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40 C.F.R. § 52.145

Visibility protection.

(a) The requirements of section 169A of the Clean Air Act are not met, because the plan does not include approvable procedures for protection of visibility in mandatory Class I Federal areas.

(b) Regulations for visibility new source review. The provisions of § 52.28 are hereby incorporated and made part of the applicable plan for the State of Arizona only for those stationary sources under the permitting jurisdiction of the Pima County Department of Environmental Quality. The provisions of § 52.28 also remain the applicable plan for any Indian reservation lands, and any other area of Indian country where the EPA or an Indian tribe has demonstrated that a tribe has jurisdiction, located within the State of Arizona.

(c)-(d) [Reserved]

(e) *Approval.* On February 28, 2011, the Arizona Department of Environmental Quality submitted the "Arizona State Implementation Plan, Regional Haze Under Section 308 of the Federal Regional Haze Rule" ("Arizona Regional Haze SIP").

(1) [Reserved]

(2) The following portions of the Arizona Regional Haze SIP are disapproved because they do not meet the applicable requirements of Clean Air Act sections 169A and 169B and the Regional Haze Rule in 40 CFR 51.301 through 51.308:

(i) The determination that Unit I4 at TEP's Irvington [Sundt] Generating Station is not BART-eligible;

(ii) The portions of the long-term strategy for regional haze related to emission reductions for out-of-state Class I areas, emissions limitations and schedules for compliance to achieve the reasonable progress goal and enforceability of emissions limitations and control measures.

(f) [Reserved]

(g) On May 3, 2013, the Arizona Department of Environmental Quality (ADEQ) submitted the "Arizona State Implementation Plan Revision, Regional Haze Under Section 308 of the Federal Regional Haze Rule" ("Arizona Regional Haze SIP Supplement").

(1) The following portions of the Arizona Regional Haze SIP Supplement are disapproved because they do not meet the applicable requirements of Clean Air Act sections 169A and 169B and the Regional Haze Rule in 40 CFR 51.301 through 51.308:

(i) The determination that the Chemical Lime Company's Nelson Lime Plant is not subject-to-BART;

(ii) The determination that the Freeport McMoRan Miami Inc (FMMI) Smelter is not subject to BART for NO_X;

(iii) The determination that existing controls constitute BART for SO_2 at the Freeport McMoRan Miami Inc (FMMI) Smelter;

(iv) The determination that the ASARCO Hayden smelter is not subject to BART for NO_X and PM_{10};

(v) The determination that existing controls constitute BART for SO_2 at ASARCO Hayden Smelter;

(vi) The reasonable progress goals for the first planning period;

(vii) The determination that no additional controls for point sources of NO_X are reasonable for the first planning period; and

(viii) The determination that no additional controls for area sources of NO_X and SO_2 are reasonable for the first planning period.

(2) [Reserved]

(h) *Disapproval.* The following portions of the Arizona SIP are disapproved because they do not meet the applicable requirements of Clean Air Act sections 169A and 169B and the Regional Haze Rule at 40 CFR 51.309:

(1) Regional Haze State Implementation Plan for the State of Arizona ("Arizona 309 Regional Haze SIP") submitted by the Arizona Department of Environmental Quality on December 23, 2003, with the exception of Chapter 5 (Strategy to Address Reasonably Attributable Visibility Impairment (RAVI)) and Appendix A-5 (Attributable Impairment).

(2) The Arizona Regional Haze State Implementation Plan Revision submitted by the Arizona Department of Environmental Quality on December 31, 2004, with the exception of the provisions already approved at 40 CFR 52.120(c)(131).

(3) Letter from Stephen A. Owens, Director, Arizona Department of Environmental Quality, dated December 24, 2008 re: Submittal of Arizona Regional Haze State Implementation Plan.

(i) *Source-specific federal implementation plan for regional haze at Nelson Lime Plant*—(1) *Applicability.* This paragraph (i) applies to the owner/operator of the lime kilns designated as Kiln 1 and Kiln 2 at the Nelson Lime Plant located in Yavapai County, Arizona.

(2) *Definitions.* Terms not defined in this paragraph (i)(2) shall have the meaning given them in the Clean Air Act or EPA's regulations implementing the Clean Air Act. For purposes of this paragraph (i):

Ammonia injection shall include any of the following: Anhydrous ammonia, aqueous ammonia, or urea injection.

