



Version 9.3
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PROPOSED

Plan Change 13 (Air Quality)

to the Regional Natural Resources Plan

APPEALS VERSION

Clear Copy

This version incorporates the decisions on submissions and further submissions made by the Bay of Plenty Regional Council.

Appeals: Provisions subject to appeal are highlighted in yellow.

Note: additions to provisions requested by appellants are not shown

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AQ Air Quality

He tapu te hā – the breath is sacred.

This chapter of the regional plan provides policies and rules to manage the discharge of *contaminants* to air from **anthropogenic** sources. **Anthropogenic** means created by or caused by humans. **Anthropogenic** discharges include odour, dust, **particulates**, smoke and spray which come from a variety of human activities. Natural sources of *contaminants* such as pollen, and gas and odour discharges from **geothermal fields** or volcanoes, are not managed by this regional plan.

Other than the adverse *effects* on ambient or local air quality, this regional plan does not address greenhouse gases or climate change. Nor does the regional plan take into account indoor air quality (for example in workplace buildings) and it does not address health and safety issues related to air quality on work sites or in private homes as these matters are covered by other legislation.

Terms in this chapter that are defined in the Definition of Terms are highlighted in bold. Terms defined in the Act, in other Acts of Parliament, or in national regulations, that have been included in the Definition of Terms for information only, are shown in italics.

Objectives

- AQ O1 Protect air from adverse effects — Te tiaki i te hau mai i ngā pānga kino**
Protection of the mauri of air and human health from adverse *effects* of **anthropogenic** *contaminant* discharges to air.
- AQ O2 Ambient air quality — Te pai o te hau**
The region's **ambient air** quality meets the National Environmental Standards for Air Quality (2004) (or its amendment or replacement).
- AQ O3 Local air quality — Te pai o te hau o te rohe**
Sustainable management of discharges of *contaminants* to air according to their adverse *effects* on human health, cultural values, amenity values and the **receiving environment**.

Policies

- AQ P1 Classification of activities — Te wehewehenga o ngā mahinga**
Manage the discharge of *contaminants* to air **according to the following**:
- (a) Provide for the discharge of *contaminants* to air by permitting discharges from activities where the discharge can be suitably managed with general conditions to avoid, remedy or mitigate any adverse *effects* of the discharge.
 - (b) **Classify** all other discharges where (a) does not apply, as controlled, restricted discretionary, discretionary, or non-complying activities.

AQ P2 Hazardous substances — Ngā matū mōrearea

Seek to avoid adverse *effects* from discharges of **hazardous substances** and hazardous air pollutants to air and where avoidance is not practicable, remedy or mitigate the adverse *effects* of the discharge using the *best practicable option*.

AQ P3 Management of discharges — Te whakahaere i ngā tukunga

Activities that discharge *contaminants* to air must be managed, including by use of the *best practicable option*, to:

- (a) safeguard the life supporting capacity of the air, protect human health, and avoid, remedy or mitigate adverse *effects* on cultural values, amenity values, and the *environment*
- (b) **avoid** the discharge of *contaminants* at a rate or volume that may cause an exceedance or breach of the **ambient air** quality standards of the National Environmental Standards for Air Quality (or its replacement or amendment).
- (c) **avoid** reduction in visibility where it may cause adverse *effects* on vehicle, aircraft, or *ship* safety
- (d) avoid, remedy or mitigate the discharge of *contaminants* that may cause adverse *effects* on regionally significant **infrastructure/industry**

AQ P4 Matters to consider — Ngā take hei whiriwhiri

Have particular regard to the following matters when considering the acceptability of any discharge of *contaminants* to air:

- (a) The proximity of **sensitive areas** to the discharge including the *effect* of new activities discharging *contaminants* into air near established **sensitive areas**.
- (b) Areas where the discharge may cause an exceedance or breach of the **ambient air** quality standards of the National Environmental Standards for Air Quality or exceed the Health-based Guideline Values in Table 1 of the Ambient Air Quality Guidelines (or their replacements or amendments).
- (c) Adverse *effects* on air quality values identified in the relevant iwi and hapū resource management plans during assessments of resource consent applications.
- (d) The *effect* of the prevailing weather conditions, including rainfall, wind speed and wind direction.
- (e) The *effect* of the discharge on human health, cultural values, amenity values, the *environment*, and regionally significant **infrastructure**.
- (f) Cumulative *effects*.
- (g) Whether a change to an activity expressly allowed by an existing resource consent will cause a net increase of **particulates** into an **airshed** in breach of the ambient air quality standard for **particulates** of the National Environmental Standards for Air Quality.
- (h) The operational requirements and locational constraints relevant to the discharge and/or activity.
- (i) Any other recognised air quality guidelines or standards (not listed) that are appropriate to the discharge.
- (j) The FIDOL factors (frequency, intensity, duration, offensiveness, location) when determining adverse *effects* in relation to odour and dust discharges.
- (k) The investment of existing **infrastructure** that mitigates adverse *effects* of discharges of *contaminants* to air.

AQ P5 Open burning — Te tahutahu ahi

Manage **open burning** by:

- (a) avoiding the discharge of *contaminants* to air from **open burning** within 100 metres of any neighbouring **dwelling house**, except where carried out as part of a **recreational/cultural** activity, provided the burning is managed to minimise production of noxious or dangerous, offensive or objectionable discharges
- (b) permitting **open burning**:
 - (i) provided the burning is managed to minimise production of noxious or dangerous, offensive or objectionable discharges
 - (ii) of animal carcasses and/or vegetative material burned in accordance with quarantine or disease control requirements
 - (iii) for the purposes of firefighting research or training.

AQ P6 Solid fuel burners — Ngā pāka ahi

Avoid significant adverse *effects* on the *environment* from the operation of **solid fuel burners** installed in **dwelling houses** or buildings by avoiding:

- (a) excessive discharge of **particulates** (eg. caused by burning wet wood or restricting oxygen flow to the fire)
- (b) any discharge that is noxious or dangerous, offensive or objectionable (eg. burning painted or **treated timber** or *waste*).

AQ P7 Solid fuel burners in Rotorua Airshed — Ngā pāka ahi i te Takiwā Hau o Rotorua

Avoid discharges of **particulates** to air from certain **solid fuel burners** in the **Rotorua Airshed**, in particular discharges from:

- (a) new **solid fuel burners**, except **pellet burners**, replacement low emissions **woodburners/ultra-low emission burners**, and new **woodburners/ultra-low emission burners** where an **offset** is provided
- (b) **indoor open fires, coal burners, multifuel burners**, and **woodburners** installed before September 2005
- (c) **solid fuel burners** that have been **refurbished** since their installation
- (d) **solid fuel burners** used or designed for use other than as a **space heater** except where exceptional circumstances apply.

AQ P8 Agrichemical spraying — Te tōrehu matū ahuwheua

Agrichemical sprayers will manage adverse *effects* on human health and the *environment* by:

- (a) avoiding spray drift beyond the boundary of the **subject property** and into non target *water bodies* where reasonably practicable
- (b) mitigating *effects* particularly on **sensitive areas** where avoidance of spray drift is not possible
- (c) managing **agrichemical** spraying activities according to the risk of spray drift becoming noxious or dangerous, offensive or objectionable
- (d) encouraging best practice to manage potential adverse *effects* on air quality.

AQ P9 Fumigation for quarantine application or pre-shipment application — Auahina ki te paitini mō te tonu taratahi, tonu utanga-tōmua rānei

Protect human health and the *environment* from adverse *effects* from use of fumigants for **quarantine application** or **pre-shipment application** by:

- (a) enforcing the *best practicable option* for use of the fumigant, including via the use of **effective recapture** technology of fumigant gases, the use of safer fumigants, or alternative methods
- (b) ensuring compliance with relevant exposure levels and management regime set by the New Zealand Environmental Protection Authority to protect human health
- (c) having particular regard to protecting the health of persons in **sensitive areas** from fumigant exposure.

