



Western Australia

Explosives and Dangerous Goods (Dangerous Goods Handling and Storage) Regulations 1992

Reprinted as at 10 March 2000

Western Australia

Explosives and Dangerous Goods (Dangerous Goods Handling and Storage) Regulations 1992

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Defined Terms



Western Australia

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at 10 March 2000

Explosives and Dangerous Goods Act 1961

Explosives and Dangerous Goods (Dangerous Goods Handling and Storage) Regulations 1992

Part 1 — Preliminary

1.1. Citation

These regulations may be cited as the *Explosives and Dangerous Goods (Dangerous Goods Handling and Storage) Regulations 1992*¹.

[Regulation 1.1 amended in Gazette 8 June 1999 p.2492.]

1.2. Commencement

These regulations shall come into operation on 1 October 1992.

1.3. Interpretation

- (1) In these regulations, unless the contrary intention appears —
- “**amount**” means the numerical sum of the aggregate capacity and quantity;
 - “**approved**” means approved by the Chief Inspector;
 - “**bulk container**”, when used in relation to the storage of dangerous goods —
 - (a) of class 2 (gases), means a container having a capacity exceeding 500 litres;

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- (b) of any other class, means —
 - (i) a container having a capacity exceeding 450 litres; and
 - (ii) a container with a net mass exceeding 400 kilograms;

“bulk depot” means a depot within premises in which dangerous goods are stored in bulk;

“bund” means an embankment of earth or a wall constructed of brick, stone, concrete or other approved material to form the perimeter or part of the perimeter of a compound;

“capacity” means the internal volume of a container used for liquids or gases expressed in litres;

“class”, see subregulations (2), (3) and (3a) and clause 1.1.3 of the Code as read with regulation 2.3 of the *Dangerous Goods (Transport) (Road and Rail) Regulations 1999*;

“Code” means the sixth edition of the *Australian Code for the Transport of Dangerous Goods by Road and Rail* as amended from time to time and (for the avoidance of doubt) includes the technical appendices to it but excludes —

- (a) the *Rail (Dangerous Goods) Rules* published as a schedule to it; and
- (b) the *Road Transport Reform (Dangerous Goods) Regulations* of the Commonwealth published as an attachment to it;

“combustible liquid” has the same meaning as in AS 1940, being item 11 in Schedule 2;

“compound” means an area of land enclosed within a raised perimeter formed by the contours of the surrounding land or by a bund;

“dangerous goods” means goods that are dangerous goods by virtue of regulation 1.5;

“explosive” means an article or substance that is an explosive for the purposes of the *Explosives and Dangerous Goods (Explosives) Regulations 1963*;

“general fire extinguishing system” means a fire extinguishing system designed to protect the area in the general vicinity of the point at which the system is fitted;

“Guidance Note for Labelling” means the publication known as Guidance Note for the Labelling of Workplace Substances issued by the National Occupational Health and Safety Commission established under the *National Occupational Health and Safety Commission Act 1985* of the Parliament of the Commonwealth;

“Guidance Note for Placarding” means the publication entitled “Storage of Chemicals” issued by the body known as the National Occupational Health and Safety Commission established under the *National Occupational Health and Safety Commission Act 1985* of the Parliament of the Commonwealth;

“hand fire extinguisher” means a fire extinguisher designed to be carried by hand;

“licensee” means in relation to premises the person to whom a licence is issued under the Act;

“LPG” means liquefied petroleum gas;

“material safety data sheet” or **“MSDS”** means a document complying with the National Occupational Health and Safety Commission’s publication “Guidance Note for Completion of a Material Safety Data Sheet” or any other approved document dealing with material safety data;

“outer package” means outer packaging containing a package or packages together with any absorbent material cushioning and any other component used to contain and protect an inner package or inner packages;

“package depot” means a depot in which packages are stored;

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“packing group”, see subregulations (2), (3) and (3a) and clause 1.1.3 of the Code as read with regulation 2.5 of the *Dangerous Goods (Transport) (Road and Rail) Regulations 1999*;

“quantity” means mass of solids expressed in kilograms;

“screen wall” means a screen wall that complies with the requirements of regulation 4.8;

“storage” means storage other than storage on a vehicle or rail wagon for the purposes of transport;

“subsidiary risk”, see subregulations (2), (3) and (3a) and clause 1.1.3 of the Code as read with regulation 2.4 of the *Dangerous Goods (Transport) (Road and Rail) Regulations 1999*;

“Table” means Table 1 in regulation 4.2, Table 2 or 3 in regulation 4.7, Table 4 in regulation 4.10 or Table 5 in regulation 4.33, as the case requires;

“UN tests” means the tests and criteria specified in —

- (a) the ninth revised edition of the *Recommendations on the Transport of Dangerous Goods* published by the United Nations; or
- (b) the second revised edition of the *Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria* published by the United Nations;

“underground tank” means a tank that has not less than half of its capacity below the surface of the ground and is completely covered with not less than 600 mm of earth or other cover as approved.

- (2) Expressions used in these regulations that are used in the Code have in these regulations, the same respective meanings as those expressions have in the Code, unless the contrary intention appears.
- (3) Subject to the Act and these regulations and unless the contrary intention appears, expressions used in the Code that are used in

any of the provisions of these regulations in relation to the storage of dangerous goods have the same meanings for the purposes of those provisions as those expressions have in the Code.

- (3a) For the purposes of applying the Code in connection with these regulations and despite section 1.1.2 of the Code, unless the contrary intention appears, a reference in the Code —
- (a) to the Road Act is to be taken to be a reference to the *Dangerous Goods (Transport) Act 1998* of Western Australia;
 - (b) to the Road Regulations, or to the Rail Rules, is to be taken to be a reference to the *Dangerous Goods (Transport) (Road and Rail) Regulations 1999* of Western Australia;
 - (c) to a numbered provision of the Road Regulations is to be taken to be a reference to the regulation of that number in the *Dangerous Goods (Transport) (Road and Rail) Regulations 1999* of Western Australia;
 - (d) to a numbered provision of the Rail Rules is to be taken to be a reference to the regulation in the *Dangerous Goods (Transport) (Road and Rail) Regulations 1999* of Western Australia that corresponds to that provision.
- (4) Unless the contrary intention appears in any code, standard, note, rule or specification referred to in these regulations a reference to —

“a recommendation” means a requirement;

“should” means “shall”;

“statutory authority” or **“the competent authority”** means the Chief Inspector.

[Regulation 1.3 amended in Gazette 8 September 1992 p.4563; 26 March 1993 p.1859; 1 June 1993 p.2721; 22 October 1993 p.5797; 8 June 1999 pp.2492-4.]

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1.4. Application

Without derogating from anything in these regulations where a packaging, bulk container or a freight container has contained dangerous goods, these regulations apply to and in relation to that packaging, bulk container or freight container as if it continued to contain such dangerous goods until it is free from those dangerous goods.

1.5. Meaning of “Dangerous goods”

- (1) Goods are dangerous goods for the purposes of these regulations if they —
 - (a) are named in a specific entry in column 2 in Appendix 2 to the Code, but not in a generic entry or in an entry where the letters “N.O.S.” are shown as part of the proper shipping name for the goods;
 - (b) satisfy the criteria in column 2 or 9 in the Appendix;
 - (c) satisfy the criteria in a Special Provision of the Code that is applied by column 7 in the Appendix;
 - (d) are named in Schedule 3;
 - (e) are determined under paragraph (b) of the definition of “dangerous goods” in section 3 of the *Dangerous Goods (Transport) Act 1998* to be dangerous goods;
 - (f) satisfy the UN tests for determining whether goods are dangerous goods or goods too dangerous to be transported; or
 - (g) are combustible liquids.
- (2) However, a reference in these regulations to dangerous goods does not include a reference to explosives, or dangerous goods of Class 6.2 (infectious substances) or dangerous goods of Class 7 (radioactive material).

[Regulation 1.5 inserted in Gazette 8 June 1999 p.2495.]

Part 2 — Packaging and bulk containers

Division 1 — General

[Heading inserted in Gazette 8 June 1999 p.2495.]

2.1. Application

- (1) The requirements of this Part relating to packaging of dangerous goods in approved containers do not apply to combustible liquids if the dangerous goods are packed in packaging that is soundly constructed and can be expected to prevent the escape or leakage of the dangerous goods in normal circumstances.
- (2) This Part does not apply to or in respect of the packaging of dangerous goods for transport by road or rail.

[Section 2.1 amended in Gazette 8 June 1999 pp.2495-6.]

2.2. How dangerous goods are to be stored (s.43)

- (1) For the purposes of section 43 of the Act, dangerous goods shall be stored —
 - (a) in the case of packaged dangerous goods in packaging —
 - (i) that complies with Chapter 3 of the Code; or
 - (ii) that has been approved under Division 2 of this Part;
 - (b) in the case of dangerous goods that are not packaged dangerous goods —
 - (i) in a bulk container in accordance with Division 3 of this Part; or
 - (ii) in a manner approved generally or in a particular case;
 - (c) in the case of combustible liquids, in packaging that complies with regulation 2.1(1).

- (2) In subregulation (1), dangerous goods are packaged dangerous goods if —
- (a) they are dangerous goods of Class 2 (gases) in a container with a capacity of not more than 500 litres; or
 - (b) they are dangerous goods of another class in —
 - (i) a container with a capacity of not more than 450 litres; and
 - (ii) a container with a net mass of not more than 400 kilograms.

[Regulation 2.2 inserted in Gazette 8 June 1999 p.2496.]

2.3. How dangerous goods are to be packaged

- (1) For the purposes of section 44(1) of the Act dangerous goods that are packed for the purpose of storage shall be packed —
- (a) in packaging that complies with Chapter 3 of the Code;
 - (b) in packaging that has been approved under Division 2 of this Part; or
 - (c) in a bulk container that has been approved under, and complies with, Division 3 of this Part.
- (2) An inspector may permit stored dangerous goods to be packed in a bulk container that has not been approved under Division 3 if the inspector is satisfied that —
- (a) the bulk container in which they are stored has become unserviceable; or
 - (b) there is an emergency that justifies giving such permission.
- (3) Where such permission is given the dangerous goods shall be packed in the bulk container and stored in accordance with directions given by an inspector.

[Regulation 2.3 inserted in Gazette 8 June 1999 pp.2496-7.]

Division 2 — Packing other than in bulk containers

2.4. Approval of types of packaging

- (1) Application may be made in writing to the Chief Inspector for approval of packaging of a certain type for the packing of particular dangerous goods.
- (2) An application under subregulation (1) shall be accompanied by —
 - (a) particulars of the dangerous goods to be packed in the packaging; and
 - (b) a report of the results of tests carried out on a sample of packaging of the type for which approval is sought sufficient to satisfy the Chief Inspector that the packaging is suitable for the purpose,and, before determining the application, the Chief Inspector —
 - (c) may require the applicant to provide samples of the packaging and such further particulars as he sees fit for the purposes of enabling him to determine the application;
 - (d) shall, if he considers it necessary or desirable for the purpose of determining the application, examine, inspect, or test the packaging or a sample thereof and determine the fee payable in relation to the application being of an amount not exceeding the fee prescribed in item 1 of Schedule 1.
- (3) Where the Chief Inspector is not satisfied that packaging of a particular type is suitable to be unconditionally approved for a particular purpose under subregulation (1) but is satisfied that the packaging has been in use for that purpose before the coming into operation of these regulations the Chief Inspector may approve packaging of that type for that purpose for such time and upon such conditions as he sees fit.

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Part 2 Packaging and bulk containers

Division 2 Packing other than in bulk containers

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- (4) Where the Chief Inspector approves packaging of a certain type under subregulation (1), packaging used pursuant to that approval shall be used in the manner that is approved by the Chief Inspector and as indicated by the marking assigned to the packaging by the Chief Inspector.
- (5) A mark assigned to packaging under subregulation (4) shall be displayed in a conspicuous position on the outside of the packaging.

