

§ 52.1475

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(1)-(4) [Reserved]

[46 FR 21766, Apr. 14, 1981, as amended at 47 FR 15792, Apr. 13, 1982; 47 FR 27069, June 23, 1982; 49 FR 6900, Feb. 24, 1984]

§ 52.1475 Control strategy and regulations: Sulfur oxides.

(a) The requirements of subpart G of this chapter are not met since the plan does not adequately provide for attainment and maintenance of the National Ambient Air Quality Standards for sulfur oxides in the Nevada Intrastate Region.

(b) Article 8.1.3 of Nevada's "Air Quality Regulations" (emission limitation for sulfur from existing copper smelters), which is part of the sulfur oxides control strategy, is disapproved since it does not provide the degree of control needed to attain and maintain the National Ambient Air Quality Standards for sulfur oxides in the Nevada Intrastate Region.

(c) Regulation for control of fugitive sulfur oxides emissions (Nevada Intrastate Region). (1) The owner or operator of the Kennecott Copper Company smelter located in White Pine County, Nevada, in the Nevada Intrastate Region shall utilize best engineering techniques for reducing escape of pollutants to the atmosphere and to capture sulfur oxides emissions and vent them through a stack or stacks. Such techniques shall include, but not be limited to:

(i) Installing and operating hoods on all active matte tapholes, matte launders, slag skim bays, slag handling operations, and holding ladles on each reverberatory furnace;

(ii) Installing tight fitting hoods on each active converter and operating such hoods except during pouring and charging operations;

(iii) Maintaining all ducts, flues, and stacks in a leak-free condition;

(iv) Maintaining all reverberatory furnaces and converters under normal operating conditions in such a fashion that out-leakage of gases will be prevented to the maximum extent possible;

(v) Wherever feasible, ducting emissions through the tallest stack or stacks serving the facility; and

(vi) Wherever feasible, passing the effluents from all hooding through the

tallest stack or stacks serving the facility.

(2) (i) If the owner or operator of the smelter subject to this paragraph is not in compliance with the provisions of paragraph (c)(1) of the section the following compliance schedule shall apply:

(a) 30 days after the effective date of this regulation. Let contracts or issue purchase orders for hoods and flues for control of fugitive sulfur oxides emissions or provide evidence that such contracts have been let.

(b) July 1, 1975. Initiate on-site construction and/or installation of emission control equipment.

(c) July 1, 1976. Complete on-site construction and/or installation of emission control equipment.

(d) January 1, 1977. Achieve final compliance with requirements of paragraph (c)(1) of this section.

(ii) The owner or operator of the smelter subject to the requirements of this paragraph shall certify to the Administrator within five days after the deadline for each increment of progress, whether or not the required increment of progress has been met.

(iii) If the source subject to this paragraph is presently in compliance with the requirements of paragraph (c)(1) of this section, the owner or operator of such source may certify such compliance to the Administrator within thirty (30) days of the effective date of this paragraph. If such certification is acceptable to the Administrator, the applicable requirements of this paragraph shall not apply to the certifying source. The Administrator may request whatever supporting information he considers necessary to determine the validity of the certification.

(3) The owner or operator of the smelter subject to this paragraph may submit to the Administrator, no later than thirty (30) days after the effective date of this paragraph, a proposed alternative compliance schedule. No such compliance schedule may provide for final compliance after January 1, 1977. If approved by the Administrator, such schedule shall satisfy the compliance schedule requirements of this paragraph for the affected source.

(d) *Regulation for control of sulfur dioxide emissions (Nevada Intrastate Region)*. (1) The owner or operator of the Kennecott Copper Company smelter located in White Pine County, Nevada, in the Nevada Intrastate Region shall comply with all the requirements of this paragraph, except as provided in paragraph (e) of this section.

(2) (i) After July 31, 1977, the owner or operator of the smelter subject to this paragraph shall not discharge or cause the discharge of sulfur dioxide into the atmosphere in excess of 10,150 pounds per hour (4,603 kg/hr.) maximum 6-hour average as determined by the method specified in paragraph (d)(4) of this section.

(ii) The limitation specified in paragraph (d)(2)(i) of this section shall apply to the sum total of sulfur dioxide emissions from the smelter processing units and sulfur oxides control and removal equipment, but not including uncaptured fugitive emissions and those emissions due solely to the use of fuel for space heating or steam generation.

(3) (i) The owner or operator of the smelter to which this paragraph is applicable shall, no later than 30 days following the effective date of this paragraph, submit to the Administrator for approval a proposed compliance schedule that demonstrates compliance with paragraph (d)(2) of this section as expeditiously as practicable but not later than July 31, 1977.

(ii) The compliance schedule submitted to the Administrator pursuant to paragraph (d)(3)(i) of this section shall provide for increments of progress toward compliance. The dates for achievement of such increments of progress shall be specified. Increments of progress shall include, but not be limited to, the following:

(a) Submittal of final control plan to the Administrator for meeting the requirements of paragraph (d)(2) of this section.

(b) Letting of necessary contracts or process changes, or issuance of orders for the purchase of component parts, to accomplish emission control or process modification;

(c) Initiation of on-site construction or installation of emission control equipment or process modification;

(d) Completion of on-site construction or installation of emission control equipment or process modification;

(e) Full compliance with the requirements of paragraph (d)(2) of this section.