AQ P10 Offsets in Rotorua Airshed — Ngā whakatautika i te Takiwā Hau o Rotorua

Any **offsets** required in the **Rotorua Airshed** by Regulation 17 of the National Environmental Standards for Air Quality must:

- (a) be expressed in kilograms per year and calculated using annual mass emission rates based on the maximum consented discharge rate
- (b) be based on quantifiable emissions reduced from another source or sources that can be shown to have occurred, either by measurement, monitoring or other robust means
- (c) permanently remove the emissions used as **offsets** from the **Rotorua Airshed**
- (d) be located within the **Rotorua Airshed** or where emissions can be shown to contribute to the **Rotorua Airshed**
- (e) be carried out as close as practicable to where the *effects* of the emissions being **offset** may occur
- (f) be above and beyond any emissions decrease that would otherwise occur or would otherwise be required by the Regional Council
- (g) assume that all **TSP** is **PM₁₀** unless demonstrated otherwise
- (h) treat all **PM₁₀** as equal, having the same health *effects* irrespective of the source of **PM₁₀**
- (i) be effective before any emission from the proposed activity occurs
- (j) use the emission factors set out in Table AQ1 for each **solid fuel burner** type, where domestic sources are selected to provide reductions of emissions unless alternative emission factors for domestic sources have been determined based on robust evidence consisting of, but not limited to, actual measurements based on a suitable methodology.

Table AQ1 Emission factors for domestic sources

Source ¹	PM ₁₀ Emission Factor Grams per kilogram (g/kg*)	Annual Fuel Use Tonnes per year	PM ₁₀ Annual Emission Kilograms per year	Number of solid fuel burners to equal 1 tonne per year of PM ₁₀
Pre-2005 woodburners	10	2.5	25	40
Post-2005 (NESAQ compliant) solid fuel burners	4.5	2.5	11	91
Multifuel burners (wood)	10	2.5	25	40
Multifuel burners (coal)	19	1.8	34.2	29
Pellet burners	1.4	1.0	1.4	714

*Wet weight

Rules

Rules in this chapter apply to the management of discharges of *contaminants* to air from sources within the Bay of Plenty Region, including the *Coastal Marine Area*.

AQ R1 General activities – Permitted — Ngā mahinga noa – E whakaaehia ana

Any discharge of *contaminants* into air which is not subject to any other rule in this regional plan and excluding the discharge of dust to air associated with a plantation forestry activity, is a permitted activity provided the following conditions are complied with:

- (a) The discharge must not be noxious or dangerous, offensive or objectionable beyond the boundary of the **subject property** or into any *water body*.
- (b) The discharge of smoke or water vapour must not adversely affect the safety of any vehicle, aircraft, or *ship*.

Advice Note - Discharges of dust into air associated with activities within a plantation forestry activity are managed by the National Environment Standards for Plantation Forestry (2017). The plantation forestry activities are as listed in subparts 1-9 of the National Environment Standards for Plantation Forestry and do not include discharges or from roads or tracks managed by local authorities, the Department of Conservation or the New Zealand Transport Agency.

AQ R2 General activities – Discretionary — Ngā mahinga noa – Ka whiriwhiriha

Any discharge of *contaminants* into air that cannot comply with any permitted activity rule, and is not specifically addressed by any other rule of this Air Quality chapter, is a discretionary activity.

¹ Emission factors based on *Rotorua Domestic Heating Survey* (2005) and the Ministry for the Environment's *Home heating emission inventory and other sources evaluation* (2015).

AQ R3 Miscellaneous discharges – Permitted — Ngā tukunga matahuhua – E whakaaehia ana

The discharge of *contaminants* to air from:

- (1) spray irrigation, soil injection, truck spreading, or land soakage of **liquid waste**
- (2) the ventilation and displacement of liquids in storage tanks and tankers
- (3) the use and application of **fertiliser** or lime
- (4) the disturbance of land and soil carried out according to rules LM R1, LM R2, and LM R3 of this regional plan
- (5) **contaminated land remediation** permitted by DW R24 of this regional plan
- (6) roasting of coffee beans
- (7) **fully enclosed in-vessel composting** producing up to 200 tonnes per year (of finished product) where emissions are captured and filtered
- (8) **free range farms** of up to 100 **poultry** birds
- (9) **open burning** for **recreational/cultural** purposes

are permitted activities provided the discharge does not cause any noxious or dangerous, offensive or objectionable *effect* beyond the boundary of the **subject property**.

Advice Note – Discharge of **liquid waste**, and the use and application of **fertiliser** or lime must also meet all other requirements of this regional plan (see DW Discharges to Water and Land and OSET On-site Effluent Treatment).

AQ R4 Roads – Permitted — Ngā huarahi – E whakaaehia ana

The discharge of dust to air from vehicle movements on **unsealed roads** is a permitted activity.

AQ R5 Venting of geothermal gas and steam – Permitted — Te tuku kapuni ngāwha me te koromamao – E whakaaehia ana

The discharge of geothermal gases and steam into air from any **bore** or soakage hole associated with the **anthropogenic** use of *geothermal water* and *geothermal energy* is a permitted activity, provided the following conditions are complied with:

- (a) The gas or steam must be a **vertical discharge** from a vent unless the discharge is located at least 200 metres from a **sensitive area**.
- (b) The discharge must not be noxious or dangerous, offensive or objectionable beyond the boundary of the **subject property**.
- (c) The take or discharge of *geothermal water* must be less than 1,000 tonnes per day.

Advice note – This rule manages the discharge to air from *geothermal water* and/or *geothermal energy* use. The use of *geothermal water* and *geothermal energy* must comply with the rules in the GR Geothermal Resources module and the Rotorua Geothermal Regional Plan.

AQ R6 Open burning – Permitted — Te tahutahu ahi noa – E whakaaehia ana

Except where AQ R3, AQ R7 and AQ R8 apply, the discharge of *contaminants* to air from **open burning** is a permitted activity provided the fire is not located within 100 metres of any neighbouring **dwelling house**, unless written approval is obtained from the occupier/s of all such neighbouring **dwelling houses**, and the following conditions are complied with:

- (a) No materials either listed in AQ R10 or prohibited by the regulations of the National Environmental Standards for Air Quality are burned.
- (b) The discharge of smoke must not adversely affect the safety of any vehicle, aircraft, or *ship*.

- (c) The discharge must not be noxious or dangerous, offensive, or objectionable beyond the boundary of the **subject property**.

Advice Note: This rule manages **open burning** according to the potential for adverse effects on air quality. **Open burning** must also be carried out according to local bylaws and the Fire and Emergency New Zealand Act 2017.

AQ R7 Open burning for emergency disposal of diseased carcasses and vegetation – Permitted — Te tahutahu ahi noa mō te whakawātea ohotata – E whakaaehia ana

The discharge of *contaminants* to air from the emergency **open burning** of dead diseased marine mammals, dead diseased livestock, or infected or diseased vegetation is a permitted activity provided the following conditions are complied with:

- (a) Disposal must be carried out under the instruction of the responsible authority.
- (b) The discharge of smoke must not adversely affect the safety of any vehicle, aircraft, or *ship*.

Advice Note: Appropriate government departments at the time of notification are the Ministry for Primary Industries (livestock and vegetation) or the Department of Conservation (marine mammals). Regional Council's Pollution Hotline (or its equivalent) should be notified before burning begins, or as soon as practicable after burning commences.

AQ R8 Open burning for firefighter training – Permitted — Te tahutahu ahi noa mō te whakangungu tinei ahi – E whakaaehia ana

The discharge of *contaminants* to air from the burning of materials (including buildings and vehicles) for the purpose of firefighting research or training firefighters is a permitted activity provided the following conditions are complied with:

- (a) The fire must be under direct control of Fire and Emergency New Zealand, a **defence fire brigade**, or **industry brigade**.
- (b) The recognised body under (a) must notify:
 - (i) the Regional Council at least 24 hours before the training takes place and
 - (ii) the occupier of any properties within a 100 metre radius of the training site, no earlier than 72 hours and no later than 12 hours before the training takes place.
- (c) Notification under (b) must include:
 - (i) intended time and location of the training activity, and
 - (ii) details of any materials listed in AQ R10 that may be burned as part of the training and the potential adverse effects of these discharges.
- (d) No burning may be carried out within the **Rotorua Airshed** between the months of April to September of any calendar year.
- (e) The discharge of smoke must not adversely affect the safety of any vehicle, aircraft, or *ship*.

