45. Without prejudice to the Port Master's powers under any other written law, the Port Master may —

- (a) impose restrictions and conditions on any vessel carrying explosives within the port area; and
- (b) order any such vessel to be off port limits if the vessel poses a danger to other ships within the port area.

46. [*Deleted by S 800/2020 wef 21/09/2020*]

PART VIII

MANUFACTURE OF EXPLOSIVES

Licence to manufacture explosives

47. A licence to manufacture explosives shall —

- (a) [*Deleted by S 800/2020 wef 21/09/2020*]
- (b) be subject to the restrictions and conditions set out in the licence; and
- (c) be valid for a period of 2 years from the date of issue, or such shorter period as the Licensing Officer may determine.

[*S 174/2017 wef 24/04/2017*]

Licensing of premises for manufacture of explosives

48. The Licensing Officer may, with the approval of the Minister, license any suitable premises as a factory for the manufacture of any explosives.

Manufacture forbidden except in licensed factory

49.—(1) No explosives shall be manufactured, and no process of manufacture of explosives shall be carried on, at any premises other than a factory licensed under rule 48.

(2) Any person who does any act in contravention of paragraph (1) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000 and, in the case of a continuing offence, to a further fine not exceeding \$2,000 for every day or part thereof during which the offence continues after conviction.

(3) All explosives, materials and apparatus relating to an offence under paragraph (2) which are forfeited to the Government under section 42 of the Act shall be disposed of in such manner as the Licensing Officer may direct.

Stock and sales book

50.—(1) Every person licensed to manufacture explosives shall maintain a stock and sales book which complies with paragraph (2).

(2) The stock and sales book shall contain —

- (a) the date on which any explosives were manufactured and taken into stock;
- (b) the description of the explosives;
- (c) the quantity of each description of explosives manufactured and taken into stock;
- (d) the date on which any explosives were sold, transferred or supplied;
- (e) the quantity of each description of explosives sold, transferred or supplied;
- (f) the name, NRIC, foreign identification or passport number and address of the person to whom, or the name and address of the company to which, the explosives were sold, transferred or supplied; and
- (g) the number of the licence to purchase or export explosives.

(3) Any person who contravenes paragraph (1) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$2,000.

PART IX
BLASTING**Definitions of this Part**

51. In this Part —

“explosives supervisor” means a person appointed by an operator to organise and supervise all work at a blasting site involving the use of explosives;

“operator” means a person in overall control of a blasting operation.

Licence to conduct blasting operations

52. A licence to conduct blasting operations shall —

(a) [*Deleted by S 800/2020 wef 21/09/2020*]

(b) be subject to the restrictions set out in the licence; and

(c) be valid for a period of 2 years from the date of issue, or such shorter period as the Licensing Officer may determine.

[S 174/2017 wef 24/04/2017]

Restrictions on blasting operation

53.—(1) No person shall conduct a blasting operation —

(a) without a licence under rule 52; or

(b) in contravention of any restriction contained in the licence.

(2) Any person who contravenes paragraph (1) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

Approval for particular blasting operation

54.—(1) A person licensed to conduct blasting operations shall obtain the approval of the Licensing Officer for a particular blasting operation to take place before commencing the blasting operation.

(2) Any person who contravenes paragraph (1) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

Operator to be present during blasting operation

55.—(1) An operator at a blasting site —

- (a) shall not leave the blasting site until the entire blasting operation is completed; and
- (b) shall not permit any other person to act as the operator of the blasting site.

(2) Any operator who contravenes paragraph (1) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

Safety at blasting site

56. An operator shall ensure that —

- (a) all danger areas in the blasting site are clearly marked;
- (b) equipment or barriers designed to prevent inadvertent entry by any unauthorised person are installed at every danger area in the blasting site where, because of the nature of the work being carried out there or for any other reason, there is —
 - (i) a risk of a person suffering personal injury as a result of falling from a height;
 - (ii) a risk of a person suffering personal injury as a result of being struck by a falling object; or
 - (iii) significant danger to the health and safety of persons; and
- (c) appropriate measures are taken to protect the health and safety of all persons authorised to enter or work in danger areas in the blasting site.

General responsibilities of operator

- 57.—**(1) An operator shall —
- (a) ensure, as far as is reasonably practicable, that all explosives are stored and carried safely and securely and used safely;
 - (b) appoint one or more competent persons as explosives supervisor; and
 - (c) ensure that at all times there is only one person acting as the explosives supervisor at the blasting site.
- (2) An operator shall ensure that —
- (a) suitable procedures for —
 - (i) shotfiring operations at the blasting site;
 - (ii) appointing shotfirers, trainee shotfirers and storekeepers;
 - (iii) appointing other persons involved in the storage, carriage or use of explosives;
 - (iv) dealing with misfires; and
 - (v) ensuring, as far as is reasonably practicable, that such procedures are complied with,are established and laid down in writing;
 - (b) an adequate written specification is prepared for each shotfiring operation at the blasting site to ensure, as far as is reasonably practicable, that such firing will not give rise to danger; and
 - (c) a copy of the specification is given to every person on whom duties are imposed under the specification.
- (3) An operator shall ensure that every operation involving the storage, carriage or use of explosives is carried out by —
- (a) a duly authorised and competent person; or
 - (b) a trainee under the close supervision of a duly authorised and competent person.

- (4) An operator shall ensure that —
- (a) the facilities and equipment necessary to enable shotfiring operations to be carried out safely are provided;
 - (b) every vehicle which is provided for use in relation to shotfiring operations is so marked as to be readily identifiable from a distance;
 - (c) detonators are stored in separate containers from other explosives; and
 - (d) explosives are at all times kept in a locked explosives store or under the constant supervision of a suitable person.
- (5) An operator shall ensure, as far as is reasonably practicable, that each shotfiring operation is carried out safely and in accordance with the procedures required to be established under paragraph (2)(a) and any specification required to be prepared under paragraph (2)(b).

Supervision of shotfiring operation

58.—(1) An operator shall take all reasonable steps to ensure that —

- (a) a trainee shotfirer at the blasting site does not, and is not required to, fire shots —
 - (i) except when he is under the close personal supervision of a shotfirer; or
 - (ii) unless the operator is satisfied that the trainee shotfirer has completed a suitable period of training and has appropriate practical experience; and
- (b) all shotfiring operations are carried out under the close personal supervision of the shotfirer.

(2) An operator shall ensure, in respect of every shotfirer or trainee shotfirer employed at a blasting site, that a record of the employment of the shotfirer or trainee shotfirer at the blasting site is maintained until the end of 3 years after the date of termination of the employment of the shotfirer or trainee shotfirer at the blasting site.

Responsibilities of shotfirer

- 59.** Before a shot is fired at a blasting site, a shotfirer shall —
- (a) check the shotfiring system or circuit to ensure that it has been connected correctly;
 - (b) where electrical detonators are used, ensure that they have been correctly connected to the shotfiring system or circuit and that the shotfiring system or circuit is tested with an instrument suitable for that purpose;
 - (c) where appropriate, ensure that the electrical integrity of the shotfiring system or circuit is such as to make a misfire unlikely; and
 - (d) ensure that the shot is fired from a safe place.

Measures to be taken in event of misfire

60. In the event of a misfire of a shot, an operator shall ensure, as far as is reasonably practicable, that —

- (a) no person other than himself, the explosives supervisor, a shotfirer, a trainee shotfirer or any other person authorised by him enters the danger area where the shot was fired until —
 - (i) a period of 30 minutes has elapsed from the time of the misfire; and
 - (ii) any shotfiring apparatus has been disconnected from the shot;
- (b) appropriate steps are taken to determine the cause of, and to deal with, the misfire; and
- (c) a suitable record is kept of the misfire.

