

# Clean Air (Plant and Equipment) Regulation 1997

[1997-365]



New South Wales

## Status Information

### Currency of version

Repealed version for 17 August 2001 to 31 August 2005 (accessed 26 November 2024 at 8:51)

Legislation on this site is usually updated within 3 working days after a change to the legislation.

### Provisions in force

The provisions displayed in this version of the legislation have all commenced.

### Notes—

- **Note**  
The [Clean Air \(Plant and Equipment\) Regulation 1997](#) made under the [Clean Air Act 1961](#) is on and from 1.7.1999 taken to be a regulation made under the [Protection of the Environment Operations Act 1997 No 156](#). See clause 11 of Schedule 5 to the [Protection of the Environment Operations Act 1997](#).
- **Repeal**  
The Regulation was repealed by cl 4 of the [Protection of the Environment Operations \(Clean Air\) Amendment \(Industrial and Commercial Activities and Plant\) Regulation 2005 \(495\)](#) (GG No 107 of 26.8.2005, p 5669) with effect from 1.9.2005.

### Authorisation

This version of the legislation is compiled and maintained in a database of legislation by the Parliamentary Counsel's Office and published on the NSW legislation website, and is certified as the form of that legislation that is correct under section 45C of the [Interpretation Act 1987](#).

File last modified 1 September 2005

# Clean Air (Plant and Equipment) Regulation 1997



New South Wales

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# Clean Air (Plant and Equipment) Regulation 1997



New South Wales

## Part 1 Preliminary

### 1 Name of Regulation

This Regulation is the *Clean Air (Plant and Equipment) Regulation 1997*.

### 2 Commencement

This Regulation commences on 1 August 1997.

### 3 Definitions

In this Regulation:

**Central Coast Metropolitan Area** means the area constituted by the local government areas of Gosford and Wyong.

**development** and **development application** have same meanings as they have in the *Environmental Planning and Assessment Act 1979*.

**Director-General** means Director-General of the Authority.

**incinerator** means any structure or part of a structure used to dispose of combustible refuse by burning.

**Newcastle Metropolitan Area** means the area constituted by the local government areas of Lake Macquarie and Newcastle.

**non-scheduled premises** are premises (other than scheduled premises) on which a trade, industry or process is conducted, or fuel burning equipment or industrial plant is operated.

**resulting gas**, in relation to air impurities arising from the conduct of any trade, industry or process, or the operation of any fuel burning equipment or industrial plant, means any gas or vapour that is released to the atmosphere as a result of the conduct of that trade, industry or process, or the operation of that fuel burning equipment or industrial plant.

**scheduled premises** includes premises on which a scheduled activity is being carried on.

**sell**—see the Dictionary to the [Protection of the Environment Operations Act 1997](#).

**Sydney Metropolitan Area** means the area constituted by the local government areas of Ashfield, Auburn, Bankstown, Baulkham Hills, Blacktown, Botany Bay, Burwood, Camden, Campbelltown, Canterbury, Concord, Drummoyne, Fairfield, Hawkesbury, Holroyd, Hornsby, Hunters Hill, Hurstville, Kogarah, Ku-ring-gai, Lane Cove, Leichhardt, Liverpool, Manly, Marrickville, Mosman, North Sydney, Parramatta, Penrith, Pittwater, Randwick, Rockdale, Ryde, South Sydney, Strathfield, Sutherland, Sydney, Warringah, Waverley, Willoughby and Woollahra.

**Test Method**, together with a number, means a test method of that number prescribed by the Approved Methods Publication.

**the Act** means, subject to clause 3A, the [Clean Air Act 1961](#).

**the Approved Methods Publication** means the document entitled “Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales” prepared by the Authority and published in the Gazette, as in force from time to time.

**the Authority** means the EPA within the meaning of the [Protection of the Environment Operations Act 1997](#).

**Wollongong Metropolitan Area** means the area constituted by the local government areas of Shellharbour and Wollongong.

### **3A Operation of Regulation after commencement of the [Protection of the Environment Operations Act 1997](#)**

- (1) In this Regulation, a reference to section 15 of the Act is a reference to section 128 of the [Protection of the Environment Operations Act 1997](#) but only in relation to premises on which a scheduled activity is being carried on.
- (2) In this Regulation, a reference to section 19 of the Act is a reference to section 128 of the [Protection of the Environment Operations Act 1997](#) but only in relation to premises on which only non-scheduled activities are being carried on.
- (3) However, during the period of 4 years following the commencement of the [Protection of the Environment Operations Act 1997](#), premises that:
  - (a) prior to the commencement of that Act, were non-scheduled premises under the Act, and
  - (b) are premises on which a scheduled activity is being carried on,are deemed, for the purposes of this Regulation, to be premises on which only non-

scheduled activities are being carried on.

- (4) In this Regulation, a reference to a pollution control approval is a reference to a pollution control approval under the *Pollution Control Act 1970* before its repeal.

#### **4 Emission points**

For the purposes of sections 15 and 19 of the Act, the point at which the standard of concentration or rate of emission of air impurities resulting from the conduct of any trade, industry or process, or the operation of any fuel burning equipment or industrial plant, is not to be exceeded, as referred to in those sections, is a point, determined in accordance with the relevant Test Method, between:

- (a) the point of origin of the air impurities, that is:
- (i) the point where the air impurities originate, or
  - (ii) if the air impurities subsequently pass through any control equipment, the point where the air impurities emerge from that equipment, and
- (b) the point of release of the air impurities, that is:
- (i) the point where the air impurities pass into the atmosphere, or
  - (ii) if air, gas or vapour is added to the air impurities before that point, the point immediately before the point where the air, gas or vapour is added.

#### **5 Exclusion of small boilers**

This Regulation does not apply to any boiler whose heating capacity (as determined by the apparatus by which it is heated) is less than 100 megajoules per hour.

#### **6 Notes**

The explanatory note, notes in the text and table of contents do not form part of this Regulation.

## **Part 2 Sulphur**

#### **7 Sulphur emissions from scheduled premises: section 15**

- (1) For the purposes of section 15 (1) of the Act, the standard of concentration for emissions of a sulphur compound referred to in Column 1 of the appropriate Table to this clause by:
- (a) a trade, industry or process, or
  - (b) fuel burning equipment or industrial plant,
- referred to in Column 2 of that Table is the concentration set out in Column 3 of that

Table, as measured in accordance with Test Method 3, 4 or 5 (whichever is relevant to the compound concerned).

- (2) Table A is the appropriate Table in relation to any trade, industry, process, fuel burning equipment or industrial plant in respect of which:
- (a) no pollution control approval has been granted, or
  - (b) a pollution control approval has been granted on the basis of an application made before 1 January 1972,
- other than any trade, industry, process, fuel burning equipment or industrial plant referred to in subclause (4).
- (3) Table B is the appropriate Table in relation to any trade, industry, process, fuel burning equipment or industrial plant in respect of which a pollution control approval has been granted on the basis of an application made on or after 1 January 1972.
- (4) Table B is the appropriate Table in relation to any trade, industry, process, fuel burning equipment or industrial plant that first came into operation on or after the commencement of the *Protection of the Environment Operations Act 1997*.