Advice Note: Regulation 9 of the National Environmental Standard for Air Quality prohibits the burning of coated wire except in certain cases such as when burnt as part of firefighter training.

AQ R9 Open burning– Non-complying — Te tahutahu – Tautuku-kore

Except where AQ R7 and AQ R8 apply, the discharge of *contaminants* to air from **open burning** within 100 metres of **any neighbouring dwelling house** is a non-complying activity unless:

- (a) written approval is obtained from the occupier/s of **any neighbouring dwelling house** within 100 metres of the **open burning**, or
- (b) the fire is for **recreational/cultural** purposes only

AQ R10 Burning of specified material – Non-complying — Te tahutahu i ngā papanga kua tautuhia – Tautuku-kore

Except as provided for in AQ R8 and AQ R21 the discharge of *contaminants* to air from the combustion of any of the following materials is a non-complying activity:

- (a) **treated timber** or painted timber (except pellets used in **pellet burners**)
- (b) any plastics (including packaging), foam, nappies or polystyrene
- (c) chlorinated organic chemicals including but not limited to **dioxins**, furans, polychlorinated biphenals (PCB)
- (d) contaminated material from contaminated sites and buildings
- (e) commercial food *waste*
- (f) domestic *waste*, except paper and cardboard
- (g) material that may contain heavy metals including but not limited to lead, zinc, arsenic, chromium, cadmium, copper, mercury, thorium (except **solid fuels** used in **fuel burning equipment**)
- (h) materials or metals used in motor vehicles
- (i) mineral fibres including but not limited to asbestos and insulation material
- (j) paint and other surface protective coatings
- (k) **pathological waste**
- (l) pesticides and pesticide *waste* (excluding cardboard pesticide containers)
- (m) rubber
- (n) soft furnishings and upholstery.

Advice Note: In addition to the materials in this rule, National Environmental Standards for Air Quality regulations prohibit the discharge of *contaminants* to air from the burning of the following materials:

- bitumen on a road
- coated wire
- tyres
- *oil* (in the open air)
- *waste* at landfills

except where the regulations provide otherwise. For full understanding of these restrictions, check the regulations of the National Environmental Standards for Air Quality as well as the provisions of this regional plan.

AQ R11 Solid fuel burners outside the Rotorua Airshed – Permitted — Ngā pāka ahi i waho o te Takiwā Hau o Rotorua – E whakaaehia ana

The discharge of *contaminants* to air from a **solid fuel burner** installed in any **dwelling house** or *building* outside the boundary of the **Rotorua Airshed**, is a permitted activity provided:

- (a) The discharge from the **solid fuel burner** complies with the regulations of the National Environmental Standards for Air Quality and any local bylaw
- (b) The **solid fuel burner** is operated so that all reasonable steps are taken to minimise the amount of smoke discharged
- (c) The discharge must not be noxious or dangerous, offensive or objectionable beyond the boundary of the **subject property**
- (d) No materials either listed in AQ R10 or prohibited by the National Environmental Standards for Air Quality regulations are burned.

AQ R12 Solid fuel burners in the Rotorua Airshed – Permitted — Ngā pāka ahi i roto i te Takiwā Hau o Rotorua – E whakaaehia ana

The discharge of *contaminants* to air from a **solid fuel burner** installed in any **dwelling house** or building inside the boundary of the **Rotorua Airshed** is a permitted activity if:

- (a) the discharge is from an **existing indoor open fire** provided the **indoor open fire** is:
- (i) located within a building which has been entered onto the **Heritage List** by **Heritage New Zealand**; or
 - (ii) on *industrial or trade premises* where the **indoor open fire** is used exclusively for the smoking and cooking of food for wholesale or retail sale

OR

- (b) the discharge is from a **pellet burner**, provided the **pellet burner** only burns the approved fuel for the device as specified in AS/NZS 4014.6:2007 Domestic solid fuel burning appliances – Test fuels – Wood pellets, or the functional equivalent

OR

- (c) the discharge is from either:
- (i) an **existing woodburner** installed before 1 September 2005, until 31 January 2020, or
 - (ii) a **coal burner or multifuel burner**, until 31 January 2020, or
 - (iii) an **existing woodburner** installed after 1 September 2005, or
 - (iv) an **existing outdoor solid fuel burner** on a business premises located at 1182 Tutanekai Street, Rotorua, until 31 January 2025

OR

- (d) the discharge is from a **woodburner** or **ultra-low emission** burner that:
- (i) **replaced** an **existing woodburner, coal burner, or multifuel burner** that was used primarily as a **space heater** in the same **dwelling house** or building, and
 - (ii) the **woodburner** has an **emission rate** less than or equal to 0.60, and
 - (iii) has a **thermal efficiency** of no less than 65%, and
 - (iv) is an **Authorised solid fuel burner**

AND

- (e) the discharge from **solid fuel burners** permitted in (a) to (d) complies with the following conditions:
- (i) the **solid fuel burner** is operated so that all reasonable steps are taken to minimise the amount of smoke discharged
 - (ii) the discharge is not noxious or dangerous, offensive or objectionable beyond the boundary of the **subject property**
 - (iii) no materials either listed in AQ R10 or prohibited by the National Environmental Standards for Air Quality regulations are burned.

AQ R13 Solid fuel burners in the Rotorua Airshed – Discretionary — Ngā pāka ahi i roto i te Takiwā Hau o Rotorua – Ka whiriwhirihia

The discharge of *contaminants* to air from a **woodburner** or **ultra-low emission burner** installed in any **dwelling house** or building inside the boundary of the **Rotorua Airshed** that is not otherwise permitted by AQ R12(c) or AQ R12(d):

- (a) was **offset** by replacing or removing an **existing woodburner, coal burner or multifuel burner** with an **emission rate** of 0.60 or greater, in a **dwelling house** or building within the **Rotorua Airshed**, and
- (b) the **woodburner** has an **emission rate** less than or equal to 0.60, and

- (c) has a **thermal efficiency** of no less than 65% and
- (d) is an **Authorised solid fuel burner**

is a discretionary activity.

AQ R13A Existing outdoor solid fuel burners in the Rotorua Airshed – Discretionary — (tba) – Ka whiriwhirihiā

After 1 February 2020, the discharge of *contaminants* to air from an **existing** outdoor **solid fuel burner** on a business premises located at 1182 Tutanekai Street, Rotorua, and inside the boundary of the **Rotorua Airshed** is a discretionary activity.

AQ R13B Solid fuel burners with secondary emission reduction devices in the Rotorua Airshed – Discretionary – (tba) – Ka whiriwhirihiā

The discharge of contaminants to air from a **woodburner** installed in any **dwelling house** or building after 1 September 2005 that is fitted with a **secondary emission reduction device**, is a discretionary activity.

AQ R14 Solid fuel burners in the Rotorua Airshed – Non-complying — Ngā pāka ahi i roto i te Takiwā Hau o Rotorua – Tautuku-kore

Within the **Rotorua Airshed** the discharge of *contaminants* to air from any **solid fuel burner** that is not a permitted or discretionary activity according to a rule in this regional plan, is a non-complying activity. This applies from 27 February 2018 except in the following cases:

- (a) The discharge of *contaminants* to air from any **woodburner** that was installed in any **dwelling house** or building before 1 September 2005, or from any **refurbished solid fuel burner**, is a non-complying activity from 1 February 2020.
- (b) The discharge of *contaminants* to air from any **coal burner** or **multifuel burner** in any **dwelling house** or building is a non-complying activity from 1 February 2020.