2.5. Maximum contents

- (1) Packaging used for dangerous goods, not being of Class 2, that, at 55° Celsius or less, are in the form of a liquid or a paste, shall be so filled as to contain a vapour space (“**ullage**”) when filled to allow for expansion of the contents, as provided for in the Code.
- (2) Packaging used for dangerous goods of Class 2 shall not be filled so as to exceed the maximum permitted filling ratio specified in AS 2030.1 being item 1 of Schedule 2.
- (3) Packaging used for dangerous goods of Class 2, other than acetylene, shall be fitted with safety devices conforming with AS 2613 being item 2 of Schedule 2.

2.6. Sealing of containers

- (1) A package in which dangerous goods are packed shall be so sealed as to prevent the contents from leaking or otherwise escaping, except that where the nature of the contents of the package is such that a build up of pressure may occur due to an increase in temperature or any other cause the package may be vented to relieve such pressure build up by permitting the escape of gas or vapour if the nature and volume of the gas or vapour so vented would not cause danger.
- (2) Dangerous goods shall not be packed in packaging showing signs of external damage such as is likely to permit the escape

or leakage of its contents or that shows signs of it having previously permitted the escape or leakage of its contents or if the means of securing the package appear to be so damaged as to impair its effectiveness.

Division 3 — Packing in bulk containers

[2.7. *Repealed in Gazette 8 June 1999 p.2497.*]

2.8. Approval of bulk containers

- (1) Application may be made in writing to the Chief Inspector for approval of a bulk container for the packing of particular dangerous goods and, before determining the application, the Chief Inspector —
 - (a) may require the applicant to provide samples of any material used in the manufacture of the bulk container and such further particulars as the Chief Inspector sees fit for the purpose of determining the application;
 - (b) may, for the purpose of determining the application, inspect, or test the bulk container; and
 - (c) shall determine the fee payable in relation to the application, being an amount not exceeding the fee prescribed in item 2 of Schedule 1.
- (2) The Chief Inspector may approve the bulk container in writing or decline to give his approval, and —
 - (a) except where regulation 2.10 provides that approval shall not be withheld, approval given may be of such limited duration, or subject to such conditions or limitations as to the time, place, or circumstance of the use of the bulk container, as the Chief Inspector specifies in giving his approval; and
 - (b) where, by reason of any approval of that bulk container by the Department of Transport of the Commonwealth or of a bulk container of the same type under these regulations or under a law of any other State or Territory of the Commonwealth, regulation 2.10 requires that

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Part 2 Packaging and bulk containers

Division 3 Packing in bulk containers

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approval shall not be withheld, approval given may be subject to such conditions or limitations as applied to that other approval, or to such other conditions or limitations mutually acceptable to the Chief Inspector and the applicant as the Chief Inspector specifies in the approval.

[Regulation 2.8 amended in Gazette 28 June 1996 p.3089.]

[2.9. Repealed in Gazette 28 June 1996 p.3089.]

2.10. Approval to be given in certain cases

Subject to regulation 2.11, where application is made in accordance with regulation 2.8 for approval of a bulk container for the packing of dangerous goods, approval shall not be withheld —

[(a) deleted]

- (b) where the bulk container is constructed, installed and maintained to an approved standard or code of practice for the particular dangerous goods in question;
- (c) where a bulk container of the same type is approved for the same purpose under these regulations or under a law of any other State or Territory of the Commonwealth, except by reason of a defect or flaw in the bulk container concerned that is not inherent in that type of bulk container; or
- (d) where bulk containers of the same type have, before the coming into operation of these regulations, been in use for the same purpose and, although not of a type that is otherwise referred to in this regulation, the Chief Inspector is satisfied that that type of bulk container is as suitable for the purpose as other types of bulk containers for which approval has been, or would be, given.

[Regulation 2.10 amended in Gazette 22 October 1993 p.5797; 8 June 1999 p.2497.]

2.11. Approval not to be given in certain cases

Where application is made in accordance with regulation 2.8 for approval of a bulk container for the packing of dangerous goods approval shall not be given —

- (a) if the bulk container is a pressure vessel within the meaning of the *Occupational Safety and Health Act 1984* in relation to which a certificate of inspection is required under that Act, unless there is in force under that Act a valid certification of inspection in relation to the bulk container;
- (b) if the bulk container is to be used for dangerous goods of Class 7, unless the bulk container meets the relevant requirements of or under the *Radiation Safety Act 1975*, or the *Nuclear Activities Regulation Act 1978*.

2.12. Alteration

- (1) A person shall not alter a bulk container approved under these regulations unless that alteration is approved in writing.
- (2) A person shall not alter any fitting or attachment to the bulk container unless that alteration is carried out in an approved manner.

2.13. Inspection and testing

[(1), (2) and (3) repealed]

- (4) Every bulk container used for the storage of dangerous goods, whether it is underground or aboveground, shall be checked for leakage at intervals of not more than 5 years during the period of 20 years commencing from the date of its installation, and thereafter shall be checked for leakage at intervals of every 2 years.
- (5) Where a bulk container is found to be leaking the bulk container shall cease to be used for dangerous goods until that leak has been repaired to the satisfaction of the Chief Inspector.

[Regulation 2.13 amended in Gazette 28 June 1996 p.3089; 8 June 1999 p.2497.]

2.14. Record of inspections and tests

The owner of a bulk container shall maintain and keep a record identifying the bulk container and specifying the date of each inspection or test pursuant to regulation 2.13 carried out on that bulk container during the last preceding 5 years, and shall produce that record to an inspector upon request.

2.15. Approval marks

- (1) A bulk container that is approved under regulation 2.8 that was manufactured after the day that these regulations came into operation shall have permanently and conspicuously affixed to it or its mounting a permanent, corrosion-resistant, fire-resistant, rectangular plate on which there is stamped, embossed, or otherwise written, in permanent and legible characters at least 5 mm high, the following information —
 - (a) the name of the person who manufactured the bulk container;
 - (b) the date on which the manufacture of the bulk container was completed;
 - (c) the serial number, if any, given by the manufacturer to the bulk container;
 - (d) where applicable, the maximum allowable working pressure;
 - (e) where applicable, the pressure to which the bulk container was tested when it was approved;
 - (f) if the metallurgical design temperature of the bulk container is more than 50 ° Celsius or less than minus 20 ° Celsius, the metallurgical design temperature;
 - (g) where applicable, the water capacity of —
 - (i) the bulk container; and
 - (ii) each compartment into which the bulk container is divided;

- (h) the maximum mass of the dangerous goods for which the bulk container is to be used that the bulk container is capable of containing;
 - [(i) deleted]*
 - (j) that the bulk container is approved by the Chief Inspector, and the approval number allocated in respect of that approval;
 - (k) in respect of each inspection and each test, if any, to which the bulk container has been subjected for the purposes of these regulations in the last 5 years —
 - (i) the name of the person, body, or authority responsible for the inspection or test; and
 - (ii) the date on which the inspection or test was carried out;and
 - (l) a reference to any Standard, Code, rules, or regulations to which the bulk container has been designed to conform.
- (2) A bulk container approved under regulation 2.8 manufactured before the coming into operation of these regulations shall be marked in an approved manner and position with —
- (a) the approval number allocated in respect of that container by the Chief Inspector; and
 - (b) where that container has passed an inspection or test pursuant to these regulations, the dates on which it was last so inspected and last so tested.
- (3) Where a bulk container has been approved under a law of the Commonwealth or of any State or Territory of the Commonwealth relating to the transport of dangerous goods, particulars of each such approval shall be marked indelibly and conspicuously on the bulk container.

[Regulation 2.15 amended in Gazette 8 June 1999 p.2497.]

2.16. Maximum contents

- (1) A bulk container used for dangerous goods, not being of Class 2, that, at 55 ° Celsius or less, are in the form of a liquid or a paste, shall be so filled as to contain a vapour space (“**ullage**”) when filled to allow for expansion of the contents.
- (2) The ullage in a bulk container shall conform to the relevant requirements of the Code.
- (3) A bulk container used for dangerous goods of Class 2, other than those referred to in subregulation (4), shall not be filled so as to exceed the maximum permitted filling ratio specified in the Code.
- (4) A bulk container used for dangerous goods of Class 2 in the form of a refrigerated liquid shall be so filled that, when the liquid phase is uniformly at the temperature at which the pressure relief device or pressure control valve starts to permit the release of pressure and the bulk container is standing as it is designed to stand in storage or during transport, the upper surface of the liquid phase is not less than 2% by volume below the level of the inlet of the device or valve through which pressure is released.
- (5) Where a bulk container is divided into compartments this regulation applies in relation to each compartment as if it were a separate bulk container.

Division 4 — Filling of containers

2.17. Filling by volume

- (1) Where the maximum extent to which any packaging or bulk container is filled with dangerous goods is prescribed by regulation 2.5 or 2.16, whichever applies, a person filling such packaging or bulk container with such dangerous goods shall ascertain the extent to which they are filled directly by measuring the mass except where filling by volume is approved.

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Packaging and bulk containers

Part 2

Filling of containers

Division 4

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- (2) Where the extent to which any packaging or bulk container is filled with dangerous goods is not ascertained directly by measuring the mass but is ascertained by calculation from the volume of the dangerous goods, the volume shall be measured by means of a liquid level gauge, or in such manner as is approved having regard to —
- (a) the dangerous goods concerned; and
 - (b) the type of container concerned.

[2.18. Repealed in Gazette 8 June 1999 p.2497.]

Part 3 — Labelling, marking, and placarding

*[Division 1 (regulations 3.1-3.5) repealed in Gazette
8 June 1999 p.2497.]*

Division 2 — Packages, outer packages, and bulk containers

3.6. Labelling etc. requirements (s. 44(2) & (3))

- (1) In this regulation —
 “dangerous goods” does not include combustible liquids.
- (2) For the purposes of section 44(2) and (3) of the Act —
 - (a) a package that contains dangerous goods, and any outer packaging containing the package, shall be marked; and
 - (b) a unit load that contains dangerous goods shall be marked,

in accordance with Chapter 7 of the Code, as if the goods were to be transported by road or rail.

- (3) For the purposes of section 44(2) and (3) of the Act —
 - (a) a freight container that contains dangerous goods shall be placarded; and
 - (b) a bulk container that contains dangerous goods shall be placarded,

in accordance with —

- (c) Chapter 7 of the Code, as if the goods were to be transported by road or rail; or
 - (d) the Guidance Note for Placarding.
- (4) For the purposes of section 44(2) and (3) of the Act a freight container or bulk container containing a combustible liquid shall be placarded in accordance with AS 1940, being item 11 in Schedule 2.

[Regulation 3.6 inserted in Gazette 8 June 1999 pp.2497-8.]

3.7. Time for compliance

Except where an inspector otherwise approves, the requirements imposed by regulation 3.6 in relation to the marking of a package of dangerous goods shall be complied with prior to the removal of a package filled with dangerous goods from the immediate vicinity of the filling point.

3.8. Marking of bulk containers used for storage

- (1) Subject to subregulation (2), a bulk container used for the storage of dangerous goods shall be legibly and conspicuously marked in accordance with the recommendations of the Guidance Note for Placarding.
- (2) A bulk container that is labelled and marked with an emergency information panel in accordance with the requirements of the *Dangerous Goods (Transport) (Road and Rail) Regulations 1999* is deemed to comply with the labelling and marking requirements of subregulation (1).

[Regulation 3.8 amended in Gazette 8 June 1999 p.2498.]

[3.9-3.11. Repealed in Gazette 8 June 1999 p.2498.]

3.12. Marking of intermediate bulk containers

- (1) An intermediate bulk container shall not be used for the storage of dangerous goods unless it conforms with the Code and with the marking requirements imposed by regulation 3.8.

[(2) repealed]

[Regulation 3.12 amended in Gazette 8 June 1999 p.2498.]

[Division 3 (regulations 3.13-3.14) repealed in Gazette 8 June 1999 p.2498.]