Continuous emission monitoring system or CEMS means the equipment required by this section to sample, analyze, measure, and provide, by means of readings recorded at least once every 15 minutes (using an automated data acquisition and handling system (DAHS)), a permanent record of NO_X emissions, SO_2 emissions, diluent, and stack gas volumetric flow rate.

Kiln means either of the kilns identified in paragraph (i)(1) of this section.

Kiln 1 means lime kiln 1, as identified in paragraph (i)(1) of this section.

Kiln 2 means lime kiln 2, as identified in paragraph (i)(1) of this section.

Kiln operating day means a 24-hour period between 12 midnight and the following midnight during which there is operation of Kiln 1, Kiln 2, or both kilns at any time.

Kiln operation means any period when any raw materials are fed into the Kiln or any period when any combustion is occurring or fuel is being fired in the Kiln.

Lime product means the product of the lime-kiln calcination process, including calcitic lime, dolomitic lime, and dead-burned dolomite.

NOX means oxides of nitrogen.

Owner/operator means any person who owns or who operates, controls, or supervises a kiln identified in paragraph (i)(1) of this section.

SO2 means sulfur dioxide.

(3) *Emission limitations.* (i) The owner/operator of the kilns identified in paragraph (i)(1) of this section shall not emit or cause to be emitted pollutants in excess of the following limitations in pounds of pollutant per ton of lime product (lb/ton), from any kiln. Each emission limit shall be based on a 12-month rolling basis.

Pollutant Emission Limit

Kiln ID	NO_X	SO_2
Kiln 1	3.80	9.32
Kiln 2	2.61	9.73

(ii) The owner/operator of the kilns identified in paragraph (i)(1) of this section shall not emit or cause to be emitted pollutants in excess of 3.27 tons of NO_X per day and 10.10 tons of SO_2 per day, combined from both kilns, based on a rolling 30-kiln-operating-day basis.

(4) *Compliance dates.* (i) The owner/operator of each kiln shall comply with the NO_X emission limitations and other NO_X -related requirements of this paragraph (i) no later than September 4, 2017.

(ii) The owner/operator of each kiln shall comply with the SO_2 emission limitations and other SO_2 -related requirements of this paragraph (i) no later than March 3, 2016.

(5) [Reserved]

(6) *Compliance determination*—(i) *Continuous emission monitoring system.* At all times after the compliance dates specified in paragraph (i)(4) of this section, the owner/operator of kilns 1 and 2 shall maintain, calibrate, and operate a CEMS, in full compliance with the requirements found at 40 CFR 60.13 and 40 CFR part 60, appendices B and F, to accurately measure diluent, stack gas volumetric flow rate, and concentration by volume of NO_X and SO_2 emissions into the atmosphere from kilns 1 and 2. The CEMS shall be used by the owner/operator to determine compliance with the emission limitations in paragraph (i)(3) of this section, in combination with data on actual lime production. The owner/operator must operate the monitoring system and collect data at all required intervals at all times that an affected kiln is operating, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required

monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments).

(ii) *Ammonia consumption monitoring.* Upon and after the completion of installation of ammonia injection on a kiln, the owner or operator shall install, and thereafter maintain and operate, instrumentation to continuously monitor and record levels of ammonia consumption for that kiln.

(iii) *Compliance determination for lb per ton NOX limit.* Compliance with the NO_X emission limits described in paragraph (i)(3)(i) of this section shall be determined based on a rolling 12-month basis. The 12-month rolling NO_X emission rate for each kiln shall be calculated within 30 days following the end of each calendar month in accordance with the following procedure: Step one, sum the hourly pounds of NO_X emitted for the month just completed and the eleven (11) months preceding the month just completed to calculate the total pounds of NO_X emitted over the most recent twelve (12) month period for that kiln; Step two, sum the total lime product, in tons, produced during the month just completed and the eleven (11) months preceding the month just completed to calculate the total lime product produced over the most recent twelve (12) month period for that kiln; Step three, divide the total amount of NO_X calculated from Step one by the total lime product calculated from Step two to calculate the 12-month rolling NO_X emission rate for that kiln. Each 12-month rolling NO_X emission rate shall include all emissions and all lime product that occur during all periods within the 12-month period, including emissions from startup, shutdown, and malfunction.

