

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of appeals under clause 14 of the First
Schedule to the Act

BETWEEN WAIMAKARIRI DISTRICT COUNCIL
(ENV-2007-CHC-000268)

AND ASSOCIATION FOR INDEPENDENT
RESEARCH INC
(ENV-2007-CHC-000277)

AND DIRECTOR-GENERAL OF THE
DEPARTMENT OF CONSERVATION
(ENV-2007-CHC-000278)

AND FEDERATED FARMERS OF NEW
ZEALAND INC
(ENV-2007-CHC-000293)

Appellants

AND CANTERBURY REGIONAL COUNCIL
Respondent

BEFORE THE ENVIRONMENT COURT

Environment Judge CJ Thompson sitting alone pursuant to section 279 of the Act.

IN CHAMBERS

CONSENT ORDER

Introduction

[1] The Court has read and considered the appeals and the memorandum of the parties received 9 October 2008.

[2] The following persons gave notice of an intention to become parties under s274:

Selwyn District Council

Transit New Zealand

Horticulture New Zealand



- H B Thomas
- M Oakenshield
- Tegel Foods Ltd
- Canterbury Meat Packers Ltd
- Christchurch City Council

Selwyn District Council signed the memorandum setting out the relief sought. The parties' memorandum states that Transit New Zealand, Horticulture New Zealand, H B Thomas and M Oakenshield do not have an interest in the aspects of the appeals dealt with in this consent order. The Court's records indicate that Tegel Foods Ltd and Christchurch City Council also have no interest in the subject matter of this consent order. Canterbury Meat Packers Ltd's notice is restricted to Rule AQL26.

[3] The Court is making this order under section 279(1)(b) of the Act, such an order being by consent, rather than representing a decision or determination on the merits pursuant to section 297. The Court understands for the present purposes that:

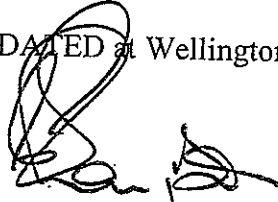
- All parties to the proceedings have executed the memorandum requesting this order; and
- All parties are satisfied that all matters proposed for the Court's endorsement fall within the Court's jurisdiction, and conform to relevant requirements and objectives of the Act, including in particular Part 2.

Order

[4] The Court orders, by consent, that Chapter 3 of the proposed Canterbury Natural Resources Regional Plan is amended as set out in Appendix One to this order.

[5] Appeals ENV-2007-CHC-000277 and 278 are otherwise dismissed. The other appeals (as they relate to Rural Domestic Burning) are otherwise dismissed. There is no order as to costs.

DATED at Wellington this 19th day of December 2008



C J Thompson
Environment Judge



- 7 JAN 2009

Appendix One: Changes to Chapter 3 of the Proposed Canterbury Natural Resources Regional Plan
Chapter 3

1. Policy AQL11

Amend Policy AQL11 Set emission standards for enclosed burners as follows:

Policy AQL11: Set emission standards for enclosed burners

Require all discharges of contaminants to air from enclosed burners located within and in proximity to urban areas and on small sites installed after 1 January 2004 to meet the following standards:

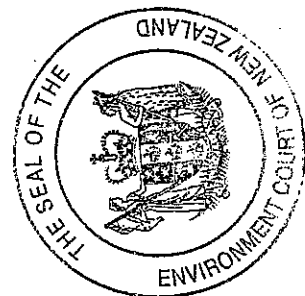
- (a) emission of less than 1 gram of total suspended particulate (TSP) per kilogram of fuel burned; and
- (b) thermal efficiency of 65% or greater.

Explanation and principal reasons

Emission inventories undertaken in Canterbury to date have shown that domestic solid fuel burning devices are the main contributors to poor ambient air quality. It is therefore prudent that the least polluting technology be installed. Such technology is available.

