

Table 8.1
Pressure Relationships and Ventilation of Certain Areas of Nursing Facilities¹

Area designation	Air movement relationship to adjacent area ²	Minimum air changes of outdoor air per hour ³	Minimum total air changes per hour ⁴	All air exhausted directly to outdoors ⁵	Recirculated by means of room units ⁶	Relative humidity ⁷ (%)	Design temperature ⁸ (degrees F/C)
Resident room	—	2	2	—	—	— ⁹⁷	70-75 (21–24)
Resident unit corridor	—	—	4	—	—	— ⁹⁷	—
Resident gathering areas	—	4	4	—	—	—	—
Toilet Room	In	—	10	Yes	No	—	—
Dining rooms	—	2	4	—	—	—	75
Activity rooms, if provided	—	4	4 ⁶	—	—	—	—
Physical therapy	In	2	6	—	—	—	75 (24)
Occupational therapy	In	2	6	—	—	—	75 (24)
Soiled workroom or soiled holding	In	2	10	Yes	No	—	—
Clean workroom or clean holding	Out	2	4	—	—	(Max) 70	75 (24)
Sterilizer exhaust room	In	—	10	Yes	No	—	—
Linen and trash chute room, if provided	In	—	10	Yes	No	—	—
Laundry, general, if provided	—	2	10	Yes	No	—	—
Soiled linen sorting and storage	In	—	10	Yes	No	—	—
Clean linen storage	Out	—	2	Yes	No	—	—
Food preparation facilities ⁴⁹⁹	—	2	10	Yes	Yes	—	—
Dietary warewashing	In	—	10	Yes	Yes	—	—
Dietary storage areas	—	—	2	Yes	No	—	—
Housekeeping rooms	In	—	10	Yes	No	—	—
Bathing rooms	In	—	10	Yes	No	—	75 (24)
Personal services (barber/beauty)	In	2	20	Yes	No	—	—

¹The ventilation rates in this table cover ventilation for comfort, as well as for asepsis and odor control in areas of nursing facilities that directly affect resident care and are determined based on nursing facilities being predominantly "No Smoking" facilities. Where smoking may be allowed, ventilation rates will need adjustments. Areas where specific ventilation rates are not given in the table shall be ventilated in accordance with ASHRAE Standard 62, *Ventilation for Acceptable Indoor Air Quality*, and ASHRAE *Handbook—HVAC Applications*. OSHA standards and/or NIOSH criteria require special ventilation requirements for employee health and safety within nursing facilities.

²Design of the ventilation system shall, insofar as possible, provide that air movement is from "clean to less clean" areas. However, continuous compliance may be impractical with full utilization of some forms of variable air volume and load shedding systems that may be used for energy conservation. Areas that do require positive and continuous control are noted with "Out" or "In" to indicate the required direction of air movement in relation to the space named. Rate of air movement may, of course, be varied as needed within the limits required for positive control. Where indication of air movement direction is enclosed in parentheses, continuous directional control is required only when the specialized equipment or device is in use or where room use may otherwise compromise the intent of movement from clean to less clean. Air movement for rooms with dashes and nonpatient areas may vary as necessary to satisfy the requirements of those spaces. Additional adjustments may be needed when space is unused or unoccupied and air systems are deenergized or reduced.

³To satisfy exhaust needs, replacement air from outside is necessary. Table 8.1 does not attempt to describe specific amounts of outside air to be supplied to individual spaces

except for certain areas such as those listed. Distribution of the outside air, added to the system to balance required exhaust, shall be as required by good engineering practice.

⁴Number of air changes may be reduced when the room is unoccupied if provisions are made to ensure that the number of air changes indicated is reestablished any time the space is being utilized. Adjustments shall include provisions so that the direction of air movement shall remain the same when the number of air changes is reduced. Areas not indicated as having continuous directional control may have ventilation systems shut down when space is unoccupied and ventilation is not otherwise needed.

⁵Air from areas with contamination and/or odor problems shall be exhausted to the outside and not recirculated to other areas. Note that individual circumstances may require special consideration for air exhaust to outside.

⁶Because of cleaning difficulty and potential for buildup of contamination, recirculating room units shall not be used in areas marked "No." Isolation rooms may be ventilated by reheat induction units in which only the primary air supplied from a central system passes through the reheat unit. Gravity-type heating or cooling units such as radiators or convectors shall not be used in special care areas.

| ⁷The ranges listed are the minimum and maximum limits where control is specifically needed. See A8.31.D1 for additional information.

⁸Where temperature ranges are indicated, the systems shall be capable of maintaining the rooms at any point within the range. A single figure indicates a heating or cooling capacity of at least the indicated temperature. This is usually applicable where residents may be undressed and require a warmer environment. Nothing in these guidelines shall be construed as precluding the use of temperatures lower than those noted when the residents' comfort and medical conditions make lower temperatures desirable. Unoccupied areas such as storage rooms shall have temperatures appropriate for the function intended.

| ⁹~~See A8.31.D1.~~

| ⁴⁰⁹Food preparation facilities shall have ventilation systems whose air supply mechanisms are interfaced appropriately with exhaust hood controls or relief vents so that exfiltration or infiltration to or from exit corridors does not compromise the exit corridor restrictions of NFPA 90A, the pressure requirements of NFPA 96, or the maximum defined in the table. The number of air changes may be reduced or varied to any extent required for odor control when the space is not in use.