(iv) *Compliance determination for lb per ton SO2limit.* Compliance with the SO_2 emission limits described in paragraph (i)(3)(i) of this section shall be determined based on a rolling 12-month basis. The 12-month rolling SO_2 emission rate for each kiln shall be calculated within 30 days following the end of each calendar month in accordance with the following procedure: Step one, sum the hourly pounds of SO_2 emitted for the month just completed and the eleven (11) months preceding the month just completed to calculate the total pounds of SO_2 emitted over the most recent twelve (12) month period for that kiln; Step two, sum the total lime product, in tons, produced during the month just completed and the eleven (11) months preceding the month just completed to calculate the total lime product produced over the most recent twelve (12) month period for that kiln; Step three, divide the total amount of SO_2 calculated from Step one by the total lime product calculated from Step two to calculate the 12-month rolling SO_2 emission rate for that kiln. Each 12-month rolling SO_2 emission rate shall include all emissions and all lime product that occur during all periods within the 12-month period, including emissions from startup, shutdown, and malfunction.

(v) *Compliance determination for ton per day NOXlimit.* Compliance with the NO_X emission limit described in paragraph (i)(3)(ii) of this section shall be determined based on a rolling 30-kiln-operating-day basis. The rolling 30-kiln operating day NO_X emission rate for the kilns shall be calculated for each kiln operating day in accordance with the following procedure: Step one, sum the hourly pounds of NO_X emitted from both kilns for the current kiln operating day and the preceding twenty-nine (29) kiln-operating-day period for both kilns; Step two, divide the total pounds of NO_X calculated from Step one by two thousand (2,000) to calculate the total tons of NO_X; Step three, divide the total tons of NO_X calculated from Step two by thirty (30) to calculate the rolling 30-kiln operating day NO_X emission rate for both kilns. Each rolling 30-kiln operating day NO_X emission rate shall include all emissions that occur from both kilns during all periods within any kiln operating day, including emissions from startup, shutdown, and malfunction.

(vi) *Compliance determination for ton per day SO_2limit.* Compliance with the SO_2 emission limit described in

paragraph (i)(3)(ii) of this section shall be determined based on a rolling 30-kiln-operating-day basis. The rolling 30-kiln operating day SO_2 emission rate for the kilns shall be calculated for each kiln operating day in accordance with the following procedure: Step one, sum the hourly pounds of SO_2 emitted from both kilns for the current kiln operating day and the preceding twenty-nine (29) kiln operating days, to calculate the total pounds of SO_2 emitted over the most recent thirty (30) kiln operating day period for both kilns; Step two, divide the total pounds of SO_2 calculated from Step one by two thousand (2,000) to calculate the total tons of SO_2; Step three, divide the total tons of SO_2 calculated from Step two by thirty (30) to calculate the rolling 30-kiln operating day SO_2 emission rate for both kilns. Each rolling 30-kiln operating day SO_2 emission rate shall include all emissions that occur from both kilns during all periods within any kiln operating day, including emissions from startup, shutdown, and malfunction.

(7) *Recordkeeping.* The owner/operator shall maintain the following records for at least five years:

(i) All CEMS data, including the date, place, and time of sampling or measurement; parameters sampled or measured; and results.

(ii) All records of lime production.

(iii) Monthly rolling 12-month emission rates of NO_X and SO_2, calculated in accordance with paragraphs (i)(6)(iii) and (iv) of this section.

(iv) Daily rolling 30-kiln operating day emission rates of NO_X and SO_2 calculated in accordance with paragraphs (i)(6)(v) and (vi) of this section.

(v) Records of quality assurance and quality control activities for emissions measuring systems including, but not limited to, any records specified by 40 CFR part 60, appendix F, Procedure 1, as well as the following:

(A) The occurrence and duration of any startup, shutdown, or malfunction, performance testing, evaluations, calibrations, checks, adjustments maintenance, duration of any periods during which a CEMS or COMS is inoperative, and corresponding emission measurements.

(B) Date, place, and time of measurement or monitoring equipment maintenance activity;

(C) Operating conditions at the time of measurement or monitoring equipment maintenance activity;

(D) Date, place, name of company or entity that performed the measurement or monitoring equipment maintenance activity and the methods used; and

(E) Results of the measurement or monitoring equipment maintenance.

(vi) Records of ammonia consumption, as recorded by the instrumentation required in paragraph (i)(6)(ii) of this section.

(vii) Records of all major maintenance activities conducted on emission units, air pollution control equipment, CEMS, and lime production measurement devices.

(viii) All other records specified by 40 CFR part 60, appendix F, Procedure 1.