Division 4 — General provisions

[3.15-3.16. Repealed in Gazette 8 June 1999 p.2498.]

3.17. Other markings

There shall not be, on any packaging, bulk container, freight container or premises that is marked or labelled in accordance with these regulations, any marking, sign, or other means of communicating that in any way qualifies, contradicts, or alters the effectiveness of any marking or label that is on that packaging, bulk container or freight container pursuant to these regulations.

[Regulation 3.17 amended in Gazette 8 June 1999 p.2499.]

3.18. Exclusion of other use of markings

- (1) Subject to subregulation (2), a placard, mark or label prescribed by these regulations shall not be used on any premises or container except in accordance with, and for the purposes of, these regulations and an approval number allocated in respect of a container by the Chief Inspector shall not be marked on, or on a plate affixed to, any other container.

[(2) repealed]

[Regulation 3.18 amended in Gazette 8 June 1999 p.2499.]

3.19. Concurrent requirement

A requirement of these regulations that a thing be labelled or otherwise marked is not affected by that thing being in or on any premises or a vehicle, freight container, unit load, outer package, or other container that is itself labelled or marked in accordance with these regulations or another written law.

[Regulation 3.19 amended in Gazette 8 June 1999 p.2499.]

Division 5 — Placarding dangerous goods premises

3.20. General

A person who is the occupier or licensee of any premises on which dangerous goods are stored or likely to be stored shall ensure that the premises and the storages of dangerous goods within those premises are placarded in accordance with the recommendations of the Guidance Note for Placarding.

Part 4 — Storage of dangerous goods

Division 1 — Licensing of premises

4.1. Limits on storage without a licence

Subject to these regulations, a person shall not use any premises or permit any premises to be used —

- (a) on or after 1 October 1992 for the storage of flammable liquids other than combustible liquids; or
- (b) on or after 31 March 1993 for the storage of dangerous goods including combustible liquids but not flammable liquids,

unless a licence has been issued under section 45A of the Act in respect of those premises.

4.2. Licences not required for certain premises

- (1) In this regulation —

“the storage factor” means in relation to the storage of dangerous goods the sum of the products obtained by multiplying the amount of each kind of dangerous goods stored or likely to be stored or capable of being stored on the premises in question by the factor specified in column 2 of Table 1 opposite and corresponding to the class or packing group of the dangerous goods, as the case requires.

[(2) repealed]

- (3) Notwithstanding anything in regulation 4.1 but subject to this regulation, a licence is not required for the storage of dangerous goods on any premises —
- (a) in relation to which the storage factor does not exceed 1 000;
 - (b) on which the dangerous goods constitute minor storages as defined by an approved code if the storage of dangerous goods on those premises conforms with that code;

- (c) on which are stored dangerous goods of —
 - (i) Packing Group I in individual packages, each not exceeding 0.5 kg or 0.5 litres;
 - (ii) Packing Group II in individual packages, each not exceeding 5 kg or 5 litres;
 - (iii) Packing Group III in individual packages, each not exceeding 20 kg or 20 litres,but so that the storage factor in relation to those premises does not exceed 5 000;
- (d) on which dangerous goods —
 - (i) constitute minor storages of the kind referred to in paragraph (b); and
 - (ii) in which the dangerous goods are of the kind referred to in paragraph (c) are also stored,and in relation to which the storage factor does not exceed 10 000;
- (e) on which dangerous goods are stored in bulk or otherwise for agricultural, horticultural, floricultural or pastoral purposes and not for re-sale if the dangerous goods are stored in an approved manner and if —
 - (i) the storage factor of the dangerous goods so stored does not exceed —
 - (A) in the case of Packing Group I — 1 000
 - (B) in the case of Packing Group II — 10 000
 - (C) in the case of Packing Group III — 10 000
 - (D) in the case of Class 2.1 — 1 000;
 - (E) in the case of Class 2.2 — 1 000; and
 - (F) in the case of Class 2.3 — 10 000;

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- (ii) the land for or in connection with which the dangerous goods are stored exceeds 4 hectares; and
 - (iii) the depot in which the dangerous goods are stored is not less than 15 metres distant from any dwelling and from the boundaries of the premises on which the depot is situated.
- (4) Where the area of land for or in connection with which dangerous goods are stored on premises referred to in subregulation (3)(e) exceeds 200 hectares the dangerous goods of each packing group or of Class 2.1, 2.2 or 2.3, that may be stored on those premises without a licence may be increased by an amount equivalent to the relevant amount set out in subregulation (3)(e)(i) for each 200 hectares or part thereof of the land for or in connection with which the dangerous goods are stored if the depot in which the dangerous goods are stored is situated not less than 500 metres from any other depot.
- (5) For the purposes of subregulation (3)(e), combustible liquids shall be regarded as being of Packing Group III.

Table 1

| Dangerous Goods | Factor |
|------------------------------|---------------|
| Class 2.1 | 2 |
| Class 2.2 | 2 |
| Class 2.3 | 200 |
| Class 3 (Packing Group I) | 20 |
| Class 3 (Packing Group II) | 2 |
| Class 4.1 (Packing Group I) | 20 |
| Class 4.1 (Packing Group II) | 2 |
| Class 4.2 (Packing Group I) | 20 |
| Class 4.2 (Packing Group II) | 2 |
| Class 4.3 (Packing Group I) | 40 |
| Class 4.3 (Packing Group II) | 4 |

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| Dangerous Goods | Factor |
|------------------------------|---------------|
| Class 5.1 (Packing Group I) | 20 |
| Class 5.1 (Packing Group II) | 2 |
| Class 5.2 (Packing Group I) | 40 |
| Class 5.2 (Packing Group II) | 4 |
| Class 6.1 (Packing Group I) | 100 |
| Class 6.1 (Packing Group II) | 10 |
| Class 8 (Packing Group I) | 20 |
| Class 8 (Packing Group II) | 2 |
| Class 9 (Packing Group I) | 20 |
| Class 9 (Packing Group II) | 2 |
| All Packing Group III | 1 |
| Combustible liquids in bulk | 0.2 |

[Regulation 4.2 amended in Gazette 8 September 1992 p.4564; 12 May 1995 p.1799; 8 June 1999 pp.2499, 2506 and 2507.]

4.3. Application for licence

- (1) An application for a licence under section 45A of the Act for the storage of dangerous goods shall be in the form of an approved form.
- (2) An application under subregulation (1) shall be accompanied by —
 - (a) the fee prescribed in item 3 of Schedule 1;
 - (b) a plan, drawn to scale, showing the position of the premises in relation to roads, railways, public buildings, protected works and other buildings within 50 metres of the external boundaries of the premises referred to in the application;
 - (c) a ground plan of the premises referred to in the application showing the relative positions in the premises of all package depots, bulk depots, protected works and other buildings; and

(d) either —

- (i) the fee prescribed in item 3A of Schedule 1; or
- (ii) a certificate signed by a person approved in writing by the Chief Inspector for the purpose, stating that the person has examined the application and considers that it complies with the regulations.

- (3) An application under subregulation (1) shall be submitted in a completed form.

[Regulation 4.3 amended in Gazette 28 June 1996 p.3090.]

4.4. Term of licence and renewal

- (1) Subject to the Act and these regulations, a licence remains in force for a period of 12 months commencing from the date of its issue.
- (2) A licence may on application be renewed for a further period of 12 months.
- (3) An application under subregulation (2) shall be accompanied by the fee prescribed in item 3 of Schedule 1.

[Regulation 4.4 amended in Gazette 8 September 1992 p.4564.]

4.5. Notification of change of ownership of licensed premises

A person who becomes the owner or occupier of licensed premises shall notify the Chief Inspector of that fact.

4.6. Approval by Chief Inspector

Notwithstanding anything in any provision in Part 4 Divisions 2 to 7 where any act or thing referred to in such a provision complies with or conforms to an act or thing approved by the Chief Inspector that act or thing is deemed to comply with or conform to the requirements of the relevant provision of Part 4 Division 2 to 7 in relation to that act or thing.

Division 2 — Requirements as to premises

4.7. Separation distances and segregation distances

- (1) Subject to these regulations, the separation distances to be provided between —
 - (a) dangerous goods on licensed premises and the boundaries of those premises and other buildings or facilities in the same premises are the separation distances prescribed in Table 2;
 - (b) dangerous goods in any premises and protected works outside those premises are the separation distances prescribed in Table 3,according to the packing group of the dangerous goods in question.
- (2) Subject to these regulations, separation distances and segregation distances prescribed under these regulations shall be measured in a horizontal plane.
- (3) Where a screen wall conforms to the requirements of these regulations the separation distances and segregation distances prescribed under these regulations in relation to the storage of the dangerous goods in question may be calculated in a horizontal distance around the screen wall.
- (4) Where alterations occur on either the existing or adjoining premises which result in a breach of these regulations the Chief Inspector may give such directions as are necessary to ensure that the premises conform with these regulations.
- (5) For the purposes of this regulation —
 - (a) dangerous goods of Classes 2.1 and 2.3 shall be regarded as being of Packing Group I; and
 - (b) dangerous goods of Class 2.2 shall be regarded as being of Packing Group II.

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Table 2
Separation Distances — Boundaries and facilities on premises

Part 1

Package Depots

Separation Distances #

| Separation required | Packing Group I | Packing Group II | Packing Group III |
|---|---|---|--|
| Office buildings, manufacturing areas, workshops or amenities blocks on the same premises | Distance required by Table 3 but need not exceed 15 m | Distance required by Table 3 but need not exceed 15 m | Distance required by Table 3 but need not exceed 7.5 m |
| Boundary of the premises or public places where — | | | |
| (i) Packages are filled | 15m | 8m | 3m |
| (ii) Packages are opened; | 10m | 5m | 1m |
| (iii) Packages are stored, sealed | 3m | 3m | Not restricted |

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Part 2

Bulk Depots

Separation Distances #

| Separation required | Packing Groups I and II | Packing Group III |
|---|--|---|
| Filling points*, platforms or package storage | Diameter of the tank or 15 m, whichever is the lesser, but not less than 6 m | Diameter of the tank or 7.5 m, whichever is the lesser, but not less than 3 m |
| Office buildings, warehouses, manufacturing areas, workshops or amenities blocks on the same premises | Distance required by Table 3, but need not exceed 15 m | Distance required by Table 3, but need not exceed 7.5 m |
| Boundary of the premises | Diameter of the tank or 15 m, whichever is the lesser, but not less than 6 m | Diameter of the tank or 7.5 m, whichever is the lesser, but not less than 3 m |

* Points for filling packages, drums or tank vehicles and not the filling point into the storage.

Refer to the Code or approved Standard for alternative distances when vapour barriers are used.

