

Determination 2024/011

The compliance of a solid fuel heater and flue system with Building Code clause G4.3.4 as it relates to the protection of other property

1/5 Church Street, Woodbury

Summary

This determination considers the decision to issue a code compliance certificate for the installation of a domestic solid fuel heater and flue system. The determination considers whether the system's flue was installed in a way that avoids creating a nuisance to other property in accordance with clause G4.3.4.



Figure 1. Location of the flue at the owner's house (foreground)

In this determination, unless otherwise stated, references to “sections” are to sections of the Building Act 2004 (“the Act”) and references to “clauses” are to clauses in Schedule 1 (“the Building Code”) of the Building Regulations 1992.

The Act and the Building Code are available at www.legislation.govt.nz. Information about the legislation, as well as past determinations, compliance documents (eg Acceptable Solutions) and guidance issued by the Ministry, is available at www.building.govt.nz.

1. The matter to be determined

- 1.1. This is a determination made under due authorisation by me, Andrew Eames, Manager Advisory Determinations, Ministry of Business, Innovation and Employment (“the Ministry”), for and on behalf of the Chief Executive of the Ministry.¹
- 1.2. The parties to the determination are:
 - 1.2.1. C Swann, owner of the semi-detached single-storey property at 1/5 Church Street (“the property”) where the solid fuel heater and flue system is installed (“the owner”)
 - 1.2.2. K Riseley, owner of the semi-detached two-storey property at 2/5 Church Street (“the adjacent property”) who applied for the determination (“the applicant”)
 - 1.2.3. Timaru District Council, carrying out its duties as a territorial or building consent authority (“the authority”).
- 1.3. D Brooking, who installed the solid fuel heater and flue system at the property (“the installer”), is a person with an interest in this determination.
- 1.4. This determination arises from the applicant’s concern that a code compliance certificate was incorrectly issued. The applicant believes the disposal of smoke from the solid fuel heater and flue system installed at the property does not comply with Clause G4 Ventilation, specifically clause G4.3.4, as it relates to the protection of other property.
- 1.5. The matter to be determined, under section 177(1)(b) of the Act, is the authority’s decision to issue the code compliance certificate for work carried out under building consent 2.202285.1. This turns on whether the installation of the solid fuel heater and flue system at 1/5 Church Street complies with Building Code Clause G4.3.4 Ventilation.

¹ The Building Act 2004, section 185(1)(a) provides the Chief Executive of the Ministry with the power to make determinations.

- 1.6. In deciding this matter, I must consider whether the system's flue was installed in a way that avoids creating a nuisance to other property in accordance with clause G4.3.4.
- 1.7. I have not considered the performance of the heater or flue in relation to any other Building Code clauses, nor any other aspects of the Act or of the Building Code, other than those set out in the matter for determination.

2. The building work

- 2.1. The property is a single storey semi-detached dwelling at the north end of the lot.
- 2.2. The adjacent property towards the south of the lot is a semi-detached two-storey dwelling, with the lounge and bedroom situated on the upper level.
- 2.3. Both properties were constructed in 1976, and they share a wall ("the party wall"). The party wall forms the notional boundary between the owner's property and the adjacent property belonging to the applicant.
- 2.4. On 4 February 2022, A building consent application was submitted to the authority for the installation of a new solid fuel heater and flue system at the property. In the building consent application, it was proposed that the flue would be installed in accordance with AS/NZS 2918:2001 Domestic solid fuel burning appliances – Installation.²
- 2.5. Building consent BC 2.202.85.1 was approved by the authority for the installation work.
- 2.6. The heater is freestanding in the lounge at the owner's property, and the flue penetrates the roof on the northwest side.
- 2.7. The flue is positioned less than three metres horizontally from the ridgeline of the owner's property and does not extend vertically above the height of the ridgeline. (See figure 2)
- 2.8. The authority carried out an inspection of the installation on 25 March 2022. In the notice, the authority states that "[f]lue height meets the minimum requirements of the consent documents and manufacturers [sic] details". Inspection also recorded that "[t]he appliance is 'Clean Air' approved".
- 2.9. The authority issued a code compliance certificate for the solid fuel heater and flue installation work on 25 March 2022³, noting that the building work complied with the building consent.

