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TABLE 6-1 MINIMUM VENTILATION RATES IN BREATHING ZONE (ASHRAE Standard 62.1-2007)
 (This table is not valid in isolation; it must be used in conjunction with the accompanying notes.)

Occupancy Category	People Outdoor Air Rate R_p		Area Outdoor Air Rate R_a		Notes	Default Values				Air Class
	cfm/person	L/s-person	cfm/ft ²	L/s-m ²		Occupant Density (see note 4) #/1000 ft ² or #/100 m ²	Combined Outdoor Air Rate (see Note 5)		CFM/Sq. Ft.	
							cfm/person	L/s-person		
Correctional Facilities										
Cell	5	2.5	0.12	0.6		25	10	4.9	0.25	2
Day Room	5	2.5	0.06	0.3		30	7	3.5	0.21	1
Guard Stations	5	2.5	0.06	0.3		15	9	4.5	0.14	1
Booking/Waiting	7.5	3.8	0.06	0.3		50	9	4.4	0.45	2
Educational Facilities										
Daycare (through age 4)	10	5	0.18	0.9		25	17	8.6	0.43	2
Daycare Sickroom	10	5	0.18	0.9		25	17	8.6	0.43	3
Classroom (ages 5-8)	10	5	0.12	0.6		25	15	7.4	0.38	1
Classroom (age 9 plus)	10	5	0.12	0.6		35	13	6.7	0.46	1
Lecture Classroom	7.5	3.8	0.06	0.3		65	8	4.3	0.52	1
Lecture Hall (fixed seats)	7.5	3.8	0.06	0.3		150	8	4.0	1.20	1
Art Classroom	10	5	0.18	0.9		20	19	9.5	0.38	2
Science Laboratories	10	5	0.18	0.9		25	17	8.6	0.43	2
Univ./College Laboratories	10	5	0.18	0.9		25	17	8.6	0.43	2
Wood/Metal Shop	10	5	0.18	0.9		20	19	9.5	0.38	2
Computer Lab	10	5	0.12	0.6		25	15	7.4	0.38	1
Media Center	10	5	0.12	0.6	A	25	15	7.4	0.38	1
Music/Theater/Dance	10	5	0.06	0.3		35	12	5.9	0.42	1
Multi-use Assembly	7.5	3.8	0.06	0.3		100	8	4.1	0.80	1
Food and Beverage Service										
Restaurant Dining Rooms	7.5	3.8	0.18	0.9		70	10	5.1	0.70	2
Cafeteria/Fast Food Dining	7.5	3.8	0.18	0.9		100	9	4.7	0.90	2
Bars, Cocktail Lounges	7.5	3.8	0.18	0.9		100	9	4.7	0.90	2
General										
Conference/Meeting	5	2.5	0.06	0.3		50	6	3.1	0.30	1
Break Rooms	5	2.5	0.06	0.3		25	10	5.1	0.25	1
Coffee Stations	5	2.5	0.06	0.3		20	11	5.5	0.22	1
Corridors	-	-	0.06	0.3		-	-	-	-	1
Storage Rooms	-	-	0.12	0.6	B	-	-	-	-	1
Hotels, Motels, Resorts, Dormitories										
Bedroom/Living Room	5	2.5	0.06	0.3		10	11	5.5	0.11	1
Barracks Sleeping Areas	5	2.5	0.06	0.3		20	8	4.0	0.16	1
Lobbies/Prefunction	7.5	3.8	0.06	0.3		30	10	4.8	0.30	1
Laundry Rooms, Central	5	2.5	0.12	0.6		10	17	8.5	0.17	2
Laundry Rooms, within dwelling units	5	2.5	0.12	0.6		10	17	8.5	0.17	1
Multi-Purpose Assembly	5	2.5	0.06	0.3		120	6	2.8	0.72	1

