Energy Saving Charter

General Guidelines on Air Temperature Measurement

This note intends to provide general guidelines on routine air temperature measurements for reference by the participants in the Energy Saving Charter, including shopping malls, shops, offices, office buildings, air-conditioned common areas of residential buildings, etc.

A. Number of Sampling Points

1. The measurements should be taken at the air-conditioned space of the premises.
2. Sufficient number of samples should be taken to determine the average indoor temperature. As a general reference, a minimum of two sampling points are recommended for each premise below 4,000 square metres. For premises over 4,000 square metres, the recommended minimum number of sampling points is determined based on one sampling point per 2,000 square metres. For multistorey offices, office buildings or air-conditioned multistorey common areas of residential buildings, a minimum of one sampling point is recommended for each floor.
3. The average indoor temperature is the numerical average of air temperature readings taken in all sampling points.
4. Measurement should be taken at least twice a week.

B. General considerations for selecting locations for measurement

1. Measurements shall be taken at the air-conditioned space, i.e. occupied zones during the occupied hours of the premises.
2. The sampling locations should be representative locations randomly selected on all occupied zones or floors of the premises. In general, measurements are recommended to be taken:-
   (a) in air-conditioned areas with both high and low occupancy rate;
   (b) at least 0.5 metre inward from corners, windows, walls, doors;
   (c) not directly in front of air supply diffusers, induction units, floor fans, or heaters, or the exhaled breath of the operator, lifts, escalators, entrance or exit, etc.;
   (d) not under direct sunlight; and
   (e) at a height of about 1.1 metres above the floor level for physical

measurement by electronic thermometer.

C. Measuring Instrument

1. For those premises equipped with Building Management System (BMS), air temperature readings captured by the BMS can be taken as a measurement. Regular checks on air temperature by physical measurement using electronic thermometer in occupied space is recommended to be conducted for calibrating the BMS settings as necessary.

2. For those premises without BMS, electronic thermometer is recommended for physical measurement of air temperature. Adequate measuring time, normally one minute, should be allowed to let the electronic thermometer reaching steady reading.

3. Participating shops, offices, office buildings and air-conditioned common areas of residential buildings may seek assistance from their building management offices for capturing air temperature readings by the BMS or measuring air temperature by using electronic thermometer.

D. Records of Temperature Measurement

1. Participating premises are encouraged to keep a record of the routine temperature measurements for their future reference and review. For those participating shops, offices, office buildings and air-conditioned common areas of residential buildings with air temperature measurements conducted by their building management office, they may seek assistance from their management offices for keeping records of measurements.

E. Enquiry

1. For further information or any enquiries, please contact the Energy Efficiency Office of the Electrical and Mechanical Services Department at 2808 3465.

Environment Bureau
Electrical and Mechanical Services Department
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