Prohibited activities

61.—(1) No person shall handle explosives at a blasting site unless he is —

- (a) a person engaged in the carriage of explosives to or from the blasting site;

- (b) a shotfirer or trainee shotfirer;
 - (c) a person authorised by the operator at the blasting site to handle explosives at the blasting site; or
 - (d) a person appointed by the operator at the blasting site to be in charge of the explosives store.
- (2) No person shall —
- (a) bring any article or substance (other than any explosives) which is likely to cause an unintended explosion or fire; or
 - (b) except for the purpose of lighting an igniter cord or safety fuse, take any naked flame,
- within 10 metres of any explosives in a blasting site.
- (3) No person shall forcibly remove any detonator lead, safety fuse or other system for initiating shots from a shothole in a blasting site after the shothole has been charged and primed.
- (4) No person shall charge or fire a shot —
- (a) unless there is sufficient visibility to ensure that —
 - (i) all work preparatory to shotfiring;
 - (ii) the shotfiring operation; and
 - (iii) any site inspection after the shot is fired,can be carried out safely;
 - (b) in a shothole which has previously been fired, unless he is dealing with a misfire; or
 - (c) in any tunnel or excavation (other than a shothole) in the face or side of a quarry for the purpose of extracting minerals or products of minerals.
- (5) No person shall fire a shot —
- (a) unless he is a shotfirer or trainee shotfirer; and
 - (b) except by means of a suitable exploder or safety fuse.
- (6) No person shall cap a safety fuse with a detonator unless —
- (a) he is using equipment designed for that purpose; and

- (b) he is in a suitably sheltered place designated by an operator for that purpose.

PART X

DISPOSAL OF EXPLOSIVES

Definitions of this Part

62. In this Part —

“disposal site” means a site where a disposal of explosives is conducted;

“explosives supervisor” means a person appointed by an operator to organise and supervise all work at a disposal site involving the use of explosives;

“operator” means a person in overall control of a disposal of explosives.

Licence to carry out disposal of explosives

63. A licence to conduct the disposal of explosives shall —

(a) [*Deleted by S 800/2020 wef 21/09/2020*]

(b) be subject to the restrictions set out in the licence; and

(c) be valid for a period of 2 years from the date of issue, or such shorter period as the Licensing Officer may determine.

[S 174/2017 wef 24/04/2017]

Restrictions on disposal of explosives

64.—(1) No person shall conduct a disposal of explosives —

(a) without a licence under rule 63; or

(b) in contravention of any restriction contained in the licence.

(2) Any person who contravenes paragraph (1) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

Approval for disposal of particular consignment of explosives

65.—(1) A person licensed to conduct the disposal of explosives shall obtain the approval of the Licensing Officer for the disposal of a particular consignment of explosives before conducting the disposal of that consignment of explosives.

(2) Any person who contravenes paragraph (1) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

Consent of landowner

66.—(1) A disposal of explosives shall be conducted —

- (a) at an area approved by the Licensing Officer; and
- (b) only after obtaining the written consent from the owner of the land where the disposal of explosives is to be carried out.

(2) Any person who does any act in contravention of paragraph (1) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

Unauthorised person not to act as operator

67.—(1) An operator at a disposal site shall not permit any other person to act as the operator of the disposal site unless that person has in force a licence under rule 63.

(2) Any operator who contravenes paragraph (1) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

Safety of disposal operation

68.—(1) An operator shall take all necessary measures to ensure, as far as is reasonably practicable, that the disposal operation is designed, constructed, equipped, operated and maintained in such a way that the persons at work in the operation can perform the work assigned to them without endangering themselves or others.

(2) An operator shall co-ordinate and implement all measures relating to the safety of persons at the disposal site.

(3) An operator shall ensure that no person at the disposal site uses any naked flame or electronic device, or carries out any work, which could give rise to an unintended explosion or fire.

Safety at disposal site

69. An operator shall ensure that —

- (a) all danger areas in the disposal site are clearly marked;
- (b) equipment or barriers designed to prevent inadvertent entry by any unauthorised person are installed at every danger area in the disposal site where, because of the nature of the work being carried out there or for any other reason, there is —
 - (i) a risk of a person suffering personal injury as a result of falling from a height;
 - (ii) a risk of a person suffering personal injury as a result of being struck by a falling object; or
 - (iii) significant danger to the health and safety of persons; and
- (c) appropriate measures are taken to protect the health and safety of all persons authorised to enter or work in danger areas in the disposal site.

General responsibilities of operator

70.—(1) An operator shall —

- (a) ensure, as far as is reasonably practicable, that all explosives are stored and carried safely and securely and used safely;
- (b) appoint one or more competent persons as explosives supervisor; and
- (c) ensure that at all times there is only one person acting as the explosives supervisor at the disposal site.

- (2) An operator shall ensure that —
- (a) suitable procedures for —
 - (i) shotfiring operations at the disposal site;
 - (ii) appointing shotfirers, trainee shotfirers and storekeepers;
 - (iii) appointing other persons involved in the storage, carriage or use of explosives;
 - (iv) dealing with misfires; and
 - (v) ensuring, as far as is reasonably practicable, that such procedures are complied with,are established and laid down in writing;
 - (b) an adequate written specification is prepared for each shotfiring operation at the disposal site to ensure, as far as is reasonably practicable, that such firing will not give rise to danger; and
 - (c) a copy of the specification is given to every person on whom duties are imposed under the specification.
- (3) An operator shall ensure that every operation involving the storage, carriage or use of explosives is carried out by —
- (a) a duly authorised and competent person; or
 - (b) a trainee under the close supervision of a duly authorised and competent person.
- (4) An operator shall ensure that —
- (a) the facilities and equipment necessary to enable shotfiring operations to be carried out safely are provided;
 - (b) every vehicle which is provided for use in relation to shotfiring operations is so marked as to be readily identifiable from a distance;
 - (c) detonators are stored in separate containers from other explosives; and

(d) explosives are at all times kept in a locked explosives store or under the constant supervision of a suitable person.

(5) An operator shall ensure, as far as is reasonably practicable, that each shotfiring operation is carried out safely and in accordance with the procedures required to be established under paragraph (2)(a) and any specification required to be prepared under paragraph (2)(b).

Supervision of shotfiring operation

71.—(1) An operator shall take all reasonable steps to ensure that —

(a) a trainee shotfirer at the disposal site does not, and is not required to, fire shots —

(i) except when he is under the close personal supervision of a shotfirer; or

(ii) unless the operator is satisfied that the trainee shotfirer has completed a suitable period of training and has appropriate practical experience; and

(b) all shotfiring operations are carried out under the close personal supervision of the shotfirer.

(2) An operator shall ensure, in respect of every shotfirer or trainee shotfirer employed at a disposal site, that a record of the employment of the shotfirer or trainee shotfirer at the disposal site is maintained until the end of 3 years after the date of termination of the employment of the shotfirer or trainee shotfirer at the disposal site.

Responsibilities of shotfirer

72. Before a shot is fired at a disposal site, a shotfirer shall —

(a) check the shotfiring system or circuit to ensure that it has been connected correctly;

(b) where electrical detonators are used, ensure that they have been correctly connected to the shotfiring system or circuit and that the shotfiring system or circuit is tested with an instrument suitable for that purpose;

- (c) where appropriate, ensure that the electrical integrity of the shotfiring system or circuit is such as to make a misfire unlikely; and
- (d) ensure that the shot is fired from a safe place.

Measures to be taken in event of misfire

73. In the event of a misfire of a shot, an operator shall ensure, as far as is reasonably practicable, that —

- (a) no person other than himself, the explosives supervisor, a shotfirer, a trainee shotfirer or any other person authorised by him enters the danger area where the shot was fired until —
 - (i) a period of 30 minutes has elapsed from the time of the misfire; and
 - (ii) any shotfiring apparatus has been disconnected from the shot;
- (b) appropriate steps are taken to determine the cause of, and to deal with, the misfire; and
- (c) a suitable record is kept of the misfire.

Prohibited activities

74.—(1) No person shall handle explosives at a disposal site unless he is —

- (a) a person engaged in the carriage of explosives to or from the disposal site;
- (b) a shotfirer or trainee shotfirer;
- (c) a person authorised by the operator at the disposal site to handle explosives at the disposal site; or
- (d) a person appointed by the operator at the disposal site to be in charge of the explosives store.

(2) No person shall —

- (a) bring any article or substance (other than any explosives) which is likely to cause an unintended explosion or fire; or

- (b) except for the purpose of lighting an igniter cord or safety fuse, take any naked flame,
within 10 metres of any explosives in a disposal site.
- (3) No person shall forcibly remove any detonator lead, safety fuse or other system for initiating shots from a shothole in a disposal site after the shothole has been charged and primed.
- (4) No person shall charge or fire a shot —
- (a) unless there is sufficient visibility to ensure that —
 - (i) all work preparatory to shotfiring;
 - (ii) the shotfiring operation; and
 - (iii) any site inspection after the shot is fired,
can be carried out safely;
 - (b) in a shothole which has previously been fired, unless he is dealing with a misfire; or
 - (c) in any tunnel or excavation (other than a shothole) in the face or side of a quarry for the purpose of extracting minerals or products of minerals.
- (5) No person shall fire a shot —
- (a) unless he is a shotfirer or trainee shotfirer; and
 - (b) except by means of a suitable exploder or safety fuse.
- (6) No person shall cap a safety fuse with a detonator unless —
- (a) he is using equipment designed for that purpose; and
 - (b) he is in a suitably sheltered place designated by an operator for that purpose.

