



## **ENVIRONMENTAL PROTECTION AGENCY**

### **40 CFR Part 52**

**[EPA-R09-OAR-2015-0846; FRL-9948-39-Region 9]**

### **Promulgation of Air Quality Implementation Plans; Arizona; Regional Haze Federal Implementation Plan; Reconsideration**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is proposing to revise provisions of the Arizona Regional Haze Federal Implementation Plan (FIP) applicable to the Phoenix Cement Company (PCC) Clarkdale Plant and the CalPortland Cement (CPC) Rillito Plant. In response to requests for reconsideration from the plants' owners, we propose to replace the control technology optimization requirements for nitrogen oxides (NO<sub>x</sub>) applicable to Kiln 4 at the Clarkdale Plant and Kiln 4 at the Rillito Plant with a series of revised recordkeeping and reporting requirements. We are seeking comment on this proposed action.

**DATES:** Written comments must be submitted on or before **[Insert date 45 days after the date of publication in the Federal Register]**. Requests for a public hearing must be received on or before **[Insert date 15 days after the date of publication in the Federal Register]**.

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA-R09-OAR-2015-0846 at <http://www.regulations.gov>, or via email to [limaye.vijay@epa.gov](mailto:limaye.vijay@epa.gov). For comments submitted at [Regulations.gov](http://www.regulations.gov), follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from [Regulations.gov](http://www.regulations.gov). For either manner of submission, the EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information

whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (i.e. on the web, cloud, or other file sharing system). For additional submission methods, please contact the person identified in the “FOR FURTHER INFORMATION CONTACT” section. For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <http://www2.epa.gov/dockets/commenting-epa-dockets>.

**FOR FURTHER INFORMATION CONTACT:** Vijay Limaye, U.S. EPA, Region 9, Planning Office, Air Division, Air-2, 75 Hawthorne Street, San Francisco, CA 94105. Vijay Limaye can be reached at telephone number (415) 972-3086 and via electronic mail at [limaye.vijay@epa.gov](mailto:limaye.vijay@epa.gov).

**SUPPLEMENTARY INFORMATION:** Throughout this document, “we,” “us,” and “our” refer to the EPA.

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### **I. General Information**

#### *A. Definitions*

For the purpose of this document, we are giving meaning to certain words or initials as follows:

- The words or initials *Act* or *CAA* mean or refer to the Clean Air Act, unless the context indicates otherwise.
- The initials *ADEQ* mean or refer to the Arizona Department of Environmental Quality.
- The words *Arizona* and *State* mean the State of Arizona.
- The initials *BART* mean or refer to Best Available Retrofit Technology.
- The term *Class I area* refers to a mandatory Class I Federal area.<sup>1</sup>
- The initials *CBI* mean or refer to Confidential Business Information.
- The initials *CPC* mean or refer to CalPortland Cement.
- The words *EPA*, *we*, *us* or *our* mean or refer to the United States Environmental Protection Agency.
- The initials *FIP* mean or refer to Federal Implementation Plan.
- The initials *NO<sub>x</sub>* mean or refer to nitrogen oxides.
- The initials *PCC* mean or refer to Phoenix Cement Company
- The initials *SIP* mean or refer to State Implementation Plan.
- The initials *SNCR* mean or refer to selective non-catalytic reduction.
- The initials *SRPMIC* mean or refer to Salt River Pima-Maricopa Indian Community.

### *B. Docket*

The proposed action relies on documents, information, and data that are listed in the index on <http://www.regulations.gov> under docket number EPA-R09-OAR-2015-0846. Although listed in the index, some information is not publicly available (e.g., CBI). Certain other material, such as copyrighted material, is publicly available only in hard copy form. Publicly available docket materials are available either electronically at <http://www.regulations.gov> or in hard copy at the Planning Office of the Air Division, AIR-2, EPA Region 9, 75 Hawthorne Street, San Francisco, CA 94105. The EPA requests that you contact the individual listed in the FOR FURTHER INFORMATION CONTACT section to view the hard copy of the docket. You may view the hard copy of the docket Monday through Friday, 9-5:00 PDT, excluding Federal holidays.

