

IMPLEMENTATION

Outdoor air inlets must be located away from potential sources of contamination to reduce the possibility of odours, smoke or other air contaminants entering the ventilation system.

ASHRAE 62.1 / ASHRAE 62.2 specifies the minimum separation distance between outdoor air intakes (including doors and windows that are required as a part of natural ventilation) and building exhaust or any specific potential outdoor contaminant source.

Table 401.03(1) below (from ASHRAE 62.1, Table 5.5.1) specifies the minimum separation distance for various sources of exhaust that needs to be met for compliance with this regulation.

Table 401.03(1): Minimum Separation Distance for Air Intake

Object	Minimum Distance (m)
Class 2 air exhaust/relief outlet (Note 1) e.g. pump room, elevator room, electrical room exhaust etc.	3m
Class 3 air exhaust/relief outlet (Note 1) e.g. residential kitchen, commercial kitchen hoods other than grease, toilet exhaust, pantry exhaust etc.	5m
Class 4 air exhaust/relief outlet (Note 2) e.g. hazardous material storage room defined in section 401.04, or any harmful gases etc.	10m
Plumbing vents terminating less than 1 m above the level of the outdoor air intake	3m
Plumbing vents terminating at least 1 m above the level of the outdoor air intake	1m
Vents, chimneys, and flues from combustion appliances and equipment (Note 3)	5m
Garage entry, automobile loading area, or drive-in queue (Note 4)	5m
Truck loading area or dock, bus parking/idling area (Note 4)	7.5m
Driveway, street, or parking place (Note 4)	1.5m
Roof, landscaped grade, or other surface directly below intake (Notes 5)	0.3m
Garbage storage/pick-up area, dumpsters	5m
Cooling tower intake or basin	5m
Cooling tower exhaust	7.5m

Note 1: This requirement applies to the distance from the outdoor air intakes for one ventilation system to the exhaust/relief outlets for any other ventilation system.

Note 2: Minimum distance listed does not apply to laboratory fume hood exhaust air outlets. Separation criteria for fume hood exhaust shall be in compliance with ANSI/AIHA Z9.5 Information on separation criteria for industrial environments can be found in the ACGIH Industrial Ventilation Manual and in the ASHRAE Handbook— HVAC Applications.

Note 3: Shorter separation distances shall be permitted when determined in accordance with (a) ANSI Z223.1/NFPA 54 for fuel gas burning appliances and equipment, (b) NFPA 31 for oil burning appliances and equipment, or (c) NFPA 211 for other combustion appliances and equipment.

Note 4: Distance measured to closest place that vehicle exhaust is likely to be located.

Note 5: The minimum separation distance shall not apply where outdoor surfaces below the air intake are sloped more than 45° from horizontal or less than 30mm in width.