PART XA

POSSESSION OF EXPLOSIVES

[S 800/2020 wef 21/09/2020]

Licence to possess explosives

74A. A licence to possess an explosive is subject to the restrictions and conditions set out in the licence.

[S 800/2020 wef 21/09/2020]

Validity of licence

74B. A licence to possess an explosive remains in force for 12 months starting its date of issue, or such shorter period as the Licensing Officer may determine in any particular case.

[S 800/2020 wef 21/09/2020]

PART XI LICENCES

Application for licence

75.—(1) Every application for a licence under these Rules shall, subject to paragraph (2), be made using the electronic application service provided by the Licensing Officer.

(2) In the event of a malfunction or failure of the electronic application service, the application shall be made in such written form as the Licensing Officer may require.

(3) The Licensing Officer may reject any application not made in accordance with this rule.

Licence fees

76. The fees specified in the second column of the Tenth Schedule shall be payable to the Licensing Officer in respect of the matters specified in the first column thereof.

Recovery of charges

77. The Licensing Officer may recover from an applicant for a licence —

- (a) the fees to be charged for the licence; and

- (b) any charges incurred in processing the application for the licence.

PART XII

GENERAL PROVISIONS

Production of licence

78.—(1) Any person holding a licence, or acting under a licence, granted under these Rules shall be bound to produce the licence when called upon to do so by any court, Inspector of Explosives or police officer.

(2) Any person who contravenes paragraph (1) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$2,000.

Powers of entry, inspection, seizure, etc.

79. The Licensing Officer, any police officer and any officer of the Singapore Civil Defence Force of or above the rank of Lieutenant may —

- (a) enter, inspect and examine any place, vehicle or vessel —
- (i) in which an explosive is being manufactured, possessed, used, stored, carried or imported under a licence granted under the Act; or
 - (ii) in which he has reason to believe that an explosive has been or is being manufactured, possessed, used, stored, carried or imported in contravention of the Act;
- (b) search for any explosive therein;
- (c) take samples of any explosive found therein; and
- (d) seize, detain, remove and, if necessary, destroy or otherwise render harmless any explosive found therein.

Offences

80.—(1) Any person who does any act in contravention of rule 25(1), 28, 33 or 43(1) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

[S 800/2020 wef 21/09/2020]

(2) Any person who contravenes —

(a) rule 4(1), 11, 12, 13(1) or (2), 14, 15(1), 16, 17, 18, 19, 20, 21, 22, 26(1), 27, 29, 30, 31, 32(2), 56, 57, 58, 59, 60, 61, 68, 69, 70, 71, 72, 73 or 74;

(b) rule 13(2) read with rule 13(3); or

(c) rule 15(1) read with rule 15(2),

shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

Saving and transitional provisions

81. Notwithstanding the revocation of the Arms and Explosives (Explosives) Rules (R 2, 1990 Ed.), any licence issued under the revoked Rules in force immediately before 14th July 2006 shall, unless revoked, suspended or cancelled, and in so far as it is not inconsistent with these Rules —

(a) continue and be treated as a licence under these Rules;

(b) be subject to the terms and conditions specified in the licence; and

(c) expire on, and be renewable before, the date it would have expired if these Rules had not been enacted.

FIRST SCHEDULE

Rule 2(1)

COMPATIBILITY GROUPS

First Column

Second Column

Compatibility Group

Compatibility Group letter

1. Primary explosive substance.

A

FIRST SCHEDULE — *continued*

- | | |
|--|---|
| 2. Article containing a primary explosive substance and not containing 2 or more independent safety features. | B |
| 3. Propellant explosive substance or other deflagrating explosive substance or article containing such explosive substance. | C |
| 4. Secondary detonating explosive substance or black powder or article containing a secondary detonating explosive substance, in each case without means of initiation and without a propelling charge, or article containing a primary explosive substance and containing 2 or more independent safety features. | D |
| 5. Article containing a secondary detonating explosive substance, without means of initiation, and with a propelling charge (other than a charge containing a flammable or hypergolic liquid). | E |
| 6. Article containing a secondary detonating explosive substance, with means of initiation, and either with a propelling charge (other than a charge containing a flammable or hypergolic liquid) or without a propelling charge. | F |
| 7. A substance which is an explosive substance because it is designed to produce an effect by heat, light, sound, gas or smoke or a combination of these as a result of non-detonative self-sustaining exothermic chemical reactions, or an article containing such a substance, or an article containing both a substance which is explosive because it is capable by chemical reaction in itself of producing gas at such a temperature and pressure and at such a speed as could cause damage to surroundings and an illuminating, incendiary, lachrymatory or smoke-producing substance (other than a water-activated article or one containing white phosphorus, phosphide or a flammable liquid or gel). | G |
| 8. Article containing both an explosive substance and white phosphorus. | H |

FIRST SCHEDULE — *continued*

9. Article containing both an explosive substance and a flammable liquid or gel.	J
10. Article containing both an explosive substance and a toxic chemical agent.	K
11. Explosive substance or explosive article presenting a special risk needing isolation of each type.	L
12. Article containing only extreme insensitive detonating substances.	N
13. Substance or article so packed or designed that any hazardous effect arising from accidental functioning are confined within the package unless the package has been degraded by fire, in which case all blast or projection effects are limited to the extent that they do not significantly hinder or prohibit fire fighting or other emergency response efforts in the immediate vicinity of the package.	S

SECOND SCHEDULE

Rule 2(1)

DIVISIONS

<i>First Column</i>	<i>Second Column</i>
<i>Division</i>	<i>Division number</i>
1. Substances and articles which have a mass explosion hazard	1.1
2. Substances and articles which have a projection hazard but not a mass explosion hazard	1.2
3. Substances and articles which have a fire hazard and either a minor blast hazard or a minor projection hazard or both, but not a mass explosion hazard	1.3
4. Substances and articles which present no significant hazard	1.4
5. Very insensitive substances which have a mass explosion hazard	1.5

SECOND SCHEDULE — *continued*

6. Extremely insensitive articles which do not have a mass explosion hazard 1.6

THIRD SCHEDULE

Rules 4(2), 5, 6, 7, 8(2) and 9(1)

LABELS

Label for packaged article, substance or combination in Class 1, Division 1.1, 1.2 or 1.3

1. One of the labels required by rule 5(1), and the label required by rule 8(2)(a), shall —

- (a) be a square set with its sides at an angle of 45° to the vertical;
- (b) be in the form of the following diagram (the hazard classification code “1.2E” is only an example); and
- (c) comply with the measurements in the diagram except that —
 - (i) larger measurements may be used, in which case the measurements shall be increased proportionally; or
 - (ii) where, in order to comply with rule 10(1), a smaller label is necessary, the dimensions may be decreased proportionally while remaining as large as is reasonably practicable for the purpose of such compliance.

THIRD SCHEDULE — *continued***Markings on label for packaged article, substance or combination in Class 1, Division 1.1, 1.2 or 1.3**

2.—(1) The label described in paragraph 1 shall have a pictograph of a bomb blast filling most of its upper half.

(2) In the lower half of the label, the word “EXPLOSIVE” shall be written in capital letters which shall each be in a smaller font than the font of the Compatibility Group letter in the hazard classification code required by sub-paragraph (3).

(3) The hazard classification code appropriate for the contents when in the packaging on which the label is put shall be written below the word “EXPLOSIVE”.

(4) The Class number “1” shall be written in the bottom corner of the label, below the hazard classification code.

(5) The label shall have a line at least 1 mm wide approximately 5 mm inside the edge of the label and running parallel to it.

