



Resource Management (National Environmental Standards Relating to Certain Air Pollutants, Dioxins, and Other Toxics) Regulations 2004

Silvia Cartwright, Governor-General

Order in Council

At Wellington this 6th day of September 2004

Present:

Her Excellency the Governor-General in Council

Pursuant to section 43 of the Resource Management Act 1991, Her Excellency the Governor-General, acting on the advice and with the consent of the Executive Council (given on the recommendation of the Minister for the Environment after consultation in accordance with section 44 of that Act), makes the following regulations.

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Certain Air Pollutants, Dioxins, and Other
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Regulations

1 Title

These regulations are the Resource Management (National Environmental Standards Relating to Certain Air Pollutants, Dioxins, and Other Toxics) Regulations 2004.

2 Commencement

- (1) Regulation 11 comes into force on 1 October 2006.
- (2) Regulations 13 to 24 come into force on 1 September 2005.
- (3) The rest of these regulations come into force on 8 October 2004.

3 Interpretation

- (1) In these regulations, unless the context otherwise requires,—
Act means the Resource Management Act 1991
airshed means an area to which regulation 14 applies
ambient air quality standard means the standard prescribed by regulation 13(1)

backup flare means a flare that is designed to burn only when the principal flare to which it relates is not operating

Basel Convention means the Convention of the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, done at Basel on 22 March 1989

cleanfill—

- (a) means a landfill that accepts only material that, when buried or placed, will not have an adverse effect on the environment; but
- (b) does not include a landfill that contains 5% or more (by weight) putrescible matter

film—

- (a) means a cinematograph film, and any other material record of visual moving images that is capable of being used for the subsequent display of those images; but
- (b) excludes—
 - (i) anything that was not created primarily for showing at a cinema, broadcasting on television, or using for educational purposes; and
 - (ii) home movies

hazardous waste means waste—

- (a) that has one or more of the characteristics in Annex III to the Basel Convention; or
- (b) that—
 - (i) belongs to one or more categories in Annex I of the Basel Convention; but
 - (ii) does not have any of the characteristics in Annex III to that Convention

health care institution has the same meaning as in section 2(1) of the Health and Disability Commissioner Act 1994

high temperature hazardous waste incinerator means an incinerator that is designed and operated principally for burning hazardous waste at a temperature greater than 850°C as measured—

- (a) near the inner wall of the incinerator; or
- (b) at another point in the combustion chamber where the temperature is likely to represent the temperature in the incinerator

landfill means a site where waste is disposed of by burying it, or placing it upon land or other waste

multifuel heater means a domestic heating appliance designed to burn more than one type of solid fuel

oil—

- (a) means petroleum in any form; and
- (b) includes crude oil, fuel oil sludge, oil refuse, and refined oil products (for example, diesel fuel, kerosene, and motor gasoline)

PM₁₀ means particulate matter that is—

- (a) less than 10 microns in aerodynamic diameter; and
- (b) measured in accordance with the United States Code of Federal Regulations, Title 40—Protection of Environment, Volume 2, Part 50, Appendix J — Reference method for the determination of particulate matter as PM₁₀ in the atmosphere

solid fuel means a solid substance that releases useable energy when burnt (for example, wood and coal)

waste means substances or objects that are disposed of or intended to be disposed of

woodburner—

- (a) means a domestic heating appliance that burns wood; but
- (b) does not include—
 - (i) an open fire; or
 - (ii) a multifuel heater, a pellet heater, or a coal burning heater; or
 - (iii) a stove that is—
 - (A) designed and used for cooking; and
 - (B) heated by burning wood.

- (2) A term or expression that is defined in the Act and used, but not defined, in these regulations has the same meaning as in the Act.

*Prohibitions and restrictions on discharges from
certain activities*

4 Prohibition on discharges from certain activities

A discharge of a contaminant to air from an activity specified in any of regulations 6 to 12 is prohibited, except to the extent that the regulation provides otherwise.

5 Prohibition on granting of resource consents for certain activities

- (1) A resource consent may not be granted for a discharge of a contaminant to air from an activity specified in any of regulations 6 to 12, except to the extent that the regulation provides otherwise.
- (2) If a resource consent is granted for an activity, the activity is a discretionary activity for the purposes of the Act.