**Table A: No pollution control approval or pollution control approval where application for approval made before 1 January 1972**

Column 1	Column 2	Column 3
Sulphuric acid mist (H <sub>2</sub> SO <sub>4</sub> ) or sulphur trioxide (SO <sub>3</sub> ), or both	Any trade, industry or process	0.2 grams of SO <sub>3</sub> (or SO <sub>3</sub> equivalent) per cubic metre of the resulting gases
Sulphur dioxide (SO <sub>2</sub> )	Any trade, industry or process manufacturing sulphuric acid otherwise than from elemental sulphur	7.2 grams of SO <sub>2</sub> per cubic metre of the resulting gases
	Any trade, industry or process manufacturing sulphuric acid from elemental sulphur	5.6 grams of SO <sub>2</sub> per cubic metre of the resulting gases
Hydrogen sulphide (H <sub>2</sub> S)	Any trade, industry or process	0.005 grams of H <sub>2</sub> S per cubic metre of the resulting gases

**Table B: Application for pollution control approval made on or after 1 January 1972**

Column 1	Column 2	Column 3
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Sulphuric acid mist (H <sub>2</sub> SO <sub>4</sub> ) or sulphur trioxide (SO <sub>3</sub> ), or both	Any trade, industry or process	0.1 grams of SO <sub>3</sub> (or SO <sub>3</sub> equivalent) per cubic metre of the resulting gases
Sulphur dioxide (SO <sub>2</sub> )	Any trade, industry or process manufacturing sulphuric acid otherwise than from elemental sulphur	7.2 grams of SO <sub>2</sub> per cubic metre of the resulting gases
	Any trade, industry or process manufacturing sulphuric acid from elemental sulphur	2.8 grams of SO <sub>2</sub> per cubic metre of the resulting gases
Hydrogen sulphide (H <sub>2</sub> S)	Any trade, industry or process	0.005 grams of H <sub>2</sub> S per cubic metre of the resulting gases

**7A Authority may approve alternative restrictions on hydrogen sulphide emissions**

- (1) The Authority may grant an approval to an occupier of premises for an alternative standard of concentration for hydrogen sulphide emissions.
- (2) If an occupier has been granted such an approval, and the occupier complies with the alternative standard of concentration and any other conditions specified in the approval, the occupier is exempt from clause 7 in relation to hydrogen sulphide emissions only.
- (3) Before granting an approval under this clause the Authority must:
  - (a) take into consideration the impact of the approval on local and regional air quality and amenity, and
  - (b) be satisfied that it is not practicable for the occupier to comply with clause 7 by implementing operational changes to plant or practices, and
  - (c) be satisfied that the alternative standard of concentration for hydrogen sulphide emissions has been calculated in accordance with the document entitled *Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in New South Wales*, prepared by the Authority and published in the Gazette, as in force from time to time.
- (4) The Authority is to grant an approval under this clause by means of a written notice given to the occupier.
- (5) An approval:
  - (a) is subject to any conditions that may be specified in the approval (including the method of measuring the concentration of hydrogen sulphide emissions), and



- (b) may be amended or revoked by the Authority by means of a written notice given to the occupier.

## **8 Restrictions on use of high sulphur liquid fuel**

- (1) A person must not, anywhere in the Sydney, Wollongong, Newcastle or Central Coast Metropolitan Area, operate any fuel burning equipment with liquid fuel having a sulphur content of more than 0.5 per cent by weight, as measured in accordance with Test Method 6.

Maximum penalty: 200 penalty units (in the case of a corporation) and 40 penalty units (in any other case).

- (2) A person must not, anywhere outside the Sydney, Wollongong, Newcastle or Central Coast Metropolitan Area, operate any fuel burning equipment with liquid fuel having a sulphur content of more than 2.5 per cent by weight, as measured in accordance with Test Method 6.

Maximum penalty: 200 penalty units (in the case of a corporation) and 40 penalty units (in any other case).

- (3) This clause does not prevent a person from operating fuel burning equipment with liquid fuel having a sulphur content in excess of a limit imposed by subclause (1) or (2) in the following circumstances:
- (a) circumstances in which the emissions of sulphur compounds to the atmosphere arising from the operation of the equipment are restricted (by means of control equipment or otherwise) in such a manner that they are no greater than they would be if the equipment were operated (in the absence of any such restriction) with fuel having a sulphur content within the relevant limit,
  - (b) circumstances in which the liquid fuel is used for the lighting-up or flame-stabilising of fuel burning equipment designed primarily to burn solid fuel and the sulphur content of the liquid fuel is no more than 2.5 per cent by weight,
  - (c) circumstances in respect of which the person operating the fuel burning equipment holds a written exemption issued by the Authority, being circumstances that, in the opinion of the Authority, are special circumstances in respect of the fuel burning equipment or the premises in which the fuel burning equipment is installed,
  - (d) circumstances in which:
    - (i) the emissions of sulphur compounds to the atmosphere arising from the operation of the fuel burning equipment are restricted (by means of control equipment or otherwise) in accordance with the requirements of an environment protection licence, and

- (ii) the fuel has a sulphur content within the limits imposed by that licence.
- (4) It is a defence to a prosecution for an offence arising under this clause if the defendant establishes that:
- (a) the fuel burning equipment was being operated with liquid fuel supplied under an order placed by the defendant for liquid fuel conforming to the relevant requirements of this clause, and
  - (b) the defendant had reasonable grounds to believe, and did in fact believe, that the sulphur content of the liquid fuel conformed to those requirements.

## **Part 3 Halogens**

### **9 Chlorine emissions from scheduled premises: section 15**

- (1) For the purposes of section 15 (1) of the Act, the standard of concentration for emissions of a chlorine compound referred to in Column 1 of the appropriate Table to this clause by:
- (a) a trade, industry or process, or
  - (b) fuel burning equipment or industrial plant,
- referred to in Column 2 of that Table is the concentration set out in Column 3 of that Table, as measured in accordance with Test Method 7 or 8 (whichever is relevant to the compound concerned).
- (2) Table A is the appropriate Table in relation to any trade, industry, process, fuel burning equipment or industrial plant in respect of which:
- (a) no pollution control approval has been granted, or
  - (b) a pollution control approval has been granted on the basis of an application made before 1 January 1972,
- other than any trade, industry, process, fuel burning equipment or industrial plant referred to in subclause (4).
- (3) Table B is the appropriate Table in relation to any trade, industry, process, fuel burning equipment or industrial plant in respect of which a pollution control approval has been granted on the basis of an application made on or after 1 January 1972, other than any trade, industry, process, fuel burning equipment or industrial plant referred to in subclause (4).
- (4) Table C is the appropriate Table in relation to any trade, industry, process, fuel burning equipment or industrial plant situated on:
- (a) scheduled premises in respect of which the Authority has, before 31 December

1996, informed the occupier in writing that, as from 1 August 1997, those premises will have to comply with requirements similar or identical to those set out in that Table, and

- (b) any premises that become scheduled premises on or after 1 August 1997, other than premises in respect of which a development application has been made before that date to carry out development which has resulted in those premises becoming scheduled premises.

**Table A: No pollution control approval or pollution control approval where application for approval made before 1 January 1972**

Column 1	Column 2	Column 3
Chlorine (Cl <sub>2</sub> )	Any trade, industry or process	0.2 grams of Cl <sub>2</sub> per cubic metre of the resulting gases
Hydrogen chloride (HCl)	Any trade, industry or process, other than the manufacture of glazed terracotta roofing tiles	0.4 grams of HCl per cubic metre of the resulting gases

**Table B: Application for pollution control approval made on or after 1 January 1972**

Column 1	Column 2	Column 3
Chlorine (Cl <sub>2</sub> )	Any trade, industry or process	0.2 grams of Cl <sub>2</sub> per cubic metre of the resulting gases
Hydrogen chloride (HCl)	Any trade, industry or process, other than the manufacture of glazed terracotta roofing tiles	0.4 grams of HCl per cubic metre of the resulting gases

**Table C: Premises that become scheduled premises on or after 1 August 1997**

Column 1	Column 2	Column 3
Chlorine (Cl <sub>2</sub> )	Any trade, industry or process	0.2 grams of Cl <sub>2</sub> per cubic metre of the resulting gases
Hydrogen chloride (HCl)	Any trade, industry or process	0.1 grams of HCl per cubic metre of the resulting gases

**10 Fluorine emissions from scheduled premises: section 15**

(1) For the purposes of section 15 (1) of the Act, the standard of concentration for emissions of a fluorine compound referred to in Column 1 of the appropriate Table to this clause by:

- (a) a trade, industry or process, or

(b) fuel burning equipment or industrial plant,

referred to in Column 2 of that Table is the concentration set out in Column 3 of that Table, as measured in accordance with Test Method 9 or 10 (whichever is relevant in the circumstances).