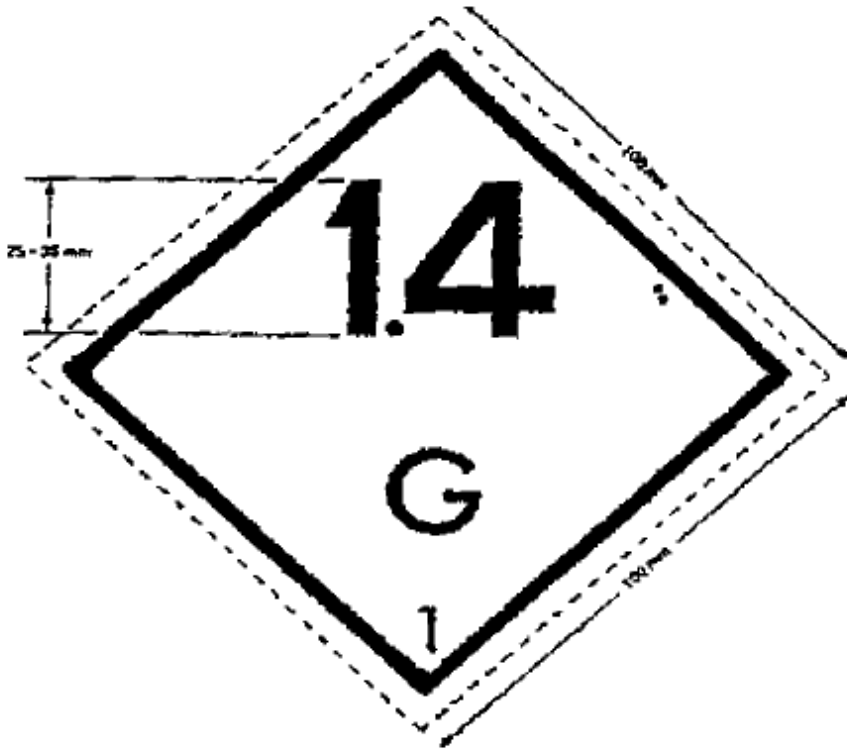
THIRD SCHEDULE — *continued***Label for unpackaged article in Class 1, Division 1.1, 1.2 or 1.3**

3. One of the labels required by rule 5(2) shall be as described in paragraphs 1 and 2, except that the hazard classification code shall be that which is appropriate for the article when it is not packaged.

Label for packaged article, substance or combination in Class 1, Division 1.4 or 1.5

4. Subject to paragraphs 6 and 7, one of the labels required by rule 5(3), and the label required by rule 8(2)(b), shall —

- (a) be a square set with its sides at an angle of 45° to the vertical;
- (b) be in the form of the following diagram (the Division number “1.4” and the Compatibility Group letter “G” are only examples); and
- (c) comply with the measurements in the diagram except that —
 - (i) larger measurements may be used, in which case the measurements shall be increased proportionally; or
 - (ii) where, in order to comply with rule 10(1), a smaller label is necessary, the dimensions may be decreased proportionally while remaining as large as is reasonably practicable for the purpose of such compliance.

THIRD SCHEDULE — *continued***Markings on label for packaged article, substance or combination in Class 1, Division 1.4 or 1.5**

5.—(1) The Division number appropriate for the contents of the packaging on which a label described in paragraph 4 is placed shall be written in the upper half of the label.

(2) The Compatibility Group letter appropriate for the contents of the packaging on which the label is placed shall be written in the lower half of the label.

(3) The Class number “1” shall be written in the bottom corner of the label, below the Compatibility Group letter.

(4) The label shall have a line at least 1 mm wide approximately 5 mm inside the edge of the label and running parallel to it.

Label for packaged article, substance or combination where hazard classification code is "1.4S"

6. In any case where the hazard classification code is “1.4S”, the label on the outer packaging may —

THIRD SCHEDULE — *continued*

- (a) bear the marking “1.4S”, the number “1.4” and the letter “S” being of a reasonable size having regard to the dimensions of the package; or
- (b) be in accordance with paragraphs 4 and 5, except that the letter “S” may be on the right of the number “1.4” instead of below it, in which case the number and letter shall be of a reasonable size having regard to the dimensions of the label.

Alternative to complying with paragraphs 4 and 5 in case of packaged fireworks

7. The outer packaging of packaged fireworks which fall within Division 1.4 may be labelled with the word “FIREWORKS” in capital letters followed by the hazard classification code appropriate for the fireworks as so packaged.

Label for unpackaged article, other than fireworks, in Class 1, Division 1.4

8. One of the labels required by rule 5(4) shall —
- (a) be as described in paragraphs 4 and 5, except that the Division number and the Compatibility Group letter shall be those appropriate for the article when it is not packaged;
 - (b) clearly bear the marking “EXPLOSIVES” in capital letters, followed by the hazard classification code appropriate for the article when it is not packaged; or
 - (c) in the case of an article which, when not packaged, comes within Division 1.4 and Compatibility Group S, clearly bear the marking “1.4S”.

Label for article, substance or combination not in Class 1

9. The label required by rules 6 and 8(2)(c) shall —
- (a) be a square set with its sides at an angle of 45° to the vertical;
 - (b) be in the form of the following diagram; and
 - (c) comply with the measurements in the diagram, except that —
 - (i) larger measurements may be used, in which case the measurements shall be increased proportionally; or
 - (ii) where a smaller label is necessary, the dimensions may be decreased proportionally while remaining as large as is reasonably practicable for the purpose of such compliance.

THIRD SCHEDULE — *continued***Background colour of labels described in paragraphs 1 to 9**

10. The background colour of the labels described in paragraphs 1 to 9 shall be orange.

Colour of markings on labels described in paragraphs 1 to 9

11. Pictographs, numbers, letters and lines on the labels described in paragraphs 1 to 9 shall be black in colour.

Other label for packaged article, substance or combination in Class 1

12. The other label required by rule 5(1) and (3) shall state, in respect of each explosive article or explosive substance in the package, whether or not that article or substance is in a combination —

- (a) its UN Number;
- (b) its name; and
- (c) if it has been imported —
 - (i) the name and address, or the monogram, of the importer of the explosives; and
 - (ii) the name and address, or the monogram, of the manufacturer of the explosives.

THIRD SCHEDULE — *continued***Other label for unpackaged article in Class 1**

13. The other label required by rule 5(2) and (4) shall state, in respect of the article —

- (a) its UN Number; and
- (b) if it has been imported —
 - (i) the name and address, or the monogram, of the importer of the explosives; and
 - (ii) the name and address, or the monogram, of the manufacturer of the explosives.

Outer packaging

14. The label required by rule 7(1) shall, in respect of the contents of the outer packaging —

- (a) state the total number of each type of explosive article and the total nominal mass of each type of explosive substance;
- (b) indicate —
 - (i) the month and year of manufacture of the explosives, or of the explosives leaving the factory of manufacture; and
 - (ii) which of these 2 dates is being indicated,such information to be stated explicitly on the label or contained in a manufacturer's code, details of which shall be made available to the Licensing Officer;
- (c) contain a description which enables each explosive article in the package to be distinguished from every other explosive article which is not identical;
- (d) in the case of explosive articles in cord form, state the length of cord on each spool; and
- (e) in the case of explosive substances in cartridge form, state the number, minimal diameter and either the nominal mass or the nominal length of each type of cartridge.

Inner packaging

15. The label required by rule 7(2) shall, in respect of the contents of the inner packaging —

- (a) state the name of each explosive substance;

THIRD SCHEDULE — *continued*

- (b) state the total nominal mass of the explosive substances or, as an alternative in the case of explosive substances in cartridge form, the nominal length of each cartridge;
- (c) in the case of explosive substances in cartridge form, state the nominal diameter of each cartridge; and
- (d) indicate —
- (i) the month and year of manufacture of the explosives, or of the explosives leaving the factory of manufacture; and
 - (ii) which of these 2 dates is being indicated,
- such information to be stated explicitly on the label or contained in a manufacturer's code, details of which shall be made available to the Licensing Officer.