6 Lighting of fires and burning of waste at landfill

- (1) The lighting of fires and the burning of waste at a landfill are prohibited.
- (2) Subclause (1) does not apply if—
 - (a) the lighting of a fire is to control gas formed at the landfill; and
 - (b) the landfill complies with the requirements of regulations 25 to 27.

7 Burning of tyres

- (1) The burning of tyres is prohibited.
- (2) Subclause (1) does not apply if the tyres are burnt at industrial and trade premises that have—
 - (a) a resource consent for the discharge produced; and
 - (b) emission control equipment that is designed and operated to minimise emissions of dioxins and other toxics from the process.

8 Burning of bitumen

The burning of bitumen on a road is prohibited.

9 Burning of coated wire

- (1) The burning of wire coated with any material is prohibited.
- (2) Subclause (1) does not apply if the wire is burnt at industrial and trade premises that have—
 - (a) a resource consent for the discharge produced; and
 - (b) emission control equipment that is designed and operated to minimise emissions of dioxins and other toxics from the process.

10 Burning of oil

- (1) The burning of oil in the open air is prohibited.
- (2) Subclause (1) does not apply if—
 - (a) the burning is for creating special smoke and fire effects for the purposes of producing films; or
 - (b) the burning is for the purpose of training people to put out fires; or
 - (c) the burning is for the purpose of protecting crops from frost, and the person burning the oil has a resource consent for the discharge produced from that particular site.
- (3) For the avoidance of doubt, subclause (1) does not apply if a discharge from the burning of oil is directed to the open air by a stack, chimney, or exhaust pipe (for example, emissions from a motor vehicle).

11 Incinerators at schools and healthcare institutions

The operation of an incinerator at a school or a healthcare institution is prohibited unless a resource consent has been granted for the discharge produced.

12 High-temperature hazardous waste incinerators

- (1) The operation of a high-temperature hazardous waste incinerator is prohibited.
- (2) Subclause (1) does not apply if the incinerator—
 - (a) is a crematorium; or
 - (b) is operating at the following places:
 - (i) 89 Paritutu Road, New Plymouth;
 - (ii) 816 Wairakei Road, Christchurch;

- (iii) Hape Drive (perimeter road), Auckland International Airport, Auckland.

Ambient air quality standards for contaminants

13 Ambient air quality standards

- (1) The ambient air quality standard for a contaminant listed in the first column of the table in Schedule 1 is that the concentration of the contaminant must not exceed its threshold concentration except to the extent and in the circumstances (if any) listed in the third column of that table.
- (2) For the purposes of these regulations, an ambient air quality standard is breached if the concentration of the contaminant concerned exceeds its threshold concentration otherwise than to the extent and in the circumstances (if any) listed in the third column of the table in Schedule 1.
- (3) For the purposes of this regulation and Schedule 1, **threshold concentration** means the concentration of the contaminant listed in the second column of the table in Schedule 1 calculated over the time interval specified in that column.

14 Application of standards

The ambient air quality standard for a contaminant applies at any place—

- (a) that is in a region or part of a region specified by the Minister by notice in the *Gazette*; and
- (b) that is in the open air; and
- (c) where people are likely to be exposed to the contaminant.

15 Regional council must monitor air quality if standard breached

If it is likely that the ambient air quality standard for a contaminant will be breached in an airshed, the regional council must—

- (a) monitor the airshed in relation to that contaminant; and
- (b) conduct the monitoring—
- (i) in that part of the airshed where—

- (A) there are one or more people; and
 - (B) the standard is breached by the greatest margin or the standard is breached the most frequently, whichever is the most likely; and
- (ii) in accordance with the relevant method listed in Schedule 2.

16 Regional council must give public notice if standard breached

- (1) A regional council must give public notice if the ambient air quality standard for a contaminant is breached in an airshed in its region.
- (2) The notice must—
- (a) be given periodically, at least once a month, until the standard is no longer being breached; and
 - (b) be given in accordance with the Act; and
 - (c) include—
 - (i) the name of the contaminant to which the notice relates; and
 - (ii) the time and place at which the standard was breached; and
 - (iii) the extent to which the standard was breached.