(2) Table A is the appropriate Table in relation to any trade, industry, process, fuel burning equipment or industrial plant in respect of which:

(a) no pollution control approval has been granted, or

(b) a pollution control approval has been granted on the basis of an application made before 1 January 1972,

other than any trade, industry, process, fuel burning equipment or industrial plant referred to in subclause (5).

(3) Table B is the appropriate Table in relation to any trade, industry, process, fuel burning equipment or industrial plant in respect of which a pollution control approval has been granted on the basis of an application made on or after 1 January 1972 but before 1 July 1979, other than any trade, industry, process, fuel burning equipment or industrial plant referred to in subclause (5).

(4) Table C is the appropriate Table in relation to any trade, industry, process, fuel burning equipment or industrial plant in respect of which a pollution control approval has been granted on the basis of an application made on or after 1 July 1979, other than any trade, industry, process, fuel burning equipment or industrial plant referred to in subclause (5).

(5) Table D is the appropriate Table in relation to any trade, industry, process, fuel burning equipment or industrial plant situated on:

(a) scheduled premises in respect of which the Authority has, before 31 December 1996, informed the occupier in writing that, as from 1 August 1997, those premises will have to comply with requirements similar or identical to those set out in that Table, and

(b) any premises that become scheduled premises on or after 1 August 1997, other than premises in respect of which a development application has been made before that date to carry out development which has resulted in those premises becoming scheduled premises.

**Table A: No pollution control approval or pollution control approval where application for approval made before 1 January 1972**

**Column 1**

**Column 2**

**Column 3**

Any fluorine compound	Any trade, industry or process, other than the manufacture of aluminium from alumina	0.1 grams of HF (or HF equivalent) per cubic metre of the resulting gases
	Any trade, industry or process manufacturing aluminium from alumina	0.04 grams of HF (or HF equivalent) per cubic metre of the resulting gases

**Table B: Application for pollution control approval made on or after 1 January 1972 and before 1 July 1979**

Column 1	Column 2	Column 3
Any fluorine compound	Any trade, industry or process, other than the manufacture of aluminium from alumina	0.05 grams of HF (or HF equivalent) per cubic metre of the resulting gases
	Any trade, industry or process manufacturing aluminium from alumina	0.02 grams of HF (or HF equivalent) per cubic metre of the resulting gases

**Table C: Application for pollution control approval made on or after 1 July 1979**

Column 1	Column 2	Column 3
Any fluorine compound	Any trade, industry or process, other than a primary aluminium smelter manufacturing aluminium from alumina	0.05 grams of HF (or HF equivalent) per cubic metre of the resulting gases
	Any primary aluminium smelter manufacturing aluminium from alumina	1.0 kilograms of total fluoride per tonne of aluminium produced

**Table D: Premises that become scheduled premises on or after 1 August 1997**

Column 1	Column 2	Column 3
Any fluorine compound	Any trade, industry or process, other than a primary aluminium smelter manufacturing aluminium from alumina	0.05 grams of HF (or HF equivalent) per cubic metre of the resulting gases
	Any primary aluminium smelter manufacturing aluminium from alumina	0.8 kilograms of total fluoride per tonne of aluminium produced

## Part 4 Oxides of nitrogen

### 11 Oxides of nitrogen emissions from scheduled premises: section 15

- (1) For the purposes of section 15 (1) of the Act, the standard of concentration for emissions of an oxide of nitrogen referred to in Column 1 of the appropriate Table to this clause by:
  - (a) a trade, industry or process, or
  - (b) fuel burning equipment or industrial plant,referred to in Column 2 of that Table is the concentration set out in Column 3 of that Table, as measured in accordance with Test Method 11.
- (2) Table A is the appropriate Table in relation to any trade, industry, process, fuel burning equipment or industrial plant in respect of which:
  - (a) no pollution control approval has been granted, or
  - (b) a pollution control approval has been granted on the basis of an application made before 1 January 1972,other than any trade, industry, process, fuel burning equipment or industrial plant referred to in subclause (4).
- (3) Table B is the appropriate Table in relation to any trade, industry, process, fuel burning equipment or industrial plant in respect of which a pollution control approval has been granted on the basis of an application made on or after 1 January 1972, other than any trade, industry, process, fuel burning equipment or industrial plant referred to in subclause (4).
- (4) Table C is the appropriate Table in relation to any trade, industry, process, fuel burning equipment or industrial plant situated on:
  - (a) scheduled premises in respect of which the Authority has, before 31 December 1996, informed the occupier in writing that, as from 1 August 1997, those premises will have to comply with requirements similar or identical to those set out in that Table, and
  - (b) any premises that become scheduled premises on or after 1 August 1997, other than premises in respect of which a development application has been made before that date to carry out development which has resulted in those premises becoming scheduled premises.

#### **Table A: No pollution control approval or pollution control approval where application for approval made before 1 January 1972**

<b>Column 1</b>	<b>Column 2</b>	<b>Column 3</b>
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Nitrogen dioxide (NO <sub>2</sub> ) or nitric oxide (NO), or both	Any trade, industry or process, other than the manufacture of glass using sodium nitrate (NaNO <sub>3</sub> )	2.5 grams of NO <sub>2</sub> (or NO <sub>2</sub> equivalent) per cubic metre of the resulting gases
	Any trade, industry or process for the manufacture of glass using sodium nitrate (NaNO <sub>3</sub> )	4.0 grams of NO <sub>2</sub> (or NO <sub>2</sub> equivalent) per cubic metre of the resulting gases

**Table B: Application for pollution control approval made on or after 1 January 1972**

Column 1	Column 2	Column 3
Nitrogen dioxide (NO <sub>2</sub> ) or nitric oxide (NO), or both	Any trade, industry or process, other than the manufacture of glass using sodium nitrate (NaNO <sub>3</sub> )	2.5 grams of NO <sub>2</sub> (or NO <sub>2</sub> equivalent) per cubic metre of the resulting gases
	Any trade, industry or process for the manufacture of glass using sodium nitrate (NaNO <sub>3</sub> )	4.0 grams of NO <sub>2</sub> (or NO <sub>2</sub> equivalent) per cubic metre of the resulting gases

**Table C: Premises that become scheduled premises on or after 1 August 1997**

Column 1	Column 2	Column 3
Nitrogen dioxide (NO <sub>2</sub> ) or nitric oxide (NO), or both	Any trade, industry or process, other than the manufacture of glass using sodium nitrate (NaNO <sub>3</sub> )	2.0 grams of NO <sub>2</sub> (or NO <sub>2</sub> equivalent) per cubic metre of the resulting gases
	Any trade, industry or process for the manufacture of glass using sodium nitrate (NaNO <sub>3</sub> )	4.0 grams of NO <sub>2</sub> (or NO <sub>2</sub> equivalent) per cubic metre of the resulting gases
	Any boiler operating on gas	0.35 grams of NO <sub>2</sub> (or NO <sub>2</sub> equivalent) per cubic metre of the resulting gases
	Any boiler operating on a fuel other than gas, other than a boiler used in connection with an electricity generator that forms part of an electricity generating system	0.5 grams of NO <sub>2</sub> (or NO <sub>2</sub> equivalent) per cubic metre of the resulting gases