### *C. Public Hearings*

If anyone contacts the EPA by [**Insert date 15 days from publication in the Federal Register**] requesting to speak at a public hearing, the EPA will schedule a public hearing and announce the hearing in the **Federal Register**. Contact Vijay Limaye at (415) 972-3086 or at

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<sup>1</sup> Although states and tribes may designate as Class I additional areas which they consider to have visibility as an important value, the requirements of the visibility program set forth in section 169A of the CAA apply only to “mandatory Class I Federal areas.”

limaye.vijay@epa.gov to request a hearing or to determine if a hearing will be held.

## **II. Background**

### *A. Summary of Statutory and Regulatory Requirements*

This section provides a brief overview of the requirements of the Clean Air Act (CAA) and the EPA's Regional Haze Rule, as they apply to this particular action. Please refer to our previous rulemakings on the Arizona Regional Haze State Implementation Plan (SIP) for additional background regarding the visibility protection provisions of the CAA and the Regional Haze Rule.<sup>2</sup>

Congress created a program for protecting visibility in the nation's national parks and wilderness areas in section 169A of the 1977 Amendments to the CAA. This section of the CAA establishes as a national goal the "prevention of any future, and the remedying of any existing, impairment of visibility in mandatory Class I Federal areas which impairment results from man-made air pollution."<sup>3</sup> Specifically, section 169A(b)(2)(A) of the CAA requires states to revise their SIPs to contain such measures as may be necessary to make reasonable progress towards the natural visibility goal. In the 1990 CAA Amendments, Congress amended the visibility provisions in the CAA to focus attention on the problem of regional haze, which is visibility impairment produced by a multitude of sources and activities located across a broad geographic area.<sup>4</sup> We promulgated the Regional Haze Rule in 1999, which requires states to develop and implement SIPs to ensure reasonable progress toward improving visibility in mandatory Class I Federal areas<sup>5</sup> by reducing emissions that cause or contribute to regional haze.<sup>6</sup>

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<sup>2</sup> 77 FR 42834, 42837-42839 (July 20, 2012), (Arizona Regional Haze "Phase 1" Rule) 77 FR 75704, 75709-75712 (December 21, 2012), (Arizona Regional Haze "Phase 2" Rule).

<sup>3</sup> 42 U.S.C. 7491(a)(1).

<sup>4</sup> See CAA section 169B, 42 U.S.C. 7492.

<sup>5</sup> Areas designated as mandatory Class I Federal areas consist of national parks exceeding 6000 acres, wilderness areas, and national memorial parks exceeding 5000 acres, and all international parks that were in existence on August 7, 1977. 42 U.S.C. 7472(a). When we use the term "Class I area" in this action, we mean a "mandatory Class I Federal

## *B. History of FIP Requirements*

The Arizona Department of Environmental Quality (ADEQ) submitted a Regional Haze SIP to the EPA on February 28, 2011. The EPA promulgated two final rules approving in part and disapproving in part the Arizona Regional Haze SIP. The first final rule addressed the State's BART determinations for three power plants (Apache Generating Station, Cholla Power Plant, and Coronado Generating Station).<sup>7</sup> The second final rule, which addressed the remaining elements of the Arizona Regional Haze SIP, included our disapproval of the State's analysis of reasonable progress measures for point sources of NO<sub>x</sub>.<sup>8</sup>

