

Notice

This Engineering Guide was recently converted to a PC format and it has not been proof read by our engineering staff. Therefore, it is subject to change at a later date.

Ohio EPA

Office of Air Pollution Control
Division of Engineering

Engineering Guide #18

Question:

Do the sulfur dioxide emission limits for boilers in the presently effective Ohio EPA and U.S. EPA SO₂ Plans apply to each fuel burned in a boiler, or to an averaging of the fuels delivered to the boiler? If an averaging is to be made, should it be an instantaneous average or should it be over some finite time period? (This question was submitted by Doug Seaman of the City of Cleveland, Division of Air Pollution Control).

Answer:

The SO₂ emission limits apply to the average of all fuels burned rather than to the individual fuels.

Under the Ohio EPA SO₂ Plan, there are four basic methods for determining compliance:

The first method, stack testing (3745-18098(D)(1) and (E)(1)), should be used with the boilers operating under their worst emission scenario, e.g., if the boiler burns several fuels, it should be tested while burning the highest sulfur content fuel or combination of fuels that it is capable of burning.

The second compliance method involves the use of continuous emission monitors (3745-18-04(D)(2) and (E)(2)). With this method, a rolling, thirty-day average emission rate is calculated from daily average emission rates. Please note, however, that the thirty-day average be weighted based on either the amount of coal burned or the steam output for each day.

The third compliance determination method is daily fuel sampling (3745-18-04(D)(3) and (E)(3)). This method is designed primarily for coal users - liquid and gaseous fuels which have less sulfur variability do not need to be sampled as frequently. Also, smaller industrial coal users which do not burn large volumes of coal may select this compliance method with less frequent coal sampling (e.g., weekly).

Again, the samples should be weighted on a Btu basis and weighted 30-day rolling average should be calculated. An illustration of how the weighted averages might be determined is presented below.

The fourth compliance method (3745-18-04(E)(4)), is available only to industrial sources - electric utilities must select one of the first three methods. The purpose of (E)(4) is to provide a compliance determination method for those sources which do not have the facilities or resources to do their own coal sampling. In order to use this method sources should obtain fuel analysis reports from their suppliers for each fuel delivery. A weighted, 30-day rolling average emission rate should be calculated from the fuel analyses.

With U.S. EPA/s SO₂Plan, there are three methods for determining compliance stack testing, continuous in-stack monitoring, or daily fuel sampling. The federal SO₂ limits represent 3-hour average emission rates. With a new, temporary enforcement policy (see attached), announced on February 5, 1980, U.S. EPA has agreed not to take enforcement action against sources that can satisfy the following conditions: 1) the source is meeting its SIP limits on a 30-day rolling, weighted average basis; 2) the source employs daily fuel sampling or continuous emission monitoring; and 3) the daily emission rates do not exceed the SIP limits by more than 50 percent. It is important to note that this enforcement policy does not change the fact that the federal SO₂ emission limits represent 3-hour averages (see attached FR notice dated September 8, 1980).

As an example of how to calculate a rolling, weighted average, consider a source which takes one coal sample every week. The last six analyses are as follows:

Week 1	2.9%S	11,300 Btu/#	4.9 #SO ₂ /MBtu
Week 2	2.7%S	11,500 Btu/#	4.5 #SO ₂ /MBtu
Week 3	3.2%S	10,800 Btu/#	5.6 #SO ₂ /MBtu
Week 4	2.4%S	11,200 Btu/#	4.1 #SO ₂ /MBtu
Week 5	2.5%S	10,900 Btu/#	4.4 #SO ₂ /MBtu
Week 6	3.1%S	11,400 Btu/#	5.2 #SO ₂ /MBtu

Since there are four samples available for each 30-day period, the most recent four analyses should be included in each rolling average. The emission rates should be weighted based on the amount of fuel burned each week.

	<u>Coal Burned</u>	<u>Emission Rate</u>	<u>Rolling, Weighted Average</u>
Week 1	25T	4.9 #/MBtu	
Week 2	37T	4.5 #/MBtu	
Week 3	52T	5.6 #/MBtu	
Week 4	30T	4.1 #/MBtu	4.9 #/MBtu
Week 5	19T	4.4 #/MBtu	4.8 #/MBtu
Week 6	42T	5.2 #/MBtu	5.0 #/MBtu

(A5 FRL 1643-4)

Ohio; Extension of the Interim Enforcement Policy for Sulfur Dioxide Emission Limitations.

Agency: U.S. Environmental Protection Agency

Action: Notice for extension of the interim enforcement policy for sulfur dioxide emission limitations in Ohio.

Summary: By this notice, the U.S. Environmental Protection Agency is extending the policy concerning the enforcement of the sulfur dioxide emission limitations in Ohio beyond February 11, 1981. This policy was originally published in the **Federal Register** on February 11, 1980 (45 FR 9101).

This policy was intended to focus the Agency's enforcement resources on those sources of SO₂ which presented the greatest environmental threat while the issue of sulfur variability was under review. Although it is now clear that the review and rulemaking procedure will not be completed by February 1981, it is anticipated that this process will be completed by March 1, 1982. therefore, this policy will be extended until March 1, 1982.

FOR FURTHER INFORMATION CONTACT:

Ms. Charlie Smith (312)353-1681

Dated: October 17, 1980
John McGuire, Regional Administrator

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[FRL 1410-3]

Enforcement Policy for Sulphur Dioxide Emission Limitations In Ohio

The United States Environmental Protection Agency is announcing a policy concerning sulfur dioxide emission limitations in Ohio. This policy mends those previously announced on February 15, 1978 (43 FR 0646) and August 22, 1979 (44 FR 49296).