(iii) The owner or operator of the smelter subject to the requirements of this subparagraph shall certify to the Administrator within five days after the deadline for each increment of progress, whether or not the required increment of progress has been met.

(iv) Notice must be given to the Administrator at least 10 days prior to conducting a performance test to afford him the opportunity to have an observer present.

(v) If the source subject to this paragraph is currently in compliance with the requirement of paragraph (d)(2) of this section, the owner or operator of such source may certify such compliance to the Administrator within thirty (30) days of the effective date of this paragraph. If such certification is acceptable to the Administrator, the applicable requirements of this paragraph (d)(3) of this section shall not apply to the certifying source. The Administrator may request whatever supporting information he considers necessary to determine the validity of the certification.

(4)(i) The owner or operator of the smelter to which this paragraph is applicable shall install, calibrate, maintain, and operate a measurement system(s) for continuously monitoring sulfur dioxide emissions and stack gas volumetric flow rates in each stack which emits 5 percent or more of the total potential (without emission controls) hourly sulfur oxides emissions from the source. For the purpose of this paragraph, "continuous monitoring" means the taking and recording of at least one measurement of sulfur dioxide concentration and stack gas flow rate reading from the effluent of each affected stack in each 15-minute period.

(ii) Within nine months after the effective date of this paragraph, and at other such times in the future as the Administrator may specify, the sulfur dioxide concentration measurement system(s) installed and used pursuant

to this paragraph shall be demonstrated to meet the measurement system performance specifications prescribed in Appendix D to this part.

(iii) Within nine months after the effective date of this paragraph, and at other such times in the future as the Administrator may specify, the stack gas volumetric flow rate measurement system(s) installed and used pursuant to this paragraph shall be demonstrated to meet the measurement system performance specifications prescribed in Appendix E to this part.

(iv) The Administrator shall be notified at least ten (10) days in advance of the start of the field test period required in Appendices D and E to this part to afford the Administrator the opportunity to have an observer present.

(v) The sampling point for monitoring emissions shall be in the duct at the centroid of the cross section if the cross sectional area is less than 4.647 m² (50 ft.²) or at a point no closer to the wall than 0.914 m (3 ft.) if the cross sectional area is 4.647 m² (50 ft.²) or more. The monitor sample point shall be in an area of small spatial concentration gradient and shall be representative of the concentration in the duct.

(vi) The measurement system(s) installed and used pursuant to this section shall be subjected to the manufacturer's recommended zero adjustment and calibration procedures at least once per 24-hour operating period unless the manufacturer specifies or recommends calibration at shorter intervals, in which case such specifications or recommendations shall be followed. Records of these procedures shall be made which clearly show instrument readings before and after zero adjustment and calibration.

(vii) Six-hour average sulfur dioxide emission rates shall be calculated in accordance with paragraph (d)(5) of this section, and recorded daily.

(viii) The owner or operator of the smelter subject to this paragraph shall maintain a record of all measurements required by this paragraph. Measurement results shall be expressed as pounds of sulfur dioxide emitted per six hour period. A 6-hour average value calculated pursuant to paragraph

(d)(5)(i) of this section shall be reported as of each hour for the preceding 6-hour period. Results shall be summarized monthly and shall be submitted to the Administrator within fifteen (15) days after the end of each month. A record of such measurements shall be retained for at least two years following the date of such measurements.

(ix) The continuous monitoring and recordkeeping requirements of this paragraph shall become applicable nine months after the effective date of this regulation.

(5) (i) Compliance with the requirements of paragraph (d)(2) of this section shall be determined using the continuous measurement system(s) installed, calibrated, maintained and operated in accordance with the requirements of paragraph (d)(4) of this section. For all stacks equipped with the measurement system(s) required by paragraph (d)(4) of this section, a 6-hour average sulfur dioxide emission rate shall be calculated as of the end of each clock hour, for the preceding six hours, in the following manner:

(a) Divide each 6-hour period into 24 15-minute segments.

(b) Determine on a compatible basis a sulfur dioxide concentration and stack gas flow rate measurement for each 15-minute period for each affected stack. These measurements may be obtained either by continuous integration of sulfur dioxide concentration and stack gas flow rate measurements (from the respective affected facilities) recorded during the 15-minute period or from the arithmetic average of any number of sulfur dioxide concentration and stack gas flow readings equally spaced over the 15-minute period. In the later case, the same number of concentration readings shall be taken in each 15-minute period and the readings shall be similarly spaced within each 15-minute period.

(c) Calculate the arithmetic average (lbs SO₂/hr) from all 24 emission rate measurements in each 6-hour period for each stack.

(d) Total the average sulfur dioxide emission rates for all affected stacks.

(ii) Notwithstanding the requirements of paragraph (d)(5)(i) of this section, compliance with the requirements of paragraph (d)(2) of this section shall

also be determined by using the methods described below at such times as may be specified by the Administrator. For all stacks equipped with the measurement system(s) required by paragraph (d)(4) of this section, a 6-hour average sulfur dioxide emission rate (lbs SO₂/hr) shall be determined as follows:

(a) The test of each stack emission rate shall be conducted while the processing units vented through such stack are operating at or above the maximum rate at which they will be operated and under such other conditions as the Administrator may specify.

(b) Concentrations of sulfur dioxide in emissions shall be determined by using Method 8 as described in part 60 of this chapter. The analytical and computational portions of Method 8 as they relate to determination of sulfuric acid mist and sulfur trioxide as well as isokinetic sampling may be omitted from the over-all test procedure.