In a third final rule, the EPA promulgated a FIP addressing the requirements of the Regional Haze Rule and interstate visibility transport for the remainder of the disapproved portions of Arizona's Regional Haze SIP.<sup>9</sup> Among other things, the Arizona Regional Haze FIP includes requirements for NO<sub>x</sub> emission controls applicable to PCC Clarkdale Plant Kiln 4 and CPC Rillito Plant Kiln 4 under the reasonable progress requirements of the Regional Haze Rule. In particular, the EPA established two alternative emission limits for NO<sub>x</sub> on Kiln 4 of the Clarkdale Plant: a 2.12 lb/ton limit or an 810 tons/year limit. The lb/ton limit equates to the installation of SNCR, based on a 50 percent control efficiency, while the ton/year limit could be met either by installing SNCR or by maintaining recent production levels. We set an emission limit for NO<sub>x</sub> at the Rillito Plant of 3.46 lb/ton, based on a 35 percent control efficiency. The FIP also includes monitoring, recordkeeping, and reporting requirements and a compliance deadline for the final NO<sub>x</sub> emission limits of December 31, 2018. Finally, in response to comments alleging that SNCR control efficiencies of 50 percent for Kiln 4 at the Clarkdale Plant and 35 percent for Kiln 4 at the

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area.”

<sup>6</sup> See generally 40 CFR 51.308.

<sup>7</sup> 77 FR 72512 (December 5, 2012).

<sup>8</sup> 78 FR 46142 (July 30, 2013).

<sup>9</sup> 79 FR 52420 (September 3, 2014)(Arizona Regional Haze “Phase 3” Rule).

Rillito Plant were unsupported and that SNCR was capable of achieving higher control efficiencies, we included in the final FIP requirements for control technology demonstration (“optimization requirements”) for the SNCR systems at both plants, which entail the collection of data that then could be used to determine if a higher control efficiency would be achievable.

### *C. Petitions for Reconsideration and Stay*

PCC and CPC each submitted a petition to the EPA on November 3, 2014, seeking administrative reconsideration and a partial stay of the final FIP under CAA section 307(d)(7)(B) and the Administrative Procedure Act.<sup>10</sup> In their petitions, both companies raised multiple objections to the optimization requirements in the FIP. CPC asserted that the requirements were burdensome, expensive, and unnecessary, given that CPC had already “evaluated fuels, fuel fineness, and the other characteristics listed in the Optimization Protocol” as part of its effort to reduce energy usage.<sup>11</sup> PCC stated that the requirements “would be burdensome to implement” and “would substantially interfere with the cement manufacturing operations” at the Clarkdale Plant.<sup>12</sup> PCC further asserted that requirements would harm the Salt River Pima-Maricopa Indian Community (SRPMIC), which relies on revenue from the Clarkdale Plant.<sup>13</sup>

The EPA sent letters to PCC and CPC on January 16, 2015 and January 27, 2015, respectively, granting reconsideration of the optimization requirements pursuant to CAA section 307(d)(7)(B).<sup>14</sup> Today’s notice of proposed rulemaking constitutes the EPA’s proposed action on

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<sup>10</sup> Letter from Verle C. Martz, PCC, to Regina McCarthy, EPA (November 3, 2014); Letter from Jay Grady, CPC, to Regina McCarthy, EPA (November 3, 2014).

<sup>11</sup> Letter from Jay Grady, CPC, to Regina McCarthy, EPA (November 3, 2014), attachment entitled “Petition of CalPortland Company for Partial Reconsideration and Request for Administrative Stay of EPA Final Rule, Promulgation of Air Quality Implementation Plans; Arizona; Regional Haze and Interstate Visibility Transport Federal Implementation Plan Published at 79 Fed. Reg. 52420” at 4.

<sup>12</sup> Letter from Verle C. Martz, PCC, to Regina McCarthy, EPA (November 3, 2014) at 2.

<sup>13</sup> We note that while the Clarkdale Plant is tribally owned, it is not located on tribal land. It is subject to State jurisdiction and is regulated by ADEQ.

<sup>14</sup> Letter from Jared Blumenfeld, EPA, to Verle C. Martz, PCC (January 16, 2015); Letter from Jared Blumenfeld, EPA, to Jay Grady, CPC (January 27, 2015).

reconsideration.