Resource consents for discharges of PM₁₀

17 Resource consents for PM₁₀ discharges before 1 September 2013 if concentration in airshed breaches standard

- (1) This regulation applies to an application for a resource consent to discharge PM₁₀ into an airshed where the concentration of PM₁₀ in the airshed already breaches its ambient air quality standard.
- (2) A consent authority must decline an application for a resource consent to which subclause (1) applies if the discharge to be permitted by the resource consent is likely to cause, at any time, the concentration of PM₁₀ in the airshed to be above the straight line path.

- (3) For the purposes of subclause (2), **straight line path** means a straight line that—
- (a) starts on the y axis of a graph at a point representing the extent to which the concentration of PM₁₀ in the airshed breaches its ambient air quality standard at 1 September 2005; and
 - (b) ends on the x axis of the graph at a point representing the ambient air quality standard for PM₁₀ in the airshed at 1 September 2013.

18 Resource consents for PM₁₀ discharges before 1 September 2013 if concentration in airshed does not breach standard

- (1) This regulation applies to an application for a resource consent to discharge PM₁₀ into an airshed—
- (a) where the concentration of PM₁₀ in the airshed does not breach its ambient air quality standard; and
 - (b) if the application is made before 1 September 2013.
- (2) A consent authority must decline an application for a resource consent to which subclause (1) applies if the discharge to be permitted by the resource consent is likely, at any time, to cause the airshed to exceed the ambient air quality standard for PM₁₀.

19 Resource consents for PM₁₀ discharges after 31 August 2013

After 31 August 2013, no resource consent to discharge PM₁₀ into an airshed may be granted if—

- (a) the concentration of PM₁₀ in the airshed breaches its ambient air quality standard; or
- (b) the granting of the resource consent is likely, at any time, to cause the concentration of PM₁₀ in the airshed to breach its ambient air quality standard.

Resource consents for discharges of other contaminants

20 Resource consents for discharge of carbon monoxide, nitrogen oxide, and ozone

A consent authority must decline an application for a resource consent to discharge carbon monoxide, nitrogen oxide, or

ozone into air if the discharge to be permitted by the resource consent—

- (a) is likely, at any time, to cause the concentration of that gas in the airshed to breach its ambient air quality standard; and
- (b) is likely to be a principal source of that gas in the airshed.

21 Resource consents for discharge of sulphur dioxide

A consent authority must decline an application for a resource consent to discharge sulphur dioxide into air if the discharge to be permitted by the resource consent is likely, at any time, to cause the concentration of sulphur dioxide in the airshed to breach its ambient air quality standard.

Wood burners

22 Discharge from woodburners installed on certain properties after 1 September 2005 prohibited

- (1) The discharge of particles to air from a woodburner installed after 1 September 2005 in a building on a property with an allotment size of less than 2 hectares is prohibited.
- (2) Subclause (1) does not apply if the discharge from the woodburner complies with—
 - (a) the design standard in regulation 23; and
 - (b) the thermal efficiency standard in regulation 24.

23 Design standard

- (1) The design standard for a woodburner is a discharge of less than 1.5 gram of particles for each kilogram of dry wood burnt.
- (2) The discharge must be measured in accordance with the method specified in Australian/New Zealand Standard AS/NZS 4013:1999, Domestic solid fuel burning appliances—Method for determination of flue gas emissions.

24 Thermal efficiency standard

- (1) The thermal efficiency standard for a woodburner—

- (a) is the ratio of useable heat energy output to energy input (**thermal efficiency**); and
 - (b) must be not less than 65%.
- (2) The thermal efficiency must be calculated in accordance with the method specified in Australian/New Zealand Standard AS/NZS 4012:1999, Domestic solid fuel burning appliances—Method for determination of power output and efficiency.

Control of greenhouse gas emissions at landfills

25 Application of regulations 26 and 27

- (1) Regulations 26 and 27 apply to a landfill if—
- (a) the landfill—
 - (i) has a total capacity of not less than 1 million tonnes; and
 - (ii) contains not less than 200 000 tonnes of waste; and
 - (iii) is or is likely to be accepting waste; and
 - (b) the waste in or to be included in the landfill is likely to consist of 5% or more (by weight) of matter that is putrescible or biodegradable.
- (2) However, regulations 26 and 27 do not apply to a landfill until 8 October 2007 if the landfill—
- (a) has a total capacity of not less than 1 million tonnes of waste; and
 - (b) on 8 October 2004—
 - (i) contains not less than 200 000 tonnes of waste; and
 - (ii) is accepting waste; and
 - (c) does not operate a gas collection system.
- (3) Regulations 26 and 27 do not apply to a cleanfill.