The promulgated sulfur dioxide implementation plan requires subject sources to achieve specified emission limitations and demonstrate compliance using test methods specified in 40 CFR Part 60. U.S. EPA has initiated a review of its policies and procedures for regulating sulfur dioxide emissions from coal-fired plans and has addressed the question of sulfur variability in that context. As part of this review, U.S. EPA has announced intention to propose policy and regulatory changes which would permit states to analyze the air quality impact of variable sulfur emissions in their attainment demonstrations. Since changes to the rules and polices are required for the new evaluation technique, a final determination on the acceptability can only be made after public comments on the policies are reviewed and final decisions are published.

In the interim, while the sulfur variability issue is under review, the Agency will focus its enforcement resources on those plants which present the greatest environmental threat. While the State of Ohio is re-evaluating the emission limitations in a manner consistent with U.S. EPA's proposed policy and is preceding with a coal washing program for high sulfur coal, U.S. EPA will give enforcement priority to those plants in Ohio which fail to meet certain conditions which are listed below. This policy will, in effect, mean for the next year the U.S. EPA will not initiate SO₂ enforcement actions in Ohio against sources which satisfy the following conditions:

(a)The sources is meeting the currently applicable, promulgated SO₂ emission limits applied as a 30-day rolling, weighted average.

(b)The source obtains daily information on SO₂ emissions through use of in-stack monitors or fuel sampling and analysis techniques as set forth in 40 CFR Part 60 and makes this information available to the State and the U.S. EPA upon request.

(c)The emissions of SO₂ in any one day do not exceed 1.5 times the emission limit in the currently applicable SIP.

Any source failing to meet all these conditions will be subject to enforcement of the regulations as originally promulgated.

Dated: February 5, 1980
John McGuire, Regional Administrator, Region V

[FR Doc. 80-4290 Filed 2-8-80 8:45 am]

Billing Code 6560-01-M

ACCEPTABLE FUEL SAMPLING ANALYSIS METHODS FOR DEMONSTRATING COMPLIANCE BY SULFUR DIOXIDE SOURCES IN OHIO

The United States Environmental Protection Agency (U.S. EPA) is publishing the following policy statement on an acceptable alternate method of demonstrating compliance with the federally promulgated Ohio Sulfur Dioxide regulation in response to requests from several sources in Ohio for Clarification of what alternate methods would be acceptable. See 40 CFR §52.1882(a)(5) and (b)(5).

The Ohio implementation plan regulation for the control of sulfur dioxide (SO₂) emissions (40 CFR 52.1881, 41 FR 36324 as amended by 41 FR 52455 and 41 FR 27588) requires that sources emitting 100 tons or greater of SO₂ per year which are in compliance with the regulations's emissions limitation must certify that fact of compliance to the Administrator, 40 CFR 52.1882 (a)(5) and (b)(5). Compliance is required to be demonstrated through stack emission tests performed pursuant to the procedures specified in 40 CFR 60.46. While the regulation does not provide for demonstrating compliance by methods other than those specified in 40 CFR 60.46, the Agency has determined that for fossil fuel-fired steam generators certain fuel sampling analysis methods provide an acceptable alternative method and therefore may be submitted by Ohio SO₂ sources to U.S. EPA to demonstrate compliance.

Specifically, coal analysis conducted in accordance with ASTM method D3176 based on a twenty-four (24) hour period of fuel average or other equivalent methods approved by U.S. EPA in writing may be submitted by such Ohio sources to U.S. EPA to demonstrate compliance. Thus an owner or operator of a fossil fuel-fired steam generator may certify compliance by demonstrating through fuel analysis results based upon twenty-four (24) hour fuel averaging that the SO₂ emissions from the source will not exceed the applicable emission limitations 40 CFR 52.1881(b).

The use of fuel sampling analysis methods to demonstrate compliance is intended to eliminate the necessity of conducting a stack test on every emitting source in Ohio. However, acceptance by U.S. EPA of compliance certifications based on fuel analysis does not preclude the Administrator from requiring stack tests at a later time pursuant to Section 114 of the Clean Air Act or initiating enforcement actions based upon the results of subsequent stack tests.

Dated: February 9, 1978
George R. Alexander, Jr., Regional Administrator
[FR Doc. 78-4176 Filed 2-14-78; 8:45 am]
FEDERAL REGISTER, VOL. 43, NO. 32-WEDNESDAY, FEBRUARY 15, 1978

49296 Federal Register / Vol. 44, No. 164 / Wednesday, August 22, 1979 / Notices

ENVIRONMENTAL PROTECTION AGENCY

Acceptable Fuel Sampling Analysis Methods for Demonstrating Compliance by Sulfur Dioxide Sources in Ohio; Amendment

United States Environmental Protection Agency (EPA) is amending its policy statement of February 15, 1978 (43 FR 6646) concerning an acceptable alternate method of demonstrating compliance with the federally promulgated Ohio sulfur dioxide regulations. 40 CFR 52.1882(a)(5) and (b)(5). That notice specifically authorized coal analysis conducted in accordance with ASTM methods D3176 based on a twenty-four (24) hour period of fuel averaging as an alternate means of demonstrating compliance.

EPA is now amending that policy in order to recognize the inherent variability in the sulfur content in coal and the fact that random exceedances for the 24 hour fuel averaging may occur. EPA will accept, as a demonstration of compliance, coal analysis conducted according to the above-noted methods based on a 24 hour period taking into account two exceedances, as determined by fuel sampling, at any single source in any consecutive thirty (30) day period, with each day completing a new 30 day period.

However, as was stated in the February 15, 1978 notice, acceptance of certifications of compliance based on fuel analysis does not preclude the Administrator from requiring stack tests at a later time or initiating enforcement actions based upon the results of a subsequent stack test. 40 CFR §52.1881(b)(2).