### **III. Proposed FIP Revision for the PCC Clarkdale Plant and the CPC Rillito Plant**

#### *A. The EPA's Evaluation of Control Technology Demonstration Requirements*

In light of the objections to the control technology demonstration requirements raised by CPC and PCC, we have re-evaluated the necessity of these requirements for the Rillito and Clarkdale plants. As explained in our September 3, 2014 final rule, the two objectives of the control technology demonstration requirements are to ensure that the NO<sub>x</sub> emission limits for the cement kilns are appropriate and to ensure that performance of the SNCR systems at the kilns is optimized.<sup>15</sup> In developing this proposed action on reconsideration, we have considered whether it is possible to achieve these objectives through other means. In particular, we have identified additional information regarding SNCR performance and NO<sub>x</sub> emission rates from SNCR-equipped cement kilns that supports the existing NO<sub>x</sub> emission limits for the Rillito and Clarkdale kilns in the FIP. As a result, we no longer consider it necessary for PCC and CPC to adhere to the relatively detailed and prescriptive control technology demonstration requirements in the existing FIP. We are therefore proposing to remove the control technology demonstration requirements and are proposing a set of revised recordkeeping and reporting requirements that will require CPC and PCC to report information regarding SNCR system design and optimization in a less prescribed manner.

#### 1. Rillito Plant Kiln 4

The EPA is proposing to remove the control technology demonstration requirements for Kiln 4 (the preheater/precalciner kiln) at the CPC Rillito Plant based on NO<sub>x</sub> emission data from a similar kiln at another CPC facility, the Mojave Plant. On December 15, 2011, CPC entered into a consent decree with the EPA, which required the installation of SNCR on the single

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<sup>15</sup> See 79 FR 52455-52456, 52462.

preheater/precalciner kiln at the Mojave Plant. As part of the consent decree, this preheater/precalciner kiln at the Mojave Plant was subject to certain control technology demonstration requirements. Commonly referred to as a “test and set” approach, these consent decree provisions required CPC to design and install an SNCR system, develop a protocol for optimizing its operation, record NO<sub>x</sub> emission data over a long-term period, and propose a site-specific emission limit based on those results.

As noted in the response to comments in our September 3, 2014 final rule,<sup>16</sup> CPC submitted comments noting certain site-specific aspects of the Rillito Kiln 4 that indicated it could not achieve the same level of SNCR control efficiency as the Mojave Plant’s kiln.<sup>17</sup> In our final rule, we indicated that we found this analysis of Rillito Kiln 4 to be generally reasonable, and based the final 3.46 lb/ton NO<sub>x</sub> limit on the 35% SNCR control efficiency estimated by CPC. While preparing our final rule, we examined the data used to develop the Mojave Plant optimization protocol, which indicated that the SNCR system at the Mojave Plant could be expected to achieve in the range of 30-60% control efficiency. Given that this range included control efficiencies that were significantly higher than the efficiency on which the final limit for Rillito Kiln 4 was based, these initial data from Mojave suggested that inclusion of control technology demonstration requirements in the final rule would be appropriate in order to allow us to evaluate whether or not Rillito Kiln 4 could be further optimized to achieve a more stringent control efficiency.

Following promulgation of the final rule on September 3, 2014, the Mojave Plant

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<sup>16</sup> 79 FR 52462-52463.

<sup>17</sup> Letter from Jay Grady, CPC, to Thomas Webb, EPA (March 31, 2014) and Exhibit 1, “Evaluation of EPA’s Reasonable Progress Analysis for Kiln 4 at CalPortland Company’s Rillito Cement Plant.” To summarize, CPC asserted that an SNCR system on Rillito Kiln 4 would operate with less efficient exhaust mixing, lower ammonia injection temperatures, and lower oxygen concentrations, all of which would reduce SNCR effectiveness.

completed a 270-day demonstration period of its SNCR system.<sup>18</sup> Based upon the consent decree methodology, the emission data from the demonstration period indicate a NO<sub>x</sub> limit for the Mojave Plant kiln of 2.70 lb/ton on a rolling 30-kiln-operating-day basis. This is approximately equal to an SNCR control efficiency of 40%, which is on the lower end of the range that was suggested by the optimization protocol.<sup>19</sup>