26 Control of gas

- (1) No person may allow the discharge of gas to air from a landfill.
- (2) Subclause (1) does not apply if the landfill has a system for the collection of gas from the landfill—

- (a) that is designed and operated to ensure that any discharge of gas from the surface of the landfill does not exceed 5 000 parts of methane per million parts of air; and
- (b) in which the gas is—
 - (i) flared in accordance with regulation 27; or
 - (ii) used as a fuel or for generating electricity.

27 Flaring of gas

- (1) If gas collected at a landfill is destroyed by flaring,—
 - (a) the system for the principal flare or flares must—
 - (i) comply with the requirements in subclause (2); or
 - (ii) achieve at least the same effect as the system in subclause (2); and
 - (b) the system for the backup flare must—
 - (i) comply with the requirements in subclause (3); or
 - (ii) achieve at least the same effect as the system in subclause (3).
- (2) The system for a principal flare must—
 - (a) have a flame arrestor; and
 - (b) have an automatic backflow prevention device, or an equivalent device, between the principal flare and the landfill; and
 - (c) have an automatic isolation system that ensures that, if the flame is lost, no significant discharge of unburnt gas from the flare occurs; and
 - (d) have a continuous automatic ignition system; and
 - (e) have a design that achieves a minimum flue gas retention time of 0.5 seconds; and
 - (f) be designed and operated so that gas is burned at a temperature of at least 750°C; and
 - (g) have a permanent temperature indicator; and
 - (h) have adequate sampling ports to enable emission testing to be undertaken; and
 - (i) provide for safe access to sampling ports while any emission tests are being undertaken.
- (3) The system for a backup flare must have—
 - (a) a flame arrestor; and

- (b) an automatic backflow prevention device, or an equivalent device, between the backup flare and the landfill; and
 - (c) an automatic isolation system that ensures that, if the flame is lost, no significant discharge of unburnt gas from the flare occurs; and
 - (d) a continuous automatic ignition system.
- (4) A principal flare must be operated at all times unless it has malfunctioned or is shut down for maintenance.
- (5) A backup flare must be operated if, and only if, a principal flare is not operating.
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Schedule 1

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Ambient air quality standards for contaminants

In the following table,—

1-hour mean—

- (a) means a mean calculated every hour on the hour for the preceding hour; and
- (b) in relation to a contaminant at a particular location for a particular hour, means the mean of not more than 10-minute means, collected not less than once every 10 seconds, for the contaminant at that location during that hour

24-hour mean—

- (a) means a mean calculated every 24 hours at midnight for the preceding 24 hours; and
- (b) in relation to a contaminant at a particular location for a particular 24-hour period, means—
 - (i) the mean level at which the contaminant is recorded in the air, by continuous sampling of the air at that location, throughout that 24-hour period; or
 - (ii) the mean of the 1-hour means for that contaminant at that location for the preceding 24 hours

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running 8-hour mean—

- (a) means a mean calculated every hour on the hour for that hour and the preceding 7 hours to give 1 running 8-hour mean per hour; and
- (b) in relation to a contaminant at a particular location for a particular hour, means the mean of the 1-hour means for that contaminant at that location for that hour and the preceding 7 hours.

Contaminant	Threshold concentration	Permissible excess
Carbon monoxide	10 milligrams per cubic metre expressed as a running 8-hour mean	One 8-hour period in a 12-month period
Nitrogen dioxide	200 micrograms per cubic metre expressed as a 1-hour mean	9 hours in a 12-month period
Ozone	150 micrograms per cubic metre expressed as a 1-hour mean	Not to be exceeded at any time
PM ₁₀	50 micrograms per cubic metre expressed as a 24-hour mean	One 24-hour period in a 12-month period
Sulphur dioxide	350 micrograms per cubic metre expressed as a 1-hour mean	9 hours in a 12-month period
	570 micrograms per cubic metre expressed as a 1-hour mean	Not to be exceeded at any time