AQ R15 Agrichemical spraying – Permitted — Tōrehu matūahuwhenua – E whakaaehia ana

All discharges of *contaminants* to air from the use of **agrchemicals** under any part of this rule must comply with the following conditions:

- (1) **General use of agrichemicals**
 - (a) The discharge must not be noxious or dangerous, offensive or objectionable beyond the boundary of the **subject property**, in any non-target *water body*, or in any non-target watercourse listed in Schedule 3 of this regional plan.
 - (b) Where the use of the **agrchemical** is for the prevention, eradication or management of unwanted organisms or pests, the **agrchemical** must be used under the direction of the responsible authority under the Biosecurity Act 1993.
 - (c) Where the **agrchemical** is sprayed using **drone application**, the **drone** must not operate more than **10** metres above the target while **agrchemicals** are being distributed from the **drone**. If this condition cannot be complied with, the spray method is **aerial application**, and conditions relevant to **aerial application** must be complied with.
 - (d) Persons carrying out spraying of **agrchemicals**, other than the use of hand-held application methods, must be certified by an industry approved training programme, designed to encourage best practice to prevent spray drift in accordance with New Zealand Standard 8409:2004 (or its replacement or amendment).

- (2) Method of application of **agricultural**
- (a) The discharge of *contaminants* into air from **agricultural** spraying using **hand-held non-motorised application** methods is a permitted activity provided conditions 3(a) and 4(d) are complied with.
 - (b) **Hand-held motorised application** methods or application methods using a **low pressure boom** is a permitted activity provided conditions 3(a), 3(d), 4(c), 4(d), are complied with.
 - (c) Any other application method is a permitted activity provided conditions 3(a), 3(b), 3(c), 4(a), 4(b), 4(c), 4(d), 5(a), 5(b), 5(c) and 5(d) are complied with.

(3) Signage

Where specified by condition (2), the following conditions apply:

- (a) Where **agricultural** are sprayed on **public amenity areas** signs must be displayed at every entrance where the public usually have entry to the area where the **agricultural** is being sprayed (except where the entrance is from private property). Where **agricultural** are sprayed on other areas, signs must be displayed at the main entrance to the property. Signs required by this condition must clearly state:
 - (i) "CAUTION – SPRAYING IN PROGRESS" or similar wording
 - (ii) the name and type of **agricultural** used
 - (iii) a start and end date for spray operations
 - (iv) the name and phone number of the person carrying out the spraying
 - (v) that while signs are in place, it is not safe to enter.
- (b) Where **agricultural** are sprayed within **50** metres of any **public amenity area** (**ground-based application** or **drone application** complying with condition 1(c)) or **200** metres (**aerial application** excluding **drone application** complying with condition 1(c)), signs must be prominently displayed on the boundary of the **public amenity area** and must clearly state "caution – spraying in progress" or similar wording.
- (c) Signs required by 3(a) or 3(b) should remain in place until all airborne spray has settled and the **agricultural** has dried on its target surface. Signs must be removed within 5 days once the area is safe to re-enter.
- (d) Any vehicles being used to apply **agricultural** spray on **public amenity areas** must display prominent signs front and back that clearly state "CAUTION – SPRAYING IN PROGRESS" or similar wording.

(4) Notification

Where specified by condition (2), the following conditions apply:

- (a) The owner/occupier or agent must notify the occupier of any properties within **50** metres (**ground-based application** or **drone application** complying with condition 1(c)) and **200** metres (**aerial application** excluding **drone application** complying with condition 1(c)) of where the **agricultural** is being sprayed:

EITHER

 - (i) by notification, required no earlier than 72 hours, or **20 days** for spraying carried out on plantation forestry or in a conservation area, and no later than 12 hours before the **agricultural** spraying. Notification must include the following:
 - the address and location of proposed application
 - the date/s of proposed application

- name and type of **agricultural** to be applied
- name and phone number of person carrying out the spraying.

OR

- (ii) according to a notification agreement with the occupier. The notification agreement must:
- contain (as a minimum) method of notification and minimum time for notification prior to spraying
 - be recorded in writing and signed by all parties
 - be reviewed and re-signed annually.
- (b) Details of notification (including but not limited to date and time of notification, parties notified, method of notification) must be recorded.
- (c) Where **agricultural** spraying is being carried out by any person other than the owner/occupier or agent responsible for notification, the person carrying out the spraying must confirm that notification requirements have been met before spraying takes place.
- (d) Where **agricultural** are sprayed on **public amenity areas**, the owner/occupier or agent **must publicly notify (according to section 2AB(1)(a) of the Act)** the **agricultural** spraying no earlier than **10 days** or **20 days** for spraying carried out on plantation forestry or in a conservation area, and no later than 24 hours before the **agricultural** spraying. Notification must include the following information:
- (i) The name and type of **agricultural** used.
 - (ii) A start and end date for spray operations.
 - (iii) Contact details of the authority responsible for the spraying.
- (5) Spray Risk Management Plan

Where specified by condition (2), the following conditions apply:

- (a) Prior to the **agricultural** spraying, a spray risk management plan must be prepared and implemented by the owner/occupier or agent.
- (b) The spray risk management plan must contain the following information:
- (i) A plan or map identifying the location of any **sensitive areas** within **50** metres of the land being sprayed by **ground based application** or **drone application** (complying with condition 1(c)), or within **200** metres of the land being sprayed by **aerial application** (excluding **drone application** complying with condition 1(c)).
 - (ii) Areas to be sprayed, type of **agricultural** likely to be used during the year and the times of year that spraying is likely to occur.
 - (iii) Strategies used to avoid contamination of **sensitive areas**.
 - (iv) Strategies to mitigate any spray drift caused by particular weather conditions,
 - (v) Strategies to manage any specific hazard associated with the **agricultural** to be sprayed (eg. toxicity to bees).
- (c) The spray risk management plan must be reviewed and updated each year that spraying will be carried out.
- (d) **The spray risk management plan must be made available upon request within 20 working days of such a request being made.**

Advice Note: This rule manages the air discharge component of **agricultural** use. Users must also comply with all other rules in this regional plan (see DW Discharges to Water and Land). Other matters that should be considered when using **agricultural** include: **certification, personal protection equipment**, storage, transport, and disposal.

Users (particularly large-scale) should also comply with the New Zealand Standard Management of Agrichemicals NZS 8409:2004.

AQ R16 **Spraypainting – Permitted — Peita tōrehu – E whakaaehia ana**

The discharge of *contaminants* to air from the spray application, of surface coatings, including those containing di-isocyanates, or spray on anti-fouling paint (excluding the application of protective coatings to **transmission line support structures**, the use of water based paints, or up to 0.5 litres per hour and 5 litres per month of solvent based paints) is a permitted activity if:

- (a) The spraying is carried out, at a rate of no more than 2 litres per hour, in a spray booth, room, or enclosure fitted with an air extraction system and air filtering system to control the discharge of **particulates** and where the systems are maintained in accordance with the manufacturer's instructions
- (b) All *contaminants* and exhaust air from the enclosed spraying and drying areas must discharge to an emission stack or stacks, and the discharge from the emission stack or stacks is an **unimpeded vertical discharge** from the emission stack at least 3 metres above the ridge height of the building and 3 metres above the highest ridgeline of any roof within 30 metres.
- (c) Where spraypainting is carried out, on surfaces of fixed or large structures that cannot practicably be dismantled and transported to a spray booth, the discharge must be controlled using the *best practicable option* such as screening and paint technologies; and, when surface coatings containing di-isocyanates or anti-fouling paints are used:
 - (i) The owner/occupier/agent must notify the occupier of any property within 50 metres of the spray application site at least 24 hours prior to commencing the work.
 - (ii) An exclusion zone must prevent any public access within 15 metres of the spray application site.
- (d) The discharge must not be noxious or dangerous, offensive or objectionable beyond the boundary of the **subject property**.

Advice Note: The discharge of *contaminants* to air from blasting and applying protective coatings to a **transmission line support structure** is managed by the National Environmental Standards for Electricity Transmission Activities 2009.

AQ R17 **Abrasive blasting – Permitted — Te whakapahū pākaha – E whakaaehia ana**

The discharge of *contaminants* to air from an abrasive blasting operation (excluding blasting of **transmission line support structures**) is a permitted activity provided the following conditions are complied with:

- (a) The discharge from any abrasive blasting operation must be controlled either:
 - (i) through use of a sealed abrasive blasting booth where the air is extracted from the booth using a filtering system maintained according to the manufacturer's instructions

OR

 - (ii) where abrasive blasting is carried out on surfaces of fixed or large structures that cannot practicably be dismantled and transported to a blasting booth the discharge must be controlled using a current, best practice method such as screening, wet nozzles, or vacuum.
- (b) Material used for blasting must not contain more than 5% free silica on a dry weight basis.
- (c) The site and work areas must be kept clean and free of accumulations of deposited abrasive blasting material and other debris.
- (d) For mobile abrasive blasting operations:
 - (i) the owner/occupier/agent must notify the occupier of any properties within 50 metres of the blasting site at least 24 hours prior to commencing the work

- (ii) all blasting material and other debris must be removed from site once the operation is completed.
- (e) The discharge must not be noxious or dangerous, offensive or objectionable beyond the boundary of the **subject property**, or discharge into any *water body*.