Policy AQL11 allows only enclosed burners meeting certain low emission standards to be installed from January 1, 2004 ~~anywhere in Canterbury~~ in some locations throughout Canterbury. An efficiency standard is included to ensure appliances do not need to burn more fuel to achieve the required room temperature in a dwelling. In other locations, the threat to ambient air quality is significantly reduced through geography, meteorology, remoteness, land use and population density. The same is recognised for enclosed burners in back country huts where any such discharges into air will be remote from urban areas, localised and contained within public conservation land.

A list of devices that meet the standards can be obtained from Environment Canterbury.



2. Table 3.1 Summary of Rules

Amend Table 3.1 Summary of Rules by adding the following between Rule AQL1A:

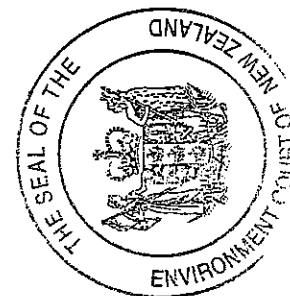
	AQL1A	<u>Small scale solid fuel burners on sites 2 hectares or greater, not zoned for urban purposes or within a clean air zone</u>	<u>Permitted</u>
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3. Rule AQL1A

Insert new Rule AQL1A Small scale solid fuel burners on sites 2 hectares or greater, not zoned for urban purposes or within a clean air zone – permitted activity as follows:

Rule AQL1A Small scale solid fuel burners on sites 2 hectares or greater, not zoned for urban purposes or within a clean air zone – permitted activity

<u>Activity</u>	<u>Conditions</u>	<u>Cross Ref.</u>
<p><u>Notwithstanding Rule AQL2, and except where prohibited by Rules AQL5 and AQL6, the discharge of contaminants into air from the burning of solid fuel in any small scale solid fuel burning device installed on or after 1 January 2004, which is not located on a site that is:</u></p> <p>(a) <u>less than 2 hectares; or</u></p> <p>(b) <u>within an urban area; or</u></p> <p>(c) <u>within a clean air zone</u></p> <p><u>is a permitted activity.</u></p> <p><u>For the purposes of this rule, 'urban area' means an area that is a city, town, village, residential area or collection of workplaces and is specified in an operative district planning</u></p>	<p>1. <u>The discharge into air from any device installed after 1 January 2003 shall occur via an emission stack so that:</u></p> <p>(a) <u>the minimum height of an emission stack within 3 metres distance from the highest point of the roof shall be 600mm above that point; and</u></p> <p>(b) <u>the minimum height of an emission stack further than 3 metres from the highest point of the roof shall be 1000mm above the point of roof penetration; and</u></p> <p>(c) <u>the ridge line of the roof of any other building, land or other substantial structure shall not lie</u></p>	



Activity

map as a residential, living, commercial, business or industrial zone, or a zone of a similar effect.

Conditions

in or above a circular area described by a horizontal radius of 3 metres about the top of the emission stack.

2. Insofar as is reasonably practicable and consistent with the exclusion of rain and snow, the discharge shall be directed vertically into air and shall not be impeded by any obstruction above the stack which decreases the vertical efflux velocity, below that which would occur in the absence of such obstruction.
3. The discharge shall not be dangerous or noxious beyond the boundary of the property where the discharge originates.
4. The dispersal or deposition of particles shall not cause an objectionable or offensive effect beyond the boundary of the property where the discharge originates.
5. The discharge of odour beyond the boundary of the property from which it originates shall not cause an offensive or objectionable effect on the environment.
6. The fuel-burning equipment and emission stack shall be maintained.
7. Enclosed burners shall be operated in accordance with their operating instructions.

Cross

Ref.

