

4675.1600 AIR CONDITIONING, HEATING, AND VENTILATION.

Subpart 1. **Temperature and humidity range.** The systems shall be designed to provide temperatures and humidities as follows:

A. operating rooms: 70 to 76 degrees Fahrenheit (variable range), 50 to 60 percent relative humidity;

B. recovery rooms: 75 degrees Fahrenheit (variable range), 50 to 60 percent relative humidity; and

C. other areas: 75 degrees Fahrenheit (winter design condition).

Subp. 2. **Mechanically operated.** All air-supply and air-exhaust systems shall be mechanically operated. All fans serving exhaust systems shall be located at the discharge end of the system. The ventilation rates shown in part 4675.2800 shall be considered as minimum acceptable rates and shall not be construed as precluding the use of higher ventilation rates.

Subp. 3. **Outdoor air intakes.** Outdoor air intakes shall be located as far as practical but not less than 25 feet from the exhaust from any ventilating system, combustion equipment stack, medical-surgical vacuum system, or sewer vent stack four inches in diameter or greater, or from areas which may collect vehicular exhaust and other noxious fumes. The bottom of outdoor air intakes shall be located as high as practical but not less than four feet above ground level, or if installed through the roof, two feet above the roof level.

Subp. 4. **Pressure.** The ventilation systems shall be designed and balanced to provide the pressure relationships as shown in part 4675.2800.

Subp. 5. **Air to operating rooms.** All air supplied to operating rooms shall be delivered at or near the ceiling of the area served and all exhaust air from the area shall be removed near floor level. At least two exhaust outlets shall be used in all operating rooms.

Subp. 6. **Air inlets.** The bottom of any room supply air inlets, recirculation and exhaust air outlets shall be located not less than three inches above the floor.

Subp. 7. **Corridors.** Corridors shall not be used to supply air to or exhaust air from any room, except that air from corridors may be used to ventilate toilet rooms, janitors' closets, and small electrical or telephone closets opening directly on corridors.

Subp. 8. **Induction units.** Induction units with reheat shall not be used in the operating suite.

Subp. 9. **Filters.** All ventilation or air conditioning systems serving the operating suite and all central systems serving other facility areas shall have a minimum of two filter beds. Filter bed #1 shall be located upstream of the air conditioning equipment and shall have a

minimum efficiency of 25 percent. Filter bed #2 shall be downstream of the supply fan and any recirculating spray water systems and/or water reservoir type humidifier(s). Filter bed #2 shall have a minimum efficiency of 90 percent. The efficiency of filter bed #2 may be reduced to 80 percent for central systems using 100 percent outdoor air and serving areas other than the operating suite.

Statutory Authority: *MS s 144.56*

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