**Section 205.1540 Air Conditioning, Heating and Ventilating Systems**

a) The systems shall be designed to provide the comfort temperatures and humidities as recommended by American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) Standards (see Section 205.115(a)(1)(A)).

b) Air handling systems shall conform to NFPA 90A.

c) Heating, air conditioning, and ventilating systems for spaces not exceeding 25,000 cubic feet in volume shall conform to NFPA 90B, except that return ducts shall be constructed of materials equal to that specified for supply ducts, Chapter 2, paragraph 1.1., Duct Materials.

d) Outdoor air intakes shall be located as far as practical, but not less than 15 feet, from exhaust outlets of ventilation systems, combustion equipment stacks, medical-surgical vacuum systems, and plumbing vent stacks, or from areas that may collect vehicular exhaust and other noxious fumes.

e) All ventilation air outlets and inlets shall conform to NFPA 90A, Chapter 2, paragraph 3.2., Location of Outlets and Inlets.

f) The ventilation systems shall be designed and balanced to provide the ventilation and pressure relationships as shown in Table A.

g) The ventilation air supplied to the procedure rooms shall be delivered at or near the ceiling of the area served, and all exhaust or return air from the area shall be removed near the floor level. At least two exhaust outlets shall be used in each procedure room.

h) All central ventilation or air conditioning systems shall be equipped with filters having efficiencies not less than those specified in the following table:

TABLE A

|  |  |  |  |
| --- | --- | --- | --- |
| FILTER EFFICIENCIES FOR CENTRAL VENTILATION AND AIR CONDITIONING SYSTEMS IN AMBULATORY SURGICAL TREATMENT FACILITIES | | | |
|  | | | |
|  | | | |
|  |  | Filter Efficiencies (Percent) | |
| Area Designation | Minimum Number of Filter Beds | Filter Bed No. 1 | Filter Bed No. 2 |
|  |  |  |  |
| Procedure and Recovery Rooms | 2 | 25 | 90 |
|  |  |  |  |
| All Other Areas | 1 | 25 | -- |

i) All filter efficiencies shall be average atmospheric dust spot efficiencies tested in accordance with the ASHRAE Standards 52.1, 52.2, 55, 58, 62, 63.1, 63.2, 64, and 68.

j) For systems serving procedure and recovery rooms, filter bed No. 1 shall be located upstream of the air conditioning equipment, and filter bed No. 2 shall be located downstream of the supply fan and air conditioning equipment, including humidifiers.

k) Filter frames shall be durable and shall provide an airtight fit with the enclosing duct work. All joints between filter segments and enclosing duct work shall be gasketed or sealed to provide a positive seal against air leakage.

l) A manometer shall be installed across each filter bed serving procedure and recovery rooms.

m) Fire and smoke dampers shall be constructed, located and installed in accordance with the requirements of NFPA 90A.

n) All systems, regardless of size, that serve more than one smoke or fire zone shall be equipped with smoke detectors to shut down fans automatically as specified in paragraph 4-3.1 of NFPA 90A.

o) The ventilation system for anesthesia storage rooms shall conform to the requirements of NFPA 99, including the gravity option ventilation system.

p) Boiler rooms shall be provided with sufficient outdoor air to maintain combustion rates of equipment and limit temperatures in working stations to 97˚F Effective Temperature as defined by the ASHRAE Handbook of Fundamentals.

q) Rooms containing heat-producing equipment, such as boiler rooms and heater rooms, shall be insulated and ventilated to prevent any floor surface above from exceeding a temperature of 100˚F.

r) For dates of materials incorporated by reference, see Section 205.115.

(Source: Amended at 34 Ill. Reg. 7915, effective May 25, 2010)