Advice Note: The discharge of *contaminants* to air from blasting and applying protective coatings to a **transmission line support structure** is managed by the National Environmental Standards for Electricity Transmission Activities 2009.

AQ R18 Fuel burning equipment (Boilers) – Permitted — Ngā taonga ngingiha kora (Ngā kōhua nunui) – E whakaaehia ana

(1) General discharges from **fuel burning equipment**

All discharges of *contaminants* to air from **fuel burning equipment** under any part of this rule must comply with all of the following conditions:

- (a) The discharge must be an **unimpeded vertical discharge** from an emission stack.
- (b) The **fuel burning equipment** and any emission control equipment must be maintained in accordance with the manufacturer's specifications at least once every year by a person competent in the maintenance of that equipment.
- (c) The sulphur content of any fuel burnt must be less than 1% by weight.
- (d) The discharge of smoke or water vapour must not adversely affect vehicle safety, aircraft safety, or *ship* safety.
- (e) The discharge must not be noxious or dangerous, offensive or objectionable beyond the boundary of the **subject property** or into any *water body*.

(2) Equipment installed before 27 February 2018

- (a) For **fuel burning equipment** generating a gross heat energy output (within the combustion chamber) of less than 40kW (of any fuel), the discharge is a permitted activity.
- (b) For **fuel burning equipment** generating a gross heat energy output within the combustion chamber:
 - A. between 40kW up to 500kW, from the combustion of clean *oil*, coal or **untreated wood**
 - OR
 - B. between 40kW up to 1MW from the combustion of natural or liquefied petroleum gas

the discharge is a permitted activity provided conditions (1)(a) to (1)(e) are met and any emission stacks constructed after December 2003 rise at least 6 metres above the ground and 3 metres above the highest ridgeline on the roof of any building less than 20 metres from the emission stack.

- (c) For **fuel burning equipment** generating a gross heat energy output within the combustion chamber:
 - A. greater than 500kW up to 2MW from the combustion of clean *oil*, coal or **untreated wood**
 - OR
 - B. greater than 1MW up to 4MW from the combustion of natural or liquefied petroleum gas

the discharge is a permitted activity provided:

- (i) conditions (1)(a) to (1)(e) are met and any emission stacks constructed after December 2003 rise at least 12 metres above

- ground level and at least 3 metres above the highest ridgeline on the roof of any building less than 20 metres from the emission stack
- (ii) the emission stack is designed so that the minimum velocity of the discharge as it leaves the chimney at full load is 7 metres per second.
- (d) For **fuel burning equipment** generating a gross heat energy output within the combustion chamber:
- A. greater than 2MW up to 5MW from the combustion of clean *oil*, coal or **untreated wood**
- OR
- B. greater than 4MW up to 10MW from the combustion of natural or liquefied petroleum gas
- the discharge is a permitted activity provided:
- (i) conditions (1)(a) to (1)(e) are met and any emission stacks constructed after December 2003 rise at least 14.9 metres above ground level and at least 3 metres above the highest ridge line on the roof or any building within 20 metres
- (ii) the emission stack is designed so that the minimum velocity of the discharge as it leaves the chimney at full load is 7 metres per second
- (iii) The concentration of **particulates** shall not exceed 400 milligrams per cubic metre corrected to 0 degrees Celsius dry gas basis, 1 atmosphere pressure and 8% oxygen
- (iv) The mass discharge of **particulates** shall not exceed 2.5 kilograms per hour.
- (3) Equipment installed after 27 February 2018
- The discharge of *contaminants* to air from **fuel burning equipment** generating a gross heat energy output within the combustion chamber of up to and including:
- A. 500kW gross heat energy output from the combustion of clean *oil*, coal or **untreated wood**
- OR
- B. 10MW gross heat energy output from the combustion of natural or liquefied petroleum gas
- is a permitted activity provided the following conditions are complied with:
- (a) The total combined gross heat output from all **fuel burning equipment** installed on the property after 27 February 2018 must not exceed the limits in 3(A) and 3(B). Where more than one fuel type is used, the combined gross heat output must not exceed the lowest kilowatt or megawatt threshold of any of the fuel types used.
- (b) The emission stack exit velocity must not be less than 10 metres per second except for a 15 minute period during start-up.
- (c) All emission stacks must rise at least:
- (i) 12 metres above the ground
- AND
- (ii) and 3 metres above the highest ridgeline on the roof of any building within 20 metres from the emission stack.
- (d) **Fuel burning equipment** using clean *oil*, coal or **untreated wood**, must not discharge any amount of **particulates** into any part of the **Rotorua Airshed** at any time.

AQ R19 Intensive farming – Controlled — Ngā mahi ahuhenua – E whakahaerehia ana

The discharge of *contaminants* into air from a permanent, **intensive farming** operation established prior to 1 January 2001, is a non-notified, controlled activity for which applications will be considered without the need to obtain the written approval of affected persons.

The Regional Council reserves control over the following matters:

- (a) Setting conditions to control dust, odour, **particulates**, including but not limited to any matter contained in relevant industry codes of practice.
- (b) Duration of consent.
- (c) Compliance monitoring.
- (d) Review of the conditions of the consent and the timing and purpose of the review.
- (e) Payment of administrative charges.

AQ R20 Fumigation for quarantine application or pre-shipment application – Discretionary or Non-complying — Auahina ki te paitini mō te tonono taratahi, tonou utanga-tōmua rānei – Ka whiriwhirihia, Tautuku-kore rānei

The discharge of *contaminants* into air from fumigation for **quarantine application or pre-shipment application**:

- (a) Using fumigants other than methyl bromide, is a discretionary activity.
- (b) Using methyl bromide with **effective recapture**, is a discretionary activity.
- (c) Using methyl bromide without **effective recapture**, is a non-complying activity.

AQ R21 Specific activities – Discretionary— Ngā mahinga tauwhāiti – Ka whiriwhirihia

The discharge of *contaminants* into air from any of the following activities is a discretionary activity:

- (a) **Agrichemical** manufacture.
- (b) Asphalt or bitumen manufacture or processing.
- (c) Breweries.
- (d) Cement manufacture.
- (e) Chemical manufacture or mixing.
- (f) Composting, except where provided for by AQ R3, where the compost is for sale or commercial use.
- (g) Crematoria where a new facility with a new discharge to air is being established after 27 February 2018.
- (h) Distilling operations including but not limited to petroleum refining.
- (i) **Enclosed incinerators** where any of the materials listed in AQ R10 are burned.
- (j) Farming activities as follows:
 - (i) **free range farming** of pigs, or more than 100 **poultry** birds, where either a free range farming operation farm is being established or where an existing farming operation increases character, intensity or scale of the **effects** that existed as at 27 February 2018
 - (ii) **intensive farming** not controlled by AQ R19.
- (k) Glass making.
- (l) Industrial resin or glue manufacture.
- (m) Kraft and chemical pulping or reconstituted wood panel manufacture.
- (n) Metal processing including (but not limited to) aluminium smelters, commercial foundries and metallurgical processing, steel galvanising and steel mills.

- (o) Milk powder or milk based powder manufacture.
- (p) Paint manufacture.
- (q) Pesticide manufacture.
- (r) Pet food manufacture by the application of heat.
- (s) Processing of animal products including (but not limited to) animal rendering and by-product processing plants, commercial fellmongering, woolscourers, and dag crushing plants.
- (t) Processing of radioactive substances.
- (u) Pulp, paper, or paper board manufacturing
- (v) Pyrolysis, torrefaction, or gasification of carbonaceous material.
- (w) Synthetic **fertiliser** manufacture
- (x) *Waste* processing activities as follows:
 - (i) municipal sewage treatment plants (excluding pump stations and associated odour beds)
 - (ii) *waste* facilities including refuse transfer stations, resource recovery, recycling centres, baling stations
 - (iii) landfills (excluding **untreated wood waste** and **cleanfill**).