FOURTH SCHEDULE

Rule 7(1)

EXPLOSIVE ARTICLE IN RESPECT OF WHICH OUTER PACKAGING IS
TO BE LABELLED

<i>First column</i>	<i>Second column</i>	<i>Third column</i>
<i>UN Number</i>	<i>Article</i>	<i>Hazard Classification Code</i>
0354	ARTICLES, EXPLOSIVE, not otherwise specified	1.1L
0355	ARTICLES, EXPLOSIVE, not otherwise specified	1.2L
0356	ARTICLES, EXPLOSIVE, not otherwise specified	1.3L
0350	ARTICLES, EXPLOSIVE, not otherwise specified	1.4B
0351	ARTICLES, EXPLOSIVE, not otherwise specified	1.4C
0352	ARTICLES, EXPLOSIVE, not otherwise specified	1.4D

FOURTH SCHEDULE — *continued*

0353	ARTICLES, EXPLOSIVE, not otherwise specified	1.4G
0349	ARTICLES, EXPLOSIVE, not otherwise specified	1.4S
0225	BOOSTERS WITH DETONATOR	1.1B
0268	BOOSTERS WITH DETONATOR	1.2B
0042	BOOSTERS without detonator	1.1D
0283	BOOSTERS without detonator	1.2D
0048	CHARGES, DEMOLITION	1.1D
0442	CHARGES, EXPLOSIVE, COMMERCIAL without detonator	1.1D
0443	CHARGES, EXPLOSIVE, COMMERCIAL without detonator	1.2D
0444	CHARGES, EXPLOSIVE, COMMERCIAL without detonator	1.4D
0445	CHARGES, EXPLOSIVE, COMMERCIAL without detonator	1.4S
0059	CHARGES, SHAPED, COMMERCIAL without detonator	1.1D
0439	CHARGES, SHAPED, COMMERCIAL without detonator	1.2D
0440	CHARGES, SHAPED, COMMERCIAL without detonator	1.4D
0441	CHARGES, SHAPED, COMMERCIAL without detonator	1.4S
0288	CHARGES, SHAPED, FLEXIBLE, LINEAR	1.1D
0237	CHARGES, SHAPED, FLEXIBLE, LINEAR	1.4D
0060	CHARGES, SUPPLEMENTARY, EXPLOSIVE	1.1D
0382	COMPONENTS, EXPLOSIVE TRAIN, not otherwise specified	1.2B

FOURTH SCHEDULE — *continued*

0383	COMPONENTS, EXPLOSIVE TRAIN, not otherwise specified	1.4B
0384	COMPONENTS, EXPLOSIVE TRAIN, not otherwise specified	1.4S
0248	CONTRIVANCES, WATER-ACTIVATED with burster, expelling charge or propelling charge	1.2L
0249	CONTRIVANCES, WATER-ACTIVATED with burster, expelling charge or propelling charge	1.3L
0065	CORD, DETONATING, flexible	1.1D
0289	CORD, DETONATING, flexible	1.4D
0290	CORD (FUSE), DETONATING, metal clad	1.1D
0102	CORD (FUSE), DETONATING, metal clad	1.2D
0104	CORD (FUSE), DETONATING, MILD EFFECT, metal clad	1.4D
0066	CORD, IGNITER	1.4G
0030	DETONATORS, ELECTRIC for blasting	1.1B
0255	DETONATORS, ELECTRIC for blasting	1.4B
0029	DETONATORS, NON-ELECTRIC for blasting	1.1B
0267	DETONATORS, NON-ELECTRIC for blasting	1.4B
0360	DETONATOR ASSEMBLIES, NON-ELECTRIC for blasting	1.1B
0361	DETONATOR ASSEMBLIES, NON-ELECTRIC for blasting	1.4B
0099	FRACTURING DEVICES, EXPLOSIVE, for oil wells, without detonator	1.1D
0103	FUSE, IGNITER, tubular, metal clad	1.4G
0101	FUSE, INSTANTANEOUS, NON-DETONATING	1.3G
0105	FUSE, SAFETY	1.4S

FOURTH SCHEDULE — *continued*

0106	FUZES, DETONATING	1.1B
0107	FUZES, DETONATING	1.2B
0257	FUZES, DETONATING	1.4B
0367	FUZES, DETONATING	1.4S
0408	FUZES, DETONATING with protective features	1.1D
0409	FUZES, DETONATING with protective features	1.2D
0410	FUZES, DETONATING with protective features	1.4D
0121	IGNITERS	1.1G
0314	IGNITERS	1.2G
0315	IGNITERS	1.3G
0325	IGNITERS	1.4G
0124	JET PERFORATING GUNS, CHARGED, oil well, without detonator	1.1D
0173	RELEASE DEVICES, EXPLOSIVE	1.4S
0374	SOUNDING DEVICES, EXPLOSIVE	1.1D
0296	SOUNDING DEVICES, EXPLOSIVE	1.1F
0375	SOUNDING DEVICES, EXPLOSIVE	1.2D
0204	SOUNDING DEVICES, EXPLOSIVE	1.2F

FIFTH SCHEDULE

Rule 7

EXPLOSIVE SUBSTANCE IN RESPECT OF WHICH OUTER AND INNER
PACKAGINGS ARE TO BE LABELLED

<i>First column</i>	<i>Second column</i>	<i>Third column</i>
<i>UN Number</i>	<i>Substance</i>	<i>Hazard Classification Code</i>

FIFTH SCHEDULE — *continued*

0224	BARIUM AZIDE, dry or wetted with less than 50 per cent water, by weight	1.1A
0027	BLACK POWDER (GUNPOWDER) granular or as a meal	1.1D
0028	BLACK POWDER (GUNPOWDER) COMPRESSED, or BLACK POWDER (GUNPOWDER) IN PELLETS	1.1D
0226	CYCLOTETRAMETHYLENETETRANITRA MINE (HMX; OCTOGEN), WETTED with not less than 15 per cent water, by weight, or CYCLOTETRAMETHYLENETETRANITRA MINE (HMX; OCTOGEN), DESENSITIZED with not less than 10 per cent phlegmatiser, by weight	1.1D
0391	CYCLOTRIMETHYLENETRINITRAMINE (CYCLONITE; HEXOGEN; RDX) AND CYCLOTETRAMETHYLENETETRANITRA MINE (HMX; OCTOGEN) MIXTURES, WETTED with not less than 15 per cent water by weight, or CYCLOTRIMETHYLENETRINITRAMINE (CYCLONITE; HEXOGEN; RDX) AND CYCLOTETRAMETHYLENETETRANITRA MINE (HMX; OCTOGEN) MIXTURES, DESENSITIZED with not less than 10 per cent phlegmatiser, by weight	1.1D
0072	CYCLOTRIMETHYLENETRINITRAMINE (CYCLONITE; HEXOGEN; RDX), WETTED with not less than 15 per cent water, by weight, or CYCLOTRIMETHYLENETRINITRAMINE (CYCLONITE; HEXOGEN; RDX) DESENSITIZED with not less than 10 per cent phlegmatiser, by weight	1.1D
0074	DIAZODINITROPHENOL, WETTED with not less than 40 per cent water, by weight (or mixture of alcohol and water)	11A
0081	EXPLOSIVE, BLASTING, TYPE A	1.1D
0082	EXPLOSIVE, BLASTING, TYPE B	1.1D

FIFTH SCHEDULE — *continued*

0331	EXPLOSIVE, BLASTING, TYPE B	1.5D
0083	EXPLOSIVE, BLASTING, TYPE C	1.1D
0084	EXPLOSIVE, BLASTING, TYPE D	1.1D
0241	EXPLOSIVE, BLASTING, TYPE E	1.1D
0332	EXPLOSIVE, BLASTING, TYPE B	1.5D
0113	GUANYL NITROSAMINO GUANYLIDENE HYDRAZINE, WETTED with not less than 30 per cent water, by weight	1.1A
0114	GUANYL NITROSAMINO GUANYL TETRAZENE (TETRAZENE), WETTED with not less than 30 per cent water, by weight (or mixture of alcohol and water)	1.1A
0079	HEXANITRODIPHENYLAMINE (DIPICRYLAMINE; HEXYL)	1.1D
0392	HEXANITROSTILBENE	1.1D
0393	HEXOTONAL	1.1D
0118	HEXOLITE (HEXOTOL), dry or wetted with less than 15 per cent water, by weight	1.1D
0129	LEAD AZIDE, WETTED with not less than 20 per cent water, by weight (or mixture of alcohol and water)	1.1A
0130	LEAD STYPHNATE (LEAD TRINITRORESORCINATE), WETTED with not less than 20 per cent, by weight (or mixture of alcohol and water)	1.1A
0133	MANNITOL HEXANITRATE (NITROMANNITE), WETTED with not less than 40 per cent water, by weight (or mixture of alcohol and water)	1.1D
0135	MERCURY FULMINATE, WETTED with not less than 20 per cent water, by weight (or mixture of alcohol and water)	1.1A
0340	NITROCELLULOSE, dry or wetted with less than 25 per cent water (or alcohol), by weight	1.1D

