

Ventilation for a basement laundry

1 THE MATTER TO BE DETERMINED

- 1.1 The matter before the Authority is a dispute about the use of a condensing clothes dryer instead of mechanical ventilation.
- 1.2 The Authority takes the view that it is being asked to determine whether the laundry with a condensing dryer complies with clause G4 of the building code (the First Schedule to the Building Regulations).
- 1.3 In making its determination Authority has not considered whether the house complies with any other provisions of the building code.

2 THE PARTIES

- 2.1 The applicant was the owner acting through a firm of architects. The other parties were the building certifier and territorial authority concerned.

3 THE BUILDING AND THE SEQUENCE OF EVENTS

- 3.1 The house has three storeys. The lowest “basement” storey is built into the slope of the land and contains the laundry, together with a garage, workshop, and boiler room. The laundry has no external walls. It was originally intended that there should be a door between the laundry and a hallway running from the garage to the internal stairs to the upper floors, but the plans were subsequently amended to omit the door in the interest of providing natural ventilation to the laundry.
- 3.2 The building certifier considered that natural ventilation to be insufficient in terms of the acceptable solution.
- 3.3 The architects then proposed, as an alternative solution, to install a condensing dryer bolted to the floor. The building certifier did not accept that the proposal complied with the building code. The applicant submitted the dispute to the Authority for determination.

4 THE BUILDING CODE AND THE ACCEPTABLE SOLUTION

4.1 The relevant provisions of the building code are:

Provisions	Limits on application
<p>E3.3.1 An <i>adequate</i> combination of thermal resistance and ventilation shall be provided to all <i>habitable spaces</i>, bathrooms, laundries, and other spaces where moisture may be generated.</p>	<p>Performance E3.3.1 shall not apply to <i>Communal Non-residential, Commercial, Industrial, Outbuildings</i> or <i>Ancillary buildings</i>.</p>
<p>G4.3.1 Spaces within <i>buildings</i> shall have means of ventilation with <i>outdoor air</i> that will provide an <i>adequate</i> number of air changes to maintain air purity.</p>	
<p>G4.3.3 <i>Buildings</i> shall have a means of collecting or otherwise removing the following products from the spaces in which they are generated:</p> <p>(b) Moisture from laundering . . .</p>	

4.2 The relevant provisions of the acceptable solution G4/AS1 are:

1.3 Mechanical ventilation

1.3.1 Mechanical ventilation systems must satisfy the following conditions:

- c) Extract ventilation shall:
 - i) be constructed so that any products listed in Clause G4.3.3 are removed, collected or diluted by ventilation rates and methods set out in AS 1668.2 Section 3.
 - ii) where provided to remove moisture and other contaminants from kitchens, bathrooms, toilet spaces and laundries in Housing, exhaust the air to the outside at flow rates given in AS 1668.2, Table B1.

4.3 The relevant requirement of AS1668.2 Table B1 is:

**TABLE B1
MINIMUM EXHAUST VENTILATION RATES**

Enclosure type	Quantity	Unit	Comments
Laundry Residential	20	L/s.room	Rate is independent of enclosure size. Operation of the system may be intermittent.

5. THE SUBMISSIONS

5.1 The applicant submitted that:

“The vast majority of moisture generated in the laundry will originate from the dryer. The condensing dryer collects 100% of the moisture from the contents of the dryer. The moisture is condensed to form water which is collected in a container and removed.

“The condensing dryer therefore provides a method of *‘collecting or otherwise removing’* the *‘moisture from laundering’*.”

“When utilizing an extractor fan to comply with G4 Ventilation, 20L/s/room is the minimum requirement in accordance with AS 1668.2. At this rate it is feasible that some moisture may remain in the laundry when a dryer is operating. By using a condensing dryer, there is no moisture emitted into the air space of the laundry. Therefore the condensing dryer provides a better solution to the extractor fan in terms of compliance with clause G4.3.3 . . .”

5.2 The building certifier made no specific submissions.

6 DISCUSSION

6.1 The Authority considers that natural ventilation of the laundry cannot be achieved because it has no external walls and opens into the hallway to the garage, which requires its own ventilation to remove the products of combustion engines.

6.2 The applicant in effect argues that the laundry does not need any natural or mechanical ventilation because “the vast majority of the moisture” generated from laundering will “originate from the dryer” and will be collected and removed by the condensing dryer. The logical corollaries to that argument are that ventilation is not needed if there is no dryer in a domestic laundry, or if there is a dryer that vents to the outside.

6.3 The Authority does not agree, considering that adequate ventilation is needed for all domestic laundries irrespective of the particular appliances that the owner or future owners may choose to install. Bolting the condensing dryer to the laundry floor, so that it may be classified as a sanitary fixture rather than a sanitary appliance, does not, in the Authority’s view, make the appliance part of the building, and even if it did that would make no difference to the ventilation, or lack of it, to the laundry.

7 THE AUTHORITY'S DECISION

- 7.1 In accordance with section 20 of the Building Act, the Authority hereby confirms the building certifier's decision to refuse to issue a code compliance certificate until adequate mechanical ventilation for the laundry has been installed.

Signed for and on behalf of the Building Industry Authority on this 18th day of
December 2002

W A Porteous
Chief Executive