² At the time of the building consent application, AS/NZS 2918:2018 had replaced the 2001 version of the standard.

³ The certificate had two dates on it, 25 and 29 March 2022.

2.10. The Ministry received an application for a determination on the compliance of the solid fuel heater and flue installation on 13 February 2023. The applicant stated that their concern was in relation to “non-compliance with AS/NZS 2918:2001 ... [i]n respect to the height of the flue in [the] wood burner compliance certification”.

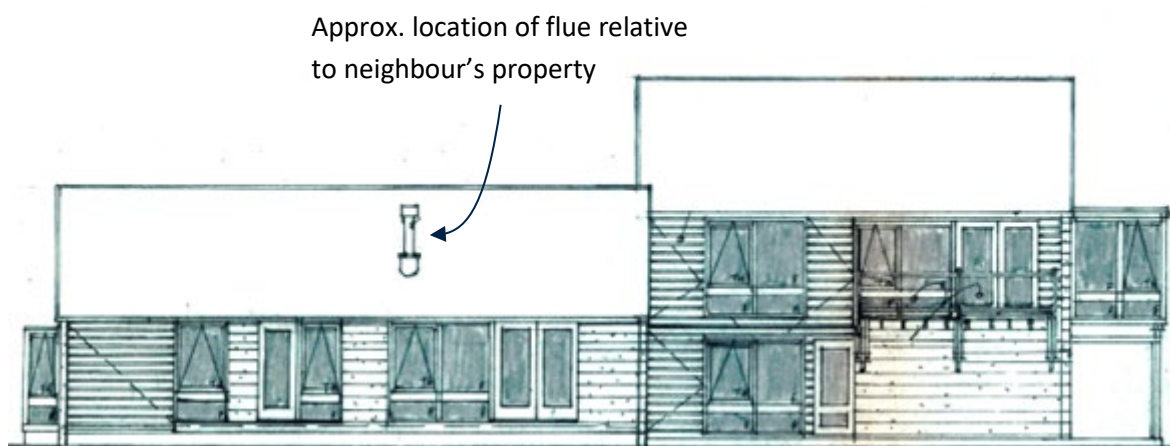


Figure 2. North elevation showing relative location of properties and flue

3. Submissions

The applicant

3.1. The applicant submitted the following opinions and observations in relation to the solid fuel heater and flue installation and the nuisance which is the subject of this determination:

3.1.1. “... non-compliance with AS/NZS 2918:2001. In respect to the height of the flue in wood burner compliance certification”

3.1.2. “... a winter of inhaling my neighbour’s smoke, scratchy eyes, and smoke scented furnishings”.

3.1.3. “... invariably when my neighbour lights [their] burner my house fills with the smell of smoke even with all doors and windows closed (depending on wind direction)”

3.2. In relation to the horizontal distance between the flue and the ridgeline, the applicant noted the flue does not extend above the ridge, and they calculated the horizontal distance to be a maximum of 2152mm.

The owner

3.3. The Ministry requested dimensions from the owner to clarify the position and height of the flue for comparison with the requirements of AS/NZS 2918:2018.

- 3.4. The dimensions supplied by the owner were not adequate to establish the distance of the flue from the ridgeline or relative height to the ridgeline.
- 3.5. The owner advised that "... as per [the installer] height above the ridge is 600mm".

