

**875—91.13 (89) Air and ventilation.**

**91.13(1) Notice concerning other rules.** The division and the Iowa department of public safety both enforce requirements concerning air and ventilation. Objects that are covered by both sets of rules must comply with both sets of rules.

**91.13(2) Documentation.** Documentation of compliance with any requirement of this rule shall be maintained in the boiler room. However, it is not necessary to maintain documentation of the louvered area.

**91.13(3) National combustion air standards.**

*a. Installations and reinstallations.* Installations and reinstallations shall comply with the edition of NFPA 31, NFPA 54, NFPA 58, NFPA 85, or IMC currently adopted at rule 875—91.1(89) or with the Iowa combustion air standard in subrule 91.13(4). However, compliance with one of the listed NFPA codes constitutes compliance with this rule only if the object burns the fuel covered by the NFPA.

*b. Existing objects.* An adequate supply of combustion air shall be maintained for all objects while in operation. Compliance with the current edition of NFPA 31, NFPA 54, NFPA 58, NFPA 85, or IMC as adopted at rule 875—91.1(89) or with subrule 91.13(4) constitutes compliance with this rule. Compliance with an earlier edition of NFPA 31, NFPA 54, NFPA 58, NFPA 85, or IMC constitutes compliance with this rule. However, compliance with one of the listed NFPA codes constitutes compliance with this rule only if the object burns the fuel covered by the NFPA. Compliance with an earlier version of Iowa's combustion air rule constitutes compliance with this rule. Earlier versions of Iowa's combustion air rule are available for reference at [http://www.iowaworkforce.org/labor/boiler\\_inspection\\_.htm](http://www.iowaworkforce.org/labor/boiler_inspection_.htm).

**91.13(4) Iowa combustion air standard.** A permanent source of outside air shall be provided for each room to permit satisfactory combustion of fuel and ventilation if necessary under normal operations. The minimum ventilation for coal, gas, or oil burners in rooms containing objects is based on the Btu's per hour, required air, and louvered area. The minimum net louvered area shall not be less than 1 square foot. The following table shall be used to determine the net louvered area in square feet:

INPUT (Btu's per hour)	MINIMUM AIR REQUIRED (cubic feet per minute)	MINIMUM LOUVERED AREA (net square feet)
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

INPUT (Btu's per hour)	MINIMUM AIR REQUIRED (cubic feet per minute)	MINIMUM LOUVERED AREA (net square feet)
5,000,000	1,200	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

When mechanical ventilation is used, the supply of combustion and ventilation air to the objects and the firing device shall be interlocked with the fan so 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 shown above.

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