Any boiler operating on a fuel other than gas, being a boiler used in connection with an electricity generator that forms part of an electricity generating system with a capacity of less than 30 megawatts

0.5 grams of NO<sub>2</sub> (or NO<sub>2</sub> equivalent) per cubic metre of the resulting gases

Any boiler operating on a fuel other than gas, being a boiler used in connection with an electricity generator that forms part of an electricity generating system with a capacity of 30 megawatts or more

0.8 grams of NO<sub>2</sub> (or NO<sub>2</sub> equivalent) per cubic metre of the resulting gases

Any gas turbine operating on gas, being a turbine used in connection with an electricity generating system with a capacity of less than 10 megawatts

0.09 grams of NO<sub>2</sub> (or NO<sub>2</sub> equivalent) per cubic metre of the resulting gases

Any gas turbine operating on gas, being a turbine used in connection with an electricity generating system with a capacity of 10 megawatts or more

0.07 grams of NO<sub>2</sub> (or NO<sub>2</sub> equivalent) per cubic metre of the resulting gases

Any gas turbine operating on a fuel other than gas, being a turbine used in connection with an electricity generating system with a capacity of less than 10 megawatts

0.09 grams of NO<sub>2</sub> (or NO<sub>2</sub> equivalent) per cubic metre of the resulting gases

Any gas turbine operating on a fuel other than gas, being a turbine used in connection with an electricity generating system with a capacity of 10 megawatts or more

0.15 grams of NO<sub>2</sub> (or NO<sub>2</sub> equivalent) per cubic metre of the resulting gases



## **Part 5 Hazardous substances**

### **12 Hazardous substance emissions from scheduled premises: section 15**

- (1) For the purposes of section 15 (1) of the Act, the standard of concentration for emissions of a Type 1 or Type 2 substance referred to in Column 1 of the appropriate Table to this clause by:
  - (a) a trade, industry or process, or
  - (b) fuel burning equipment or industrial plant,referred to in Column 2 of that Table is the concentration set out in Column 3 of that Table, as measured in accordance with Test Method 12, 13 or 14 (whichever is relevant to the substance concerned).
- (2) Table A is the appropriate Table in relation to any trade, industry, process, fuel burning equipment or industrial plant in respect of which:
  - (a) no pollution control approval has been granted, or
  - (b) a pollution control approval has been granted on the basis of an application made before 1 January 1972,other than any trade, industry, process, fuel burning equipment or industrial plant referred to in subclause (5).
- (3) Table B is the appropriate Table in relation to any trade, industry, process, fuel burning equipment or industrial plant in respect of which a pollution control approval has been granted on the basis of an application made on or after 1 January 1972 but before 1 July 1986, other than any trade, industry, process, fuel burning equipment or industrial plant referred to in subclause (5).
- (4) Table C is the appropriate Table in relation to any trade, industry, process, fuel burning equipment or industrial plant in respect of which a pollution control approval has been granted on the basis of an application made on or after 1 July 1986, other than any trade, industry, process, fuel burning equipment or industrial plant referred to in subclause (5).
- (5) Table D is the appropriate Table in relation to any trade, industry, process, fuel burning equipment or industrial plant situated on:
  - (a) scheduled premises in respect of which the Authority has, before 31 December 1996, informed the occupier in writing that, as from 1 August 1997, those premises will have to comply with requirements similar or identical to those set out in that Table, and
  - (b) any premises that become scheduled premises on or after 1 August 1997, other

than premises in respect of which a development application has been made before that date to carry out development which has resulted in those premises becoming scheduled premises.

(6) In this clause:

**Type 1 element** means antimony, arsenic, cadmium, lead or mercury.

**Type 1 substance** means any Type 1 element or any compound of which a Type 1 element forms part.

**Type 2 element** means beryllium, chromium (hexavalent only), cobalt, manganese, nickel, selenium, tin or vanadium.

**Type 2 substance** means any Type 2 element or any compound of which a Type 2 element forms part.

**Table A: No pollution control approval or pollution control approval where application for approval made before 1 January 1972**

Column 1	Column 2	Column 3
Type 1 substance (Sb, As, Cd, Pb or Hg)	Any trade, industry or process	20.0 milligrams (in aggregate) of Type 1 elements per cubic metre of the resulting gases

**Table B: Application for pollution control approval made on or after 1 January 1972 and before 1 July 1986**

Column 1	Column 2	Column 3
Type 1 substance (Sb, As, Cd, Pb or Hg)	Any trade, industry or process	20.0 milligrams (in aggregate) of Type 1 elements per cubic metre of the resulting gases

**Table C: Application for pollution control approval made on or after 1 July 1986**

Column 1	Column 2	Column 3
Type 1 substance (Sb, As, Cd, Pb or Hg)	Any trade, industry or process	10.0 milligrams (in aggregate) of Type 1 elements, and 3.0 milligrams (individually) of cadmium or mercury, per cubic metre of the resulting gases

**Table D: Premises that become scheduled premises on or or after 1 August 1997**

Column 1	Column 2	Column 3
Type 1 or Type 2 substance (Sb, As, Be, Cd, Cr, Co, Pb, Mn, Hg, Ni, Se, Sn or V)	Any trade, industry or process	5.0 milligrams (in aggregate) of Type 1 and Type 2 elements, and 1.0 milligrams (individually) of cadmium or mercury, per cubic metre of the resulting gases

## Part 6 Solid particles

### 13 Solid particle emissions from scheduled premises: section 15

- (1) For the purposes of section 15 (1) of the Act, the standard of concentration for solid particle emissions referred to in Column 1 of the appropriate Table to this clause by:
  - (a) a trade, industry or process, or
  - (b) fuel burning equipment or industrial plant,referred to in Column 2 of that Table is the concentration set out in Column 3 of that Table, as measured in accordance with Test Method 15.
- (2) Table A is the appropriate Table in relation to any trade, industry, process, fuel burning equipment or industrial plant in respect of which:
  - (a) no pollution control approval has been granted, or
  - (b) a pollution control approval has been granted on the basis of an application made before 1 January 1972,other than any trade, industry, process, fuel burning equipment or industrial plant referred to in subclause (4).
- (3) Table B is the appropriate Table in relation to any trade, industry, process, fuel burning equipment or industrial plant in respect of which a pollution control approval has been granted on the basis of an application made on or after 1 January 1972, other than any trade, industry, process, fuel burning equipment or industrial plant referred to in subclause (4).
- (4) Table C is the appropriate Table in relation to any trade, industry, process, fuel burning equipment or industrial plant situated on:
  - (a) scheduled premises in respect of which the Authority has, before 31 December 1996, informed the occupier in writing that, as from 1 August 1997, those premises will have to comply with requirements similar or identical to those set out in that Table, and
  - (b) any premises that become scheduled premises on or after 1 August 1997, other than premises in respect of which a development application has been made before that date to carry out development which has resulted in those premises becoming scheduled premises.