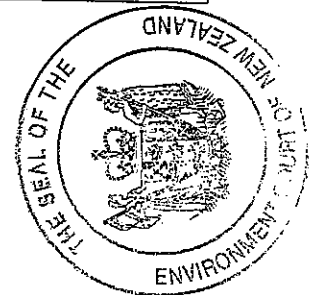


4. Rule AQL2

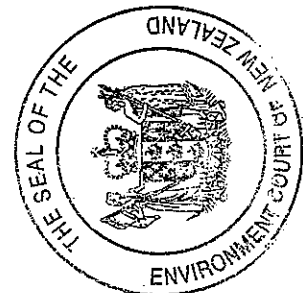
Amend Rule AQL2 Enclosed burners meeting specific criteria anywhere in Canterbury -permitted activity as follows:

Rule AQL2 Enclosed burners meeting specific criteria anywhere within Canterbury – permitted activity

Activity	Conditions	Cross Ref.
<p>Except where prohibited by Rules AQL5, AQL6 or AQL9, or permitted by Rule ALQ1A, AQL8, the discharge of contaminants into air from the burning of solid fuel in any enclosed burner which, at the date of installation has been authorised or otherwise approved by Environment Canterbury as meeting the following standards is a permitted activity:</p>	<ol style="list-style-type: none"> 1. The device shall contain the following information on a label permanently attached to the device and placed in a position which is clearly visible after installation of the device: <ol style="list-style-type: none"> (a) the authorisation or approval number assigned by Environment Canterbury; and (b) the statement "Performance may vary from test values depending on actual operating conditions"; and (c) the approved fuel for use in the device; and (d) the measured particulate emission rate in grams per kilogram (g/kg); and (e) the percentage measure of thermal efficiency; and (f) the range of heat output tested (e.g. low, medium and high burn rates); and (g) a space to allow the installer to place the date of installation of the device. 2. Devices shall be capable of being operated on a high, medium and low burn rate. 3. The discharge into air from any device installed after 1 January 2003 shall occur via an emission stack so that: <ol style="list-style-type: none"> (a) the minimum height of an emission stack within 3 metres distance from 	
<ol style="list-style-type: none"> (a) emission of no more than 1 gram of total suspended particulate per kilogram of fuel burned, calculated by averaging the total suspended particulate emissions for high, medium and low burn rates, when tested in accordance with AS/NZS4012:1999 and AS/NZS4013:1999 or the functional equivalent for non batch-fed appliances. Where the nominated test fuel is wood then the test shall be carried out using softwood in accordance with the requirements of AS/NZS4014.2:1999; and (b) thermal efficiency, for space heating only as described in AS/NZS4012:1999, of 65% or greater. 		



Activity	Conditions	Cross Ref.
	<p>the highest point of the roof shall be 600mm above that point; and</p> <p>(b) the minimum height of an emission stack further than 3 metres from the highest point of the roof shall be 1000mm above the point of roof penetration; and</p> <p>(c) the ridge line of the roof of any other building, land or other substantial structure shall not lie in or above a circular area described by a horizontal radius of 3 metres about the top of the emission stack.</p> <p>4. Insofar as is reasonably practicable and consistent with the exclusion of rain and snow, the discharge shall be directed vertically into air and shall not be impeded by any obstruction above the stack which decreases the vertical efflux velocity, below that which would occur in the absence of such obstruction.</p> <p>5. The discharge shall not be dangerous or noxious beyond the boundary of the property where the discharge originates.</p> <p>6. The dispersal or deposition of particles shall not cause an objectionable or offensive effect beyond the boundary of the property where the discharge originates.</p> <p>7. The discharge of odour beyond the boundary of the property from which it originates shall not cause an offensive or objectionable effect on the environment.</p> <p>8. The sulphur content of the fuel to be burned shall not exceed 0.5% by weight.</p> <p>9. Contaminants discharged may only be derived from combustion of fuel authorised or approved for use in the device by Environment Canterbury.</p> <p>10. The fuel-burning equipment and emission stack shall be maintained.</p>	