(c) Three independent sets of measurements of sulfur dioxide concentrations and stack gas volumetric flow rates shall be conducted during three 6-hour periods for each stack. Each 6-hour period will consist of three consecutive 2-hour periods. Measurements of emissions from all stacks on the smelter premises need not be conducted simultaneously. All tests must be completed within a 72-hour period.

(d) In using Method 8, traversing shall be conducted according to Method 1 as described in part 60 of this chapter. The minimum sampling volume for each two hour test shall be 40 ft³ corrected to standard conditions, dry basis.

(e) The volumetric flow rate of the total effluent from each stack evaluated shall be determined by using Method 2 as described in part 60 of this chapter and by traversing according to Method 1. Gas analysis shall be performed by using the integrated sample technique of Method 4 as described in part 60 of this chapter except that stack gases arising only from a sulfuric acid production unit may be considered to have zero moisture content.

(f) The gas sample shall be extracted at a rate proportional to the gas velocity at the sampling point.

(g) For each two hour test period, the sulfur dioxide emission rate for each

stack shall be determined by multiplying the stack gas volumetric flow rate (ft³/hr at standard conditions, dry basis) by the sulfur dioxide concentration (lb/ft³ at standard conditions, dry basis). The emission rate in lbs/hr-maximum 6-hour average for each stack is determined by calculating the arithmetic average of the results of the three 2-hour tests.

(h) The sum total of sulfur dioxide emissions from the smelter premises in lbs/hr is determined by adding together the emission rates (lbs/hr) from all stacks equipped with the measurement system(s) required by paragraph (d)(4) of this section.

(e) Alternate regulation for control of sulfur dioxide emissions (Nevada Intrastate Region). (1) The owner or operator of the Kennecott Copper Company smelter located in White Pine County, Nevada, in the Nevada Intrastate Air Quality Control Region may apply to the Administrator for approval to meet the requirements of this paragraph. Upon such approval, granted pursuant to paragraph (e)(3) of this section, the requirements of paragraph (d) shall not be applicable during the period of such approval, and all requirements of this paragraph shall apply.

(2) All terms used in this paragraph but not specifically defined below shall have the meaning given them in the Act, part 51 or § 52.01 of this chapter.

(i) The term "supplementary control system" means any system which limits the amount of pollutant emissions during periods when meteorological conditions conducive to ground-level concentrations in excess of national standards exist or are anticipated.

(ii) The term "ambient air quality violation" means any single ambient concentration of sulfur dioxide that exceeds any National Ambient Air Quality Standard for sulfur dioxide at any point in a designated liability area, as specified in paragraph (e)(8) of this section.

(iii) The term "isolated source" means a source that will assume legal responsibility for all violations of the applicable national standards in its designated liability area, as specified in paragraph (e)(8) of this section.

(iv) The term “designated liability area” means the geographic area within which emissions from a source may significantly affect the ambient air quality.

(3)(i) The application for permission to comply with this paragraph shall be submitted to the Administrator no later than sixty (60) days following the effective date of this paragraph and shall include the following:

(a) A short description of the type and location of the smelter; the process, equipment, raw materials and fuels used; the stacks employed; and emissions to the atmosphere from various points on the smelter premises.

(b) A general description and the location of other sources of air pollution and of the uses of land, and the topography in the vicinity of the smelter.

(c) A summary of all ambient air quality data in the vicinity of the smelter collected by or under contract to smelter.

(d) A description of the methods of constant emission reduction that are or will be applied and the degree of emission reduction achieved or expected due to their application.

(e) A description of the investigations that the owner or operator has made, and the results thereof, as to the availability of constant emission reduction methods that would meet the requirements of paragraph (d)(2) of this section and a discussion of the reasons why any potentially available methods cannot reasonably be used.

(f) A specific description of the research, investigations, or demonstrations that the owner or operator will conduct or support for the purpose of developing constant emission reduction technology applicable to the smelter. Such description shall include the resources to be committed, qualifications of the participants, a description of the facilities to be utilized and milestone dates.

(g) A detailed description of all other measures the owner or operator will apply, in addition to those described in paragraph (e)(3)(i)(d) of this section, to provide for attainment and maintenance of the air quality standards. These measures include but need not be limited to supplementary control systems, tall stacks and other dispersion

techniques. Each measure to be applied shall be described in sufficient detail to allow the Administrator to determine its effectiveness in reducing ambient concentrations.

(h) A written commitment by the owner or operator of the source subject to this paragraph agreeing to assume liability for all violations of National Ambient Air Quality Standards within the designated liability area.

(j) Such other pertinent information as the Administrator may require.

(ii) Upon receipt of the information specified in paragraph (e)(3)(i) of this section, and after making a determination of its adequacy, the Administrator promptly shall, after thirty (30) days notice, conduct a public hearing on the application submitted by the owner or operator. The Administrator shall make available to the public the information contained in the application. Within thirty (30) days after the hearing, the Administrator shall notify the owner or operator of the smelter and other interested parties of his decision as to whether to grant or deny the application. If he denies the application, he will set forth his reasons. If he approves the application the owner or operator shall comply with all provisions of paragraph (e) of this section and need not comply with provisions of paragraph (d) of this section except as provided in paragraph (e)(16) of this section.

