

Noise limits to be set by new Part F

As air tightness of buildings moves ever closer to zero permeability, CLG have recognised the fact that continuous mechanical ventilation is going to become more and more necessary to maintain internal air quality and avoid the onset of mould growth. They have also recognised that, where systems are already installed, occupiers will turn them off if they are too noisy. In an attempt to avoid this situation, the proposed Part F (2010) includes noise emission limits for continuously running ventilation systems.

The proposal is for type testing whereby all domestic ventilation systems for use in domestic buildings will need to be tested Tests in accordance with the appropriate part of BS EN 13141 to establish the system sound power levels. Sound power figures rather than sound pressure will be required, because this is a measure of the total noise energy radiated by the device in all directions and is essentially independent of the measuring environment.

Since absolute noise levels can be a very subjective measure, there is also an additional limit set for the avoidance of “prominent acoustic tones”. The proposed performance standards as shown in table E1 below;

Table E1: Performance standards		
Room type	Maximum A-weighted level L_wA dB	Maximum 125 Hz Octave band level L_w dB
Kitchens and other wet rooms	Outlet/inlet level 38 ¹	Outlet/inlet level 48 ¹
Bedrooms and living rooms	Outlet/inlet level 30 ¹	Outlet/inlet level 40 ¹
Air terminal devices if tested separately ²	20	30
Casing level if not to be exposed in room ³	40	45
Casing level if to be exposed in room	25	35
For all tests, no prominent acoustic tones should be present.	The sound power level in any 1/3 octave band should not exceed the sound power levels in the two bands adjacent to it by more than 5 dB over the frequency range 100 Hz to 10 kHz.	
¹ If there is an inlet and an outlet serving the same room these values should be reduced by 3 dB. ² Any air volume control devices should be set to give the highest noise level while achieving the required volume flow. ³ The unit is assumed to be above the ceiling or in a cupboard well sealed to the room.		

CLG have made it clear that this is very much new territory and they welcome feedback on both the limits set and the implications for manufacturers.

Copies of the proposed documents for Building Regulations Part L and Part F (2010) and details on how to submit feedback on the proposed changes can be found on the CLG website. The consultation closes on the 17 September 2009.

CLG Website: <http://www.communities.gov.uk/publications/planningandbuilding/partlf2010consultation>