Advice Notes:

The operation of an **incinerator** at a school or healthcare institution is prohibited under the National Environmental Standards for Air Quality, unless a resource consent was granted before 30 October 2006.

To avoid doubt, Rule AQ R21(g) does not apply to replacements, maintenance or upgrades to existing crematoria facilities.

AQ R22 Handling of bulk solid materials – Discretionary – (tba) – Ka whiriwhirihiā

Unless otherwise permitted by AQ R26, the discharge of *contaminants* to air from the **handling of bulk solid materials** where:

- (a) the rate of **bulk solid material handling** exceeds 20 tonnes in any hour, and the discharge occurs less than 100 metres from any **sensitive area**, or
- (b) the rate of **bulk solid material handling** exceeds 50 tonnes in any hour, is a discretionary activity.

AQ R23 Mobile or emergency diesel generators and pumps – Permitted – (tba) – E whakaaehia ana

- (a) The discharge of *contaminants* to air from the internal combustion of diesel in any mobile or emergency generator or pump with a maximum load of 1000 kilovolt-amperes is a permitted activity provided the following conditions are met:
 - (i) the discharge must not occur for more than 48 hours during any single event within 50 metres of a **sensitive area**, and
 - (ii) fuel used in the generator or pump must comply with the Engine Fuel Specifications Regulations 2011, and
 - (iii) the discharge must not be noxious or dangerous, offensive or objectionable beyond the boundary of the **subject property**.
- (b) For the internal combustion of diesel in any mobile or emergency generator or pump with a total combined output of less than 5000 kilovolt-amperes, the discharge is a permitted activity provided:
 - (i) the discharge is associated with electricity generation activities, including geothermal drilling, and

- (ii) the discharge must not occur for a period of more than 3 months per wellhead or generation site, and
- (iii) the discharge must not occur within 200 metres of a **sensitive area**, excluding discharges to air from pumps which may be located adjacent to *water bodies* and buildings that are defined as a **sensitive area** and are uninhabited for the duration of the discharge, and
- (iv) fuel used in the generator or pump must comply with the Engine Fuel Specifications Regulations 2011, and
- (v) the discharge must not be noxious or dangerous, offensive or objectionable beyond the boundary of the **subject property**.

AQ R24 Flaring of natural gas – Permitted – (tba) - E whakaaehia ana

The discharge of *contaminants* to air from the combustion of natural gas by temporary flaring is a permitted activity provided the following conditions are met:

- (a) the equipment is designed specifically for flaring of natural gas
- (b) the discharge must be an **unimpeded vertical discharge** from the emission stack
- (c) the equipment must be maintained in accordance with the manufacturer's specifications at least once per year by a person competent in the maintenance of that equipment
- (d) the discharge must not be noxious or dangerous, offensive or objectionable beyond the boundary of the **subject property**.

AQ R25 Agrichemical spraying – Controlled – Torehu matuahuhenua - E whakahaerehia ana

The discharge of *contaminants* to air from the use of **agrchemicals** not otherwise permitted by AQ R15 is a controlled activity.

The Regional Council reserves control over the following matters:

- (a) the location where spraying will take place, frequency of spraying, application method, and proximity of spraying to sensitive activities
- (b) measures to manage spray drift including setting conditions to ensure the discharge is not noxious or dangerous, offensive or objectionable, beyond the boundary of the **subject property**
- (c) measures to notify neighbouring properties that spraying will take place (including notification and signage)
- (d) notification agreements with neighbours
- (e) the preparation of and contents of a spray risk management plan
- (f) duration of consent and consent condition review including the timing and purpose of the review

AQ R26 Cement storage and handling – Permitted – (tba) – E whakaaehia ana

The discharge of *contaminants* to air from the storage, **handling**, redistribution, or packaging of cement, and cement additives is a permitted activity provided the following conditions are complied with:

- (a) The cement is delivered using a fully enclosed conveyance system and stored in silos.
- (b) The silos must be fully enclosed and fitted with a fabric filtration system that is installed and maintained in accordance with the manufacturer's specifications.
- (c) Cement additives such as fly ash and microsilica must be bagged and debagged within an enclosed structure fitted with appropriate dust control

equipment that is installed and maintained in accordance with the manufacturer's specifications.

- (d) There must be no accumulation of dust or **particulates** on site.
- (e) The discharge must not be noxious or dangerous, offensive or objectionable beyond the boundary of the **subject property** or into any *water body*.

AQ R27 **Crematoria – Controlled – (tba) – E whakahaerehia ana**

From 1 February 2020, the discharge of *contaminants* to air from crematoria facilities that were established before 27 February 2018, is a controlled, non-notified activity for which applications will be considered without the need to obtain the written approval of affected persons.

The Regional Council reserves control over the following matters:

- (a) Setting conditions to control cremator operation, upgrades, maintenance and replacements, the number of cremations and contaminants discharged from the facility, including but not limited to any matter contained in relevant industry codes of practice.
- (b) Setting conditions to require stack emissions monitoring and testing of soil samples to assess mercury accumulation.
- (c) Duration of consent and consent condition review including the timing and purpose of the review
- (d) Compliance monitoring.
- (e) Payment of administrative charges.

Interpretation of the terms noxious or dangerous, offensive or objectionable

Several rules in the Air Quality chapter use the terms 'noxious or dangerous' or 'offensive or objectionable' as included in section 17 of the Act. These terms are not defined in the Definitions of Terms as they need to take account of case law precedents as they develop. However, some guidance is provided to give some certainty as to how the Council will interpret and implement these terms to determine whether an activity complies with permitted conditions or a resource consent condition.

In assessing whether an activity is noxious, dangerous, offensive or objectionable, the decision maker acts as representative of the community at large, weighs all competing considerations and ultimately makes a value judgement on behalf of the community as a whole. The decision maker must consider whether an "ordinary and reasonable person" would consider the action offensive and objectionable.

Noxious or dangerous

The dictionary definition of 'Noxious' means harmful, unwholesome. 'Dangerous' means involving or causing exposure to harm.

Noxious or dangerous in the context of the Air Quality chapter is an activity or discharge of *contaminants* to air that is harmful to people, property, or the *environment*. This may include, but is not limited to, the following:

- (a) Human health *effects*.
- (b) Contamination of potable water supplies where the concentration of **contaminant** in the water supply is at a level that exceeds the safe level for human consumption.
- (c) Exceedance of a maximum residue limit for an **agricultural** on, or in, food or stock feed at harvest or slaughter.

- (d) Adverse *effects* on ecosystems including *water bodies*. This includes exotic and indigenous flora and fauna.
- (e) Damage to crops or plants where *contaminants* have affected the growth or quality of the crop such that levels exceed safe levels for human consumption.
- (f) A discharge of **fertiliser** or **agricultural** spray that compromises the organic status of another property.
- (g) Damage to paintwork, windows or surfaces from deposition of airborne *contaminants*.
- (h) Reduced visibility that endangers the passage of any vehicle, aircraft, or *ship*.

Offensive or objectionable

The dictionary definition of 'offensive' is giving or meant to give offence, disgusting, foul-smelling, nauseous, repulsive. 'Offensive' is defined as 'open to objection, unpleasant, offensive.

To determine if a discharge is offensive or objectionable, the Regional Council will make an overall judgment that considers the FIDOL factors as follows:

Frequency – how often an individual is exposed.

Intensity – the strength or concentration.

Duration – the length of exposure.

Offensiveness/character – the hedonic tone (pleasant, neutral, unpleasant) or type.

Location – the type of land use and nature of human activities in the vicinity of the source.