The authority

- 3.6. The authority made a submission on 26 January 2024. In their submission, the authority stated:

[The authority] supports the statements documented by the inspection officer within the inspection documents that the position of the appliance is compliant with the minimum clearances to combustible materials to the front, back and sides of the appliance, flue clearances and roof penetration flashing.
- 3.7. The authority volunteered to carry out an additional inspection during the determination process to provide more information on the position and height of the flue. On 23 February 2024, the authority reported:

With the use of a laser to determine the ridge line, we were able to successfully measure the distance between the fire flue and ridge line from inside the dwelling and can confirm this distance to be 2.440m.
- 3.8. The authority also stated that they "... viewed the flue from outside the dwelling and can confirm the top of the flue does not reach the height of the ridge line".

The installer

- 3.9. The installer submitted:

The fire and flue is installed as per AS/NZS 2918.
It should be noted that there are large trees surround [sic] the property which maybe effecting performance of the burner.
The flue is approximately 1m longer than the minimum length of 4.6m from the floor protector however could be extended further and remain compliant to help with reducing smoke around the property.

4. Discussion

- 4.1. The applicant is concerned about the compliance of the solid fuel heater and flue system in the owner's property with AS/NZS 2918:2001, and whether the authority should have issued a code compliance certificate in relation to it. The particular concern is the height of the flue component of the solid fuel heater and flue system.

The legislation

- 4.2. Section 94 sets out matters for considering by building consent authorities in deciding whether to issue code compliance certificates. Subsection (1) provides:
- (1) A building consent authority must issue a code compliance certificate if it is satisfied, on reasonable grounds—
 - (a) that the building work complies with the building consent; and ...
- 4.3. Section 17 of the Act specifies that:
- All building work must comply with the building code to the extent required by this Act, whether or not a building consent is required in respect of that building work.
- 4.4. As stated, the provision of the Building Code at issue is clause G4.3.4, although clause G4.3.3 is also relevant. The version of Clause G4 that applied at the time that the building consent was issued reads:
- Objective**
- G4.1** The objective of this provision is to safeguard people from illness or loss of *amenity* due to lack of fresh air.
- Functional requirement**
- G4.2** Spaces within *buildings* shall be provided with *adequate* ventilation consistent with their maximum occupancy and their intended use.
- Performance**
- G4.3.1** ...
- G4.3.3** *Buildings* shall have a means of collecting and otherwise removing the following products from the spaces in which they are generated:
- ...
- (i) products of combustion.
- G4.3.4** Contaminated air shall be disposed of in a way which avoids creating a nuisance or hazard to people and *other property*.
- 4.5. Clause G4.3.4 aims to protect people and other property from nuisance or hazard created by the disposal of contaminated air. The applicant claims that their adjacent property, which is the other property, is subject to a nuisance because of smoke from the flue discharging onto their property.

Compliance with the building consent

- 4.6. The building consent application form noted that the height of the flue above the roof ridge would be 600mm.
- 4.7. The make and model of the heater was specified in the application, and the specifications and installation guide supplied. The specifications noted the flue height above 600mm if the distance from the centre of the flue to the highest point is less than 3m.

- 4.8. The specifications also reference AS/NZS2918:2001 in several places. Paragraph 4.9 of that standard describes external requirements for flue exits. It states the flue exit shall be located outside the building in which the appliance is installed so that the minimum height of the flue system within 3m distance from the highest point of the roof shall be 600mm above that point.
- 4.9. The plans submitted with the building consent application showed the location of the proposed fire on the floor plan but did not confirm the distance from the flue to the ridgeline.
- 4.10. The flue has been installed within 3m from the ridgeline but terminates lower than the ridgeline. As installed, the building work does not comply with the building consent and therefore the test in section 94 for issuing a code compliance certificate was not met.
- 4.11. In deciding whether to reverse the authority's decision to issue the code compliance certificate, I have considered whether the solid fuel heater and flue system comply with clause G4.3.4 despite not being in accordance with the building consent.

