7019.3070 SO₂ MATERIAL BALANCE.

If the methods in parts 7019.3040 and 7019.3050 are unavailable to the owner or operator of an emission reporting facility, the owner or operator may calculate sulfur dioxide emissions using the SO₂ material balance method described in this part. To use this method, the owner or operator must measure the sulfur content of the fuel and assume that all the sulfur in the fuel is oxidized to sulfur dioxide. This method may be used in conjunction with or instead of emission factors and enforceable limitations methods described in parts 7019.3080 and 7019.3090, where applicable. The sulfur content of each batch of fuel received must be certified by the supplier or an independent laboratory. The sulfur content must be determined using American Society for Testing and Materials (ASTM) methods. The sulfur dioxide emissions must be determined by using the following equation:

$$SO_2 = %S/100 \times F/2000 \times 2$$

where:

 SO_2 = Sulfur dioxide emissions from a batch of fuel.

%S = Weight percent sulfur in the fuel being burned.

F = Amount of fuel burned by weight in pounds.

2000 = Pounds per ton.

2 or 64/32 = Pounds of sulfur dioxide per pound of sulfur in one pound-mole.

The total sulfur dioxide emissions for the year must be the sum total of the individual batch totals.

Statutory Authority: MS s 116.07 **History:** 21 SR 165; 46 SR 1209

Published Electronically: May 16, 2022