

APPLICABILITY

This regulation is applicable to all building types. Refer to Table 101.07(1) in Section One - Administration for detailed applicability levels.

IMPLEMENTATION

Periodical maintenance of mechanical systems is mandatory for trouble free operation of a building. Hence the project team must ensure that adequate clearance space is available around the installed equipment to allow inspection, maintenance and cleaning without removing or dismantling permanent construction elements.

Operational manuals and maintenance requirements of major mechanical equipment should be obtained from the manufacturers and the building operator must ensure that a proper maintenance manual and schedule is developed for the building. This shall be based on the instructions for preventative maintenance or recommendation from equipment manufacturer or supplier or according to the latest edition of American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) standard 180 or equivalent as approved by DM. This Operation and Maintenance (O&M) manual must be maintained on-site by building operator and it should be centrally accessible to entire operation team. This manual shall be updated as necessary.

For specific ventilation system's O&M practices, project team can refer to ASHRAE 62.1, which includes the maintenance frequency and maintenance activity to be followed for ventilation system equipment and associated components.

The building operator must either have a service contract with a specialised maintenance company approved by Dubai Municipality or should hire qualified competent team members with sufficient experience in building operation and maintenance.

Maintenance personnel should ensure the service logbook is readily available for inspection by DM staff. Typically, the logbook should contain details on the dates that maintenance activities occurred and details of work being carried out on that date, along with the signature of the competent professional carrying out that work. Major equipment such as chillers, cooling towers and air handling units may have separate logbooks. Service logbook also should have details of both programmed (preventive) and corrective maintenance along with alterations to building layout and usage.

ANSI/ASHRAE- ACCA-180 standard provides guidance for commercial building HVAC systems ownership and for all methods of delivering inspection and maintenance work. A maintenance programme should be developed and should document the work to be accomplished at scheduled intervals on the equipment. Components of HVAC system that impact the building's performance should be listed. This list shall be used to establish unacceptable system condition indicators, inspection frequencies and maintenance tasks. Maintenance program should also have indicators for thermal comfort, indoor air quality and energy efficiency.

Frequency of inspection and maintenance tasks for inventoried equipment and systems should be established. Inspection should include assessment of systems and/or their components by observation and/or measurement of operating parameters and may include data provided by sensors or a building management system (BMS).

If unacceptable indicators of the condition are found on a system or a component, the maintenance programme should be reviewed to determine if the inspection frequency or the maintenance task frequency should be increased. Further, maintenance task should also be reviewed for improvement opportunities. Degradation of equipment condition or performance that is observed while performing scheduled inspection and maintenance tasks or other occasions shall be documented.