Proposed new clauses to MIS 3005-D for air to air installations

5.5 SPACE HEATING DESIGN

5.5.3 The following procedure shall be followed for air to air heat pump systems to ensure the correct sizing and selection of a heat pump and related components for each installation:

a) A heat load calculation should be performed on the building using internal temperatures not less than those specified in Table 1 and external temperatures specified in Table 2 column A or B, according to the MCS Contractor's assessment of the building location. If column B is selected, no uplift factor for intermittent heating is required. Heat load calculations shall in other respects comply with BS EN 12831-12017.
b) When calculating the heat loss through a solid floor in contact with the ground, the temperature difference to be used is the internal design room temperature (Table 1) minus the local annual average external air temperature (see MGD 007 Section 5).
c) When calculating the heat loss through a suspended floor, the temperature difference to be used is the internal design room temperature (Table 1) minus the design external air temperature (Table 2).
d) A heat pump shall have the capacity to provide at least 100% of the calculated heat load taking into consideration the external design temperature.
Note: Capacity output data from the heat pump manufacturer can be found on the MCS Product Directory to support the heat pump selection.
e) An air source heat pump system should be able to maintain the internal design temperatures across multiple defrost cycles.
f) The total capacity of the connected indoor units shall be selected to equal or exceed the calculated heat load of the building.
g) The capacity of each indoor unit shall be selected to provide equal or exceed the heat load of the habitable room in which it is located.
Note: this may mean that the total capacity of all indoor units exceeds the total heat load of the building and of the heat pump selected.
h) Any habitable room shall be provided with an indoor unit.
Note: For any room which does not meet the definition of a habitable room and/or where it is not possible to fit an indoor unit, it should be considered whether heating is required and if so how this is provided, for example, with separate heat source.

Add definition to definitions section:

Habitable Room: Means any rooms used or intended to be used for sleeping or living which are not solely used for cooking purposes, but does not include bath or toilet facilities, service rooms, corridors, laundry rooms, hallways or utility rooms.