When assessing discharges (odour, smoke, dust and **particulates**) the Regional Council will use the following approach:

- (a) An experienced, warranted Council Officer will make an assessment of the situation taking into account the FIDOL factors.
- (b) If the discharge is deemed to be offensive or objectionable by the warranted Council Officer, the discharger may be asked to take whatever action is necessary to avoid, remedy or mitigate the effects of the discharge on the *environment*.
- (c) If the discharger disputes the warranted Council Officer's assessment or the problem is ongoing, then further evaluation may be required. This evaluation could include:
 - (i) An assessment by another experienced, warranted Council Officer.
 - (ii) For odour, monitoring using olfactometry or other appropriate technology.
 - (iii) For particulates, monitoring of particulates beyond the boundary will be compared with the National Environmental Standards for Air Quality for particulates if people may be exposed.

Definition of Terms

Aerial application means any application of **agricultural chemicals** where the product is applied from an aircraft including but not limited to planes, helicopters and **drones**.

Airshed (as defined by the National Environmental Standards for Air Quality) *means:*

- (a) *The region of a regional council excluding any area specified in a notice under paragraph (b).*
- (b) *A part of the region of a regional council specified by the Minister for the Environment by notice in the New Zealand Gazette to be a separate airshed.*

Ambient air means the air outside buildings and structures. This does not include indoor air or contaminated air discharged from a source.

Anthropogenic means created by or caused by humans.

Authorised solid fuel burner means a **solid fuel burner** that is either:

- (a) on the Ministry for the Environment's Authorised Wood Burner list or
- (b) has been authorised under the New Zealand Domestic Solid Fuel Burner Authorisation Manual 2011 (or its amendment or replacement).

Bulk solid material means materials consisting of, or including, fragments that could be discharged as dust or **particulates**. These materials include but are not limited to: gravel, quarried rock, **fertiliser**, coal, cement, flour, rock aggregate, grains, compost, palm kernel extract, tapioca, and woodchip.

Coal burner means a **solid fuel burner** designed to burn coal, which has one or more of the following design features:

- (a) fuel combustion air supplies with separate controls
- (b) grate in the base of the firebox
- (c) ash pan under the grate.

Defence fire brigade means a unit of any other part of the Armed Forces established and trained under the authority of the Chief of Defence Force under the Defence Act 1990 for the prevention, suppression, and extinguishment of fires.

Dioxins means the group of chemicals known as polychlorinated dibenzodioxins and polychlorinated dibenzofurans, and other chemicals such as polychlorinated biphenyls, which are known to have dioxin-like *effects*.

Drone means an Unmanned Aerial Vehicle (UAV) or Remotely Piloted Aircraft System (RPAS).

Drone application means **aerial application** of **agricultural chemicals** using a **drone**.

Dwelling house means any building, whether permanent or temporary, that is occupied, or is intended to be occupied, in whole or in part, as a residence; and includes any structure or outdoor living area that is accessory to, and used wholly or principally for the purposes of, the residence; but does not include the land upon which the residence is sited.

Effective recapture in relation to fumigation, means a process that captures any fumigant from fumigation enclosures (such as buildings, shipping containers or gas proof sheets covering target product) on activated carbon or other medium so that it is not released into the atmosphere when the fumigation enclosure is ventilated such that the concentration of fumigant (not absorbed by the target product) within the fumigation enclosure at the beginning of the fumigation period is reduced by 80% prior to ventilation of the fumigation enclosure.

Emission rate when used in relation to **solid fuel burners** means the amount of particles (in grams) discharged from a **solid fuel burner** for each kilogram of dry wood burnt. The discharge must be measured in accordance with:

- (a) the method specified in Australian/New Zealand Standard AS/NZS 4013:2014, Domestic solid fuel burning appliances – Method for determination of flue gas emission, or
- (b) for a **woodburner** excluded from that method, another method that is functionally equivalent.

Enclosed incinerator means an incinerator with a burning chamber that is closed off during use and with a regulated supply of air to the fire.

Existing in relation to **solid fuel burners** means a **solid fuel burner** which:

- (a) is in situ and has a building permit issued under the Local Government Act 2002, or
- (b) is in situ and has a building consent issued under the Building Act 2004, or
- (c) is the subject of a building consent or building permit application that has been accepted in writing by the Rotorua District Council on or before 27 February 2018, provided the consent or permit includes the **solid fuel burner** as a part of the consent or permit and the consent or permit is not declined, or
- (d) has been verified by a delegate of the Rotorua District Council or Regional Council as lawfully installed.

Forestry road as defined by the National Environmental Standards for Plantation Forestry

- (a) *means a road that has the width, grade, strength, and pavement surface that allows a fully laden logging truck to safely traverse it and has all-weather access; but*
- (b) *does not include a road managed by a local authority, the Department of Conservation, or the New Zealand Transport Agency.*

Forestry track as defined by the National Environmental Standards for Plantation Forestry

- (a) *means a track that allows the passage of forestry machinery or vehicles, but does not provide the width, grade, strength, and pavement surface to allow a fully laden logging truck to safely traverse it or lacks all-weather access; but*
- (b) *does not include a track managed by a local authority, the Department of Conservation, or the New Zealand Transport Agency.*

Free-range farming means farms where **poultry** or pigs (other than those kept as pets) have free access to the outdoors.

Fuel burning equipment often referred to as a “boiler” means a device used for the combustion of fuel within an enclosed combustion chamber in which heat is transferred from the products of combustion directly for the production of useful heat or power. For clarity this excludes vehicles, rail vehicles, *ships*, aircraft, **solid fuel burners**, diesel fuelled generators, and **enclosed incineration**.

Fully enclosed in-vessel composting means composting produced within a container (including but not limited to tanks, drums, silos, bunkers, or tunnels) where air flow and temperature are fully controlled during the composting process.

Ground-based application means any application of **agrichemicals** from a source located on the ground.

Hand-held motorised application means an application method of **agrichemicals** where the applicator is held, and the **agrichemicals** applied, by hand, and where some part of the application method involves motorised pumping.

Hand-held non-motorised application means an application method of **agrichemicals** where the applicator is held, and the **agrichemicals** applied, by hand, and where no part of the application method involves motorised pumping.

Handling in relation to bulk solid material means extraction, quarrying, mining, processing, screening, conveying, transferring, blasting, loading, unloading or crushing of any material.

Heritage List means the New Zealand Heritage List/Rarangi Korero.

Heritage New Zealand means Heritage New Zealand Pouhere Taonga.

Incineration *in relation to waste or other matter, means its deliberate combustion for the purpose of its thermal destruction.*

Incinerator means a device used for **incineration** where the primary purpose of the device is to deliberately combust *waste* or other matter by thermal destruction.

Industry brigade means a group of persons organised as an industry brigade in accordance with Section 69 of the Fire and Emergency New Zealand Act 2017.

Indoor open fire means an appliance or a structure inside a **dwelling house** or building that can burn **solid fuel** but cannot effectively control the rate of air supply to the combustion chamber. It includes a fireplace that has a cover or doors that cannot effectively control the rate of air supply to the combustion chamber, but excludes any **solid fuel burner** where the firebox is enclosed with a regulated supply of air to the fire.

Intensive farming means **poultry farms, piggeries, other livestock farms, and mushroom production carried out within buildings, structures, pens or yards where the stocking density limits, or prevents, dependence on natural soil on the site, and/or where food is required to be brought to the site. Excludes free-range farming, and greenhouses.**

Liquid waste means any *waste liquid composed of less than 20% solids and does not include hazardous substances.*

Low pressure boom means any boom with the following design conditions:

- (a) the liquid pressure through the boom is less than 3 bar
- (b) the height of the discharge point on the boom is less than 1 metre from the ground
- (c) the nozzles point down
- (d) the nozzles are designed to create coarse droplets of greater than 250 microns in diameter.

Multifuel burner means a **solid fuel burner** designed to burn wood and/or coal, which has one or more of the following design features:

- (a) fuel combustion air supplies with separate controls
- (b) grate in the base of the firebox
- (c) ash pan under the grate.

Offset means an emission reduction in one part of the **Rotorua Airshed** to compensate for an emission increase elsewhere in the **Rotorua Airshed**.