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Table 3

Separation distances for package depots and above ground bulk depots to protected works outside the premises

| Column 1 Minimum distance metres (see note 1) | Column 2 Amount x 10 ⁻³ (see notes 2 and 3) | | |
|---|---|----------|----------|
| | A | B | C |
| Packing Group | I | II | III |
| Unrestricted | 0.1 | 0.5 | 2.5 |
| 3 | 1 | 4 | 10 |
| 4 | 2 | 8 | 20 |
| 5 | 4 | 16 | 40 |
| 6 | 7 | 28 | 70 |
| 7 | 10 | 40 | 100 |
| 8 | 14 | 56 | 140 |
| 9 | 20 | 80 | 200 |
| 10 | 26 | 104 | 260 |
| 11 | 34 | 136 | 340 |
| 12 | 42 | 168 | 420 |
| 13 | 52 | 208 | 520 |
| 14 | 64 | 256 | 640 |
| 15 | 77 | 308 | 770 |
| 20 | 170 | 680 | 1 700 |
| 25 | 310 | 1 240 | 3 100 |
| 30 | 500 | 2 000 | or over |
| 35 | 750 | 3 000 | |
| 40 | 1 100 | or over | |
| 45 | 1 500 | | |
| 50 | 2 000 | | |
| | or over | | |

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Notes:

1. For distances above 3 m the distances applicable for any intermediate amount may be obtained by interpolation.
 2. Amount in respect of bulk depots refers to individual bulk container capacity or quantity.
 3. Where dangerous goods which are liquid are stored within a bulk depot, the distance from the top inside of the bund to Protected Works shall not be less than one half of the distance specified in the Table or 15 m whichever is the lesser.
- (6) Where dangerous goods of more than one packing group are stored on any premises the separation distances to be provided for the purposes of this regulation are the separation distances that apply in accordance with the following formula —

$$S = \left[\frac{\text{PG I}}{\text{TDG}} \times S_1 \right] + \left[\frac{\text{PG II}}{\text{TDG}} \times S_2 \right] + \left[\frac{\text{PG III}}{\text{TDG}} \times S_3 \right]$$

Where —

- S represents the separation distance to be provided;
- PG I represents the amount of dangerous goods of Packing Group I stored in the depot;
- TDG represents the total amount of dangerous goods stored in the depot;
- S₁ represents the separation distance under Table 3 for the total amount of dangerous goods stored assuming the total is of Packing Group I;
- PG II represents the amount of dangerous goods of Packing Group II stored in the depot;
- S₂ represents the separation distance under Table 3 for the total amount of dangerous goods stored assuming the total is of Packing Group II;

PG III represents the amount of dangerous goods of Packing Group III stored in the depot;

S₃ represents the separation distance under Table 3 for the total amount of dangerous goods stored assuming the total is of Packing Group III.

- (7) Where a separation distance or the amount of dangerous goods is an intermediate number the number to be used for the calculation of the separation distance to be provided for the purposes of these regulations is to be obtained by interpolation.

[Regulation 4.7 amended in Gazette 8 September 1992 pp.4564-5; 8 June 1999 pp.2499, 2506 and 2507; 20 July 1999 p.3248.]

4.8. Screen walls

- (1) A screen wall —
- (a) shall be impervious to liquid and vapour;
 - (b) shall be constructed of non-combustible materials that are chemically resistant to and compatible with the dangerous goods being stored;
 - (c) may be an existing building wall provided that the building wall does not have any openings; and
 - (d) shall, where the height of the screen wall is subject to any local laws in force under the *Local Government Act 1995*, conform with the height requirement of those by-laws but where there is an inconsistency between those by-laws and these regulations the latter prevails to the extent of the inconsistency.
- (2) A screen wall intended to separate a dangerous goods depot from protected works shall —
- (a) have a fire resistance level of at least 120/120/120, except where any of the dangerous goods being stored are of Class 2, 3, 4 or 5, in which case a screen wall shall have a fire resistance level of not less than 240/240/240;

- (b) in the case of protected works which adjoin the storage depot, extend to a height not less than one metre above the height of the protected works; and
 - (c) in the case of protected works which do not adjoin the storage depot, extend to a height at least equal to the height of the protected works or not less than one metre above the height of the storage, whichever is the lesser.
- (3) A screen wall intended for the segregation of dangerous goods shall —
 - (a) if used for dangerous goods of Class 2, 3, 4 or 5, have a fire resistance level of not less than 240/240/240; and
 - (b) be of sufficient height to enable the required segregation distances to be maintained when measured over the top of the screen wall.

[Regulation 4.8 amended in Gazette 8 June 1999 p.2500.]

4.9. Electrical apparatus and wiring

Electrical wiring and equipment in any area within licensed premises shall conform with the requirements of AS 3000 being item 3 of Schedule 2.

4.10. Bunding

- (1) Subject to subregulations (2) and (3) and regulations 4.11 and 4.14, a package depot or a bulk depot, other than a bulk depot for an underground tank or a depot for dangerous goods of Class 2, shall be surrounded by a bund, the holding capacity of which shall conform with Table 4.

Table 4
Bundling for dangerous goods storages

| Packing Group | Bulk Depot | | Package Depot | |
|---------------|------------|--------|---------------|--------|
| | Solid | Liquid | Solid | Liquid |
| I | H | A | G | D |
| II | J | B | K | E |
| III | K | C | K | F |

Where —

- A represents 100% of aggregate storage capacity;
- B represents 100% of capacity of largest bulk container plus the aggregate volume below the level of the bund crest displaced by all bulk containers and foundations within the bund;
- C represents 100% of capacity of largest bulk container;
- D represents 50% of aggregate storage capacity;
- E represents 25% of aggregate storage capacity;
- F represents 25% of the aggregate storage capacity up to 10 000 litres plus 10% of any storage capacity in excess thereof;
- G represents 10% of volume expressed in litres occupied by the aggregate storage capacity;
- H represents 10% of volume expressed in litres occupied by the aggregate storage capacity and the dangerous goods must be kept in a bulk container;
- J represents no bund required but the dangerous goods must be kept in a bulk container;
- K represents no bund required.

- (2) Subject to this regulation and regulations 4.11 and 4.14 where a package depot or a bulk depot is used for the purposes of storing both solid and liquid dangerous goods the bunding to be provided for the package depot or the bulk depot for the purposes of these regulations shall be the bunding required under Table 4 for the sum of the amounts of the solids and liquids being stored on the premises.
- (3) Subject to this regulation and regulations 4.11 and 4.14 where a package depot or a bulk depot is used for the purpose of storing dangerous goods that belong to different packing groups, the bund capacity to be provided for the package depot or bulk depot for the purposes of these regulations shall be the bunding required under Table 4 for the total amount of the dangerous goods being stored on the premises assuming the total amount stored is of the most hazardous type of dangerous goods being stored.

*[Regulation 4.10 amended in Gazette 8 June 1999 p.2506;
20 July 1999 p.3248.]*

4.11. Bunded areas with sprinkler systems

Where within a bunded area an automatic sprinkler system is installed, the capacity of the bund shall be increased by a volume equal to the output of the sprinkler system over 20 minutes.

4.12. Construction of bunds

A bund within licensed premises shall be —

- (a) designed and constructed —
 - (i) to withstand exposure to fire;
 - (ii) to effectively contain the dangerous goods when filled with these dangerous goods to its full capacity;
 - (iii) to enable safe and quick entry and exit, in case of an emergency, when the bund wall is higher than 1.5 m above the interior grade;

- (iv) so that the location of the bund wall relative to the closest tank shall be such that no portion of the tank lies outside a line drawn from the top inside edge of the bund at angle of θ to the vertical (where $\tan\theta = 0.5$) and the clearance between the bund wall and any tank is not less than 1 metre; and
 - (v) so that any pipe passing through a bund wall shall be designed to withstand stresses from the bund wall and the point where it passes shall be liquid tight;
- (b) sloped in such a manner that the area within the bund shall —
 - (i) drain away from tanks to a sump at the lowest practicable level, from where liquid can be emptied by a manually controlled valve or pump;
 - (ii) be maintained free of water to such extent as to not reduce the prescribed capacity;
- and
- (c) maintained so as to be capable of retaining the dangerous goods therein to its designed capacity.

4.13. Bund for environmental protection

Notwithstanding anything in these regulations where the Chief Inspector is of the opinion that an area in which dangerous goods are stored is an environmentally sensitive area, the Chief Inspector may require that bunding be provided for the storage area to the satisfaction of the Chief Inspector and that all product transfer points be sealed and drained into a bunded area.

4.14. Exceptions from bunding requirements

Bunding is not required in the case of a package depot in which the amount of dangerous goods stored does not exceed —

- (a) in the case of dangerous goods of Packing Group I — amount of 50;

- (b) in the case of dangerous goods of Packing Group II — amount of 500; and
- (c) in the case of dangerous goods of Packing Group III — amount of 1 000.

[Regulation 4.14 amended in Gazette 8 June 1999 p.2506.]

4.15. Security

An occupier or a licensee shall ensure that licensed premises are secured from access by unauthorized persons and attended by a responsible person, or if not so attended, that the premises are securely locked.

4.16. Ventilation

- (1) An occupier or licensee of licensed premises within which is situated a package or bulk depot shall ensure that those premises are effectively ventilated.
- (2) A person shall not obstruct a vent provided for a natural ventilation on any premises in which dangerous goods are stored or prevent the effective operation of any mechanical system of ventilation installed on such premises.

4.17. Detection systems

- (1) The Chief Inspector may require a gas detection system to be installed on a dangerous goods premises by reason of the type or nature of the dangerous goods being stored on those premises.
- (2) A gas detection system, required under subregulation (1) shall be installed so that it will readily detect the presence of the dangerous goods.
- (3) An occupier or licensee shall ensure that a gas detection system installed in accordance with subregulation (2) is tested and calibrated periodically according to the manufacturer's specifications.

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- (4) An occupier or licensee shall ensure that a record is maintained of all tests and calibrations carried out under subregulation (3).

Division 3 — Management of and conduct on premises on which dangerous goods are stored

4.18. General

- (1) The licensee, occupier and any person in or about any premises in which dangerous goods are stored shall take all practical precautions to prevent the occurrence of an accident through fire, explosion or leakage of dangerous goods in or at those premises.
- (2) Without derogating from the generality of subregulation (1) the licensee or occupier of premises in which dangerous goods are stored shall ensure that the provisions of this Division are complied with.

4.19. Handling of goods

- (1) Dangerous goods received into licensed premises and not required for immediate use shall immediately be conveyed into the appropriate depot in which they are to be kept in or on the premises according to the provisions of these regulations.
- (2) Dangerous goods taken from a depot in or on licensed premises for dispatch from the premises shall be removed from the premises as soon as is practicable after the vehicle for their transport is loaded.
- (3) Dangerous goods other than solid goods of Packing Group III shall not be conveyed within licensed premises except —
- (a) in approved packaging or other suitable container; or
 - (b) if by means of pipes, the pipes are so constructed and connected that the goods or vapour from the goods cannot escape from the pipes during conveyance except through approved relief devices.

- (4) Dangerous goods when received in approved containers shall be stored in those containers until ready for use, but if the container in which they are received is a bulk container the bulk container or its contents shall be transferred directly into a bulk depot or the dangerous goods transferred forthwith at an approved filling station to other approved containers.
- (5) A package containing dangerous goods —
 - (a) shall not be opened in or on licensed premises except in the area in which the goods are to be used or in the immediate vicinity of the depot in which the goods have been or are to be kept; and
 - (b) when opened for the removal of goods —
 - (i) shall be left open only for the time necessary for the removal of the goods, and then immediately closed;
 - (ii) shall, if not required again for immediate use, be placed in a depot; and
 - (iii) shall, if no goods remain in the package, be immediately removed to a safe place.
- (6) All practicable precautions shall be taken for preventing the escape of dangerous goods, or vapour from dangerous goods, from a package or bulk container.
- (7) A person who stores dangerous goods on any premises shall ensure that where any packaging containing dangerous goods kept in or on, or received into, those premises is damaged, leaking or otherwise defective, the dangerous goods shall be immediately repacked, if it is safe to do so, into sound packaging.
- (8) A person who stores dangerous goods shall ensure that dangerous goods spilled in or on the premises shall be cleaned up and so disposed of that they will not constitute a danger to any person or property.

[Regulation 4.19 amended in Gazette 8 June 1999 p.2506.]

4.20. Dangerous goods to be held in depot until required

Dangerous goods that are stored on licensed premises shall be stored in the particular depot or depots that conform to these regulations having regard to the kind of dangerous goods in question and only such amounts as are required for immediate use or sale shall be withdrawn from the relevant depot.

4.21. Goods permitted in licensed depots

- (1) Subject to subregulation (2), dangerous goods shall not be stored in a package depot or bulk depot within licensed premises unless the only other goods stored therein are —
 - (a) goods which are compatible with the dangerous goods in that depot or dangerous goods as permitted under regulation 4.34; and
 - (b) anything that is required for the purposes of these regulations.
- (2) The amount of dangerous goods stored on any premises shall not exceed the amount specified in the licence issued in respect of those premises.