Compliance with clause G4.3.4

- 4.12. Clause G4.3.4 is performance based and sets out the minimum performance requirements. It does not specify how to achieve this performance, meaning there are no detailed requirements for design and construction.
- 4.13. An Acceptable Solution is one way of establishing compliance with a particular clause of the Building Code. A design that is in accordance with an Acceptable Solution must be accepted as complying with the related Building Code provisions.⁴
- 4.14. Acceptable Solution G4/AS1 does not include solutions specific to discharges from domestic solid fuel appliances.
- 4.15. Paragraph 1 of G4/AS1 considers the ventilation of spaces within buildings, with paragraph 1.5.1(f) requiring that mechanical ventilation must discharge contaminated air in a way that complies with the standard AS 1668.2:2012 Mechanical Ventilation in Buildings.
- 4.16. I note that residential solid fuel heaters and flues are not mechanical ventilation systems in terms of the cited standard.
- 4.17. Paragraph 2 of G4/AS1 considers the ventilation of spaces containing gas-fuel appliances, which is not relevant here.

⁴ Section 22(2) provides that a person who complies with an Acceptable Solution or a Verification Method must be treated as having complied with the provisions of the Building Code to which that Acceptable Solution or a Verification Method relates.

- 4.18. Although the Acceptable Solution does not specifically refer to discharges from domestic solid fuel heater and flue systems, I am of the view that it provides a useful measure for the appropriate physical attributes of the various components of these systems in conjunction with:
- 4.18.1. the discharge requirements of the Resource Management (National Environmental Standards Relating to Certain Air Pollutants, Dioxins and Other Toxics) Regulations 2004: Regulation 23 Design Standard (“the RMA Regulation”); and
 - 4.18.2. the design parameters set out in AS/NZS 2918.
- 4.19. In this case, the model of solid fuel heater and flue system installed at the owner’s property is on the Ministry for the Environment’s national list of authorised systems, so would appear to be compliant with the requirements of the RMA Regulation.
- 4.20. AS/NZS 2918:2001 (or AS/NZS 2918:2018, which was the version of the standard in effect at the time the installation work was carried out) provides recommendations for the installation of solid fuel heaters and their flues. It is not a cited standard of the Acceptable Solution G4/AS1.
- 4.21. I have already noted above that the installation of the flue is not in accordance with AS/NZS 2918:2001. The more recent version, 2018 which was current at the time the work was carried out, maintains the same prescriptive measure. Part 4.9.1(b) of the standard states:
- The minimum height of the flue system within 3 m distance from the highest point of the roof shall be 600 mm above that point as shown in Figure 4.8.
[Appended]
- 4.22. The distance between the flue and the ridgeline (ie the highest point of the roof) at the owner’s property is less than three horizontal metres, and the flue does not reach the height of the ridge line. The flue is not installed in accordance with the standard.
- 4.23. The standard provides recommendations for the installation of solid fuel heaters and their flues, but it is not a cited standard of the Acceptable Solution G4/AS1.⁵ so to establish compliance with clause G4.3.4, I must consider the solid fuel heater and flue system’s performance as it relates to the protection of other property.
- 4.24. Clause G4.3.3 provides a list of products which shall be collected and removed from the spaces in which they are generated, and clause G4.3.4 requires that contaminated air be disposed of in a way that avoids creating a nuisance or hazard to people or other property.

⁵ Section 22(2) provides that a person who complies with an Acceptable Solution or a Verification Method must be treated as having complied with the provisions of the Building Code to which that Acceptable Solution or a Verification Method relates.

4.25. The term “nuisance” is not defined in either the Act or the Building Code but is a term that is common in legal usage. The Oxford English Dictionary defines nuisance as:

A source of annoyance or irritation; an irksome situation or circumstance; trouble, annoyance.

4.26. The question of what is meant by nuisance has been considered in the courts. In *Hawkes Bay Protein Ltd v Davidson*⁶, the High Court stated that in considering the “nature of nuisance” in relation to odours emitting from a meat and fish processing plant ...

[15] The essence of nuisance is an activity or condition which unduly interferes with the use and enjoyment of the land. In cases of private nuisance ... the conduct will be a nuisance if the consequences extend to the land of a neighbour by: ...