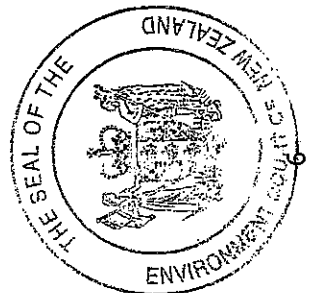


5. Rule AQL4

Amend Rule AQL4 Enclosed burners, oil or gas burning heating devices or open fires anywhere in Canterbury not complying with Rules AQL1, AQL2, AQL3 or AQL8 that are not otherwise prohibited – non-complying activity, as follows:

Rule AQL4 *Enclosed burners, oil or gas burning heating devices or open fires anywhere in Canterbury not complying with Rules AQL1, AQL1A, AQL2, AQL3 or AQL8 that are not otherwise prohibited – non-complying activity*

Activity	Cross Ref.
<p>Except where prohibited by Rules AQL5, AQL6, AQL7, AQL9, AQL10 or AQL11 or permitted by Rule AQL 8, the discharge of contaminants into air from the burning of fuel in any enclosed burner, oil or gas burning heating device or open fire which is not classified as permitted by Rules AQL1, AQL1A, AQL2, AQL3 or AQL8 or which does not comply with the conditions of Rules AQL1, AQL1A, AQL2, AQL3 or AQL8 is a non-complying activity.</p>	

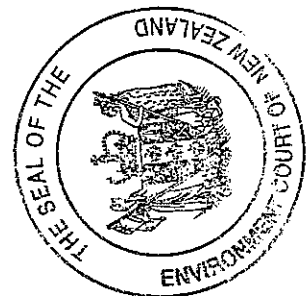


6. Rule AQL5

Amend Rule AQL5 Fuels prohibited from use in small scale fuel burning devices anywhere in Canterbury – prohibited activity for which no resource consent shall be granted, as follows:

Rule AQL5 Fuels prohibited from use in small scale fuel burning devices anywhere in Canterbury – prohibited activity for which no resource consent shall be granted

Activity	Cross Ref.
<p>Discharge of contaminants into air from the burning (other than in a minor and incidental way and not as the principal fuel), in any small scale fuel burning device, of any of the following materials, is a prohibited activity for which no resource consent shall be granted:</p> <ul style="list-style-type: none"> (a) any fuel having a sulphur content greater than 1% by weight, <u>except that this clause shall not apply to discharges from a back country hut;</u> or (b) wood having a moisture content of more than 25% dry weight, <u>except that this clause shall not apply to discharges from a back country hut;</u> or (c) wood treated with preservatives or impregnated with chemicals, including but not limited to, wood treated with Copper-Chrome-Arsenic (CCA); or (d) chip board, including but not limited to, particle board, medium density fibreboard (MDF) and laminated boards; or (e) wood which is painted, stained or oiled; or (f) metals and materials containing metals, including but not limited to, cables; or (g) materials containing asbestos; or (h) all rubber, including but not limited to, rubber tyres; or (i) medical waste, pathological wastes, quarantine waste and animal waste, including but not limited to, dried animal faeces; or (j) synthetic material, including, but not limited to, motor vehicle parts, foams, fibreglass, batteries, chemicals, paint and other surface coating materials, tar, or any type of plastic; or 	



Activity	Cross Ref.
(k) used and waste oil, excluding re-refined oil; or	
(l) peat; or	
(m) sludge from industrial processes.	
<p><i>For the purposes of this rule, 'backcountry hut' means any facility erected for the purposes of providing shelter within the boundaries of any land held or managed by the Department of Conservation under the Conservation Act 1987 or any other Act specified in Schedule 1 of that Act.</i></p>	

7. Explanation to Rule AQL1A

Amend 3.5.9.1 Regional rules for discharges to air from small scale fuel burning devices, by adding section Rule AQL1A Small scale solid fuel burners on sites 2 hectares or greater, not zoned for urban purposes or within a clean air zone – permitted activity, as follows:

Rule AQL1A Small scale solid fuel burners on sites 2 hectares or greater, not zoned for urban purposes or within a clean air zone – permitted activity

Rule AQL 1A permits the discharge of contaminants from small scale solid fuel burning devices installed on or after 1 January 2004 in locations where such discharges will not contribute to existing or future poor ambient air quality within Canterbury. Examples of small scale solid fuel burning devices permitted by this rule are: domestic open fires, woodburners, multifuel burners, and dual cooking and heating ranges.