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							cfm/person	L/s-person		
Office Buildings										
Office Space	5	2.5	0.06	0.3		5	17	8.5	0.09	1
Reception Areas	5	2.5	0.06	0.3		30	7	3.5	0.21	1
Telephone/Data Entry	5	2.5	0.06	0.3		60	6	3.0	0.36	1
Main Entry Lobbies	5	2.5	0.06	0.3		10	11	5.5	0.11	1
Miscellaneous Spaces										
Bank Vaults/Safe Deposit	5	2.5	0.06	0.3		5	17	8.5	0.09	2
Computer (not printing)	5	2.5	0.06	0.3		4	20	10.0	0.08	1
Pharmacy (prep. area)	5	2.5	0.18	0.9		10	23	11.5	0.23	2
Photo Studios	5	2.5	0.12	0.6		10	17	8.5	0.17	1
Shipping/Receiving	-	-	0.12	0.6	B	-	-	-	-	1
Transportation Waiting	7.5	3.8	0.06	0.3		100	8	4.1	0.80	1
Electrical Equip. Rooms	-	-	0.06	0.3	B	-	-	-	-	1
Telephone Closets	-	-	0	0		-	-	-	-	1
Elevator Machine Rooms	-	-	0.12	0.6	B	-	-	-	-	1
Warehouses	-	-	0.06	0.3	B	-	-	-	-	2
Public Assembly Spaces										
Auditorium Seating Area	5	2.5	0.06	0.3		150	5	2.7	0.75	1
Places of Religious Worship	5	2.5	0.06	0.3		120	6	2.8	0.72	1
Courtrooms	5	2.5	0.06	0.3		70	6	2.9	0.42	1
Legislative Chambers	5	2.5	0.06	0.3		50	6	3.1	0.30	1
Libraries	5	2.5	0.12	0.6		10	17	8.5	0.17	1
Lobbies	5	2.5	0.06	0.3		150	5	2.7	0.75	1
Museums (Children's)	7.5	3.8	0.12	0.6		40	11	5.3	0.44	1
Museums/Galleries	7.5	3.8	0.06	0.3		40	9	4.6	0.36	1
Retail										
Sales (Except as Below)	7.5	3.8	0.12	0.6		15	16	7.8	0.24	2
Mall Common Areas	7.5	3.8	0.06	0.3		40	9	4.6	0.36	1
Barber Shop	7.5	3.8	0.06	0.3		25	10	5.0	0.25	2
Beauty and Nail Salons	20	10	0.12	0.6		25	25	12.4	0.63	2
Pet Shops (animal areas)	7.5	3.8	0.18	0.9		10	26	12.8	0.26	2
Supermarket	7.5	3.8	0.06	0.3		8	15	7.6	0.12	1
Coin-Operated Laundries	7.5	3.8	0.06	0.3		20	11	5.3	0.22	2

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							cfm/person	L/s-person		
Sports and Entertainment										
Sports Arena (Play Area)	-	-	0.30	1.5	E	-	-	-	-	1
Gym, Stadium (Play Area)	-	-	0.30	1.5		30	-	-	-	2
Spectator Areas	7.5	3.8	0.06	0.3		150	8	4.0	1.20	1
Swimming (Pool & Deck)	-	-	0.48	2.4	C	-	-	-	-	2
Disco/Dance Floors	20	10	0.06	0.3		100	21	10.3	2.10	1
Health Club/Aerobics Room	20	10	0.06	0.3		40	22	10.8	0.88	2
Health Club/Weight Rooms	20	10	0.06	0.3		10	26	13.0	0.26	2
Bowling Alley (Seating)	10	5	0.12	0.6		40	13	6.5	0.52	1
Gambling Casinos	7.5	3.8	0.18	0.9		120	9	4.6	1.08	1
Game Arcades	7.5	3.8	0.18	0.9		20	17	8.3	-	1
Stages, Studios	10	5	0.06	0.3	D	70	11	5.4	0.77	1
Residential										
Dwelling Unit	5	2.5	0.06	0.3	F,G	F				1
Common corridors	-	-	0.06	0.3						1

GENERAL NOTES FOR TABLE 6-1

- 1. Related Requirements:** The rates in this table are based on all other applicable requirements of this standard being met.
- 2. Smoking:** This table applies to no-smoking areas. Rates for smoking-permitted spaces must be determined using other methods. See section 6.2.9 for ventilation requirements in smoking areas.
- 3. Air Density:** Volumetric airflow rates are based on an air density of 0.075 lb_{air}/ft³ (1.2 kg_{air}/m³), which corresponds to dry air at a barometric pressure of 1 atm (101.3 kPa) and an air temperature of 70 deg. F. (21 deg. C). Rates may be adjusted for actual density but such adjustment is not required for compliance with this standard.
- 4. Default Occupant Density:** The default occupant density shall be used when actual occupant density is not known.
- 5. Default Combined Outdoor Air Rate (per person):** This rate is based on the default occupant density.
- 6. Unlisted Occupancies:** If the occupancy category for a proposed space or zone is not listed, the requirements for the listed occupancy category that is most similar in terms of occupant density, activities, and building construction shall be used.
- 7. Healthcare facilities:** Rates shall be determined in accordance with Appendix E.

ITEM-SPECIFIC NOTES FOR TABLE 6-1

- A.** For high school and college libraries, use values shown for Public Assembly Spaces - Libraries.
- B.** Rate may not be sufficient when stored materials include those having potentially harmful emissions.
- C.** Rate does not allow for humidity control. Additional ventilation or dehumidification may be required to remove moisture.
- D.** Rate does not include special exhaust for stage effects, e.g., dry ice vapors, smoke.
- E.** When combustion equipment is intended to be used on the playing surface, additional dilution ventilation and/or source control shall be provided.
- F.** Default occupancy for dwelling units shall be two persons for studio and one-bedroom units, with additional person for each additional bedroom.
- G.** Air from one residential dwelling shall not be recirculated or transferred to any other space outside of that dwelling.