FIFTH SCHEDULE — *continued*

0341	NITROCELLULOSE, unmodified or plasticized with less than 18 per cent plasticizing substance, by weight	1.1D
0343	NITROCELLULOSE, PLASTICIZED with not less than 18 per cent plasticizing substance, by weight	1.3C
0342	NITROCELLULOSE, WETTED with not less than 25 per cent alcohol, by weight	1.3C
0143	NITROGLYCERIN, DESENSITIZED with not less than 40 per cent non-volatile water-insoluble phlegmatiser, by weight	1.1D
0144	NITROGLYCERIN, SPIRIT OF, with more than 1 per cent but not more than 10 per cent nitroglycerin in solution in alcohol	1.1D
0282	NITROGUANIDINE, (PICRITE), dry or wetted with less than 20 per cent water, by weight	1.1D
0146	NITROSTARCH, dry or wetted with less than 20 per cent water, by weight	1.1D
0147	NITRO UREA	1.1D
0266	OCTOLITE, (OCTOL), dry or wetted with less than 15 per cent water, by weight	1.1D
0411	PENTAERYTHRITE TETRANITRATE (PENTAERYTHRITOL TETRANITRATE; PETN) with not less than 7 per cent wax, by weight	1.1D
0150	PENTAERYTHRITE TETRANITRATE (PENTAERYTHRITOL TETRANITRATE; PETN), WETTED with not less than 25 per cent water, by weight, or PENTAERYTHRITE TETRANITRATE (PENTAERYTHRITOL TETRANITRATE; PETN) DESENSITIZED with not less than 15 per cent phlegmatiser, by weight	1.1D
0151	PENTOLITE, dry or wetted with less than 15 per cent water, by weight	1.1D
0433	POWDER CAKE (POWDER PASTE), WETTED with not less than 17 per cent alcohol by weight	1.1C

FIFTH SCHEDULE — *continued*

0159	POWDER CAKE (POWDER PASTE), WETTED with not less than 25 per cent water, by weight	1.3C
0160	POWDER, SMOKELESS	1.1C
0161	POWDER, SMOKELESS	1.3C
0190	SAMPLES, EXPLOSIVE, other than initiating explosive	As appropriate
0357	SUBSTANCES, EXPLOSIVE, not otherwise specified	1.1L
0358	SUBSTANCES, EXPLOSIVE, not otherwise specified	1.2L
0359	SUBSTANCES, EXPLOSIVE, not otherwise specified	1.3L
0208	TRINITROPHENYLMETHYLNITRAMINE (TETRYL)	1.1D
0388	TRINITROTOLUENE (TNT) AND TRINITROBENZENE MIXTURES OR TRINITROTOLUENE (TNT) AND HEXANITROSTILBENE MIXTURES	1.1D
0389	TRINITROTOLUENE (TNT) MIXTURES CONTAINING TRINITROBENZENE AND HEXANITROSTILBENE	1.1D
0390	TRITONAL	1.1D
0220	UREA NITRATE, dry or wetted with less than 20 per cent water, by weight	1.1D

SIXTH SCHEDULE

Rule 13(2), (3) and (5) and Seventh
Schedule

LIMITS ON QUANTITIES OF EXPLOSIVES PERMITTED TO BE CARRIED

<i>First column</i>	<i>Second column</i>	<i>Third column</i>	<i>Fourth column</i>
<i>Type of Explosives</i>	<i>Private Light Goods Vehicle</i>	<i>Ordinary Goods Vehicle</i>	<i>Special Goods Vehicle</i>
1.1A Substances	Not allowed	Not allowed	50 kg
1.1B Articles	10 kg	500 kg	5,000 kg

SIXTH SCHEDULE — *continued*

1.1C Articles	50 kg	5,000 kg	16,000 kg
1.1C Substances	50 kg	500 kg	16,000 kg
1.1D Articles	50 kg	5,000 kg	16,000 kg
1.1D Substances	50 kg	500 kg	16,000 kg
1.1E Articles	50 kg	5,000 kg	16,000 kg
1.1F Articles	50 kg	5,000 kg	16,000 kg
1.1G Articles	50 kg	5,000 kg	16,000 kg
1.1G Substances	1 kg	50 kg	16,000 kg
1.1J Articles	50 kg	5,000 kg	16,000 kg
1.2	50 kg	5,000 kg	16,000 kg
1.3	50 kg	5,000 kg	16,000 kg
1.4S only	Unlimited	Unlimited	Unlimited
1.4 B, C, D, E, F, G	50 kg	15,000 kg	16,000 kg
Fireworks (UN Number 0336 1.4G)	50 kg	15,000 kg	16,000 kg

SEVENTH SCHEDULE

Rules 13(3), 14(1), 15(2) and 33

MIXED LOADS FOR CARRIAGE AND STORAGE

Compatibility Group of mixed load

1. Where explosives in different Compatibility Groups are carried together, for the purposes of applying the Sixth Schedule, all of the explosives shall be treated as belonging to the Compatibility Group of the explosives which comes first in the following list: B, F, G, C, D, E and J.

Division of mixed load

2. Subject to paragraph 3, where explosives in different Divisions are carried together —

- (a) for the purposes of applying the Sixth Schedule, all of the explosives (with the exception of those in Division 1.4) shall be treated as

SEVENTH SCHEDULE — *continued*

belonging to the Division of the explosives which comes first in the following list: 1.1, 1.2, 1.3, 1.5 and 1.6;

- (b) for the purposes of applying the Eighth Schedule, all of the explosives shall be treated as belonging to the Division of the explosives which comes first in the following list: 1.1, 1.2, 1.3, 1.5, 1.6 and 1.4.

Division of mixed load consisting of explosives in Division 1.5 and explosives in Division 1.2

3. Where explosives in Division 1.5 are carried together with explosives in Division 1.2, for the purposes of applying the Sixth and Eighth Schedules, all of the explosives shall be treated as belonging to Division 1.1.

Permitted mixed loads

4.—(1) For the purposes of rule 14(1)(a)(i) and (b)(i), the mixed loads of explosives which may be carried together are as set out in Part I of this Schedule.

(2) For the purposes of rule 33, the mixed loads of explosives which may be stored together are as set out in Part II of this Schedule.

PART I

PERMITTED MIXED LOADS OF EXPLOSIVES FOR PURPOSES OF
CARRIAGE BY ROAD

SEVENTH SCHEDULE — continued

	A	B	C	C'	D	D'	E	F	G	G'	H	I	K	L	N	S	S'	U/C*
	Sub	Art	Sub	Art	Sub	Art	Art	Art	Sub	Art	Art	Art	Art	Sub /Art	Art	Sub	Art	Sub /Art
A Sub																		
B Art					1	1,5	5	5										
C Sub															4			
C Art															4			
D Sub		1													4			
D Art		1,2													4			
E Art		5													4			
F Art		5																
G Sub																		
G Art																		
H Art																		
I Art																		
J Art																		
K Art																		
L Sub /Art														2				
N Art			4	4	4	4	4								2			
S Sub																		
S Art																		
U/C* Sub /Art																		

* U/C stands for "Unclassified".

Compatibility Groups Permitted together Not permitted together

Explanatory Notes:

1. Detonators of Compatibility Group B

Detonators classified with Hazard Classification Code 1.1B may be carried with demolition or blasting explosives of Hazard Classification Code 1.1D if effective measures have been taken to ensure that any event in the detonators would not result in a reaction in the other explosives.

2. Compatibility Group L (special risk requiring isolation)

(1) Explosives in Compatibility Group L shall not be carried together with explosives in any other Compatibility Group.

(2) Different types of explosives in Compatibility Group L shall not be carried together.

3. Compatibility Group N (extremely insensitive detonating substances)

Where different articles bearing Hazard Classification Code 1.6N are carried together, they shall be treated as belonging to Hazard Division 1.1 unless effective measures have been taken to ensure that there is no increased risk of sympathetic detonation.

SEVENTH SCHEDULE — *continued*

4. Loading of explosives in Compatibility Group N with explosives in Compatibility Group C, D or E

When explosives in Compatibility Group N are loaded together with explosives in Compatibility Group C, D or E, the mixed load shall be treated as belonging to Compatibility Group D.