Given that the SNCR system on the Rillito Kiln 4 can be expected to underperform the Mojave Plant, and that the Mojave demonstration period data resulted in a limit reflecting an SNCR control efficiency of only 40%,<sup>20</sup> we find that the final NO<sub>x</sub> limit for Rillito Kiln 4, which is based on a 35% control efficiency, is adequately supported by the available data. Accordingly, we no longer consider it necessary for CPC to meet the relatively detailed and prescriptive control technology demonstration requirements in the existing FIP. We are therefore proposing to remove the control technology demonstration requirements from the FIP. As explained in section III.B below, we are proposing to replace the control technology demonstration requirements with a set of revised recordkeeping and reporting requirements that will require CPC to report similar information regarding SNCR system design and optimization, but in a less prescribed manner.

## 2. Clarkdale Plant Kiln 4

The EPA is also proposing to remove the control technology demonstration requirements for Kiln 4 (the preheater/precalciner kiln) at the PCC Clarkdale Plant based on the NO<sub>x</sub> emission data from the preheater/precalciner kiln at the CPC Mojave Plant. In the case of Clarkdale Kiln 4,

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<sup>18</sup> The demonstration period extended from February to November 2014, and was submitted to the EPA in early 2015. See spreadsheet “Mojave Demonstration Period Data.xlsx.”

<sup>19</sup> Based on a baseline pre-SNCR NO<sub>x</sub> emission rate of 4.5 lb/ton. This value was based on the highest of recent source test results, as summarized in spreadsheet “CPC annual revised emissions chart.xlsx”

<sup>20</sup> We note that the difference between the two limits, 2.70 lb/ton and 3.46 lb/ton, is larger than what would be suggested by a mere 5% difference in control efficiencies (i.e., between 40% and 35%). This is primarily due to the different baseline emission rates of the two kilns, with the Rillito kiln having a much higher baseline NO<sub>x</sub> emission rate than Mojave, in addition to a lower SNCR effectiveness.

the relatively recent construction of the kiln<sup>21</sup> and its generally lower pre-control NO<sub>x</sub> emission rates<sup>22</sup> indicate that an SNCR system on Clarkdale Kiln 4 would be able to achieve a lower NO<sub>x</sub> emission limit than the Mojave Plant. The final NO<sub>x</sub> limit promulgated for Clarkdale Kiln 4 is 2.12 lb/ton, on a rolling 30-kiln-operating-day basis, which is based on a 50% control efficiency. As noted in the previous section, the emission data from the Mojave Plant demonstration period indicated a final NO<sub>x</sub> limit of 2.70 lb/ton on a rolling 30 kiln operating day basis, which corresponds to an SNCR control efficiency of approximately 40%. Given that a more stringent emission limit and SNCR control efficiency was not demonstrated at the Mojave Plant, we consider the final limit for Clarkdale Kiln 4 to be sufficiently stringent and supported by the available data. Accordingly, we no longer consider it necessary for PCC to adhere to the relatively detailed and prescriptive control technology demonstration requirements in the existing FIP. We are therefore proposing to remove the control technology demonstration requirements. As explained in section III.B below, we are proposing to replace the control technology demonstration requirements with a set of revised recordkeeping and reporting requirements that will require PCC to report similar information regarding SNCR system design and optimization, but in a less prescribed manner.

#### *B. Revised Recordkeeping and Reporting Requirements*

As described in III.A above, we no longer consider it necessary for CPC and PCC to comply with the relatively prescriptive and detailed optimization requirements established in our September 4, 2014 final rule. We are therefore proposing to remove the control technology demonstration requirements in the FIP for the Clarkdale and Rillito Plants, and instead are proposing certain revisions to the reporting and recordkeeping requirements that involve

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<sup>21</sup> Clarkdale Kiln 4 was constructed in 2002. The Mojave preheater/precalciner kiln was constructed in 1981.

