

Appendix AQ3

stack requirements: small-scale solid fuel burning appliances (AQr.25)

AQ3.1 The discharge into air from any device installed after the date of notification of this plan under rule AQr.25 must be to the atmosphere via an emission stack which in all cases extends vertically not less than 4.6 metres above the floor protector under the appliance, and:

- a) where the stack is within 3 metres horizontally, or closer, to the highest point of the roof of the building, the stack must protrude at least 600 mm above the high point of the roof, or
- b) where the stack is further than 3 metres horizontally from the highest point of the roof of the building, the stack must protrude at least 1000 mm above the point of roof penetration, and
- c) the stack must be sufficiently high so that no building (including the building into which the appliance is being installed), substantial structure or any land, lies in or above a horizontal plane with a radius of 3 metres drawn around the top of the stack, and
- d) the discharge must be directed vertically into air (although cowls or weather protectors are permitted).

Explanatory Note

AQ3.2 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. 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 that prevents significant ingress of water or other debris, and still be fitted so that it does not obstruct the flue discharge.

AQ3.3 Under Condition d), weather protectors ('rain hats') are permitted. Designs that have least impact on the vertical efflux velocity of emitted gases are encouraged.

AQ3.4 For any pellet burner that complies with the emission and other requirements in Appendix AQ2A, the stack requirement in Appendix AQ4 can be used in place of this appendix.

See Figure AQ3.1 (overleaf)

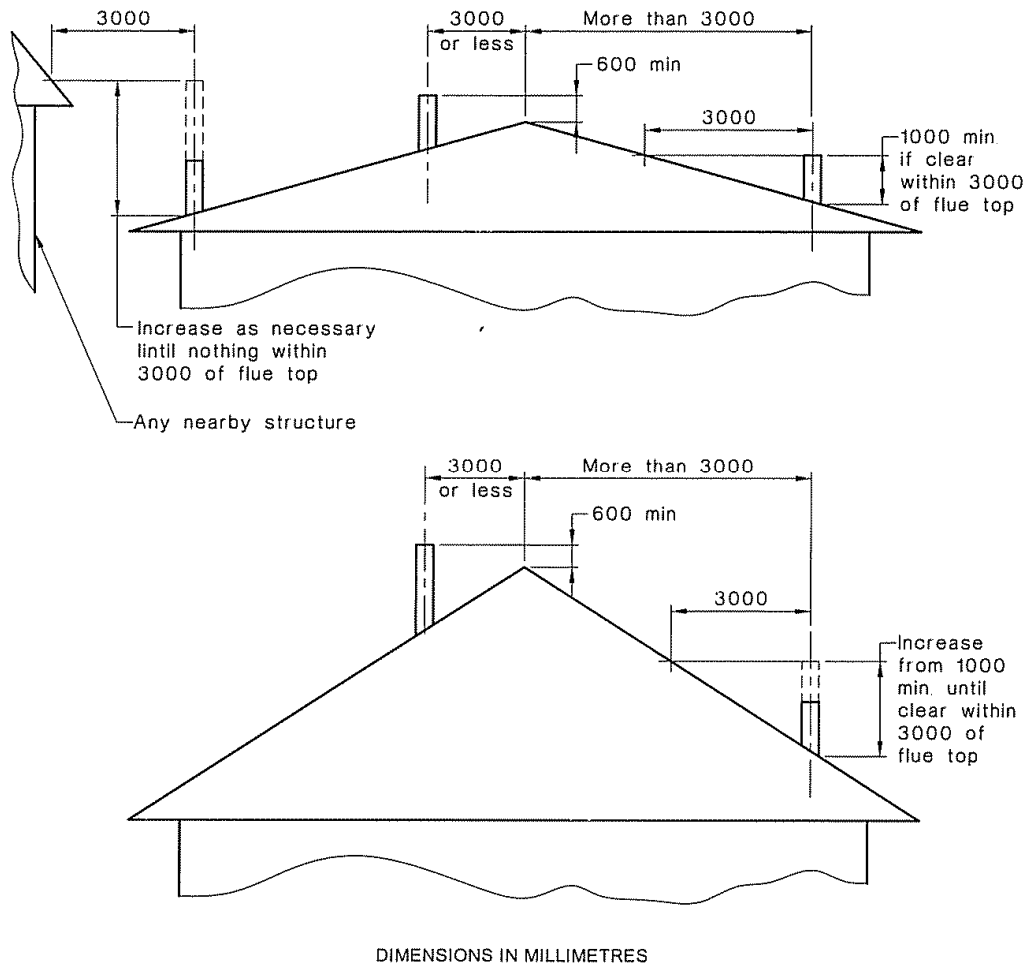


Figure AQ3.1

Minimum height and location of stacks – small scale solid fuel burning equipment

Note: Nelson City Council has Standards New Zealand permission to reproduce this diagram from AS/NZS 2918:2001