The locations where such discharges will not contribute to existing or future poor ambient air quality within Canterbury are those sites: 2 hectares or greater, not zoned for urban purposes in a district plan, or not situated within a clean air zone specified in this Plan. In these locations, the threat to ambient air quality is significantly reduced through geography, meteorology, remoteness, land use and population density.

The 2 hectare site size threshold reflects Regulation 22 of the Resource Management (National Environmental Standards Relating to Certain Air Pollutants, Dioxins, and Other Toxics) Regulations 2004, which prohibits discharges from a woodburner (as defined in Regulation 3) after



1 September 2005 in a building on a property with an allotment size of less than 2 ha. All woodburners must comply with this regulation. Therefore, in order to avoid inconsistent and perverse results, in this rule the 2 hectare site size threshold is applied to all small scale solid fuel burning devices.

The conditions within the rule control local adverse effects of the discharges from the permitted small scale solid fuel burning devices.

8. Explanation to Rule AQL2

Amend 3.5.9.1 Regional rules for discharges to air from small scale fuel burning devices, section Rule AQL2 Enclosed burners meeting specific criteria anywhere and Canterbury - permitted activity, as follows:

Rule AQL2 Enclosed burners meeting specific criteria anywhere within Canterbury – permitted activity

Rule AQL1 recognises that domestic solid fuel burning devices are the main contributors to poor ambient air quality. In order to reduce the emissions of suspended particulate to achieve concentrations in ambient air that are more protective of public health and to reduce the nuisance effects of contaminants associated with discharges to air from the combustion of solid fuels from enclosed small scale solid fuel burning devices, the best technology available should be installed.

This rule takes over from the authorisation process that occurred under section 369(11)(b) of the RMA.

The standards which enclosed burners must comply with relate to an emission standard and a thermal efficiency standard.

Grams/kilogram is used for the emission standard, for both wood and coal burning appliances. This is because this unit requires the best practicable option for a given fuel and size of appliance, is straightforward to implement, is used in the relevant NZ standard, and is already in use and well known to manufacturers. 1 g/kg has been adopted as the performance criteria and is seen as a reflection of the best available technology.

Thermal efficiency of a device is the amount of "useful" heat that is released per unit of potential energy supplied in the wood. A thermal efficiency standard is imposed because low efficiency means more wood is burned to achieve a given heat output, and hence more particulate emitted. 65% is generally recognised as an appropriate level of efficiency for an enclosed burner.

The rule requires authorisation or other approval of the device. This process shall occur under section 369(11)(b) of the RMA until the NRRP becomes operative. After the plan becomes operative a manufacturer of a device shall supply such information as is necessary to Environment Canterbury for it to ascertain that the device meets the standards of the rule. This shall occur through section 35 of the RMA. The manufacturer may also apply for a certificate of compliance under section 139 of the RMA.



Condition 3 ensures that all enclosed burners are able to be operated in a way that they are tested in the laboratory situation under the AS/NZS4012:1999 and AS/NZS4013:1999 - that being, at a low, medium and high burn rate. This enables the burner to be used at varying rates, while not shutting off the air supply to the fuel.

Device design alone does not ensure that particulate emissions are consistently as low as those measured under test conditions. Therefore, conditions are attached to this activity to assure proper operation of these heating devices.