(8) *Reporting.* All reports required under this section shall be submitted by the owner/operator to the Director, Enforcement Division, U.S. Environmental Protection Agency, Region 9, electronically via email to *aeo__r9@epa.gov.* Any data that are required under this section shall be submitted in Excel format. Reports

required under paragraphs (i)(8)(iii) through (v) of this section shall be submitted within 30 days after the applicable compliance date(s) in paragraph (i)(4) of this section and at least semiannually thereafter, within 30 days after the end of a semiannual period. The owner/operator may submit reports more frequently than semiannually for the purposes of synchronizing reports required under this section with other reporting requirements, such as the title V monitoring report required by 40 CFR 70.6(a)(3)(iii)(A), but at no point shall the duration of a semiannual period exceed six months.

(i) Prior to commencing construction of the ammonia injection system, the owner/operator shall submit to EPA a summary report of the design of the SNCR system. Elements of this summary report shall include: Reagent type, description of the locations selected for reagent injection, reagent injection rate (expressed as a molar ratio of reagent to NO_X), equipment list, equipment arrangement, and a summary of kiln characteristics that were relied upon as the design basis for the SNCR system.

(ii) By October 3, 2017, the owner/operator shall submit to EPA a summary of any process improvement or debugging activities that were performed on the SNCR system. Elements of this summary report shall include: a description of each process adjustment performed on the SNCR system, a discussion of whether the adjustment affected NO_X emission rate (including CEMS data that may have been recorded while the adjustment was in progress), a description of the range (if applicable) over which the adjustment was examined, and a discussion of how the adjustment will be reflected or accounted for in kiln operating practices. In addition, to the extent that the owner/operator evaluates the impact of varying reagent injection rate on NO_X emissions, the owner/operator shall include the following information: the range of reagent injection rates evaluated (expressed as a molar ratio of reagent to average NO_X concentration), reagent injection rate, average NO_X concentration, lime production rate, kiln flue gas temperature, and the presence of any detached plumes from the kiln exhaust.

(iii) The owner/operator shall submit a report that lists the daily rolling 30-kiln operating day emission rates for NO_X and SO_2, calculated in accordance with paragraphs (i)(6)(iii) and (iv) of this section.

(iv) The owner/operator shall submit a report that lists the monthly rolling 12-month emission rates for NO_X and SO_2, calculated in accordance with paragraphs (i)(6)(v) and (vi) of this section.

(v) The owner/operator shall submit excess emissions reports for NO_X and SO_2 limits. Excess emissions means emissions that exceed any of the emissions limits specified in paragraph (i)(3) of this section. The reports shall include the magnitude, date(s), and duration of each period of excess emissions; specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the kiln; the nature and cause of any malfunction (if known); and the corrective action taken or preventative measures adopted.

(vi) The owner/operator shall submit a summary of CEMS operation, to include dates and duration of each period during which the CEMS was inoperative (except for zero and span adjustments and calibration checks), reason(s) why the CEMS was inoperative and steps taken to prevent recurrence, and any CEMS repairs or adjustments.

(vii) The owner/operator shall submit results of all CEMS performance tests required by 40 CFR part 60, Appendix F, Procedure 1 (Relative Accuracy Test Audits, Relative Accuracy Audits, and Cylinder Gas Audits).

(viiii) When no excess emissions have occurred or the CEMS has not been inoperative, repaired, or adjusted during the reporting period, the owner/operator shall state such information in the semiannual report.

(9) *Notifications.* All notifications required under this section shall be submitted by the owner/operator to the Director, Enforcement Division (Mail Code ENF-2-1), U.S. Environmental Protection Agency, Region 9, 75 Hawthorne Street, San Francisco, California 94105-3901.

(i) The owner/operator shall submit notification of commencement of construction of any equipment which is being constructed to comply with the NO_X emission limits in paragraph (i)(3) of this section.

(ii) The owner/operator shall submit semiannual progress reports on construction of any such equipment.

(iii) The owner/operator shall submit notification of initial startup of any such equipment.

(10) *Equipment operations.* (i) At all times, including periods of startup, shutdown, and malfunction, the owner/operator shall, to the extent practicable, maintain and operate the kilns, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions. Pollution control equipment shall be designed and capable of operating properly to minimize emissions during all expected operating conditions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Regional Administrator, which may include, but is not limited to, monitoring results, review of operating and maintenance procedures, and inspection of the kilns.

(ii) After completion of installation of ammonia injection on a kiln, the owner/operator shall inject sufficient ammonia to achieve compliance with the NO_X emission limits from paragraph (i)(3) of this section for that kiln while preventing excessive ammonia emissions.