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**Schedule 2
Monitoring methods for ambient air
quality standards**

Contaminant	Monitoring method
Carbon monoxide	Australian Standard AS 3580.7.1:1992, Methods for sampling and analysis of ambient air—Determination of carbon monoxide—Direct-reading instrumental method
Nitrogen dioxide	Australian Standard AS 3580.5.1:1993, Methods for sampling and analysis of ambient air—Determination of oxides of nitrogen—Chemiluminescence method
Ozone	Australian Standard AS 3580.6.1:1990, Methods for sampling and analysis of ambient air—Determination of ozone—Direct-reading instrumental method.
PM ₁₀	United States Code of Federal Regulations, Title 40—Protection of Environment, Volume 2, Part 50, Appendix J—Reference method for the determination of particulate matter as PM ₁₀ in the atmosphere; or Australian/New Zealand Standard AS/NZS 3580.9.6:2003, Methods for sampling and analysis of ambient air—Determination of suspended particulate matter—PM ₁₀ high volume sampler with size-selective inlet—Gravimetric method

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Explanatory note

Contaminant	Monitoring method
Sulphur dioxide	Australian Standard AS 3580.4.1:1990, Methods for sampling and analysis of ambient air—Determination of sulphur dioxide—Direct-reading instrumental method

Martin Bell,
Acting for Clerk of the Executive Council.

Explanatory note

This note is not part of the regulations, but is intended to indicate their general effect.

These regulations are the Resource Management (National Environmental Standards Relating to Certain Air Pollutants, Dioxins, and Other Toxics) Regulations 2004. The purpose of the regulations is to provide a guaranteed level of protection to people in New Zealand from certain contaminants in the air. The regulations prescribe—

- standards and prohibitions for various activities that discharge dioxins and other toxics into the air; and
- standards for air quality in relation to certain contaminants; and
- standards and controls on emissions from domestic wood-burners (including a minimum thermal efficiency requirement); and
- controls on greenhouse gas emissions from landfills.

Regulation 11, which relates to the use of incinerators at schools and healthcare institutions, comes into force on 1 October 2006. *Regulations 13 to 24*, which relate to the contaminants listed in the *first column of the table in Schedule 1*, and emissions from woodburners, come into force on 1 September 2005. The rest of the regulations come into force on 8 October 2004.

Regulation 4 prohibits a discharge to air from any activity specified in *regulations 6 to 12* except to the extent that the regulation provides otherwise. *Regulation 5* prohibits the granting of a resource consent for a discharge of a contaminant to air from any activity specified in *regulations 6 to 12*, except to the extent that the regulation provides otherwise. Under *regulation 5(2)*, if a resource consent

is granted for an activity, the activity is a discretionary activity for the purposes of the Resource Management Act 1991.

Regulations 13 to 21 deal with ambient air quality standards for carbon monoxide, nitrogen dioxide, ozone, particulate matter that is less than 10 microns in aerodynamic diameter (**PM₁₀**), and sulphur dioxide. The air quality standards are prescribed in *regulation 13(1)* by reference to the permissible concentrations of the contaminants in the *second column of the table in Schedule 1*, calculated over the time interval specified in that column, and the permissible excesses of the contaminants in the *third column of that table*. The standards apply in any airshed, being a place—

- that is in a region or part of a region specified by the Minister by notice in the *Gazette*; and
- that is in the open air; and
- where people are likely to be exposed to the contaminant.

If the standard for a contaminant is likely to be breached in an airshed, the regional council must—

- monitor the airshed in relation to the contaminant; and
- give public notice of the breach.

Regulations 17 to 19 relate to discharges of PM₁₀. The regulations provide for a staged implementation until 1 September 2013.

Regulations 22 to 24 relate to the discharge of particles to air from woodburners. After 1 September 2005, for woodburners installed in buildings on properties with an allotment size of less than 2 hectares, such discharges are prohibited unless certain design and thermal efficiency standards are met.

Regulations 25 to 27 relate to the control of greenhouse gas emissions at landfills, including the use of flaring systems to destroy the emissions.

Issued under the authority of the Acts and Regulations Publication Act 1989.

Date of notification in *Gazette*: 9 September 2004.

These regulations are administered in the Ministry for the Environment.