#### **Table A: No pollution control approval or pollution control approval where application for approval made before 1 January 1972**

**Column 1**

**Column 2**

**Column 3**

All solid particle emissions	Any trade, industry or process and any fuel burning equipment or industrial plant, other than industrial plant (not being a cold blast cupola) used for heating metals	400 milligrams of solid particles per cubic metre of the resulting gases
	Any industrial plant (not being a cold blast cupola) used for heating metals	250 milligrams of solid particles per cubic metre of the resulting gases

**Table B: Application for pollution control approval made on or after 1 January 1972**

<b>Column 1</b>	<b>Column 2</b>	<b>Column 3</b>
All solid particle emissions	Any trade, industry or process and any fuel burning equipment or industrial plant, other than industrial plant (not being a cold blast cupola) used for heating metals	250 milligrams of solid particles per cubic metre of the resulting gases
	Any industrial plant (not being a cold blast cupola) used for heating metals	200 milligrams of solid particles per cubic metre of the resulting gases

**Table C: Premises that become scheduled premises on or after 1 August 1997**

<b>Column 1</b>	<b>Column 2</b>	<b>Column 3</b>
All solid particle emissions	Any trade, industry or process, and any fuel burning equipment or industrial plant	100 milligrams of solid particles per cubic metre of the resulting gases

**14 Solid particle emissions from non-scheduled premises: section 19**

(1) For the purposes of section 19 (1) of the Act, the standard of concentration for solid particle emissions referred to in Column 1 of the appropriate Table to this clause by:

- (a) a trade, industry or process, or
- (b) fuel burning equipment or industrial plant,

referred to in Column 2 of that Table is the concentration set out in Column 3 of that Table, as measured in accordance with Test Method 15.

(2) Table A is the appropriate Table in relation to any trade, industry, process, fuel burning equipment or industrial plant:

- (a) that first came into operation before 1 August 1997, or
  - (b) that first came into operation on or after 1 August 1997 as a result of a development application made before that date.
- (3) Table B is the appropriate Table in relation to any trade, industry, process, fuel burning equipment or industrial plant that first came into operation on or after 1 August 1997 as a result of a development application made on or after that date.

**Table A: Operation commenced before 1 August 1997**

<b>Column 1</b>	<b>Column 2</b>	<b>Column 3</b>
All solid particle emissions	Any trade, industry or process and any fuel burning equipment or industrial plant	400 milligrams of solid particles per cubic metre of the resulting gases

**Table B: Operation commenced on or after 1 August 1997**

<b>Column 1</b>	<b>Column 2</b>	<b>Column 3</b>
All solid particle emissions	Any trade, industry or process and any fuel burning equipment or industrial plant	250 milligrams of solid particles per cubic metre of the resulting gases

## **Part 7 Smoke emission**

### **15 Smoke emissions from scheduled premises: section 15**

- (1) For the purposes of section 15 (1) of the Act, the standard of concentration for smoke emissions referred to in Column 1 of the appropriate Table to this clause by:
- (a) a trade, industry or process, or
  - (b) fuel burning equipment or industrial plant,
- referred to in Column 2 of that Table is the concentration indicated in Column 3 of that Table as Ringelmann 1, 2, or 3, as measured in accordance with Test Method 16.
- (2) Table A is the appropriate Table in relation to any trade, industry, process, fuel burning equipment or industrial plant in respect of which:
- (a) no pollution control approval has been granted, or
  - (b) a pollution control approval has been granted on the basis of an application made before 1 January 1972,
- other than any trade, industry, process, fuel burning equipment or industrial plant referred to in subclause (4).
- (3) Table B is the appropriate Table in relation to any trade, industry, process, fuel burning

equipment or industrial plant in respect of which a pollution control approval has been granted on the basis of an application made on or after 1 January 1972.

- (4) Table B is the appropriate Table in relation to any trade, industry, process, fuel burning equipment or industrial plant that first came into operation on or after the commencement of the *Protection of the Environment Operations Act 1997*.

**Table A: No pollution control approval or pollution control approval where application for approval made before 1 January 1972**

Column 1	Column 2	Column 3
All smoke emissions	Any solid fuel fired fuel burning equipment (except ceramic kilns) or industrial plant and any trade, industry or process in or in connection with which solid fuel is burnt	<p>A concentration no darker than Ringelmann 2, except that the concentration may be darker (but not so as to exceed Ringelmann 3):</p> <p>(a) for up to 20 minutes in any period of 24 hours, for lighting a boiler or incinerator from cold, or</p> <p>(b) for up to:</p> <p>(i) 10 minutes in any period of 8 hours (in the case of boilers burning up to one tonne of fuel per hour), or</p> <p>(ii) 20 minutes in any period of 8 hours (in the case of boilers burning more than one tonne but less than 5 tonnes of fuel per hour), or</p> <p>(iii) 30 minutes in any period of 8 hours (in the case of boilers burning more than 5 tonnes of fuel per hour),</p> <p>for blowing soot from a boiler,</p> <p>but only so long as all practicable means are employed to prevent or minimise the emission of air impurities</p>

<p>Any liquid or gas fired fuel burning equipment (except ceramic kilns) or industrial plant or any trade, industry or process in or in connection with which liquid or gas is burnt</p>	<p>A concentration no darker than Ringelmann 1, except that the concentration may be darker (but not so as to exceed Ringelmann 3) for marine vessels:</p> <p>(a) while approaching, leaving or manoeuvring at a berth, or</p> <p>(b) for up to 30 minutes in any period of 24 hours, for lighting a boiler,</p> <p>but only so long as all practicable means are employed to prevent or minimise the emission of air impurities</p>
<p>Ceramic kilns (other than those used for firing dark red or dark brown face bricks formed by dry press brick machines)</p>	<p>A concentration no darker than Ringelmann 2, except that the concentration may be darker (but not so as to exceed Ringelmann 3) for up to 10 minutes in any one hour, but only so long as all practicable means are employed to prevent or minimise the emission of air impurities</p>
<p>Ceramic kilns used for firing dark red or dark brown face bricks formed by dry press brick machines</p>	<p>A concentration no darker than Ringelmann 3</p>

**Table B: Application for pollution control approval made on or after 1 January 1972**

**Column 1**

**Column 2**

**Column 3**

All smoke emissions	Any trade, industry or process and any fuel burning equipment or industrial plant	<p>A concentration no darker than Ringelmann 1, except that the concentration may be darker (but not so as to exceed Ringelmann 3):</p> <p>(a) for marine vessels:</p> <p>(i) while approaching, leaving or manoeuvring at a berth, or</p> <p>(ii) for up to 10 minutes in any period of 8 hours, for lighting a boiler, and</p> <p>(b) in any other case (where the fuel is solid fuel), for up to 10 minutes in any period of 8 hours for lighting up or blowing soot,</p> <p>but only so long as all practicable means are employed to prevent or minimise the emission of air impurities</p>
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**16 Smoke emissions from non-scheduled premises: section 19**

- (1) For the purposes of section 19 (1) of the Act, the standard of concentration for smoke emissions referred to in Column 1 of the appropriate Table to this clause by:
- (a) a trade, industry or process, or
  - (b) fuel burning equipment or industrial plant,
- referred to in Column 2 of that Table is the concentration indicated in Column 3 of that Table as Ringelmann 1, 2, or 3, as measured in accordance with Test Method 16.
- (2) Table A is the appropriate Table in relation to any trade, industry, process, fuel burning equipment or industrial plant:
- (a) that first came into operation before 1 August 1997, or
  - (b) that first came into operation on or after 1 August 1997 as a result of a development application made before that date.
- (3) Table B is the appropriate Table in relation to any trade, industry, process, fuel burning equipment or industrial plant that first came into operation on or after 1 August 1997 as a result of a development application made on or after that date.