(iii) Approval of the application to abide by the provisions of paragraph (e) will be granted if it can be satisfactorily demonstrated to the Administrator that control measures in addition to the available constant emission controls are required and if the specific measures submitted pursuant to paragraph (e)(3)(i)(g) of this section will provide for the attainment and maintenance of the National Ambient Air Quality Standards.

(4)(i) The owner or operator of the smelter subject to this paragraph shall not discharge or cause the discharge of sulfur dioxide into the atmosphere in excess of:

Environmental Protection Agency

§ 52.1475

(a) 2,600 parts per million-maximum 6-hour average, from any single absorption sulfuric acid producing facility designed for the removal of sulfur dioxide, as determined by the method specified in paragraph (e)(6) (i) or (iii) of this section, and

(b) 29,000 pounds per hour (13,154 kg/hr) maximum 6-hour average, as determined by the method specified in paragraph (e)(6) (ii) or (iv) of this section. Such limitation shall apply to the sum total of sulfur dioxide emissions from the smelter processing units and sulfur oxides control and removal equipment but not including uncaptured fugitive emissions and those emissions due solely to use of fuel for space heating or steam generation.

(ii) All emissions from the converters, with the exception of the uncaptured fugitive emissions, shall be processed through a facility for the removal of sulfur dioxide which meets the requirements of paragraph (e)(4)(i)(a) of this section.

(5) (i) The owner or operator of the smelter to which this paragraph is applicable shall install, calibrate, maintain and operate a measurement system(s) for continuously monitoring sulfur dioxide emissions and stack gas volumetric flow rates in each stack which emits 5 percent or more of the total potential (without emission controls) hourly sulfur oxide emissions from the source. For the purpose of this paragraph, "continuous monitoring" means taking and recording of at least one measurement of sulfur dioxide concentration and stack gas flow rate reading from the effluent of each affected stack in each 15-minute period.

(ii) No later than the date specified in paragraph (e)(14)(i)(b)(5) of this section and at such other times in the future as the Administrator may reasonably specify, the sulfur dioxide concentration measurement system(s) installed and used pursuant to this paragraph shall be demonstrated to meet the measurement system performance specifications prescribed in Appendix D to this part.

(iii) No later than the date specified in paragraph (e)(14)(i)(b)(5) of this section and at such other times in the future as the Administrator may reason-

ably specify, the stack gas volumetric flow rate measurement system(s) installed and used pursuant to this paragraph shall be demonstrated to meet the measurement system performance specifications prescribed in Appendix E to this part.

(iv) The Administrator shall be notified at least 10 days in advance of the start of the field test period required in Appendices D and E to this part to afford the Administrator the opportunity to have an observer present.

(v) The sampling point for monitoring emissions shall be in the duct at the centroid of the cross section if the cross sectional area is less than 4.647 m² (50 ft²) or at a point no closer to the wall than 0.914 m (3 ft) if the cross sectional area is 4.647 m² (50 ft²) or more. The monitor sample point shall be an area of small spatial concentration gradient and shall be representative of the concentration in the duct.

(vi) The measurement system(s) installed and used pursuant to this section shall be subjected to the manufacturer's recommended zero adjustment and calibration procedures at least once per 24-hour operating period unless the manufacturer specifies or recommends calibration at shorter intervals, in which case such specifications or recommendations shall be followed. Records of these procedures shall be made which clearly show instrument readings before and after zero adjustment and calibration.

(vii) Six-hour average sulfur dioxide concentration and emission rates shall be calculated in accordance with paragraph (e)(6) of this section and recorded daily.

(viii) The owner or operator of the smelter subject to this paragraph shall maintain a record of all measurements required by this paragraph. Measurement results shall be expressed in the units prescribed by the emission limitations in paragraph (e)(4) of this section. Six-hour average values calculated pursuant to paragraphs (e)(6) (i) and (ii) of this section shall be reported as of each hour for the preceding six hours. The results shall be summarized monthly and shall be submitted to the Administrator within fifteen (15) days of the end of each month. A record of such measurements shall be

retained for at least two years following the date of such measurements.

(6)(i) Compliance with the requirements of paragraph (e)(4)(i)(a) of this section shall be determined using the continuous measurements system(s) installed, calibrated, maintained and operated in accordance with the requirements of paragraph (e)(5) of this section. For the stack(s) equipped with the measurement system(s) required by paragraph (e)(5) of this section and serving the sulfur dioxide removal device a 6-hour average sulfur dioxide concentration shall be calculated as of the end of each clock hour for the preceding six hours, in the following manner:

(a) Divide each 6-hour period into twenty-four 15-minute segments.

(b) Determine on a compatible basis a sulfur dioxide concentration measurement for each 15-minute period. These measurements may be obtained either by continuous integration of all measurements (from the respective affected facility) recorded during the 15-minute period or from the arithmetic average of any number of sulfur dioxide concentration readings equally spaced over the 15-minute period. In the latter case, the same number of concentration readings shall be taken in each 15-minute period and the readings shall be similarly spaced within each 15-minute period.

(c) Calculate the arithmetic average of all 24 concentration measurements in each 6-hour period.

(ii) Compliance with the requirements of paragraph (e)(4)(i)(b) of this section shall be determined using the continuous measurement system(s) installed, calibrated, maintained and operated in accordance with the requirements of paragraph (e)(5) of this section. For all stacks equipped with the measurement system(s) required by paragraph (e)(5) of this section, a 6-hour average sulfur dioxide emission rate shall be calculated as of the end of each clock hour for the preceding six hours, in the following manner:

(a) Divide each 6-hour period into twenty-four 15-minute segments.

