

Appendix AQ2B: requirements for small-scale ultra-low emission burning appliances

Interpretation

The provisions below are requirements for ultra-low emission burning appliances.

The Appendix refers to 'authorisation' and 'certification' processes for appliances. Broadly, these processes are for the following purposes:

- a) **Authorisation** is a process for confirming that specific appliances will operate within the emission and efficiency limits for ultra-low emission burning appliances; and
- b) **Certification** is a process for managing the allocation of ultra-low emission burning appliances in the Urban Area.

Further detail on the authorised appliances is provided under AQ2B.2 and on the certification process under AQ2B.3.

AQ2B.1 Requirements for small-scale ultra-low emission burning appliances

Small scale ultra-low emission burning appliances must:

- a) have an authorisation number or approval number assigned by Nelson City Council, or Canterbury Regional Council, operating as Environment Canterbury, or the Ministry for the Environment, and
- b) 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 required by a) above, and
 - ii) the Burner Allocation Certificate number assigned by Nelson City Council (see AQ2B.3.2 below), and
 - iii) the statement "Performance may vary from test values depending on actual operating conditions", and
 - iv) the approved fuel for use in the device, and
 - v) the measured particulate emission rate in grams per kilogram (g/kg) or milligram per Megajoule(mg/MJ), and
 - vi) the percentage measure of thermal efficiency (for appliances used for space heating only), and
 - vii) the range of heat output tested (e.g. low, medium and high burner rates), and
 - viii) a space to allow the installer to place the date of installation of the device.

- c) not be modified in any way so as to alter the specifications of the heating device from those tested and authorised, and
- d) 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 c)).

AQ2B.2 List of Authorised Appliances

Nelson City Council will maintain a 'List of Authorised small-scale ultra-low emission burning appliances' that achieve ultra-low emission and efficiency standards under real life testing conditions¹. The list may be updated without further formality, and will be held at the Council offices and on its website (www.nelsoncitycouncil.co.nz) and will detail the following:

- a) the appliance make and model, and
- b) the authorised fuel for that appliance, and
- c) whether or not the appliance was tested and approved with a water heating unit (wet-back) fitted, and
- d) the particulate emission rate, grams of total suspended particulate burnt per hour on average, and
- e) the space heating efficiency, where applicable, and
- f) the authorisation number, and
- g) the date when the authorisation expires, if relevant, and
- h) any other relevant information.

AQ2B.3 Certification

AQ2B.3.1 General requirement for certification

Prior to installation of any new small scale ultra-low emission burning appliance, a Burner Allocation Certificate (BAC) must be obtained from the Council.

AQ2B.3.2 Certification: Permitted appliances in Airsheds B2 and C

After the receipt of an application under AQ2B.3.1, the Council will issue a BAC if the small-scale ultra-low emission burning appliance is to be located:

- a) within a new building located on a site in Airshed B2 or Airshed C: or
- b) within an existing building located on a site in Airshed B2 or Airshed C in which there is no existing operable open fire and no existing small-scale solid fuel burning appliance; or
- c) within an existing building located on a site in Airshed A or Airshed B1 or Airshed B2 or Airshed C and is to replace any existing small-scale solid fuel burning appliance within that building that has been previously authorised by any rule in this Plan; and
- d) when an application for a BAC is received by Council:
 - i) if the application is for a new appliance in Airshed B2 under clause AQ2B.3.2 a) or b) above, no more than 999 ultra-low emission burning appliances hold a BAC in that airshed; and

¹ Refer to the definition of small-scale ultra-low emission burning appliances for more information on real life testing

- ii) if the application is for an appliance in Airshed C under clause AQ2B.3.2 a) or b) above, no more than 599 ultra-low emission burning appliances hold a BAC in that airshed; and
- iii) if the application is for a replacement appliance in any of Airsheds A, B1, B2, or C under clause AQ2B.3.2 c) above, there is no limit on the number of existing BAC held in each airshed; and
- iv) For the purposes of maintaining a tally of appliances under i) and ii) above, ultra-low emission burning appliance shall not include any ultra-low emission burning appliance that replaces any existing authorised small-scale solid fuel burning appliance.

AQ2B.3.3 Council Databases

1. Appliance Inventory

For the purposes of administering the allocation of ultra-low emission burning appliances, the Council will maintain an inventory of new and replacement ultra-low emission burning appliances that have been certified. The inventory will be held at the Council Offices, and details will be available on the Council website (as appropriate).

2. Database of Interested Parties

The Council will maintain a database of parties who wish to obtain certification for an appliance.

The database will be held at the Council Offices, and details on how parties can register an expression of interest will be available on the Council website.

AQ2B.3.4 Certificate Duration and Administration

Any BAC will be issued in conjunction with the associated building consent for the appliance. The BAC will lapse 12 months after the issue date unless a code compliance certificate (under s95 of the Building Act 2004) has been issued for the appliance.

No certificate of compliance may be granted for a certified appliance under Rule AQR.26A until such time as the code compliance certificate for the appliance is issued.

Explanatory Note

Appendix AQ2B provides explicitly for the installation of a limited number of additional small-scale solid fuel burning appliances in Airsheds B2 and C provided those burners are small-scale ultra-low emission burning appliances. In addition to the Appendix AQ2B requirements, the information requirements for applications for consent involving ultra-low emission burning appliances are set out in Appendix AQ2.3.

The Plan permits 1,600 additional small scale ultra-low emission burning appliances in Airsheds B2 and C (collectively). This allocation of appliances is based on monitoring and modelling undertaken in 2015, which illustrated that ambient air quality levels in these airsheds was approaching 'Acceptable' levels (as described in Policy A5-1.3). In addition, the rules provide for the replacement of existing authorized small-scale wood burners with ultra-low emission burning appliances in all urban Airsheds A, B1, B2 and C. No provision is made in any Airshed for additional new small-scale solid fuel burning appliances that do not meet the defined requirements for ultra-low emission burning appliances.

The allocation of new appliances in Airsheds B2 and C is contingent on an enhanced Behaviour Change Programme. This Programme has been designed to improve the manner in which small scale solid fuel appliances are operated across the Urban Area, and is anticipated to contribute to ambient air quality improvements such that the overall permitted allocation will not compromise the Plan's policy aim of continual air quality improvement.

The 2015 studies also determined that new appliances could not be accommodated in Airsheds A and B1 based upon the observed ambient air quality levels in those airsheds being above the 'Alert' category (as described in Table A5-2 under Policy A5-1.3) without reducing the number of existing burners. For this reason, no appliances are currently allocated in these Airsheds.

With time, it is possible that the Behaviour Change Programme, in combination with the Plan's other policies and methods (and other factors), will accelerate the improvement of the Urban Area's ambient air quality. If sufficient improvement is achieved, it may be sustainable to enable additional appliances in Airsheds B2 and C and/or provide for ultra-low emission burning appliances in Airsheds A or B1. The Council will continue to monitor ambient air quality in the urban area. Any future amendment to the provision for ultra-low burning emission appliances will be made by a change to this Plan. In the meantime, the Council will consider applications for additional appliances in Airsheds B2 and C, in excess of the 1,600 allocation provided for in Appendix AQ2B, as non-complying activities.

This approach recognizes that the initial permitted allocation is based on a single 'snapshot' of the Urban Area's air quality levels, and that future assessments may indicate that additional appliances can be accommodated.