4.22. Separation of bulk depots

- (1) Where —
 - (a) dangerous goods of Packing Group I of different classes; or
 - (b) dangerous goods which may interact dangerously,are stored in tanks other than in underground tanks on any premises the dangerous goods so stored shall be held separately in individual bulk depots and the tanks shall be separated by the separation distances prescribed in Table 3 for Packing Group III for the capacity of the largest tank within the depot and as though each other tank were protected works.

- (2) Subject to this Division an underground bulk depot shall not be constructed within any premises in which dangerous goods are stored unless the location of the underground bulk depot in relation to the dangerous goods is approved.

[Regulation 4.22 amended in Gazette 8 June 1999 p.2506; 20 July 1999 p.3248.]

4.23. Young persons prohibited

- (1) A person under the age of 14 years shall not be employed in a package depot or bulk depot on licensed premises.
- (2) The occupier or licensee of licensed premises or any person in charge of licensed premises shall not permit or suffer a person who appears to be under the age of 14 years to enter a package depot or bulk depot on licensed premises except in the presence of and under the supervision of a person of or over the age of 18 years.

4.24. Persons under the influence of alcohol or drugs

- (1) A person who is under the influence of alcohol or drugs or alcohol and drugs, shall not enter or remain in any package depot or bulk depot.
- (2) The occupier of licensed premises or any person in charge of licensed premises shall not permit or suffer a person who is or appears to be under the influence of alcohol or drugs, to enter or remain in any package depot or bulk depot.

4.25. General housekeeping

- (1) All package depots and bulk depots on licensed premises shall at all times be kept clean and in good order.
- (2) Before any repair, process or operation involving a flame or source of ignition is carried out in or to a depot within licensed premises the area in which the repair, process or operation is to

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be carried out shall be separated by a screen wall or by an approved safe working distance from the place where the dangerous goods are stored, handled or dispensed.

- (3) Packages kept in a package depot shall be so stacked or arranged that no package is liable to fall outside of the bunded area.
- (4) A package depot shall be so constructed that it does not contain any sharp edges or protrusions likely to damage containers.

4.26. Fire hazards

- (1) A person shall not —
 - (a) smoke in a package depot or an above ground bulk depot; or
 - (b) take into a package depot or an above ground bulk depot —
 - (i) any substance or thing which is or could be a potential source of ignition; or
 - (ii) any substance or thing liable to spontaneous ignition, or liable to cause or contribute to fire or explosion, unless it is to be kept in the depot in accordance with these regulations.
- (2) Subject to subregulation (3), a person shall not within a hazardous zone as defined by AS 2430 being item 5 of Schedule 2 —
 - (a) smoke, ignite, carry, or have in his possession any fire or flame; or
 - (b) carry out any welding, oxy-acetylene cutting, or hot tapping, or any other process or operation liable to cause fire or explosion.
- (3) A person does not commit an offence against subregulation (2) if —
 - (a) the person is acting with the approval of the Chief Inspector;

- (b) acting for the purposes of averting danger in an emergency; or
 - (c) there is a screen wall between the depot and the place where the act is done and the distance around the screen wall to any part of the bund wall or to the opening into the depot is at least 15 m.
- (4) Where —
 - (a) a process or operation is carried out in an emergency; and
 - (b) the carrying out of the process or operation but for subregulation (3) would contravene subregulation (2),the person who carries out the process or operation shall immediately notify the Chief Inspector thereof.
- (5) The licensee shall ensure that the area within and 3 m from a depot within the licensed premises shall be kept clear of dry grass, unmown grass, undergrowth and all other combustible material.

4.27. Emergency response equipment

- (1) Any emergency response equipment held on any licensed premises for the purpose of an emergency shall conform to an approved Australian Standard or other approved standard.
- (2) A licensee shall ensure that any person who is required to use the equipment required by subregulation (1) is trained for that purpose.
- (3) A licensee shall ensure that the equipment required by subregulation (1) shall be —
 - (a) maintained in working order and ready to be used; and
 - (b) kept in a clearly marked readily accessible location for use in the event of an emergency.

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- (4) An occupier or licensee of premises on which dangerous goods are stored shall ensure that a record is maintained of all maintenance carried out under subregulation (3)(a).

4.28. Emergency plan

- (1) An occupier or licensee of premises on which dangerous goods are stored shall maintain a manifest of dangerous goods stored at the premises in accordance with the Guidance Note for Emergency Services Manifests issued by the National Occupational Health and Safety Commission.
- (2) A licensee shall in relation to the licensed premises formulate and prepare an emergency plan in accordance with guidelines given by the Chief Inspector and shall ensure that all persons engaged in the handling of dangerous goods —
- (a) are aware of any emergency plan applicable in relation to those premises; and
 - (b) are competent to operate all safety equipment including vehicles, pumps, fire protection equipment and breathing apparatus, they may be required to use in connection with an emergency.
- (3) Nothing in an emergency plan shall prevent a person from refusing to carry out any operation where that person has reasonable grounds to believe that to carry out the operation would expose him or her to a risk of imminent and serious harm to his or her health.
- (4) The manifest required to be kept by subregulation (1) shall be made available upon request to any police officer, officer of a fire brigade or an officer of the department principally assisting the Minister charged with the administration of the *Occupational Safety and Health Act 1984* in the administration of that Act.

[Regulation 4.28 amended in Gazette 8 June 1999 p.2500.]

4.29. Material Safety Data Sheet (MSDS)

- (1) The occupier of licensed premises or the licensee of those premises shall —
 - (a) obtain from the manufacturer or agent supplying the dangerous goods a material safety data sheet (referred to as the “**MSDS**”) in relation to each of the dangerous goods being stored on the premises; and
 - (b) inform those persons handling the dangerous goods where the MSDS is kept.
- (2) Where an MSDS referred to in subregulation (1) has been substituted or amended the occupier or the licensee of the premises shall as far as is practicable obtain the current MSDS from the supplier.

4.30. Training

- (1) The occupier of licensed premises or the licensee shall ensure that persons engaged in the handling of dangerous goods stored at those premises —
 - (a) are adequately and regularly trained for the purposes of the safe handling of those dangerous goods;
 - (b) have knowledge of the properties of those dangerous goods and of their storage and the segregation requirements that apply in relation to those dangerous goods;
 - (c) have a knowledge of the requirements of Division 3, in so far as it applies to those dangerous goods;
 - (d) have a knowledge of information on the relevant MSDS and the manner of implementing the actions referred to therein; and
 - (e) are familiar with the emergency plan referred to in regulation 4.28.

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- (2) The training and instruction required for subregulation (1)(c) and (d) shall include —
 - (a) the format of the markings, placards and MSDS;
 - (b) the information that each part of the marking, placard or MSDS provides; and
 - (c) why the information is provided.
- (3) The occupier or licensee of premises on which dangerous goods are stored shall review the instructions given to employees engaged in handling dangerous goods at least annually and whenever any significant change in the operation of work procedures occurs, or whenever there is a change in the hazard information.

4.31. Consignment and delivery records

- (1) Subject to subregulation (2), every occupier or licensee of premises on which dangerous goods are stored, shall make and keep in or on those premises, in a book or some other approved form, a record of —
 - (a) the name of every person to whom;
 - (b) the address to which; and
 - (c) the date on which,any dangerous goods are consigned or delivered from those premises, together with the description and amount of the goods consigned or delivered.
- (2) Subregulation (1) does not apply to —
 - (a) the consignment or delivery of dangerous goods of any class in an amount or quantity less than that required under regulation 3.20 to be placarded in relation to goods of that class; or
 - (b) the delivery of any goods into the fuel tank of a vehicle or vessel.

- (3) Any record in relation to a consignment or delivery made pursuant to subregulation (1), shall be preserved for a period of 2 years after the date on which it is made.
- (4) The book, or other approved form of record required by subregulation (1), shall, except when used for the purposes of checking the amount of dangerous goods stored in the package depot or bulk depot, be kept in a place of safe custody outside the package depot or bulk depot and at least 5 m from the depot.
- (5) The book or other approved form of record required to be kept by subregulation (1) shall be made available to emergency services personnel upon request.
- (6) If —
 - (a) a consignor proposes to deliver any dangerous goods, or cause any dangerous goods to be delivered, into a bulk container on any premises; and
 - (b) the consignor has not previously delivered dangerous goods of that type, or caused dangerous goods of that type to be delivered, into the bulk container,the consignor must ensure that a licence is in force under these regulations authorizing the storage of those dangerous goods in the bulk container.
- (7) If —
 - (a) a consignor proposes to deliver any dangerous goods or cause any dangerous goods to be delivered in a bulk container for storage on any premises; and
 - (b) the consignor has not previously delivered dangerous goods of that type, or caused dangerous goods of that type to be delivered, in a bulk container for storage on the premises,the consignor must ensure that a licence is in force under these regulations authorizing the storage of those dangerous goods on the premises.

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- (8) If a consignor becomes aware (whether pursuant to subregulation (6) or (7) or otherwise) that no licence is in force under these regulations authorizing the storage of a particular type of dangerous goods —

- (a) in a specific bulk container on any premises; or
- (b) on any premises generally,

the consignor must not deliver dangerous goods of that type, or cause dangerous goods of that type to be delivered, to the bulk container or premises (as the case requires).

[Regulation 4.31 amended in Gazette 1 June 1993 p.2721; 22 October 1993 p.5797; 3 June 1994 pp.2305-6.]

4.32. Records

A person shall not —

- (a) obliterate, alter or falsify any entry or signature in a book or record required by these regulations to be kept or made; or
- (b) make a false or misleading entry in such a book or record.

4.33. Segregation of dangerous goods within premises

- (1) Subject to this regulation and regulation 4.34, where more than one class of dangerous goods is stored in packages on any premises, the dangerous goods shall be segregated in accordance with Table 5.
- (2) If any dangerous goods have a subsidiary risk then the goods shall be segregated in accordance with Table 5 both in respect of the Class number and the subsidiary risk number of those goods.
- (3) This regulation does not prevent the storage in a depot of dangerous goods that are all of the same kind.
- (4) For the purposes of subregulation (1) and Table 5, combustible liquids shall be treated as if they were dangerous goods of Class 3.

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Table 5
Segregation of dangerous goods