**Table A: Operation commenced before 1 August 1997**

Column 1	Column 2	Column 3
All smoke emissions	Any solid fuel fired fuel burning equipment or industrial plant and any trade, industry or process in or in connection with which solid fuel is burnt	<p>A concentration no darker than Ringelmann 2, except that the concentration may be darker (but not so as to exceed Ringelmann 3):</p> <p>(a) for up to 20 minutes in any period of 24 hours, for lighting a boiler or incinerator from cold, and</p> <p>(b) for up to 10 minutes in any period of 8 hours for blowing soot from a boiler,</p> <p>but only so long as all practicable means are employed to prevent or minimise the emission of air impurities</p>
	Any liquid or gas fuel fired fuel burning equipment or industrial plant or any trade, industry or process in or in connection with which liquid or gas fuel is burnt	A concentration no darker than Ringelmann 1

**Table B: Operation commenced on or after 1 August 1997**

Column 1	Column 2	Column 3
All smoke emissions	Any solid fuel fired fuel burning equipment or industrial plant and any trade, industry or process in or in connection with which solid fuel is burnt	<p>A concentration no darker than Ringelmann 1, except that the concentration may be darker (but not so as to exceed Ringelmann 3):</p> <p>(a) for up to 20 minutes in any period of 24 hours, for lighting a boiler or incinerator from cold, and</p> <p>(b) for up to 10 minutes in any period of 8 hours for blowing soot from a boiler,</p> <p>but only so long as all practicable means are employed to prevent or minimise the emission of air impurities</p>

Any liquid or gas fuel fired  
fuel burning equipment or  
industrial plant or any trade,  
industry or process in or in  
connection with which liquid  
or gas fuel is burnt

A concentration no darker than  
Ringelmann 1

## 16A Exemptions

- (1) The Authority may grant an exemption to a public authority from the operation of sections 15 and 19 of the Act and clauses 15 and 16 of this Regulation in so far as those provisions relate to the emission of smoke.
- (2) Such an exemption may only be given in relation to smoke emitted in the course of the following activities:
  - (a) research to improve safety in relation to the inflammability of materials and smoke reduction (including the development of testing procedures),
  - (b) training of fire-fighters and the rating of the effectiveness of fire extinguishers and fire suppression systems,
  - (c) testing undertaken to certify that manufactured or imported products comply with Australian Standards or International Standards and meet any legislative requirements placed on them.
- (3) The Authority is to grant an exemption under this clause by means of a written notice given to the public authority.
- (4) Before granting an exemption under this clause the Authority must:
  - (a) take into consideration the impact of the exemption on local and regional air quality and amenity, and
  - (b) be satisfied that it is not practicable for the public authority to comply with the relevant provisions of the Act and this Regulation by implementing operational changes to plant or practices.
- (5) An exemption:
  - (a) is subject to such conditions (if any) as are specified in the notice by which the exemption is granted, and
  - (b) may be amended or revoked by means of a notice given to the public authority, and
  - (c) unless sooner revoked by the Authority, remains in force for a period of 12 months (or such other period as is specified in the exemption) from the date it is granted.

(6) In this clause:

***Australian Standard*** means a standard published by Standards Australia.

***International Standard*** means a standard published by the International Organization for Standardization.

## **Part 8 Soot emission**

### **17 Soot emissions from scheduled premises: section 15**

For the purposes of section 15 (1) of the Act, the standard of concentration for soot emissions by:

- (a) any trade, industry or process, or
- (b) any fuel burning equipment or industrial plant,

is the concentration indicated as Shade 3, as measured in accordance with Test Method 17.

### **18 Soot emissions from non-scheduled premises: section 19**

For the purposes of section 19 (1) of the Act, the standard of concentration for soot emissions by:

- (a) any trade, industry or process, or
- (b) any fuel burning equipment or industrial plant,

is the concentration indicated as Shade 3, as measured in accordance with Test Method 17.

## **Part 9 Dioxins and furans**

### **19 Dioxin and furan emissions from municipal incinerator sites: section 15**

(1) This clause applies to the following municipal incinerator sites:

- (a) any municipal incinerator site in respect of which the Authority has, before 31 December 1996, informed the occupier in writing that, as from 1 August 1997, the site will have to comply with requirements similar or identical to those set out in the Table to this clause,
- (b) any premises that become a municipal incinerator site on or after 1 August 1997, other than premises in respect of which a development application has been made before that date to carry out development for the purposes of a municipal incinerator.

(2) For the purposes of section 15 (1) of the Act, the standard of concentration for

emissions of air impurities in the form of dioxins and furans is 0.1 nanograms per cubic metre, where:

- (a) the mass of dioxins and furans is measured, in accordance with Test Method 18, as the sum of all amounts of dioxins and furans referred to in Column 1 of the Table to this clause,
- (b) each amount referred to in paragraph (a) is multiplied by the relevant International Toxic Equivalence Factor set out in Column 2 of that Table.

(3) In this clause:

**municipal incinerator** means an incinerator that processes domestic waste (that is, waste arising from domestic premises), whether or not the incinerator also processes any other form of waste.

**municipal incinerator site** means scheduled premises containing a municipal incinerator.

**Table**

<b>Column 1</b>	<b>Column 2</b>
<b>Dioxins</b>	
2,3,7,8 tetrachlorodibenzodioxin (TCDD)	1.0
1,2,3,7,8 pentachlorodibenzodioxin (PeCDD)	0.5
1,2,3,4,7,8 hexachlorodibenzodioxin (HxCDD)	0.1
1,2,3,7,8,9 hexachlorodibenzodioxin (HxCDD)	0.1
1,2,3,6,7,8 hexachlorodibenzodioxin (HxCDD)	0.1
1,2,3,4,6,7,8 heptachlorodibenzodioxin (HpCDD)	0.01
octachlorodibenzodioxin (OCDD)	0.001
<b>Furans</b>	
2,3,7,8 tetrachlorodibenzofuran (TCDF)	0.1
2,3,4,7,8 pentachlorodibenzofuran (PeCDF)	0.5
1,2,3,7,8 pentachlorodibenzofuran (PeCDF)	0.05
1,2,3,4,7,8 hexachlorodibenzofuran (HxCDF)	0.1
1,2,3,6,7,8 hexachlorodibenzofuran (HxCDF)	0.1
2,3,4,6,7,8 hexachlorodibenzofuran (HxCDF)	0.1

1,2,3,7,8,9 hexachlorodibenzofuran (HxCDF)	0.1
1,2,3,4,6,7,8 heptachlorodibenzofuran (HpCDF)	0.01
1,2,3,4,7,8,9 heptachlorodibenzofuran (HpCDF)	0.01
octachlorodibenzofuran (OCDF)	0.001

## Part 10 Volatile organic liquids

### 20 Definitions

In this Part:

**delivery tank** means a tank mounted on a tank vehicle (not being the fuel tank of the vehicle).

**large loading plant** means industrial plant that is used for loading volatile organic liquid, at a rate of more than 30 megalitres per year, into the delivery tanks of large tank vehicles.

**large storage tank** means a storage tank having a capacity of 150 kilolitres or more.

**large tank vehicle** means a tank vehicle having one or more delivery tanks with a total capacity of more than 12 kilolitres.

**small storage tank** means a storage tank having a capacity of 8 kilolitres or more but less than 150 kilolitres.

**storage tank** means a tank that is installed on any premises (other than a vessel).

**tank** means a container, or an isolated section of a container, that is used or designed to be used for the storage of volatile organic liquid, but does not include anything that is designed to hold volatile organic liquid under pressure and to prevent the emission of any volatile organic liquid or volatile organic liquid vapour.

**tank vehicle** means a vehicle used or designed to be used for the transport of volatile organic liquid from one tank to another, whether or not the vehicle is moveable under its own power, but does not include a railway vehicle.

