

# Appendix AQ2

## emission requirements: small-scale solid fuel burning appliances

### Advisory Note:

With the exception of the information requirements of AQ2.3 below, the provisions of Appendix AQ2 (parts AQ2.1 and AQ2.2) do not apply to ultra-low emission burning appliances. In addition to the AQ2.3 information requirements below, the requirements for ultra-low emission burning appliances are specified in Appendix AQ2B.

### **AQ2.1 Small-scale solid fuel burning appliances must:**

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- a) emit no more than 1.5 grams 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/NZS 4014.2:1999, and
- b) have a thermal efficiency, for space heating only, as described in AS/NZS 4013:1999, of 65% or greater, and
- c) have an authorisation or approval number assigned by Nelson City Council, Canterbury Regional Council, operating as Environment Canterbury, or the Ministry for the Environment, and
- d) 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:
  - i) the authorisation or approval number assigned by Nelson City Council, Canterbury Regional Council, operating as Environment Canterbury, or the Ministry for the Environment, and
  - ii) the statement "Performance may vary from test values depending on actual operating conditions", and
  - iii) the approved fuel for use in the device, and
  - iv) the measured particulate emission rate in grams per kilogram (g/kg), and
  - v) the percentage measure of thermal efficiency (for appliances used for space heating only), and
  - vi) the range of heat output tested (e.g. low, medium and high burn rates), and
  - vii) a space to allow the installer to place the date of installation of the device.
- e) not be modified in any way so as to alter the specifications of the heating device from those tested and stated in a) and b), and

- f) be maintained in good operational order and operated in accordance with the manufacturer's instructions (so long as those do not mandate operation that would lead to output that does not comply with a) or b)), and be operated with the door shut in the case of enclosed appliances, and
- g) be capable of being operated on a high, medium and low burn rate.

### **AQ2.2 List of Authorised Appliances:**

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**AQ2.2.1** Nelson City Council will maintain a 'List of Authorised Solid Fuel Burning Appliances' that comply with conditions a) and b), or which have been approved by resource consent as being authorised. The list may be updated without further formality, and will be held at the Council offices and on its website ([www.nelsoncitycouncil.co.nz](http://www.nelsoncitycouncil.co.nz)), and will detail the following:

- i) the appliance make and model, and
- ii) the authorised fuel for that appliance, and
- iii) whether or not the appliance was tested and approved with a water heating unit (wet-back) fitted, and
- iv) the particulate emission rate, in terms of grams of total suspended particles emitted per kilogram of fuel burnt), and
- v) the space heating efficiency, where applicable, and
- vi) the authorisation number, and
- vii) the date when the authorisation expires, if relevant, and
- viii) any other relevant information.

**AQ2.2.2** Any appliance that appears on the list of 'Authorised Solid Fuel Burning Equipment' maintained by Canterbury Regional Council operating as Environment Canterbury, or any such list maintained by the Ministry for the Environment, is deemed to meet the requirements of this Plan, provided the particulate emission rate and the space heating efficiency listed comply with conditions a) and b) above.

**AQ2.2.3** Any small-scale pellet burning appliance authorised under Appendix AQ2A is also deemed to meet the requirements of this Appendix.

### **AQ2.3 Information to be provided for authorisation of small scale fuel burning appliances**

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Applications to authorise the use of small scale fuel burning appliances must include the following information:

- a) a letter requesting authorisation of the appliances (specifying the models to be included in the application), and
- b) design details and/or an accurate description of the device tested, and
- c) current brochures used for selling the device, and
- d) installation and operation instructions, including information about the type of fuel proposed for use in the device, and
- e) proposed label in accordance with the requirements listed below;
- f) emission test reports and results, and
- g) clearance test reports and results, and
- h) location of a shop floor model that can be viewed (if possible), and
- i) any other information which, in the opinion of Nelson City Council, is necessary or desirable to assess the small-scale fuel burning appliance.