(c) unduly interferes with the neighbour in the comfortable and convenient enjoyment of his land.

4.27. Several previous determinations have also considered whether a particular matter constitutes a nuisance. Of particular relevance are determinations 2016/033⁷, 2020/016⁸ and 2023/041⁹, all of which looked at nuisance in the context of compliance with clause G4.3.4.

4.28. Determination 2016/033, discussed at length what was meant by nuisance as a common law concept, focusing in particular on what was meant by “unreasonable interference”.

9.1.11 ...the term “nuisance” is not defined in the Act or the Building Code, and it appears only in clause E1.3.1 and G4.3.4. The term “nuisance” has a particular common law meaning which is ‘the unreasonable interference with an individual person’s use or enjoyment of land or some right connected with that land’. The tort of nuisance seeks to strike a balance between the conflicting land use rights of neighbouring occupiers ...

9.1.12 It is the interference to an “unreasonable” degree with a neighbour’s right to use and enjoy their land that is the essential element of the tort of nuisance. It is no defence to claim that the owner’s use of their land and their actions were reasonable ...

⁶ AP 30/01 T015047, 28 June 2002, Gendall J, at paragraph 15.

⁷ Determination 2016/033 Regarding the code-compliance of a solid fuel fire appliance installed in a three-year-old house at 27 Mo Street, Cambourne, Porirua [issued 22 July 2016].

⁸ Determination 2020/016 Regarding the authority’s exercise of its powers in issuing of a code compliance certificate in respect of the mechanical ventilation system to a restaurant kitchen at 1/7 Tennyson Street, Wellington [issued 20 July 2020].

⁹ Determination 2023/041 Regarding the compliance of a mechanical kitchen ventilation system with Building Code clause G4.3.4 as it relates to the protection of other property [issued 18 December 2023].

9.1.13 The position is summed up in The Law of Torts in New Zealand at [10.2.03] as follows:

So the critical question in every case is whether the interference complained of is unreasonable in the sense that it exceeds the level that a reasonable occupier, tolerant of the reasonable activities of his or her neighbour, would regard as acceptable.

9.1.14 The question of whether a nuisance is reasonable is a question of fact and must be considered in relation to factors such as the nature of the harm and the location in which it occurs, and the time, duration and intensity of the interference.

4.29. I consider these sentiments continue to hold true, and that what is required for a nuisance to be established is interference to an unreasonable degree with any person's use or enjoyment of their land.

4.30. For this determination, the applicant has used the effect on their individual use or enjoyment within their house to describe the nuisance. They offered the following comments to describe the nature and frequency of the nuisance:

... invariably when my neighbour lights [their] burner my house fills with the smell of smoke even with all doors and windows closed (depending on the wind direction) ...

... inhaling my neighbour's smoke, scratchy eyes, and smoke scented furnishings ...

... my entire flat smells like tar ...

4.31. However, the Building Code is concerned with protection of other property, and so the nuisance must be assessed within the broader context of the land at 2/5 Church Street, not just within the confines of the house. Therefore, I must consider whether there is nuisance originating at 1/5 Church Street that crosses the boundary and affects the land that comprises 2/5 Church Street.

4.32. Experiencing smoke odour from time to time would not necessarily constitute a nuisance. This is a domestic solid fuel heater, it emits both odours and particulates and these will vary depending on the fuel used, and typical use would be frequent and regular during colder months of the year – potentially daily for several hours.

4.33. The purpose of the flue is to remove the products of combustion from a domestic solid fuel heater installed in the interior of the owner's dwelling. It should not then be directed onto an adjoining property, nor require the occupants of that property to alter their use of the property to avoid the contaminated air.

4.34. Because of the location of the flue in relation to the second storey of the applicant's property, I consider that it is reasonable to expect that smoke emitted from the flue will enter the applicant's property from time to time.