Discharge from a chimney at a height above the roof of the dwelling minimises down-wash of the contaminant plume in the building wake, thereby preventing high ground level concentrations of contaminants (including high levels of carcinogens such as polycyclic aromatic hydrocarbons) close to the source. Insofar as is reasonably practicable, and consistent with the exclusion of rain and snow from the stack, it is important that combustion products are discharged vertically into the air without obstruction by rain hats or similar fixtures in or above the stack. This ensures that the dispersion of contaminants is maximised. The flue exit and the end of the flue-pipe casing can be designed in a way which prevents significant ingress of water or other debris, and still be fitted so that it does not obstruct the flue discharge.

Condition 11 requires that the fuel-burning equipment and emission stack is maintained. This should ensure that the fuel-burning equipment and emission stack is kept so as to minimise particulate emissions.

Condition 9 is imposed because dispersion modelling indicates that burning of fuel with a sulphur content greater than 0.5% can cause high local ground level concentrations of sulphur dioxide which may cause adverse health effects.

The low emission standards identified in Rule AQL2 are to be applied throughout Canterbury from 1 January 2004 in locations where there is a threat to ambient air quality due to geography, meteorology, location, land use and population density. These locations include sites of less than 2ha, urban areas and clean air zones specified in this Plan. This is effective in achieving Objective AQL2 by reducing the emissions of contaminants from a wide variety of domestic sources. It acts as an incentive to good practice, providing a clear statement of requirements for users, resulting in increased certainty. It is also effective in adopting a precautionary response in non-monitored/investigated areas. Requiring the installation of low emission technology will always be the first step in reducing PM₁₀ from domestic heating emissions, to be followed by reducing the numbers of high emission polluters. By identifying now if an enclosed solid fuel burner is to be installed, then it should meet the 1g/kg criteria so as to maintain existing good air quality where it occurs. However, where there are too many enclosed burners then the cumulative effects of particulate will have major impacts. Rule AQL9 therefore puts a cap on the number of burners installed to the number installed prior to 1 January 2003. Non regulatory methods will be trialled to see how effective they are at reducing the number of enclosed burners used.

If the emission standards, the thermal efficiency standards and conditions cannot be met, then the activity becomes non-complying under Rule AQL3 and will require a resource consent.



9. Explanation to Rule AQL5

Amend 3.5.9.1 Regional rules for discharges to air from small scale fuel burning devices, section Rule AQL5 Fuels prohibited from use in small scale fuel burning devices anywhere in Canterbury – prohibited activity for which no resource consent shall be granted, as follows:

Rule AQL5 identifies a number of materials that shall not be burnt on small scale fuel burning devices other than in a minor or incidental way and not as the principal fuel. The burning of these fuels is likely to result in the discharge of toxic, corrosive and odorous compounds, which will have significant adverse effects on human health, the life-supporting capacity of the environment, on flora and fauna, and on the localised and ambient air quality of an area.

Dispersion modelling indicates that burning of fuel with a sulphur content greater than 1% can cause high local ground level concentrations of sulphur dioxide which may cause adverse health effects.

Burning of dry fuel with adequate combustion air will minimise the emission of PM₁₀, visible smoke and products of incomplete combustion. Thus odour and smoke nuisance to neighbours can be reduced. Wood with a moisture content greater than 25% dry weight does not burn efficiently. This increases the difficulty of operating small scale fuel burning devices correctly and the likelihood of smoke and odour nuisance.

Burning of chemically treated timber can cause the discharge of treatment chemicals such as copper, chromium and arsenic. Long term accumulation of these chemicals in the environment can cause health effects. In addition, emission of salts can cause corrosion of the device's flue. Manufactured wood pellets are not chemically treated when processed.

Combustion of glues, plastics, paints, rubber and synthetic materials commonly causes the discharge of toxic and odorous compounds. Organic wastes typically have a high moisture content and can cause significant particulate emissions when burned. Disposal of medical waste, animal waste and quarantine waste by burning should only be undertaken in proper facilities.

Specific exemption is made in relation to the moisture content of wood and sulphur content of fuel for back country huts. This recognises that these are isolated public facilities managed by the Department of Conservation.