| | Class or subsidiary risk | 2.1 | 2.2 | 2.3 | 3 | 4.1 | 4.2 | 4.2 | 4.3 | 5.1 | 5.1 | 5.2 | 6.1 | 6.1 | 6.2 | 7 | 8 | 8 | 9* | Food stuffs |
|------------------------|--------------------------|---|-----|-----|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---|---|---|----|-------------|
| | | | | | | | S | L | | S | L | | S | L | | | S | L | | |
| Explosives | 1 | REFER TO <i>Explosives Regulations 1963</i> | | | | | | | | | | | | | | | | | | |
| Compressed | 2.1 | 0 | 1 | 3 | X | X | X | X | X | X | X | X | 3 | 3 | X | X | 3 | X | 3 | 3 |
| Gases | 2.2 | 1 | 0 | 0 | 3 | 3 | X | X | X | 1 | 1 | 3 | 0 | 0 | X | X | 3 | X | 1 | 3 |
| | 2.3 | 3 | 0 | 0 | X | X | X | X | X | X | X | X | 0 | 0 | X | X | 3 | X | 3 | X |
| Flammable | 3 | X | 3 | X | 0 | 3 | X | X | X | X | X | X | 3 | 3 | X | X | 1 | 3 | 3 | 3 |
| Liquids | | | | | | | | | | | | | | | | | | | | |
| Flammable | 4.1 | X | 3 | X | 3 | 0 | X | X | X | X | X | X | 3 | 3 | X | X | 1 | 1 | 1 | 1 |
| Solids | | | | | | | | | | | | | | | | | | | | |
| Spontaneous | 4.2 S | X | X | X | X | X | 0 | 1 | X | X | X | X | 3 | 3 | X | X | 1 | 1 | 1 | 3 |
| Combustible | 4.2 L | X | X | X | X | X | 1 | 0 | X | X | X | X | 3 | 3 | X | X | 1 | 1 | 3 | 3 |
| Dangerous | 4.3 | X | X | X | X | X | X | X | 0 | X | X | X | X | X | X | X | X | X | X | X |
| When Wet | | | | | | | | | | | | | | | | | | | | |
| Oxidisers | 5.1 S | X | 1 | X | X | X | X | X | X | 0 | 1 | 3 | X | X | X | X | X | X | 3 | X |
| | 5.1 L | X | 1 | X | X | X | X | X | X | 1 | 0 | 3 | X | X | X | X | X | X | 3 | X |
| Organic | 5.2 | X | 3 | X | X | X | X | X | X | 3 | 3 | 0 | X | X | X | X | X | X | 3 | X |
| Peroxides | | | | | | | | | | | | | | | | | | | | |
| Poisonous & | 6.1 S | 3 | 0 | 0 | 3 | 3 | 3 | 3 | X | X | X | X | 0 | 1 | X | X | 1 | 3 | 3 | X |
| Infectious | 6.1 L | 3 | 0 | 0 | 3 | 3 | 3 | 3 | X | X | X | X | 1 | 0 | X | X | 3 | 1 | 3 | X |
| Substances | 6.2 | X | X | X | X | X | X | X | X | X | X | X | X | X | 0 | X | X | X | X | X |
| Radioactives | 7 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | 0 | X | X | X | X |
| Corrosives | 8 S | 3 | 3 | 3 | 1 | 1 | 1 | 1 | X | X | X | X | 1 | 3 | X | X | 0 | 1 | 3 | X |
| | 8I | X | X | X | 3 | 1 | 1 | 1 | X | X | X | X | 3 | 1 | X | X | 1 | 0 | 3 | X |
| Miscellaneous | 9* | 3 | 1 | 3 | 3 | 1 | 1 | 3 | X | 3 | 3 | 3 | 3 | 3 | X | X | 3 | 3 | 0 | X |
| | Food stuffs | 3 | 3 | X | 3 | 1 | 3 | 3 | X | X | X | X | X | X | X | X | X | X | X | 0 |

* Aerosols which are flammable, toxic or corrosive shall be segregated as Class 2.1, Class 6.1 or Class 8, respectively.

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Notes

L — Substances which are liquids.

S — substances which are solids.

0 — No general segregation required.
[Substances should be stored according to hazards — see Reg. 4.34].

1 — Segregate by a distance of at least 1 metre;

3 — Segregate by a distance of at least 3 metres;

X — Segregate in separate depots that are at least 5 metres apart or segregate by a distance of at least 5 metres with the use of a screen wall.

*[Regulation 4.33 amended in Gazette 8 June 1999 p.2500;
20 July 1999 p.3248.]*

4.34. Exceptions to regulation 4.33

- (1) If dangerous goods of different types are such that they may interact dangerously, the goods shall be segregated in the manner specified by Note X to Table 5, notwithstanding regulation 4.33.
- (2) Notwithstanding regulation 4.33 and without limiting the operation of subregulation (1), dangerous goods named in column 1 of the Table to this regulation shall be segregated from dangerous goods named in column 2 in the manner specified by Note X to Table 5.

Table

| Item | Column 1 | Column 2 |
|-------------|--|------------------------------|
| 1. | dangerous goods of Class 3 in a bulk container | dangerous goods of Class 2.1 |
| 2. | nitromethane (Class 3) | amines (Class 6.1) |

| Item | Column 1 | Column 2 |
|-------------|------------------------------|--|
| 3. | dangerous goods of Class 5.1 | combustible liquids |
| 4. | dangerous goods of Class 5.1 | dangerous goods of Class 9 that are capable of combustion |
| 5. | ammonium nitrate (Class 5.1) | the following dangerous goods of Class 5.1 or a combination of them: chlorates, chlorites or chloroisocyanurates or di- or tri-chloroisocyanuric acid or tetranitromethane |
| 6. | hypochlorites (Class 5.1) | the following dangerous goods of Class 5.1: chloroisocyanurates or di- or tri-chloroisocyanuric acid |
| 7. | hypochlorites (Class 5.1) | acids (Class 8) |
| 8. | dangerous goods of Class 5.2 | combustible liquids |
| 9. | dangerous goods of Class 5.2 | dangerous goods of Class 9 that are capable of combustion |
| 10. | cyanides (Class 6.1) | acids (Class 8) |
| 11. | concentrated acids (Class 8) | concentrated alkalies (Class 8) |

[Regulation 4.34 inserted in Gazette 8 June 1999 p.2501.]

4.35. Goods too dangerous to be transported not to be stored without approval

Goods that are named in Appendix 5 to the Code, or that are determined under regulation 1.18(g) of the *Dangerous Goods (Transport) (Road and Rail) Regulations 1999* to be too

dangerous to be transported, shall not be stored without written approval.

[Regulation 4.35 inserted in Gazette 8 June 1999 pp.2501-2.]

**Division 4 — Particular requirements as to storage of LPG
(Class 2.1)**

[Heading inserted in Gazette 8 June 1999 p.2502.]

4.36. Application

Nothing in this Division applies to portable devices using LPG for heating appliances or containers forming part of a vehicle in which LPG is carried for the operation of the vehicle.

4.37. AS 1596 applies

The design, construction and operation of package depots and bulk depots for the storage of LPG shall, in addition to the requirements of these regulations, comply with AS 1596 being item 7 in Schedule 2.

4.38. Prevention of accidents in unlicensed premises

Where LPG is kept on premises whether or not those premises are required to be licensed by these regulations, the occupier of the premises and every person on the premises, shall take all reasonable precautions for the prevention of accident by fire or explosion and shall comply with the relevant sections of AS 1596 being item 7 of Schedule 2.

4.39. Unodorised LPG installations

A person shall not store unodorised LPG without the approval of the Chief Inspector.

4.40. Charging of aerosol and disposable containers

- (1) In this regulation “**charging**” means the action of filling aerosol containers or disposable containers with unodorised LPG.

- (2) A person shall not in a building, cause or permit any aerosol containers or disposable containers to be charged with unodorised LPG —
 - (a) without the prior approval of the Chief Inspector; and
 - (b) unless the building and facilities used for that purpose conform with these regulations.
- (3) The LPG charging area in a building shall be separated from all other parts of the building by a wall which may have the following but no other openings —
 - (a) a doorway; and
 - (b) openings each not exceeding 0.1 m² in area for the passage of containers into and from the charging area.
- (4) A charging area shall be equipped with a system of mechanical ventilation that is separate from any other such system in the building, and so constructed, maintained and operated that —
 - (a) the atmosphere in the charging area is kept less than 25% of the lower explosive limit for the gas; and
 - (b) escaping gas does not flow through any doorway or other opening referred to in subregulation (3).
- (5) The ducting of the system of mechanical ventilation shall not pass through any part of the building other than the charging area and shall be such that the air drawn from the charging area is discharged into the atmosphere outside the building at a point above every part of the roof of the building that is within 10 m, measured laterally, from that point.
- (6) The door of a doorway referred to in subregulation (3) shall —
 - (a) have double hinges so as to be capable of being opened both inwards and outwards; and
 - (b) be kept closed at all times except when opened for the passage of persons or materials.

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- (7) All pipes carrying LPG from the storage tank to the charging area shall —
 - (a) conform to Australian Standard CB 18 being item 8 in Schedule 2, or be approved;
 - (b) be joined by welding;
 - (c) be equipped with a manual shut-off valve at the tank and manual shut-off valve immediately outside the building; and
 - (d) be equipped with an excess flow valve and a manual shut-off valve at every point where the gas enters a flexible connection to the charging machine.
- (8) The valves referred to in subregulation (7)(c) and (d) shall conform to AS 1596 being item 7 in Schedule 2.
- (9) A gas detector which will function whenever LPG is present in the air at any concentration of 25% or more of the lower explosive limit for the gas shall be installed in a position adjacent to every charging machine and every opening referred to in subregulation (3)(b).
- (10) For the purpose of subregulation (9) a gas detector is regarded as functioning only if it —
 - (a) produces a continuous sound of not less than 105 decibels;
 - (b) gives a continuous visible signal; and
 - (c) shuts off the flow of gas into the building referred to in subregulation (3).
- (11) Power operated machines used within the charging area shall comply with requirements of AS 2359 being item 9 in Schedule 2.

4.41. Cylinder filling

LPG cylinders of capacity exceeding 25 litres, shall not be filled by any person other than the owner of the cylinder or an authorized agent of the owner of the cylinder.

[Regulation 4.41 amended in Gazette 8 September 1992 p.4565.]

Division 5 — Particular requirements as to storage of chlorine (Class 2.3)

[Heading inserted in Gazette 8 June 1999 p.2502.]

4.42. AS 2927 applies

The design, construction and operation of package depots and bulk depots for the storage of chlorine shall, in addition to the requirements of these regulations, comply with AS 2927 being item 10 in Schedule 2.

Division 6 — Particular requirements as to storage of combustible liquids and dangerous goods of Class 3 (flammable goods)

[Heading inserted in Gazette 8 June 1999 p.2502.]

4.43. Application

Nothing in this Division applies to portable devices using flammable or combustible liquids for heating appliances or to containers forming part of a vehicle in which flammable or combustible liquids are used for the operation of the vehicle.

4.44. AS 1940 applies

- (1) Package depots and bulk depots for the storage of flammable liquids and combustible liquids shall, in addition to the requirements of these regulations, comply with AS 1940 being item 11 in Schedule 2.

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- (2) Notwithstanding subregulation (1) the design, installation and operation of underground bulk depots shall be in accordance with the code of practice CP-4-1991 being item 4 in Schedule 2.

4.45. Conditions for discharge facilities

A dispensing head shall not be installed within a building unless the following conditions are complied with —

- (a) the floor is so drained that any spilled liquid will flow into an intercepting trap;
- (b) any pump used in the discharge facility is situated within 2 m of a vehicle entrance to the building, unless otherwise approved by the Chief Inspector;
- (c) there is adequate ventilation around the pump to ensure rapid dispersion of any vapours;
- (d) no means exist whereby liquid or vapour can flow or spread to a lower level beneath the floor on which any pump used in the discharge facility is situated, unless otherwise approved by the Chief Inspector;
- (e) where any pump used in the discharge facility is situated within a building and near to a carriage entrance, there shall be other adequate means of exit from the building available for use in the event of fire at the pump; and
- (f) the building is constructed of approved fire-resistant materials.

4.46. Filling of containers exceeding 70 litres

A person shall not dispense any flammable liquid into a container the capacity of which exceeds 70 litres except at a filling station approved for that purpose, or a drum depot so approved.

4.47. Warning notice to be displayed

There shall be displayed by the licensee or occupier of licensed premises where flammable liquid is dispensed a notice, or if so directed by the Chief Inspector more than one notice, to read “DANGER, NO SMOKING STOP ENGINE” or such other words as are approved in capital letters not less than 50 mm high as to be easily legible and visible to all persons entering the fuel dispensing area.

4.48. Filling of fuel tanks and receptacles

- (1) A person shall not smoke or have any open flame within 4 m of a fuel tank or other receptacle while flammable liquid is being supplied from a discharge facility to that tank or receptacle.
- (2) A person shall not dispense any flammable liquid into the fuel tank of an engine while the engine is running.
- (3) A person shall not dispense any flammable liquid into a receptacle, the capacity of which does not exceed 70 litres unless the receptacle is used as a vehicle fuel tank or it complies with Parts 2 and 3 of these regulations and is standing at ground level at the base of the dispenser.
- (4) A person of an age that is less than 14 years shall not, within licensed premises, dispense any flammable liquid into a fuel tank or other receptacle.

**Division 7 — Particular requirements as to storage of cyanides
(Class 6.1)**

[Heading inserted in Gazette 8 June 1999 p.2502.]