(b) Determine on a compatible basis a sulfur dioxide concentration and stack gas flow rate measurement for each 15-minute period for each affected stack.

These measurements may be obtained either by continuous integration of sulfur dioxide concentrations and stack gas flow rate measurements (from the respective affected facilities) recorded during the 15-minute period or from the arithmetic average of any number of sulfur dioxide concentration and stack gas flow rate readings equally spaced over the 15-minute period. In the latter case, the same number of concentration readings shall be taken in each 15-minute period and the readings shall be similarly spaced within each 15-minute period.

(c) Calculate the arithmetic average (lbs SO₂/hr) of all 24 emission rate measurements in each 6-hour period for each stack.

(d) Total the average sulfur dioxide emission rates for all affected stacks.

(iii) Notwithstanding the requirements of paragraph (e)(6)(i) of this section, compliance with the requirements of paragraph (e)(4)(i)(a) of this section shall also be determined by using the methods described below at such times as may be specified by the Administrator. For each stack serving any process designed for the removal of sulfur dioxide a 6-hour average sulfur dioxide concentration shall be determined as follows:

(a) The test of each stack emission concentration shall be conducted while the processing units vented through such stack are operating at or above the maximum rate at which such will be operated and under such other conditions as the Administrator may specify.

(b) Concentrations of sulfur dioxide in emissions shall be determined by using Method 8 as described in part 60 of this chapter. The analytical and computational portions of Method 8 as they relate to determination of sulfuric acid mist and sulfur trioxide as well as isokinetic sampling may be omitted from the over-all test procedure.

(c) Three independent sets of measurements of sulfur dioxide concentration shall be conducted during three 6-hour periods of each stack. Each 6-hour period will consist of three consecutive 2-hour periods. Measurements of emissions from all stacks on the smelter

premises need not be conducted simultaneously. All tests must be completed within a 72-hour period.

(d) In using Method 8, traversing shall be conducted according to Method 1 as described in part 60 of this chapter. The minimum sampling volume for each two hour test shall be 40 ft³ corrected to standard conditions, dry basis.

(e) The velocity of the total effluent from each stack evaluated shall be determined by using Method 2 as described in part 60 of this chapter and traversing according to Method 1. Gas analysis shall be performed by using the integrated sample technique of Method 3 as described in part 60 of this chapter. Moisture content can be considered to be zero.

(f) The gas sample shall be extracted at a rate proportional to gas velocity at the sampling point.

(g) The sulfur dioxide concentration in parts per million-maximum 6-hour average for each stack is determined by calculating the arithmetic average of the results of the three 2-hour tests.

(iv) Notwithstanding the requirements of paragraph (e)(6)(ii) of this section, compliance with the requirements of paragraph (e)(4)(i)(b) of this section shall also be determined by using the methods described below at such times as may be specified by the Administrator. For all stacks equipped with the measurement system(s) required by paragraph (e)(5) of this section, a 6-hour average sulfur dioxide emission rate (lbs SO₂/hr) shall be determined as follows:

(a) The test of each stack emission rate shall be conducted while the processing units vented through such stack are operating at or above the maximum rate at which they will be operated and under such other conditions as the Administrator shall specify.

(b) Concentrations of sulfur dioxide in emissions shall be determined by using Method 8 as described in part 60 of this chapter. The analytical, and computational portions of Method 8 as they relate to determination of sulfuric acid mist and sulfur trioxide as well as isokinetic sampling may be omitted from the over-all test procedure.

(c) Three independent sets of measurements of sulfur dioxide concentra-

tions and stack gas volumetric flow rates shall be conducted during three consecutive 2-hour periods for each stack. Measurements need not necessarily be conducted simultaneously of emissions from all stacks on the smelter premises.

(d) In using Method 8, Traversing shall be conducted according to Method 1 as described in part 60 of this chapter. The minimum sampling volume for each 2-hour test shall be 40 ft³ corrected to standard conditions, dry basis.

(e) The volumetric flow rate of the total effluent from each stack evaluated shall be determined by using Method 2 as described in part 60 of this chapter and by traversing according to Method 1. Gas analysis shall be performed by using the integrated sample technique of Method 3 as described in part 60 of this chapter. Moisture content shall be determined by use of Method 4 as described in part 60 of this chapter except that stack gases arising only from a sulfuric acid production unit may be considered to have zero moisture content.

(f) The gas sample shall be extracted at a rate proportional to the gas velocity at the sampling point.

(g) For each 2-hour test period, the sulfur dioxide emission rate for each stack shall be determined by multiplying the stack gas volumetric flow rate (ft³/hr at standard conditions, dry basis) by the sulfur dioxide concentration (lb/ft³ at standard conditions, dry basis). The emission rate in lbs/hr-maximum 6-hour average for each stack is determined by calculating the arithmetic average of the results of the three 2-hour tests.

(h) The sum total of sulfur dioxide emissions from the smelter premises in lbs/hr is determined by adding together the emission rates (lbs/hr) from all stacks equipped with the measurement system(s) required by paragraph (e)(5) of this section.

(7) The owner or operator of the smelter subject to this paragraph, in addition to meeting the emission limitation requirements of paragraph (e)(4) of this section, shall employ supplementary control systems and/or such additional control measures as may be necessary to assure the attainment and

maintenance of the National Ambient Air Quality Standards for sulfur dioxide.