<sup>22</sup> For purposes of the reasonable progress determination, Clarkdale Kiln 4 has a baseline NO<sub>x</sub> emission rate of 3.25 lb/ton. The Mojave baseline emission rate was 4.50 lb/ton.

documentation and submittal of certain design and optimization activities that are part of a typical SNCR system installation. Specifically, we propose to require PCC and CPC to submit a report of SNCR design prior to commencing construction of the ammonia injection system at Clarkdale Kiln 4 and Rillito Kiln 4 respectively, including information regarding reagent type, locations selected for reagent injection, reagent injection rate, equipment arrangement, and kiln characteristics. In addition, PCC and CPC would be required to submit a report of SNCR debugging and process improvement activities, including a description of each process adjustment performed on the SNCR system, a discussion of whether the adjustment affected the NO<sub>x</sub> emission rate, a description of the range over which the adjustment was examined, and a discussion of how the adjustment will be reflected or accounted for in kiln operating practices. PCC and CPC would also be required to submit any CEMS data and kiln operating data collected during the debugging and process improvement activities. These proposed revisions are detailed in the proposed regulatory text at 40 CFR 52.145(k).

### *C. Non-interference with Applicable Requirements*

The CAA requires that any revision to an implementation plan shall not be approved by the Administrator if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress or any other applicable requirement of the CAA.<sup>23</sup> Today's proposed revisions to the Arizona Regional Haze FIP would not affect any applicable requirements of the CAA because they would not alter the amount or timing of emission reductions from the Clarkdale Plant or the Rillito Plant. In particular, the proposed replacement of the control technology demonstration requirements with a series of recordkeeping and reporting requirements would not alter any of the applicable emission limitations, compliance determination methodologies, or compliance deadlines. Therefore, we propose to find that these revisions would

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<sup>23</sup> CAA Section 110(l), 42 U.S.C. 7410(l).

comply with CAA section 110(l).

#### **IV. The EPA's Proposed Action**

For the reasons described above, the EPA proposes to revise the Arizona Regional Haze FIP to replace the control technology optimization requirements at the PCC Clarkdale Plant and the CPC Rillito Plant with a series of recordkeeping and reporting requirements. Please note that while the proposed regulatory text includes the entirety of 40 CFR 52.145(k), we are only proposing to revise those elements of the regulation related to optimization requirements.

#### **V. Statutory and Executive Order Reviews**

Additional information about these statutes and Executive Orders can be found at <http://www2.epa.gov/laws-regulations/laws-and-executive-orders>.

##### *A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review*

This proposed action is not a “significant regulatory action” under the terms of Executive Order 12866 (58 FR 51735, October 4, 1993) and is therefore not subject to review under Executive Orders 12866 and 13563 (76 FR 3821, January 21, 2011). This proposed rule applies to only one facility and is therefore not a rule of general applicability.

##### *B. Paperwork Reduction Act (PRA)*

This action does not impose an information collection burden under the provisions of the PRA, 44 U.S.C. 3501 et seq. Burden is defined at 5 CFR 1320.3(b).

##### *C. Regulatory Flexibility Act (RFA)*

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. This action will not impose any requirements on small entities. For purposes of assessing the impacts of today’s proposed rule on small entities, small

entity is defined as: (1) A small business as defined by the Small Business Administration's (SBA) regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field. Pursuant to 13 CFR 121.201, footnote 1, a firm is small if it is in NAICS 327310 (cement manufacturing) and the concern and its affiliates have no more than 750 employees. CPC is owned by Taiheiyo Cement Corporation, which has more than 750 employees.<sup>24</sup> PCC is a division of SRPMIC.<sup>25</sup> For the purposes of the RFA, tribal governments are not considered small governments. 5 U.S.C. 601(5). Therefore SRPMIC is not a small entity.