- 4.35. I note, however, that its impact is worsened by the fact that the owner's property and the applicant's adjacent property are situated very close to one another. In addition, the flue is at a similar elevation to the applicant's second storey windows.
- 4.36. The impact is also likely to be worsened by the mature trees located along the boundary of the lot, which will inhibit smoke dispersal.
- 4.37. The flue at the property does not have any compensatory features to suggest it is installed in a way which avoids creating a nuisance or hazard to people and other property.
- 4.38. I conclude the flue component of the solid fuel heater and flue system, as currently installed, does not comply with clause G4.3.4 as it relates to the protection of other property.

5. Decision

- 5.1. In accordance with section 188 of the Building Act 2004, I determine that the solid fuel heater and flue system at the owner's property does not comply with the building consent nor with clause G4.3.4 of the Building Code as it relates to the protection of other property. Accordingly, I reverse the authority's decision to issue a code compliance certificate for the installation work.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 19 March 2024.

Andrew Eames

Manager Advisory Determinations

Appendix: Detail from Figure 4.8 Minimum Height of Flue System Exit in AS/NZS 2918:2018

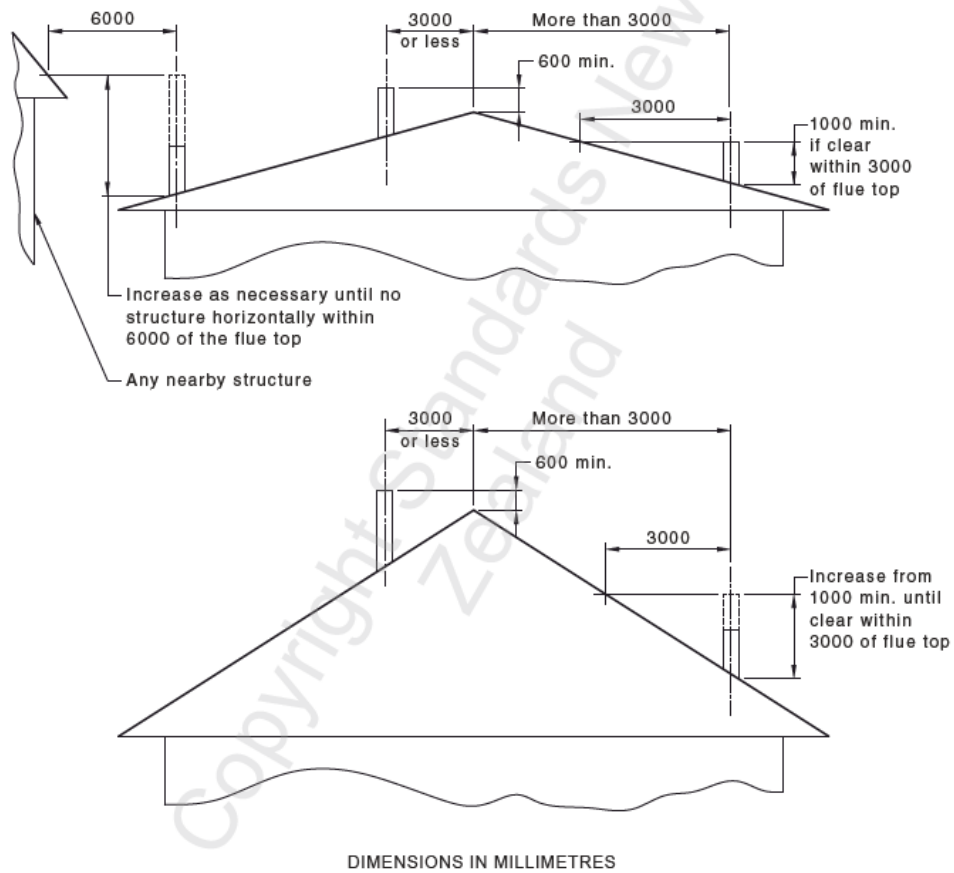


FIGURE 4.8 MINIMUM HEIGHT OF FLUE SYSTEM EXIT