(i) Such measures will be limited to those specified in the application submitted pursuant to paragraph (e)(3)(i)(g) of this section.

(ii) Sulfur oxides emissions shall be curtailed whenever the potential for violating any National Ambient Air Quality Standard for sulfur dioxide is indicated at any point in a designated liability area by either of the following:

(a) Air quality measurement.

(b) Air quality prediction.

(8)(i) For the purposes of this paragraph the designated liability area shall be a circle with a radius of fifteen (15) statute miles (24 km) with the center point of such circle coinciding with the tallest stack serving the affected facility. The owner or operator of the smelter subject to this paragraph may submit a detailed report which justifies redefining the designated liability area specified by the Administrator. Such a justification shall be submitted with the application submitted pursuant to paragraph (e)(3)(i) of this section and shall describe and delineate the requested designated liability area and discuss in detail the method used and the factors taken into account in the development of such area. Upon receipt and evaluation of such report, and after the public hearing described in paragraph (e)(3)(ii) of this section, the Administrator shall issue his final determination.

(ii) If new information becomes available which demonstrates that the designated liability area should be redefined, the Administrator shall consider such and if appropriate, after notice and comment, redefine the designated liability area.

(9) (i) The owner or operator of the smelter subject to the paragraph shall submit with the application submitted pursuant to paragraph (e)(3)(i) of this section, a detailed plan for the establishment of a supplementary control system and/or such other measures as may be proposed. Such plan shall describe all air quality and emission monitoring and meteorological equipment to be used, including instruments installed pursuant to paragraph (e)(5)

of this section for continuously monitoring and recording sulfur dioxide emissions and stack gas flow rate, the methods that will be used to determine emission rates to be achieved in association with various meteorological and air quality situations, and the general plan of investigations to be followed in developing the system and the operational manual.

(ii) Such plan shall include detailed specifications of any modifications to existing equipment including new stacks, stack extensions, stack heating systems or any process changes to be applied.

(iii) The monitoring described in the detailed plan submitted in accordance with this subparagraph and the appropriate recordkeeping requirements of paragraph (e)(12) of this section shall commence and become applicable as of the date specified in paragraph (e)(14)(i)(b)(5) of this section.

(10) The owner or operator of the smelter subject to this paragraph shall submit to the Administrator a comprehensive report of a study which demonstrates the capability of the supplementary control system, in conjunction with any other control measures, to reduce air pollution levels. The report shall describe a study conducted during a period of at least 120 days during which the supplementary control system was being developed and operated and shall be submitted no later than the date specified in paragraph (e)(14)(i)(b)(6) of this section. The report shall:

(i) Describe the emission monitoring system and the air quality monitoring network.

(ii) Describe the meteorological sensing network and the meteorological prediction program.

(iii) Identify the frequency, characteristics, times of occurrence and durations of meteorological conditions associated with high ground-level concentrations.

(iv) Describe the methodology (e.g., dispersion modeling and measured air quality data) by which the source determines the degree of control needed under each meteorological situation.

(v) Describe the method chosen to vary the emission rate, the basis for

Environmental Protection Agency

§ 52.1475

the choice, and the time required to effect a sufficient reduction in the emission rate to avoid violations of National Ambient Air Quality Standards.

(vi) Contain an estimate of the frequency that emission rate reduction is required to prevent National Ambient Air Quality Standards from being exceeded and the basis for the estimate.

(vii) Include data and results of objective reliability tests. "Reliability," as the term is applied here, refers to the ability of the supplementary control system to protect against violations of the National Ambient Air Quality Standards.

(viii) Demonstrate that the supplementary control system and other measures expected to be employed after the date specified in paragraph (e)(14)(i)(b)(6) of this section will result in attainment and maintenance of National Ambient Air Quality Standards.

(11) The owner or operator of the smelter subject to this paragraph shall submit to the Administrator an operational manual for the supplementary control system. Such manual shall be submitted no later than the date specified in paragraph (e)(14)(i)(b)(6) of this section and is subject to the approval of the Administrator as satisfying the specific requirements of this paragraph. Such approval shall not relieve the owner or operator of the smelter subject to this paragraph from its assumed liability for violations of any National Ambient Air Quality Standards for sulfur oxides in the designated liability area. Prior to making his final decision, the Administrator shall, after reasonable notice, provide an opportunity of not less than forty-five (45) days for public inspection and comment upon the manual. Such manual shall:

(i) Specify the number, type, and location of ambient air quality monitors, instack monitors and meteorological instruments to be used.

(ii) Describe techniques, methods, and criteria to be used to anticipate the onset of meteorological situations associated with ground-level concentrations in excess of National Ambient Air Quality Standards and to systematically evaluate and, as needed, improve the reliability of the supplementary control system.

(iii) Describe the criteria and procedures that will be used to determine the degree of emission control needed for each class of meteorological and air quality situations.

(iv) Specify maximum emission rates which may prevail during all probable meteorological and air quality situations, which rates shall be such that National Ambient Air Quality Standards will not be exceeded in the designated liability area. Such emission rates shall be determined by in-stack monitors. Data from such monitors shall be the basis for determining whether the emission rate provisions of the approved operational manual are adhered to.

(v) Describe specific actions that will be taken to curtail emissions when various meteorological conditions described in paragraph (c)(11)(ii) of this section exist or are predicted and/or when specified air quality levels occur.