4.49. General

In addition to the other provisions of these regulations package depots and bulk depots in which cyanide is stored that require licensing under these regulations shall comply with the requirements of this Division.

4.50. Spillages

Package depots and bulk depots for the storage of cyanides shall be capable of retaining all spillage of cyanide within the premises and approved provision shall be made for the treatment of any such spillage.

4.51. Separation distances for package depots and bulk depots

Any area in which liquid cyanide is transferred from a vehicle to a bulk container shall be separated from protected works and boundaries by a distance that is not less than the separation distance specified in Part 2 of Table 2 for Packing Group I substances and when assessing the separation distance required the diameter of the bulk tank in the bulk depot shall be taken as the basis of the calculation.

[Regulation 4.51 amended in Gazette 8 June 1999 p.2506.]

4.52. Certain fire extinguishers prohibited

Water acid or carbon dioxide type fire extinguishers shall not be kept within 30 m of a depot used for the storage of cyanides and shall not be used in depots in which cyanides are stored.

4.53. Bunding and placement of containers

- (1) The bunding for cyanide storages shall be lined with suitable heavy duty plastic liner or where the Chief Inspector is of the opinion that the area is an environmentally sensitive area, with concrete, or with some other impervious material as approved.
- (2) Every container storing cyanides shall be located above ground level and the surrounding area suitably sloped and drained to prevent the accumulation of water in the storage area.

4.54. Security

All storage areas for cyanides shall be provided with adequate security in the form of lockable buildings, security fences or by using freight containers and all entrances shall be kept locked when not attended.

4.55. Depots not within a building

A depot used for the storage of cyanides that is not located within an enclosed structure or building and is located within one kilometre of a townsite established under any Act shall be provided with a roofed cover.

4.56. Depots within a building

Where a depot used for the storage of cyanides is a building or is an area within another building (“**the relevant area**”) —

- (a) the building or relevant area shall be constructed of fire resistant materials of 1 hour fire rating; and
- (b) there shall be no other openings in the building or relevant area except those for the doors and those required for ventilation.

4.57. Vent to be fitted to bulk container

Every bulk container for the storage of liquid cyanides, unless otherwise approved, shall be fitted with a free vent pipe that —

- (a) extends to a height of at least 4 m above ground level;
- (b) discharges at least 4 m from any work access areas;
- (c) terminates with an approved vent head; and
- (d) is of a size that the pressure or vacuum resulting from filling, emptying or atmospheric temperature changes, will not cause stresses in excess of the maximum design stress for the bulk container.

4.58. Overflow pipes, discharge pipes and gauges for bulk container

Every bulk container used for the storage of liquid cyanides shall —

- (a) be fitted with an overflow pipe positioned 300 mm below the top of the container which discharges at ground level and within the tank bund;

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- (b) have all discharge pipes connected to pump suction fitted with 2 valves in series and a bleed valve intervening the 2 valves and be located between the container and the pump; and
- (c) be fitted with a liquid level gauge, not being a sight glass, or alarm system —
 - (i) which is constructed of materials compatible with the liquids being stored; and
 - (ii) which is clearly visible or audible to the operator.

4.59. Drain valves to have flange

Any outlet from a drain valve fitted to a bulk container shall be fitted with a blank flange.

4.60. Non-ferrous metals not to be used

All valves in direct contact with liquid cyanides shall not comprise or be constructed from any non-ferrous metals or their alloys.

4.61. Open and shut positions to be indicated on valves

All manually operated valves shall clearly show the open and shut positions and shall be fitted with non-removable handles.

4.62. Bulk containers connected to process plant

Where a bulk container for the storage of liquid cyanides is connected to a processing plant, manufacturing plant or some other consuming device —

- (a) the Chief Inspector may, where he considers necessary, require that the design of the delivery system to the plant incorporate a line pressure drop cut-out switch to shut down the pump if a sustained low discharge pressure is experienced; and
- (b) a non-return valve shall be fitted in the discharge line to prevent any other liquids from entering the container.

4.63. Sumps to be provided

At every loading position for bulk containers, the ground shall be so graded that any spillage from the delivery vehicle drains into a sump or containment area having a capacity at least equal to the capacity of the largest tank on the delivery vehicle.

4.64. Procedures to be displayed

- (1) There shall be displayed at every loading position for containers written instructions as to the procedure to be adopted for transferring liquid cyanides.
- (2) The Chief Inspector may at any time direct that the list of procedures referred to in subregulation (1) be amended or substituted in accordance with that direction.
- (3) The list of procedures referred to in this regulation shall be posted in a conspicuous position in the premises and shall be maintained so as to be legible.

4.65. Air padding to be used for discharge

The discharge of liquid cyanides from delivery vehicles to storage tanks shall be by use of air padding, unless otherwise approved.

Part 5 — Fire fighting equipment

5.1. Equipment to be maintained in working order

- (1) The licensee or occupier of premises on which dangerous goods are stored shall maintain in proper order and condition all appliances required by these regulations to be provided on the premises for the control or extinction of fire and all hand fire extinguishers, in accordance with AS 1851 being item 13 in Schedule 2 except to the extent that any provision of that standard is inconsistent with these regulations.
- (2) The licensee or occupier of premises on which dangerous goods are stored shall have all fire extinguishing equipment and fire alarm systems required under these regulations to be installed at those premises inspected, tested and maintained in accordance with the appropriate standards being items 13 to 21, inclusive, in Schedule 2.
- (3) In the event that equipment referred to in subregulation (2) of this regulation is found to be defective the licensee or occupier of the premises shall on receipt of a report to that effect immediately cause the defect to be remedied.

5.2. Extinguishers to be recharged

Fire extinguishing equipment after being used or accidentally discharged, shall be recharged or otherwise repaired or replaced and made ready for further use as soon as practicable after that test or discharge.

5.3. Types of fire extinguishers

The capacity and discharge rate of any general fire extinguishing system shall be adequate for the area and the storage to be protected.

5.4. Containment of fire water run-off

Areas which are affected by a general fire extinguishing system which is designed to operate automatically shall be so graded or bunded that any run-off produced when the system is operating for 20 minutes is contained on the licensed premises.

5.5. Application of Australian Standards

- (1) Except as recommended in the relevant Australian Standards for the dangerous goods stored, the type, number and capacity of hand fire extinguishers which shall be provided in all premises, whether package depots or bulk depots, licensed under these regulations shall be in accordance with AS 2444 being item 19 in Schedule 2.
- (2) Notwithstanding the provisions of subregulation (1), where a fire extinguisher of a type other than those specified in that subregulation is approved for use in a package depot or bulk depot the extinguisher so approved may be used as an alternative to those so specified.
- (3) Any extinguishing substance used in fire extinguishers referred to in subregulations (1) and (2) shall be compatible with the product stored in the depot and with all other fire extinguishing systems used.

5.6. Foam generating and deluge systems

- (1) Except as otherwise provided in these regulations, fire hydrants required to be provided under these regulations shall be in accordance with AS 2419 being item 20 in Schedule 2 and shall conform to the *Building Regulations 1989* made under the *Local Government (Miscellaneous Provisions) Act 1960*.
- (2) Where the relevant Australian Standard so provides fire hydrant installations shall be maintained in accordance with that standard otherwise a fire hydrant installation shall be tested at least once in every interval of 12 months in accordance with the commissioning tests prescribed in AS 2419 being item 20 in Schedule 2.

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Part 5 Fire fighting equipment

r. 5.6

- (3) Automatic sprinkler fire alarm systems shall be in accordance with AS 2118 being item 21 in Schedule 2.
- (4) Any foam installation shall be in accordance with the relevant parts of section 9 of AS 1940 being item 11 in Schedule 2 or as otherwise approved.

[Part 6 (regulations 6.1-6.25) repealed in Gazette 8 June 1999 p.2503.]

Part 7 — Pipelines

7.1. Pipelines to be approved

- (1) A person shall not install, re-lay, renew, extend, alter or repair a pipeline unless an application for that purpose has been made to the Chief Inspector and the Chief Inspector has approved the application.
- (2) An application under subregulation (1) shall be accompanied by details of the operating and maintenance conditions and work proposed to be undertaken.
- (3) Subregulations (1) and (2) do not apply in the case of an emergency which may adversely affect public safety and if the Chief Inspector is notified not later than 14 days of the event.
- (4) Where the Chief Inspector is of the opinion that it is in the interests of public safety the Chief Inspector may by notice in writing require the owner of a pipeline to change the operating and maintenance conditions, re-lay, renew or repair the pipeline in accordance with such requirements as the Chief Inspector specifies in writing.

7.2. Operation and maintenance of pipelines

- (1) The owner of a pipeline shall cause the pipeline to be examined in accordance with AS 2885 being item 12 in Schedule 2 at intervals not exceeding 5 years during the period of 20 years commencing from the construction of the pipeline and thereafter at intervals of not less than 2 years.
- (2) A pipeline carrying dangerous goods to or from licensed premises, shall be constructed, installed, tested, operated and maintained in accordance with an approved Code of Practice and with the requirements of such of these regulations as are applicable.

r. 7.2

- (3) All above ground pipelines and pipes used for the transfer of dangerous goods shall be colour coded or clearly identified in accordance with AS 1345 being item 6 in Schedule 2.
- (4) Pipelines and pipes carrying dangerous goods shall not pass over or go through package depots or bulk depots where the dangerous goods in the depots are required to be segregated, as indicated by Table 5, from those being carried in the pipeline or pipes.

Part 8 — Miscellaneous

8.1. Offences

- (1) Where any matter or thing in relation to premises is required under these regulations or is required to conform with any requirement specified in these regulations and is omitted or does not conform with the requirements so specified then unless these regulations otherwise provide, the licensee or occupier of the premises is guilty of an offence against these regulations.
- (2) Where an act is required to be done or is forbidden to be done under these regulations and is omitted to be done or is done in contravention of these regulations then unless these regulations otherwise provide, the person in charge of the premises is guilty of an offence against these regulations.

[Regulation 8.1 inserted in Gazette 8 June 1999 p.2503.]

8.2. Repeal

[Omitted under the Reprints Act 1984 s.7(4)(f).]

8.3. Savings and transitional

[Omitted under the Reprints Act 1984 s.7(4)(e).]

Schedule 1

Schedule 1

[r.2.4, 2.8, 4.3, 4.4, 6.3, 6.7, 6.20 and 6.22]

Where these regulations require fees to be paid, the fees payable are as follows —

| | | \$ |
|-----|---|---------------------------|
| 1. | For approval of packaging | 210 |
| 2. | For approval of a bulk container | 210 |
| 3. | For the issue or renewal of a licence when the premises are used or proposed to be used to store dangerous goods, according to the amount stored or proposed to be stored | } see Table 1 below |
| 3A. | For the examination of an application for a licence referred to in item 3, according to the amount stored or proposed to be stored | |

Table 1

| Column 1 (Amount x 10⁻³) | Column 2 \$ |
|--|------------------------------|
| Not exceeding 2.3 | 14 |
| Exceeding 2.3 but not exceeding 23 | 28 |
| Exceeding 23 but not exceeding 46 | 70 |
| Exceeding 46 but not exceeding 230 | 175 |
| Exceeding 230 but not exceeding 2 300 | 350 |
| Exceeding 2 300 but not exceeding 4 600 | 1 120 |
| Exceeding 4 600 but not exceeding 9 200 | 1 700 |
| Exceeding 9 200 but not exceeding 13 800 | 2 100 |
| Exceeding 13 800 but not exceeding 18 400 | 2 500 |
| Exceeding 18 400 but not exceeding 23 000 | 3 000 |
| Exceeding 23 000 | 3 500 |

Table 2

| Column 1 (Amount x 10⁻³) | Column 2 \$ |
|--|------------------------------|
| Not exceeding 50 | 180 |
| Exceeding 50 but not exceeding 250 | 360 |
| Exceeding 250 | 600 |

[Schedule 1 inserted in Gazette 28 June 1996 pp.3092-3; amended in Gazette 8 June 1999 p.2503.]

