

Kansas Administrative Regulations

Department of Labor

Article 50.—General Requirements for All Boilers

49-50-2. Combustion air supply and ventilation of boiler room.

(a) A permanent source of outside air shall be provided for each boiler room to permit satisfactory combustion of the fuel as well as proper ventilation of the boiler room under normal operating conditions. One opening shall be 12 inches above floor level, and one opening shall be 12 inches below ceiling level. The opening 12 inches below ceiling level shall be at least $\frac{1}{3}$ of the area of the lower opening. The size of the lower opening shall not be less than is required in subsection (b) below, or as required in NFPA 31, 1997 edition, and NFPA 54, 1996 edition, both of which are hereby adopted by reference.

(b) The total requirements of the burners in the boiler room shall be used to determine the louver sizes, whether fired by coal, oil, or gas. However, the minimum net free-louvered area of the lower opening shall not be less than one square foot. The following table or either of the following formulas shall be used to determine the net louvered area of the lower opening in square feet, or as required in NFPA 31 and NFPA 54:

INPUT BTU/Hour	REQUIRED AIR CU. FT./MIN.	MIN. NET LOUVERED AREA SQ. FT.
500,000	125	1.0
1,000,000	250	1.0
2,000,000	500	1.6
3,000,000	750	2.5
4,000,000	1,000	3.3
5,000,000	1,250	4.1
6,000,000	1,500	5.0

7,000,000	1,750	5.8
8,000,000	2,000	6.6
9,000,000	2,250	7.5
10,000,000	2,500	8.3

$$\frac{(\text{BTUH} \div 100) \times 1.5}{60 \div 300} \frac{\text{MIN. NET AREA}}{\text{REQ. SQ. Ft.}}$$

(c) When mechanical ventilation is used in lieu of the requirements of subsection (b), the supply of combustion and ventilation air to the boiler room and the firing device shall be interlocked with the fan so that the firing device will not operate with the fan off. The velocity of the air through the ventilating fan shall not exceed 500 feet per minute, and the total air delivered shall be equal to or greater than that shown in subsection (b) above.

(Authorized by and implementing K.S.A. 1998 Supp. 44-916; effective May 1, 1987; amended April 28, 2000.)

***** Authenticated Kansas Administrative Regulation *****