(vi) Identify the company personnel responsible for initiating and supervising the actions that will be taken to curtail emissions. Such personnel must be responsible, knowledgeable and able to apprise the Administrator of the status of the supplementary control system at any time the source is operating.

(vii) Be modified only if approval by the Administrator is first obtained.

(12) The owner or operator of the smelter subject to this paragraph shall:

(i) Maintain, in a usable manner, records of all measurements and reports prepared as part of the supplementary control system described in the approved operational manual. Such records shall be retained for at least two years.

(ii) Submit, on a monthly basis, the hour by hour measurements made of air quality, emissions and meteorological parameters, and all other measurements made on a periodic basis, as part of the approved supplementary control system.

(iii) Submit a monthly summary indicating all places, dates, and times when National Ambient Air Quality Standards for sulfur oxides were exceeded and the concentrations of sulfur dioxide at such times.

(iv) Notify the Administrator of any violation of National Ambient Air

Quality Standards within 24 hours of the occurrence of such violation.

(v) Submit a monthly summary report describing and analyzing how the supplementary control system was operated as related to the approved operations manual and how the system will be improved, if necessary, to prevent violations of the National Ambient Air Quality Standards for sulfur oxides or to prevent any other conditions which are not in accordance with the approved operational manual.

(13)(i) The owner or operator of the smelter subject to this paragraph shall participate in a research program to develop and apply constant emission reduction technology adequate to attain and maintain the national standards. Such program shall be carried out in accordance with the plan submitted pursuant to paragraph (e)(3)(i)(f) of this section.

(ii) The owner or operator of the smelter subject to this paragraph shall submit annual reports on the progress of the research and development program required by paragraph (e)(13)(i) of this section. Each report shall also include, but not be limited to, a description of the projects underway, information on the qualifications of the personnel involved, information on the funds and personnel that have been committed, and an estimated date for the installation of the constant emission reduction technology necessary to attain and maintain the National Ambient Air Quality Standards.

(14) (i) The owner or operator of the smelter subject to this paragraph shall comply with the compliance schedules specified below.

(a) Compliance schedule for meeting the emission reduction requirements of paragraph (e)(4) of this section:

(1) No later than thirty (30) days after the date of approval to meet the requirements of this paragraph—submit a final plan and schedule to the Administrator for meeting the requirements of paragraph (e)(4) of this section.

(2) No later than thirty (30) days after the date of approval to meet the requirements of this paragraph—let contracts or issue purchase order for emission control systems or process

modifications or provide evidence that such contracts have been let.

(3) July 1, 1975. Initiate on-site construction or installation of emission control equipment or process change.

(4) July 1, 1976. Complete on-site construction or installation of constant emission control equipment or process change.

(5) January 1, 1977. Achieve final compliance with the requirements of paragraph (4) of this paragraph (e)(14)(i)(a).

(b) Compliance schedule for implementing a supplementary control system or other measures which meet the requirements of paragraphs (e) (7), (9), (10), and (11) of this section.

(1) No later than sixty (60) days after approval to meet the requirements of this paragraph—submit to the Administrator a detailed schedule for establishment and implementation of the supplementary control system and other measures in accordance with paragraph (e)(9) of this section.

(2) No later than ninety (90) days after approval to meet the requirements of this paragraph—let contracts or issue purchase orders, or provide evidence that such contracts have been let, for ambient air quality monitors, meteorological instruments, and other component parts necessary to establish a supplementary control system.

(3) No later than ninety (90) days after approval to meet the requirements of this paragraph—let contracts or issue purchase orders, or provide evidence that such contracts have been let, for any stack extensions or modifications of equipment approved pursuant to paragraph (e)(3) of this section.

(4) November 1, 1975. Complete installation of air quality and emission monitors and meteorological equipment.

(5) January 1, 1976. Complete installation of any stack extensions or modifications of equipment approved pursuant to paragraph (e)(3) of this section.

(6) May 1, 1976. Submit to the Administrator the comprehensive report on the supplementary control system required by paragraph (e)(10) of this section, and submit to the Administrator for his approval the operational manual required by paragraph (e)(11) of this section.

(7) January 1, 1977. The National Ambient Air Quality Standards for sulfur dioxide shall not be violated in the designated liability area.

(ii) Any owner or operator subject to the requirements of this subparagraph shall certify to the Administrator within five (5) days after the deadline for each increment of progress whether or not the required increment of progress has been met.

(iii) Notice must be given to the Administrator at least ten (10) days prior to conducting a performance test to afford him the opportunity to have an observer present.

(iv) If the source subject to this paragraph is presently in compliance with any of the increments of progress set forth in this paragraph, the owner or operator of such source shall certify such compliance to the Administrator within thirty (30) days of the effective date of this paragraph. The Administrator may request whatever supporting information he considers necessary to determine the validity of the certification.

(v) The owner or operator of the smelter subject to this paragraph may submit to the Administrator proposed alternative compliance schedules. Each such proposed compliance schedule shall be submitted with the application submitted pursuant to paragraph (e)(3)(i) of this section. No such compliance schedule may provide for final compliance after January 1, 1977. If approved by the Administrator, such schedule shall replace the compliance schedule set forth in this paragraph.

(vi) Any such compliance schedule submitted to the Administrator shall provide for increments of progress toward compliance. The dates for achievement of such increments of progress shall be specified. Increments of progress shall include, but not be limited to, the increments specified in the appropriate compliance schedule set forth in paragraphs (e)(14)(i) (a) and (b) of this section.