5. Detonating fuses of Compatibility Group B

(1) Detonating fuses of Compatibility Group B may be carried together with explosive articles of Compatibility Groups D, E and F if the fuses are components of those articles.

(2) Where detonating fuses of Compatibility Group B are carried together with explosive articles of Compatibility Groups D, E and F in accordance with sub-paragraph (1), the aggregate load shall be treated as belonging to Compatibility Group B under the standard compatibility rule.

6. Effective measures

For the purposes of this Part, effective measures shall be treated as having been taken if such of the following measures as are applicable to the circumstances of the case have been taken:

- (a) the following types of demolition or blasting explosives have been separately classified as belonging to Hazard Classification Code 1.1D:
 - (i) demolition charges under UN Number 0048;
 - (ii) blasting explosives under UN Number 0082, 0083, 0084 or 0241;
 - (iii) PE4 under UN Number 0084 or 0072;
 - (iv) detonating cord under UN Number 0065;
- (b) all the explosives are carried in their Full Standard Service Pack (FSSP), based on the appropriate United Nations Packing Method, and the outer packaging of the explosives is made of metal or substantial woods;
- (c) a minimum separation distance of 1 metre is maintained by physical means between detonator packages and all other explosives carried together with the detonator packages;
- (d) the entire load, comprising explosives and non-explosive components, is effectively restrained to prevent it from shifting in the vehicle cargo area during a journey; and

SEVENTH SCHEDULE — *continued*

(e) the aggregate load is treated as belonging to Compatibility Group B.

7. Carriage of articles in Compatibility Group B together with articles in Compatibility Group D

Articles in Compatibility Group B may be carried together with articles in Compatibility Group D only if the articles in Compatibility Group B are —

- (a) carried in a separate small container approved by the Licensing Officer; or
- (b) separated from the explosives in Compatibility Group D by a compartment approved by the Licensing Officer.

PART II

PERMITTED MIXED LOADS OF EXPLOSIVES FOR PURPOSES OF STORAGE

	A	B	C	D	E	F	G	H	J	K	L	S	N
A	■												
B		■	1	1	1	1	1					■	
C		1	■	■	■	2	3					■	5
D		1	■	■	■	2	3					■	5
E		1	■	■	■	2	3					■	5
F		1	2	2	2	■	2,3					■	
G		1	3	3	3	2,3	■					■	
H								■				■	
J									■			■	
K										■		■	
L											4		
S		■	■	■	■	■	■	■	■	■	■	■	■
N			5	5	5							■	

Compatibility Groups:

■	Not permitted together
■	Permitted together

Explanatory Notes:

1. Compatibility Group B

(1) During storage, articles in Compatibility Group B are to be segregated from other articles in Compatibility Groups C, D, E, F and G by means which are effective to prevent the propagation of those other articles, that is, in a separate compartment, by the use of suitable separators or barriers or by being separated by a distance.

SEVENTH SCHEDULE — *continued*

(2) Fuses in Compatibility Group B may be stored with the explosives articles of which they are a component, but the net explosives quantity must be aggregated and the whole treated as belonging to Compatibility Group F.

2. Compatibility Group F

During storage, articles in Compatibility Group F are to be segregated from other articles in other Compatibility Groups by means which are effective to prevent the propagation of those other articles, that is, in a separate compartment, by the use of suitable separators or barriers or by being separated by a distance.

3. Storage of articles in Compatibility Groups C, D, E and G

(1) Articles in Compatibility Groups C, D and E, and articles in Compatibility Group G which do not give rise to loose explosive powder, may be mixed in storage.

(2) Articles in Compatibility Group G that may give rise to loose explosive powder shall be given special consideration by the Explosives, Safety Technical Committee through the Licensing Officer.

4. Compatibility Group L

Articles in Compatibility Group L are to be stored separately from articles of all other Compatibility Groups and from all other articles in Compatibility Group L.

5. Compatibility Group N

(1) Articles in Compatibility Group N are not normally to be stored with articles in Compatibility Groups other than Compatibility Group S.

(2) If articles in Compatibility Group N are stored with articles in Compatibility Groups C, D and E, the articles in Compatibility Group N shall be treated as belonging to Compatibility Group D.

6. Hazard Division 1.4

(1) During storage, articles in Hazard Division 1.4 may be mixed with articles of Compatibility Group B, C, D, E, F, G, N or S in all Hazard Divisions without aggregation.

(2) During storage, articles in Hazard Classification Code 1.4S may be mixed with articles in Compatibility Group B, C, D, E, F, G, H, J, N or S in all Hazard Divisions without aggregation.

EIGHTH SCHEDULE

Rule 15 and Seventh Schedule

MARKING OF VEHICLES

1. At all times when explosives are carried in a vehicle —
 - (a) 2 class labels conforming to be the requirements of paragraphs 2 and 6 shall be affixed, one at the front and the other at the rear of the vehicle; and
 - (b) 2 Emergency Information Panels conforming to the requirements of paragraphs 4 to 6 shall be affixed, one to each side of the vehicle, trailer or freight container in which the explosives are actually carried.
- 2.—(1) Each class label referred to in paragraph 1(a) shall —
 - (a) be in the form of a square set with its side at an angle of 45° to the vertical; and
 - (b) have a reflective orange-coloured background with a black border.

(2) Any figure, letter or pictograph on the class label which is required by the following provisions of this Schedule shall be black in colour.
3. The class label referred to in paragraph 1(a) shall —
 - (a) be in the form of diagram 1 (the Division number “1.2” the Compatibility Group letter “E” and the Class number “1” are only examples);
 - (b) have a pictograph of a bomb blast filling most of its upper half;
 - (c) have the Division number and Compatibility Group letter appropriate to the explosives being carried written in its lower half;
 - (d) have the Class number “1” written in its bottom corner below the Division number and Compatibility Group letter; and
 - (e) comply with the measurements in the diagram, except that larger measurements may be used, in which case the measurements shall be increased proportionally.
- 4.—(1) Each Emergency Information Panel referred to in paragraph 1(b) shall —
 - (a) be in the form of diagrams 2 and 3 (diagram 2 showing the dimensions of the Panel and diagram 3 showing the information to be contained in the Panel); and
 - (b) have a white reflective background with a black border.

EIGHTH SCHEDULE — *continued*

(2) Any figure or letter on the Emergency Information Panel which is required by the following provisions of this Schedule shall be black in colour.

5. Each Emergency Information Panel referred to in paragraph 4 shall display the following information in the areas marked (a) to (e) in diagram 2 as follows (the different types of information displayed in diagram 3 are only examples):

- (a) the class label in the area marked (a);
- (b) the word “EXPLOSIVE” or “AMMUNITIONS”, as the case may be, in the area marked (b);
- (c) the Emergency Action Code as specified for the substance by the Licensing Officer in the area marked (c) under the heading “HAZCHEM”;
- (d) the following notice in the area marked (d):
“IN EMERGENCY DIAL
999 POLICE or
995 FIRE SERVICE”; and
- (e) the name and telephone number of the Singapore registered company where specialist advice on the explosives can be obtained at all times during which the explosives are being carried in the space marked (e) under the heading “SPECIALIST ADVICE”.

6. Each class label and Emergency Information Panel referred to in paragraph 1 shall —

- (a) be clearly visible;
- (b) as far as is reasonably practicable, be kept clean and free from obstruction at all times when explosives are being carried; and
- (c) be completely covered or removed when all the explosives in the vehicle, trailer or freight container on which the label was displayed have been removed from the vehicle, trailer or freight container.

