



(b) If demand equipment is installed for use by flight crewmembers, the minimum mass flow of supplemental oxygen required for each flight crewmember may not be less than the flow required to maintain, during inspiration, a mean tracheal oxygen partial pressure of 122 mm. Hg up to and including a cabin pressure altitude of 35,000 feet, and 95 percent oxygen between cabin pressure altitudes of 35,000 and 40,000 feet, when breathing 20 liters per minute BTPS. In addition, there must be means to allow the crew to use undiluted oxygen at their discretion.

(c) If first-aid oxygen equipment is installed, the minimum mass flow of oxygen to each user may not be less than 4 liters per minute, STPD. However, there may be a means to decrease this flow to not less than 2 liters per minute, STPD, at any cabin altitude. The quantity of oxygen required is based upon an average flow rate of 3 liters per minute per person for whom first-aid oxygen is required.

(d) As used in this section:

(1) BTPS means Body Temperature, and Pressure, Saturated (which is, 37 °C, and the ambient pressure to which the body is exposed, minus 47 mm. Hg, which is the tracheal pressure displaced by water vapor pressure when the breathed air becomes saturated with water vapor at 37 °C).

(2) STPD means Standard, Temperature, and Pressure, Dry (which is, 0 °C at 760 mm. Hg with no water vapor).

[Doc. No. 26344, 58 FR 18978, Apr. 9, 1993]

§ 23.1445 Oxygen distribution system.

(a) Except for flexible lines from oxygen outlets to the dispensing units, or where shown to be otherwise suitable to the installation, nonmetallic tubing must not be used for any oxygen line that is normally pressurized during flight.

(b) Nonmetallic oxygen distribution lines must not be routed where they may be subjected to elevated temperatures, electrical arcing, and released flammable fluids that might result from any probable failure.

[Doc. No. 26344, 58 FR 18978, Apr. 9, 1993]

§ 23.1447 Equipment standards for oxygen dispensing units.

If oxygen dispensing units are installed, the following apply:

(a) There must be an individual dispensing unit for each occupant for whom supplemental oxygen is to be supplied. Each dispensing unit must:

- (1) Provide for effective utilization of the oxygen being delivered to the unit.
- (2) Be capable of being readily placed into position on the face of the user.
- (3) Be equipped with a suitable means to retain the unit in position on the face.