(15) (i) The Administrator shall annually review the supplementary control system and shall deny continued use of the supplementary control system if he determines that:

(a) The review indicates that constant emission control technology has

become available or that other factors which may bear on the conditions for use of a supplementary control system have changed to the extent that continued use of the supplementary control system would no longer be deemed approvable within the intent of paragraph (e)(3) of this section; or

(b) The source owner or operator has not demonstrated good faith efforts to follow the stated program for developing constant emission reduction procedures; or

(c) The source owner or operator has not developed and employed a control program that is effective in preventing violations of National Ambient Air Quality Standards.

(ii) Prior to denying the continued use of a supplementary control system pursuant to paragraph (e)(15)(i) of this section, the Administrator shall notify the owner or operator of the smelter subject to this paragraph of his intent to deny such continued use, together with:

(a) The information and findings on which such intended denial is based.

(b) Notice of opportunity for such owner or operator to present, within thirty (30) days, additional information or arguments to the Administrator prior to his final determination.

(iii) The Administrator shall notify the owner or operator of the smelter subject to this paragraph of his final determination within thirty (30) days after the presentation of additional information or arguments, or thirty (30) days after the final date specified for such presentation if no presentation is made. If the continued use of the supplementary control system is denied, the final determination shall set forth the specific grounds for such denial.

(16) Upon denial of the continued use of a supplementary control system pursuant to paragraph (e)(15) of this section all the requirements of paragraph (d) of this section shall be immediately applicable to the owner or operator of the Kennecott Copper Company smelter located in White Pine County, Nevada, in the Nevada Intrastate Region and compliance therewith shall be achieved in accordance with such schedule as the Administrator shall order.

§ 52.1476

(17) The owner or operator of the smelter subject to this paragraph shall be in violation of a requirement of an applicable implementation plan and subject to the penalties specified in section 113 of the Clean Air Act if:

(i) An increment of the compliance schedules set forth in paragraph (e)(14) of this section is not met by the date specified; or

(ii) The total sulfur dioxide concentration determined according to paragraph (e)(6) (i) or (iii) of this section exceeds the emission limitation set forth in paragraph (e)(4)(i)(a) of this section; or

(iii) The total sulfur dioxide emission rate determined according to paragraph (e)(6) (ii) or (iv) of this section exceeds the emission limitation set forth in paragraph (e)(4)(i)(b) of this section; or

(iv) Any National Ambient Air Quality Standards for sulfur oxides are violated in the designated liability area; or

(v) Operations of the supplementary control system are not conducted in accordance with the approved operational manual; or

(vi) Such owner or operator fails to submit any of the information required by this paragraph.

[40 FR 5511, Feb. 6, 1975, as amended at 51 FR 40676, Nov. 7, 1986]

§ 52.1476 Control strategy: Particulate matter.

(a) The requirements of subpart G of this chapter are not met since the plan does not provide for the attainment and maintenance of the national standards for particulate matter in the Northwest Nevada and Nevada Intra-state Regions.

(b) The following rule and portions of the control strategy are disapproved since they do not provide the degree of control needed to attain and maintain the National Ambient Air Quality Standards for particulate matter.

(1) NAQR Article 7.2.7, *Particulate Matter*; Table 4.2, *Emissions Inventory Summary for Particulates* and Table 5.2, *Summary of Control Strategy Analysis for Particulates*, from the Nevada Control Strategy, submitted on October 7, 1976.

40 CFR Ch. I (7-1-04 Edition)

(c) The following rules are disapproved because they relax the emission limitation on particulate matter.

(1) Clark County District Board of Health, Table 27.1, (Particulate Matter from Process Matter), submitted on July 24, 1979.

(2) Nevada Air Quality Regulations, Article 4, Rule 4.34, (Visible Emission from Stationary Sources), submitted on December 29, 1978, and Rule 4.3.6, (Visible Emission from Stationary Sources), submitted on June 24, 1980.

[37 FR 10877, May 31, 1972, as amended at 45 FR 8011, Feb. 6, 1980; 46 FR 43142, Aug. 27, 1981; 51 FR 40676, Nov. 7, 1986]

§ 52.1477 Nevada air pollution emergency plan.

Section 6.1.5 of the Emergency Episode Plan submitted on December 29, 1978 is disapproved since termination of the episode is left to the discretion of the Control Officer and not specified criteria and it does not meet the requirements of 40 CFR 51.16 and Appendix L. The old rule 6.1.5 submitted on January 28, 1972 is retained.

[45 FR 46385, July 10, 1980]

§ 52.1478 Extensions.

The Administrator, by the authority delegated under section 186(a)(4) of the Clean Air Act as amended in 1990, hereby extends for one year, until December 31, 1996, the attainment date for the Clark County (Las Vegas Valley), Nevada carbon monoxide nonattainment area.

[61 FR 57333, Nov. 6, 1996]

§ 52.1479 Source surveillance.

(a) The requirements of § 51.211 of this chapter are not met, except in Clark County, since the plan does not provide adequate legally enforceable procedures for requiring owners or operators of stationary sources to maintain records of, and periodically report, information on the nature and amount of emissions.

(b) The requirements of § 51.214 of this chapter are not met since the plan does not provide adequate legally enforceable procedures to require stationary sources subject to emission standards to submit information relating to