DIAGRAM 1 — CLASS LABEL

EIGHTH SCHEDULE — *continued*

Diagram 1 — Class Label

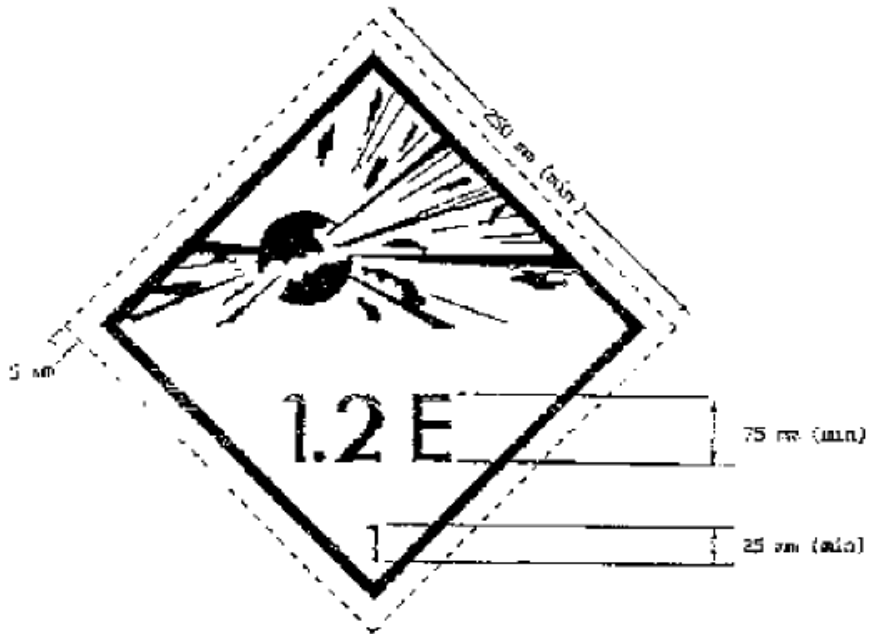


DIAGRAM 2 — EMERGENCY INFORMATION PANEL

EIGHTH SCHEDULE — *continued*

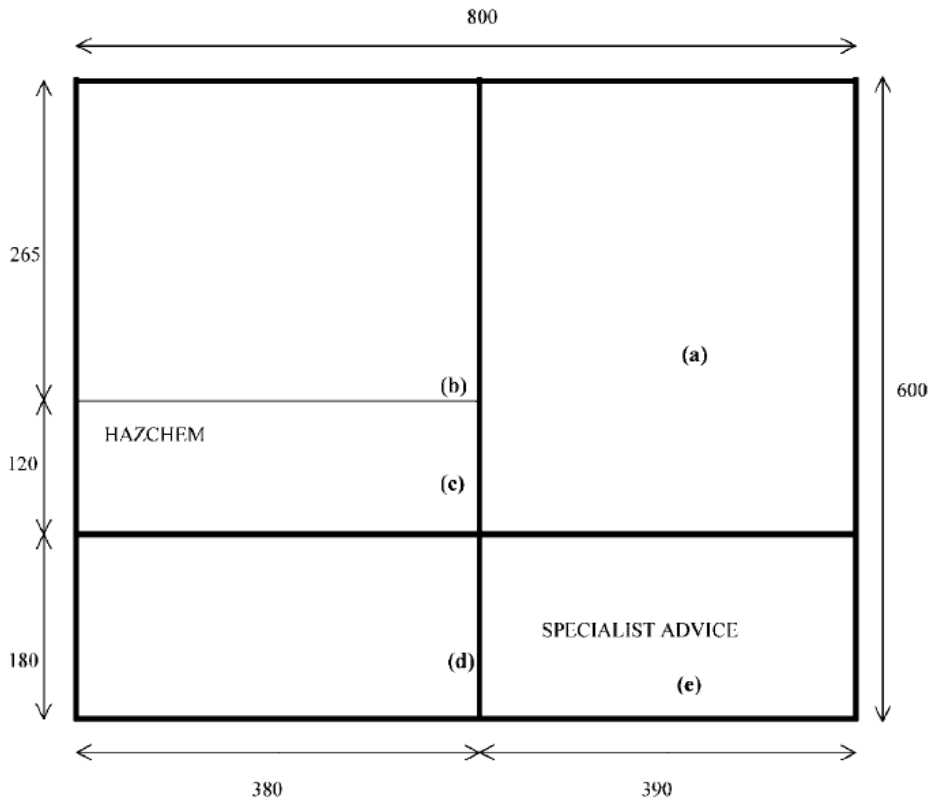
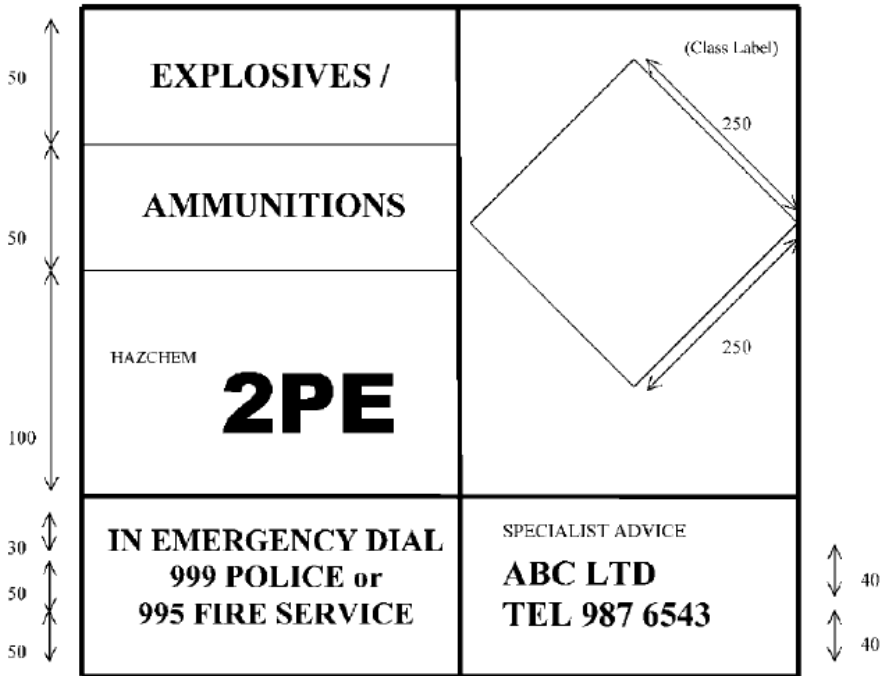


DIAGRAM 3 — EMERGENCY INFORMATION PANEL

EIGHTH SCHEDULE — *continued*



NINTH SCHEDULE

[Deleted by S 800/2020 wef 21/09/2020]

TENTH SCHEDULE

Rule 76

FEES

First column

Second column

Matters

Licence fees

- | | |
|---|--|
| <p>1. For a licence for a shop, store or magazine for explosives</p> <p>2. For a licence for a magazine in any blasting site to store explosives</p> <p>3. For a licence to deal in explosives —</p> <p>(a) not used for blasting purpose</p> | <p>\$650 for 2 years or part thereof</p> <p>\$405 for 2 years or part thereof</p> <p>\$405 for 2 years or part thereof</p> |
|---|--|

TENTH SCHEDULE — *continued*

(b) used for blasting purpose	\$1,850 for 2 years or part thereof
4. For a licence to import or export explosives and ammunition	\$22 for each consignment
5. For a licence to manufacture explosives	\$1,050 for 2 years or part thereof
6. For replacement of licence	\$11
7. For a licence to purchase explosives	\$22 for each consignment
8. For a licence to remove explosives on consignment, for blasting work or for pyrotechnic effects	\$22 for each consignment
9. For a licence to do blasting	\$405 for 2 years or part thereof
10. For a licence to do disposal of explosives	\$405 for 2 years or part thereof
11. For a licence to possess explosives	\$145 for 12 months or shorter

*[S 800/2020 wef 21/09/2020]**[S 495/2010 wef 13/09/2010]*

LEGISLATIVE HISTORY
ARMS AND EXPLOSIVES (EXPLOSIVES) RULES
(CHAPTER 13, R 2)

This Legislative History is provided for the convenience of users of the Arms and Explosives (Explosives) Rules. It is not part of these Rules.

1. G. N. No. S 415/2006 — Arms and Explosives (Explosives) Rules 2006

Date of commencement : 14 July 2006

2. 2007 Revised Edition — Arms and Explosives (Explosives) Rules

Date of operation : 1 October 2007

3. G. N. No. S 495/2010 — Arms and Explosives (Explosives) (Amendment) Rules 2010

Date of commencement : 13 September 2010

4. G.N. No. S 174/2017 — Arms and Explosives (Explosives) (Amendment) Rules 2017

Date of commencement : 24 April 2017

5. G.N. No. S 360/2020 — Arms and Explosives (Explosives) (Amendment) Rules 2020

Date of commencement : 6 May 2020

6. G.N. No. S 800/2020 — Arms and Explosives (Explosives) (Amendment No. 2) Rules 2020

Date of commencement : 21 September 2020