**volatile organic liquid** means:

- (a) crude oil, including crude shale oil and crude petroleum, or
- (b) petrol, gasoline or any other organic liquid or mixture of organic liquids suitable for use as fuel for internal combustion engines using spark ignition, or used as a major component of any such fuel, other than tractor vaporising oil, or
- (c) any liquid containing more than 50 per cent by volume of any (or a mixture of any) of

heptene, toluene, trichloroethylene or xylene.

## 20A Prescribed control equipment

- (1) The occupier of any premises must not, unless the person is exempted from the provisions of this clause by the Authority under section 284 of the *Protection of the Environment Operations Act 1997*, use or operate, or cause or allow to be used or operated, any fuel burning equipment or industrial plant in or on those premises unless that equipment or plant is fitted with the prescribed control equipment in accordance with this Part.
- (2) The occupier of any premises in or on which is installed any fuel burning equipment or industrial plant fitted with prescribed control equipment must, where specifications for the maintenance or operation of that fuel burning equipment, industrial plant or control equipment are prescribed by this Regulation, ensure that those specifications are complied with.
- (3) An occupier who contravenes this clause is guilty of an offence.

Maximum penalty:

- in the case of a corporation—400 penalty units, or
- in the case of an individual—200 penalty units.

## 21 Prescribed control equipment for large storage tanks

- (1) This clause applies to any large storage tank situated anywhere within the Sydney, Newcastle or Wollongong Metropolitan Area.
- (2) For the purposes of clause 20A of this Regulation, the following control equipment is the prescribed control equipment to be fitted to any large storage tank (referred to in this Regulation as **control equipment for large storage tanks**):
  - (a) a drainage system comprising a small sump or tundish fitted under each water draw-off valve and connected to a totally enclosed drain,
  - (b) if the volatile organic liquid stored in the tank has a vapour pressure of or below 75 kilopascals:
    - (i) a floating metal roof that, under normal operating conditions, floats on the surface of the liquid, or
    - (ii) a floating cover constructed of material impervious to vapour that, under normal operating conditions, floats on the surface of the liquid inside a fixed roof, or
    - (iii) a vapour disposal or recovery system of the kind referred to in subclause (6),

- (c) if the volatile organic liquid stored in the tank has a vapour pressure above 75 kilopascals, a vapour disposal or recovery system of the kind referred to in subclause (6).
- (3) Subclause (2) (a) does not apply in the case of tanks used for the storage of volatile organic liquid (other than crude petroleum) received by tank-to-tank transfer from other storage tanks.
- (4) A floating roof or cover referred to in subclause (2) (b) must be constructed so as to prevent the escape of vapour through the roof or cover and so that:
  - (a) vapour beneath the floating roof or cover is contained by skirt plates situated near the edges of the roof or cover and surrounding any openings in the roof or cover or by similar means, and
  - (b) the roof or cover is equipped with one or more closure seals to close the spaces between the roof or cover and the tank walls and between any openings in the roof or cover and any equipment passing through those openings, and
  - (c) seals on floating roofs are shielded from the weather, and
  - (d) weather-shields are moveable to permit proper inspection of seals.
- (5) For the purposes of clause 20A (2) of this Regulation, the level of volatile organic liquid in a large storage tank that is fitted with a floating roof or cover referred to in subclause (2) (b) must be maintained, during normal operating conditions, at a depth sufficient to prevent the supports of the floating roof or cover from resting on the floor of the tank.
- (6) A vapour disposal or recovery system referred to in subclause (2) (b) or (c) must be constructed so that the vapour emitted from the tank:
  - (a) is incinerated, so that the total mass of unburnt vapour emitted to the atmosphere does not exceed 1.5 grams per cubic metre of the gases resulting from the incineration process, or
  - (b) is recovered, so that the total mass of unrecovered vapour emitted to the atmosphere during any period of 4 hours does not exceed 110 milligrams per litre of volatile organic liquid passing into the tank during that period.
- (7) The total mass of unburnt vapour referred to in subclause (6) (a) is to be determined as set out in Test Method 19, the total mass of unrecovered vapour referred to in subclause (6) (b) is to be determined as set out in Test Method 20 and the calculation of the vapour pressure of volatile organic liquid stored in tanks is to be carried out in accordance with Test Method 21.

## 22 Prescribed control equipment for large loading plant

- (1) This clause applies to any large loading plant situated anywhere within the Sydney Metropolitan Area.
- (2) For the purposes of clause 20A of this Regulation, the following control equipment is the prescribed control equipment to be fitted to large loading plant (referred to in this Regulation as **control equipment for large loading plant**):
  - (a) a vapour collection system by which all vapour displaced from tanks during loading operations is collected and conveyed to a vapour recovery or disposal system through vapour lines having an internal diameter of not less than 65 per cent of the largest fill-line used for connection to the delivery tank,
  - (b) an interlock system that prevents the loading of a delivery tank unless the vapour collection system is first connected to that tank,
  - (c) fittings on all liquid and vapour lines that make vapour-tight connections with the respective mating fittings on the delivery tank and that close automatically when disconnected,
  - (d) a vapour recovery or disposal system of the kind referred to in subclause (4).
- (3) The interlock system referred to in subclause (2) (b) is taken not to be prescribed for the purposes of clause 20A of this Regulation if it forms part of industrial plant used only for loading delivery tanks that are themselves fitted with such an interlock system.
- (4) A vapour recovery or disposal system referred to in subclause (2) (d) must be constructed so that the vapour resulting from loading operations:
  - (a) is incinerated, so that the total mass of unburnt vapour emitted to the atmosphere does not exceed 1.5 grams per cubic metre of the gases resulting from the incineration process, or
  - (b) is recovered, so that the total mass of unrecovered vapour emitted to the atmosphere during any period of 4 hours does not exceed 110 milligrams per litre of volatile organic liquid passing out of the plant during that period.
- (5) The total mass of unburnt vapour referred to in subclause (4) (a) is to be determined as set out in Test Method 19 and the total mass of unrecovered vapour referred to in subclause (4) (b) is to be determined as set out in Test Method 20.

## 23 Prescribed control equipment for small storage tanks

- (1) This clause applies to any small storage tank situated anywhere within the Sydney Metropolitan Area other than the local government area of Hawkesbury.



- (2) For the purposes of clause 20A of this Regulation, the following control equipment is the prescribed control equipment to be fitted to a small storage tank (referred to in this Regulation as **control equipment for small storage tanks**):
- (a) a vapour transfer system by which all vapour displaced by the transfer of volatile organic liquid into the storage tank is returned to the delivery tank being unloaded by means of a vapour return line,
  - (b) a coupling on the vapour return line that makes a vapour-tight connection with the vapour return hose on the delivery tank and that closes automatically when disconnected,
  - (c) in the case of a tank that is filled by the operation of gravity, an overfill protection system designed to stop the flow of volatile organic liquid into the storage tank before there is insufficient space in that tank to receive the contents of the tank vehicle's transfer hose,
  - (d) a coupling on the storage tank's fill-pipe that makes a liquid-tight connection with the delivery tank's liquid transfer hose,
  - (e) in the case of a storage tank located above the ground, pressure vacuum valves on all atmospheric vents.
- (3) The vapour transfer system referred to in subclause (2) (a) may be used to serve more than one storage tank on the same premises.
- (4) A vapour return line referred to in subclause (2) (a) must be of vapour-tight construction and must have an internal diameter:
- (a) in the case of such part of the vapour return line as is upstream of the first fitting or change in direction from the tank:
    - (i) not less than 50 per cent of the internal diameter of the fill-pipe, or
    - (ii) in the case of a tank installed before 1 May 1982 and in which the vapour return line is taken from the atmospheric vent, as large as practicable having regard to the internal diameter of the existing vent connection, and
  - (b) in the case of such part of the vapour return line as is downstream of the first fitting or change in direction from the tank, not less than 65 per cent of the internal diameter of the fill-pipe.
- (5) The valves referred to in subclause (2) (e):
- (a) except as provided in paragraph (b), must be set to be closed when the pressure in the tank is between 15 kilopascals above, and 0.5 kilopascals below, ambient pressure, or