Oil (as defined by the National Environmental Standards for Air Quality) *means petroleum in any form other than gas including crude oil, fuel oil sludge, oil refuse, and refined oil products (for example, diesel fuel, kerosene, and motor gasoline).*

Open burning means the combustion of any material in the open air, other than in purpose built equipment designed to control the combustion process. Includes bonfires, **incinerators** and **recreational/cultural** outdoor burning but excludes, **enclosed incinerators, solid fuel burners, fuel burning equipment**, flaring of natural gas, smokers, fireworks, candles, lamps, and outdoor patio gas heaters.

Particulates means particulate matter where the particle size is small enough to become airborne. Includes:

- (a) **TSP** – total suspended particulate
- (b) **PM₁₀** – particulate matter that is less than 10 micrometres in diameter
- (c) **PM_{2.5}** – particulate matter that is less than 2.5 micrometres in diameter.

Pathological waste means *waste* that is offensive to the senses or hazardous to human health including anatomical wastes such as human tissue and organs, animal tissue, organs and carcasses, materials that may be subject to contamination by highly infectious organisms, and any product contaminated by radiation used in medical treatments.

Pellet burner means any **solid fuel burner** that burns manufactured pellets of compressed wood sawdust, and where the pellets and air are mechanically delivered to an enclosed combustion chamber at a controlled rate. Excludes **woodburners**, **coal burners** and **multifuel burners**.

Poultry means domestic fowl kept in captivity for sale or to produce meat, eggs, or other products. Includes: chickens, ducks, geese, guinea fowl, pigeons, turkeys, peacocks, doves, pheasants, swans, and quail.

Pre-shipment application in relation to fumigation, means the non-quarantine treatment applied within 21 days prior to export, to meet the official requirements of the importing country or the existing official requirements of the exporting country. Official requirements are those which are performed or authorised by a national plant, animal, environmental, health, or stored product authority.

Public amenity area means a public area where members of the public are likely to congregate for extended periods of time. This may include (but is not limited to): backcountry huts, barbecues, changing facilities, cycleways, outdoor sports facilities, parks and reserves, playgrounds and playground equipment, public toilets, seating and picnic tables, shelters, squares, and walkways.

Quarantine application in relation to fumigation, means treatment to prevent the introduction, establishment and/or spread of quarantine pests (including diseases), or to ensure their official control, where:

- (a) official control is that performed by, or authorised by, a national plant, animal or environmental protection or health authority, and
- (b) quarantine pests are pests of potential importance to the areas endangered thereby and not yet present there, or present but not widely distributed and being officially controlled.

Recreational/cultural in relation to **open burning** means any **open burning** for the purposes of cooking or amenity (eg. hangi, umu, barbeque, braziers, pizza ovens Guy Fawkes celebrations), or recognised cultural practices, but excluding **incinerators**.

Refurbished in relation to **solid fuel burners** means a **solid fuel burner** that has been altered after purchase or installation in the **dwelling house** or building in a way that could change its design standard.

Remove, removed or removing: in relation to **solid fuel burners** means the complete physical removal (taking out, taking away or cause to be no longer present) of a **solid fuel burner** from the **dwelling house** or building.

Replace, replaced or replacing: in relation to **solid fuel burners** means the complete physical removal (taking out, taking away or cause to be no longer present) of a **solid fuel burner** from the **dwelling house** or building and installation of a new **solid fuel burner** that complies with the requirements of this regional plan.

Rotorua Airshed means the area of Rotorua specified by the Minister for the Environment as a separate **airshed**, by notice in the *New Zealand Gazette*.

Secondary emission reduction device in relation to **solid fuel burners** means a secondary air emission treatment device that reduces the particulates from a **solid fuel burner**.

Sensitive area means an activity that is particularly sensitive to adverse *effects* associated with air *contaminant* discharges either due to the vulnerability of the population or area exposed to the *contaminant*, or due to the potential for people to be exposed for prolonged periods and may include:

- (a) residential buildings and areas (including marae)
- (b) childcare centres, schools, educational facilities
- (c) hospitals, nursing homes, aged care facilities
- (d) offices, consulting rooms, gymnasiums, community centres
- (e) hotels, motels, caravan parks, camping areas, tourist accommodation
- (f) correctional facilities
- (g) **public amenity areas**
- (h) manufacturing or storage of food or beverages

- (i) manufacturing or storage of electronics
- (j) public water supply catchments and intakes.
- (k) incompatible crops or farming systems (e.g. organic farms, greenhouses)
- (l) household water supplies (including roofs from which a water supply is obtained).

Ship as defined by the Maritime Transport Act 1994 *means every description of boat or craft used in navigation, whether or not it has any means of propulsion; and includes—*

- (a) *a barge, lighter, or other like vessel;*
- (b) *a hovercraft or other thing deriving full or partial support in the atmosphere from the reaction of air against the surface of the water over which it operates*
- (c) *a submarine or other submersible*

Solid Fuel means a solid substance that releases useable energy when burnt and includes wood, coal and its derivatives, and manufactured fuel pellets.

Solid fuel burner means a **solid fuel** burning appliance where combustion of the **solid fuel** occurs within a firebox, and where there may be a regulated supply of air to the fire. It includes (but is not limited to), **indoor open fires**, outdoor open fires, freestanding or built in **woodburners**, **pellet burners**, potbelly stoves, coal ranges, **coal burners**, chip heaters, water heaters or central heating units, **multifuel burners**, and similar appliances. It excludes small-scale domestic devices for smoking food, any portable unflued heaters fuelled by gas, alcohol or other liquid fuels, gas hobs or gas ranges used for cooking, any fuel burning appliance installed in a boat, caravan or motor home, and **fuel burning equipment** as defined by this regional plan.

Space heater means a domestic appliance designed for use within a building to generate warmth for human comfort. It includes **solid fuel burners** with water heating capabilities as a secondary purpose and appliances designed to heat water for space heating (eg. via radiators). It excludes cooking fires, ranges, and chip heaters where the primary purpose of the fire is to cook or heat water.

Subject property means the property where the discharge of *contaminants* to air originates.

Thermal efficiency means the ratio of useable heat energy output to energy input. The thermal efficiency must be calculated in accordance with:

- (a) the method specified in Australian/New Zealand Standard AS/NZS 4012:2014, Domestic solid fuel burning appliances – Method for determination of power output and efficiency, or
- (b) for a **woodburner** excluded from that method, another method that is functionally equivalent.

Treated timber means timber treated with preservatives, including boron compounds (except 2-thiocyanomethylthiobenzothiazole (TCMTB) compounds), copper chromium arsenic (CCA), or creosote, but does not include timber treated only with anti-sapstain compounds.

Transmission line support structure means a tower or pole used to support cables used for, or associated with, the overhead or underground transmission of electricity in the national grid .

Ultra-low emission burner means a woodburner that:

- (a) when tested according to Canterbury Method 1 (revision 1.6 June 2015) discharges no more than 0.77 grams of **particulates** per kilogram of dry wood burnt, and
- (b) is on the Regional Council's List of Approved Ultra-low Emissions Burners. This list will be available on the Regional Council's website and may be updated without further formality.

Unimpeded vertical discharge means the discharge from a vent or chimney is perpendicular to the ground and is not restricted in any way that increases the emission of particulates or restricts the dispersion of **particulates** (including smoke) away from the site.

Unsealed road means a road that is not sealed with a permanent surface of tarmac, concrete, or asphalt. For the purposes of this regional plan **unsealed roads** do not include road works on sealed roads, *forestry roads*, *forestry tracks*, or roads used for land development and/or earthworks.

Untreated wood means any wood material or product, including sawdust, which is not treated with copper chromium arsenic (CCA), or with any organochlorine preservative and can include timber treated only with anti-sapstain compounds.

Waste

- (a) means any thing disposed of or discarded, and*
- (b) includes a type of waste that is defined by its composition or source (for example, organic waste, electronic waste, or construction and demolition waste), and*
- (c) to avoid doubt, includes any component or element of diverted material, if the component or element is disposed of or discarded.*

Woodburner means a type of domestic **solid fuel burner** that burns wood, where combustion of wood occurs within a firebox, and where there is a regulated supply of air to the fire. It excludes **indoor open fires, pellet burners, coal burners, multifuel burners**, and also excludes cooking fires, ranges, and chip heaters where the primary purpose of the fire is to cook or heat water.