Schedule 2

Schedule 2

Australian and other Standards and amendments thereto referred to in these regulations

| Item | AS No. or other reference | Description of standard, and amendments thereto |
|-------------|--|--|
| 1. | AS 2030 Part 1 — 1985 Part 2 — 1985 Part 3 — 1982 Part 4 — 1985 Supp No. 1 (1986) | Gas Cylinders Code |
| 2. | AS 2613-1983 | Safety Devices for Gas Cylinders |
| 3. | AS 3000-1991 | SAA Wiring Rules |
| 4. | CP-4-1998 | Code of Practice for the Design, Installation and Operation of Underground Petroleum Storage Systems (UPSS) issued by the Australian Institute of Petroleum Ltd. |
| 5. | AS 2430 Part 1 — 1987 Part 2 — 1986 Part 3 — 1997 | Classification of Hazardous Areas |
| 6. | AS 1345-1995 | Identification of the Contents of Pipes, Conduits and Ducts |
| 7. | AS 1596-1997 | Storage and Handling of Liquefied Petroleum Gas |
| 8. | CB18, Part 1 — 1967 | SAA Pressure Piping Code |

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Schedule 2

| Item | AS No. or other reference | Description of standard, and amendments thereto |
|-------------|--|---|
| 9. | AS 2359 Part 1 — 1985 Part 2 — 1985 | SAA Industrial Truck Code |
| 10. | AS 2927-1987 | Storage and Handling of Liquefied Chlorine Gas |
| 11. | AS 1940-1993 | Storage and Handling of Flammable and Combustible Liquids |
| 12. | AS 2885-1987 | Pipelines — Gas and Liquid Petroleum |
| 13. | AS 1851 Part 1 — 1985 Part 2 — 1988 Part 3 — 1985 Part 4 — 1988 Part 5 — 1981 Part 6 — 1983 Part 7 — 1984 Part 8 — 1987 Part 9 — 1988 | Maintenance of Fire Protection Equipment |
| 14. | AS 1844-1985 | Portable Fire Extinguishers — Foam (Gas Container) |
| 15. | AS 1845-1985 | Portable Fire Extinguishers — Foam (Stored Pressure) |
| 16. | AS 1846-1985 | Portable Fire Extinguishers — Powder Type |
| 17. | AS 1847-1985 | Portable Fire Extinguishers — Carbon Dioxide Type |

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Schedule 2

| Item | AS No. or other reference | Description of standard, and amendments thereto |
|-------------|----------------------------------|--|
| 18. | AS 1848-1985 | Portable Fire Extinguishers — Halon Type |
| 19. | AS 2444-1985 | Portable Fire Extinguishers — Selection and Location |
| 20. | AS 2419 Part 1 — 1988 | Fire Hydrant Installations |
| 21. | AS 2118-1982 | SAA Code for Automatic Fire Sprinkler Systems |

[Schedule 2 amended in Gazette 11 February 1993 p.453; 8 June 1999 p.2503.]

Schedule 3

Schedule 3 — Dangerous goods too dangerous to transport

[r.1.5]

Notes

- (1) This Schedule lists those of the goods named in Appendix 5 to the Code (“**ADG 6**”) that are not explosives. Appendix 5 lists goods considered too dangerous to transport.
- (2) ‘**N.E.S.**’ means “not elsewhere specified”. If an entry in this Schedule includes ‘N.E.S.’ it means the goods named in the entry are not only named in Appendix 5 to ADG 6, but also in an entry in another Appendix to ADG 6.
- (3) The entry in the other Appendix will name the goods and specify the criteria to be satisfied before they may be transported; for example the goods must be mixed with diluents, stabilizers, inhibitors, desensitizers, phlegmatizers, solvents, wetting agents or adulterants to overcome the inherent instability of the goods.
- (5) The entry in this Schedule refers to goods that do not meet the criteria specified in that other Appendix.
- (6) This list is not an exhaustive listing of goods that are too dangerous to be transported.

Acetylene (liquefied)
Acraldehyde, N.E.S. (Alt: Acrolein)
Acroleic acid, N.E.S. (Alt: Acrylic acid)
Acrolein dimer, N.E.S.
Acrolein, N.E.S.
Acrylaldehyde, N.E.S. (Alt: Acrolein)
Acryldehyde, N.E.S.
Acrylic acid, N.E.S.
Acrylic acid isobutyl ester, N.E.S. (Alt: Isobutyl acrylate)
Acrylic aldehyde, N.E.S. (Alt: Acrolein)
Acrylonitrile, N.E.S.
Allyl aldehyde, N.E.S. (Alt: Acrolein)
Aluminium dross, wet or hot

Bromosilane
Butadienes, N.E.S.

Schedule 3

2-Butenal, N.E.S. (Alt: Crotonaldehyde)
n-Butoxyethylene, N.E.S. (Alt: Butyl vinyl ether)
Butyl acrylate, N.E.S.
Butyl vinyl ether, N.E.S.

Carbazide
Charcoal screenings, wet
Charcoal, wet
Chloral, anhydrous, N.E.S.
Chloroacetone, N.E.S.
2-Chlorobutadiene-1,3, N.E.S. (Alt: Chloroprene)
Chloroprene, N.E.S.
Chlorotrifluoroethylene, N.E.S. (Alt: Trifluorochloroethylene)
Cinnamene, N.E.S. (Alt: Styrene monomer)
Cinnamol, N.E.S. (Alt: Styrene monomer)
Coal briquettes, hot
Coke, hot
Crotonaldehyde, N.E.S.

Dibromoacetylene
Dichloroacetylene, N.E.S.
Dichloroethyl sulfide
Diiodoacetylene
Divinyl, N.E.S. (Alt: Butadienes)
Divinyl ether, N.E.S.

2,6-Epoxy-5-hexenal, N.E.S. (Alt: Acrolein dimer)
Ethyl acrylate, N.E.S.

Flammable mixture of dangerous goods of class 2.1 or sub-risk 2.1 with oxygen, nitrous oxide or air
Formaldehyde, gaseous
2-Formyl-3,4-dihydro-2 H-pyran, N.E.S. (Alt: Acrolein dimer)

Hafnium metal powder, N.E.S., having a particle size less than 3 micrometres if mechanically produced or 10 micrometres if chemically produced
Hydrogen cyanide, anhydrous, N.E.S.

Ignition element for lighter, containing pyrophoric liquid

Schedule 3

Isobutyl acrylate, N.E.S.
Isobutyl methacrylate, N.E.S.
Isoprene, N.E.S.

Lighters (cigarettes) containing pyrophoric liquid

Magnesium dross, wet or hot
Methacrylic acid, N.E.S.
Methyl acetylene/propadiene, mixtures, N.E.S.
b-Methyl acrolein, N.E.S. (Alt: Crotonaldehyde)
Methyl acrylate, N.E.S.
Methyl-1,3-butadiene, N.E.S. (Alt: Isoprene)
Methyl methacrylate monomer, N.E.S.
Methylpropyl acrylate, N.E.S. (Alt: Isobutyl acrylate)
Methylstyrenes, ortho-, meta-, para-, N.E.S.
Methylvinylbenzenes, N.E.S. (Alt: Vinyl toluenes)

Phenylethylene, N.E.S. (Alt: Styrene monomer)
Phosphorus (white or red) and a chlorate, mixtures of
2-Propenal, N.E.S. (Alt: Acrolein)
Propenenitrile, N.E.S. (Alt: Acrylonitrile)
Propenoic acid, N.E.S. (Alt: Acrylic acid)
Propylene aldehyde, N.E.S. (Alt: Crotonaldehyde)
Propyleneimine, N.E.S.

Sulfur trioxide, N.E.S.
Sulfuric anhydride, N.E.S. (Alt: Sulfur trioxide)

Tetrahydrofuran, N.E.S.
Titanium dichloride
Tolyethylenes, mixed isomers, N.E.S. (Alt: Vinyl toluenes)
Trichloroacetaldehyde, anhydrous, N.E.S. (Alt: Chloral)
Trichloroacetic aldehyde, anhydrous, N.E.S. (Alt: Chloral)

Vinyl acetate, N.E.S.
Vinyl benzene, N.E.S. (Alt: Styrene, monomer)
Vinyl bromide, N.E.S.
Vinyl- n-butylether, N.E.S. (Alt: Vinyl butylether)
Vinyl butyrate, N.E.S.
Vinyl chloride, N.E.S.

Schedule 3

Vinyl cyanide, N.E.S. (Alt: Acrylonitrile)
Vinyl ether, N.E.S. (Alt: Divinyl ether)
Vinyl ethyl ether, N.E.S.
Vinyl fluoride, N.E.S.
Vinylidene, N.E.S.
Vinyl isobutylether, N.E.S.
Vinyl methyl ether, N.E.S.
Vinyl nitrate polymer
Vinyl pyridines, N.E.S.
Vinyl toluenes, mixed isomers, N.E.S.
Vinyl trichlorosilane, N.E.S.

[Schedule 3 inserted in Gazette 8 June 1999 pp.2504-6.]

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Notes

- ¹ This reprint is a compilation as at 10 March 2000 of the *Explosives and Dangerous Goods (Dangerous Goods Handling and Storage) Regulations 1992* and includes the amendments included in the reprint of 9 June 1997 and the other amendments effected by the regulations referred to in the following Table.

Table of Regulations

| Citation | Gazettal | Commencement | Miscellaneous |
|---|-----------------------------|---|--|
| <i>Dangerous Goods Regulations 1992</i> | 3 July 1992 pp.2997-3075 | 1 October 1992 (see regulation 1.2) | Citation subsequently amended (see footnote to regulation 1) |
| Regulations effecting amendments included in the previous reprint are not referred to in this Table | | | Previous reprint as at 9 June 1997 |
| <i>Dangerous Goods Amendment Regulations 1999</i> | 8 June 1999 pp.2491-2507 | 9 June 1999 (see regulation 2 and <i>Gazette</i> 8 June 1999 p.2469) | |
| <i>Explosives and Dangerous Goods (Dangerous Goods Handling and Storage) Amendment Regulations 1999</i> | 20 July 1999 pp.3247-8 | 20 July 1999 | |

Defined Terms

*[This is a list of terms defined and the provisions where they are defined.
The list is not part of the law.]*

| Defined Term | Provision(s) |
|---|---------------------|
| a recommendation | 1.3(4) |
| ADG 6 | Sch. 3 |
| amount | 1.3(1) |
| approved | 1.3(1) |
| bulk container | 1.3(1) |
| bulk depot | 1.3(1) |
| bund | 1.3(1) |
| capacity | 1.3(1) |
| charging | 4.40(1) |
| class | 1.3(1) |
| Code | 1.3(1) |
| combustible liquid | 1.3(1) |
| compound | 1.3(1) |
| dangerous goods | 1.3(1), 1.5, 3.6(1) |
| explosive | 1.3(1) |
| general fire extinguishing system | 1.3(1) |
| Guidance Note for Labelling | 1.3(1) |
| Guidance Note for Placarding | 1.3(1) |
| hand fire extinguisher | 1.3(1) |
| licensee | 1.3(1) |
| LPG | 1.3(1) |
| material safety data sheet | 1.3(1) |
| MSDS | 1.3(1), 4.29(1)(a) |
| N.E.S. | Sch. 3 |
| outer package | 1.3(1) |
| package depot | 1.3(1) |
| packing group | 1.3(1) |
| quantity | 1.3(1) |
| screen wall | 1.3(1) |
| should | 1.3(4) |
| statutory authority | 1.3(4) |
| storage | 1.3(1) |
| subsidiary risk | 1.3(1) |
| Table | 1.3(1) |
| the competent authority | 1.3(4) |
| the relevant area | 4.56 |
| the storage factor | 4.2(1) |
| ullage | 2.5(1), 2.16(1) |

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Defined Terms

| | |
|------------------------|--------|
| UN tests..... | 1.3(1) |
| underground tank | 1.3(1) |