- (b) in the case of tanks installed before 1 May 1982, may be set to be closed when the pressure in the tank is between the design operating maximum pressure and the design operating maximum vacuum.
- (6) For the purposes of clause 20A (2) of this Regulation of the Act, a hatch, manhole or other cover on or associated with a storage tank fitted with the prescribed control equipment referred to in subclause (2) must not be opened if, in so doing, vapour would be likely to be emitted to the atmosphere, except:
- (a) in an emergency, or
  - (b) for the purpose of tank gauging or sampling through a dip hatch (when no liquid transfer hoses are connected to the tank or when any connected hoses are closed), or
  - (c) for the purpose of reasonable maintenance.

#### **24 Control equipment for large tank vehicles**

- (1) This clause applies to:
- (a) the loading of a large tank vehicle from large loading plant, and
  - (b) the unloading of a large tank vehicle into a small storage tank,
- where the loading or unloading takes place anywhere within the Sydney Metropolitan Area.
- (2) The owner of a tank vehicle must not use the tank vehicle, or allow the tank vehicle to be used, to load or unload volatile organic liquid unless the tank vehicle is fitted with the following control equipment (referred to in this Regulation as **control equipment for large tank vehicles**) and the equipment is maintained in an efficient condition:
- (a) a vapour handling system for the transfer between delivery tanks of vapour displaced during loading or unloading operations,
  - (b) an overfill protection device, located in the delivery tank, that is designed to stop the flow of volatile organic liquid into the tank as near as practicable to the level of minimum ullage,
  - (c) couplings on liquid transfer pipes and hoses on the tank vehicle that make a liquid-tight connection with the respective mating fittings and that, in the case of liquid transfer pipes, close automatically when disconnected,
  - (d) hatch covers on any openings that are required to be vapour-tight when closed,
  - (e) pressure vacuum valves on all atmospheric vents (except emergency vents) that are set to be closed when the pressure in the tank is between 15 kilopascals above, and 3 kilopascals below, ambient pressure, being valves that may be fitted

with a vent by-pass or pilot-bleed system if the maximum area for free venting is limited to 15 square millimetres.

Maximum penalty: 200 penalty units (in the case of a corporation) and 40 penalty units (in any other case).

- (3) The vapour handling system referred to in subclause (2) (a) must comply with the following requirements:
- (a) the delivery tank must be fitted with a vapour transfer valve connecting the tank, through a manifold if desired, to a vapour line coupling or permanently connected vapour hose,
  - (b) the vapour transfer valve:
    - (i) must be interlocked with the delivery valve, so as to be open whenever volatile organic liquid is being transferred to or from the tank, and
    - (ii) if the vapour return hose is not permanently connected to the delivery tank, must be interlocked with the vapour line coupling on the delivery tank, so as to be closed unless the vapour return hose is attached to that coupling,
  - (c) unless the delivery tank is fitted with a permanently connected vapour hose, the tank vehicle must carry a vapour return hose of vapour-tight construction, fitted to connect:
    - (i) at one end, to the vapour line coupling on the vehicle, and
    - (ii) at the other end, to a vapour return coupling at the liquid loading or unloading plant,
  - (d) the vapour line (including any vapour hose carried by the vehicle) must have an internal diameter of not less than 65 per cent of the internal diameter of the largest liquid transfer hose carried by the vehicle,
  - (e) couplings on vapour transfer hoses on the tank vehicle must make vapour-tight connections with the respective fittings on the vehicle.

## **25 Loading and unloading large tank vehicles**

- (1) This clause applies to:
- (a) the loading of a large tank vehicle from large loading plant, and
  - (b) the unloading of a large tank vehicle into a small storage tank,
- where the loading or unloading takes place anywhere within the Sydney Metropolitan Area.

- (2) While a tank vehicle is being loaded with volatile organic liquid from large loading plant, the person in charge of the vehicle must ensure that the delivery tank mounted on the vehicle is properly connected to the vapour collection system of that plant.

Maximum penalty: 200 penalty units (in the case of a corporation) and 40 penalty units (in any other case).

- (3) While a tank vehicle is being used to load volatile organic liquid into a small storage tank, the person in charge of the vehicle must ensure that:
- (a) before any such loading takes place, the vapour return hose is connected to the appropriate vapour line coupling on the tank vehicle (except in the case of a permanently connected hose) and to the appropriate vapour return coupling on or associated with the storage tank,
  - (b) the vapour return hose is not disconnected while volatile organic liquid is being loaded into the storage tank,
  - (c) the connection or disconnection of any hose is done in such a manner as to avoid or minimise spillage, and
  - (d) the liquid transfer hose is not disconnected from the storage tank until the hose is empty of liquid.

Maximum penalty: 200 penalty units (in the case of a corporation) and 40 penalty units (in any other case).

- (4) The person in charge of a tank vehicle must not, without reasonable excuse, leave open a hatch, manhole or other cover on any delivery tank mounted on the vehicle if to do so would be likely to result in vapour being emitted to the atmosphere.

Maximum penalty: 200 penalty units (in the case of a corporation) and 40 penalty units (in any other case).

## **26 Exemptions**

- (1) The occupier of any premises is exempt from the operation of clause 20A of this Regulation in relation to any industrial plant that is to be fitted with control equipment prescribed by this Part if:
- (a) the plant is fitted with control equipment that is approved by the Authority by notice in writing to the occupier, and
  - (b) the plant and control equipment are maintained and operated in such manner as the Authority specifies in that notice of approval.
- (2) The occupier of any premises is exempt from the operation of clause 20A of this Regulation in relation to small storage tanks if:

- (a) the Authority is satisfied that the volume of volatile organic liquid loaded into the storage tanks on those premises per year does not usually exceed 600 kilolitres, and
  - (b) the Authority grants an exemption from the operation of that clause by notice in writing to the occupier, and
  - (c) the occupier complies with such conditions as the Authority specifies in the exemption.
- (3) A person is exempt from the operation of clause 24 in relation to a large tank vehicle if:
- (a) the vehicle is fitted with control equipment that is approved by the Authority by notice in writing to the owner of the vehicle, and
  - (b) the vehicle and control equipment are maintained and operated in such manner as the Authority specifies in that notice of approval.
- (4) The Authority may vary or revoke an approval or exemption under this clause at any time by notice in writing served on the holder of the approval or exemption.

## **Part 11 Miscellaneous**

### **27-30 (Repealed)**

#### **31 Amendment of Clean Air Regulations 1964**

- (1) The *Clean Air Regulations 1964* are amended by omitting Parts 2, 3, 4 and 6.
- (2) Any act, matter or thing that, immediately before the repeal of a provision referred to in subclause (1), had effect under that provision continues to have effect under this Regulation.
- (3) A reference in any licence in force under the *Pollution Control Act 1970* to a Test Method set out in the *Clean Air Regulations 1964* in relation to a provision referred to in subclause (1) is taken to be a reference to the corresponding Test Method set out in the Approved Methods Publication.
- (4) Words and expressions used in this Regulation, that were defined in the Act before its repeal, continue to have the meanings that were set out in the Act unless the contrary intention appears.