#### *D. Unfunded Mandates Reform Act (UMRA)*

This action does not contain an unfunded mandate of \$100 million or more as described in UMRA, 2 U.S.C. 1531–1538. This action may significantly or uniquely affect small governments. As a tribal government, SRPMIC is considered a “small government” under UMRA. See 2 U.S.C. 658(11) and (13). The EPA consulted with SRPMIC concerning the regulatory requirements that might significantly or uniquely affect it.<sup>26</sup>

#### *E. Executive Order 13132: Federalism*

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or in the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132.

#### *F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments*

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<sup>24</sup> See Taiheiyo Cement Corp. Annual Report 2015, pages 1 and 36.

<sup>25</sup> Letter from Diane Enos, President, SRPMIC, to Jared Blumenfeld, Regional Administrator, EPA Region 9 (December 20, 2012).

<sup>26</sup> See Summary of Consultation with SRPMIC Regarding Regional Haze FIP Reconsideration.

This action has tribal implications. However, it will neither impose substantial direct compliance costs on federally recognized tribal governments, nor preempt tribal law. This proposed action, if finalized, would eliminate the SNCR optimization requirements that currently apply to the PCC Clarkdale Plant. The profits from the Clarkdale Plant are used to provide government services to SRPMIC's members.

The EPA consulted with tribal officials under the EPA Policy on Consultation and Coordination with Indian Tribes early in the process of developing this regulation to permit them to have meaningful and timely input into its development.<sup>27</sup>

*G. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks*

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that the EPA has reason to believe may disproportionately affect children, per the definition of “covered regulatory action” in section 2-202 of the Executive Order. This action is not subject to Executive Order 13045 because it does not concern an environmental health risk or safety risk.

*H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use*

This action is not subject to Executive Order 13211, because it is not a significant regulatory action under Executive Order 12866.

*I. National Technology Transfer and Advancement Act (NTTAA)*

This rulemaking does not involve technical standards.

*J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*

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<sup>27</sup> *Id.*

The EPA has determined that this proposed rule will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it does not change the level of environmental protection for any affected populations.

*K. Determination Under Section 307(d)*

Pursuant to CAA section 307(d)(1)(B), the EPA proposes to determine that this action is subject to the provisions of section 307(d). Section 307(d) establishes procedural requirements specific to certain rulemaking actions under the CAA. Pursuant to CAA section 307(d)(1)(B), the revision of the provisions of the Arizona Regional Haze FIP that apply to the PCC Clarkdale Plant and the CPC Rillito Plant is subject to the requirements of CAA section 307(d), as it constitutes a revision to a FIP under CAA section 110(c).

**List of Subjects in 40 CFR Part 52**

Environmental protection, Air pollution control, Incorporation by reference, Nitrogen oxides, Reporting and recordkeeping requirements, Visibility.

**AUTHORITY:** 42 U.S.C. 7401 et seq.

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Dated: June 15, 2016.

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Alexis Strauss,  
Acting Regional Administrator,  
EPA Region IX

Part 52, chapter I, title 40 of the Code of Federal Regulations is proposed to be amended as follows:

**PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS**

1. The authority citation for part 52 continues to read as follows:

**Authority:** 42 U.S.C. 7401 et seq.

**Subpart D--Arizona**

2. Amend § 52.145 by:

a. Revising paragraph (k); and

b. Removing “Appendix A to § 52.145—Cement Kiln Control Technology Demonstration Requirements”.

The revision reads as follows:

**§ 52.145 Visibility protection.**

\* \* \* \* \*

(k) *Source-specific federal implementation plan for regional haze at Clarkdale Cement Plant and Rillito Cement Plant—(1) Applicability.* This paragraph (k) applies to each owner/operator of the following cement kilns in the state of Arizona: kiln 4 located at the cement plant in Clarkdale, Arizona, and kiln 4 located at the cement plant in Rillito, Arizona.

(2) *Definitions.* Terms not defined in this paragraph (k)(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 (k):

*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<sub>x</sub> emissions, diluent, or stack gas volumetric flow rate.

*Kiln operating day* means a 24-hour period between 12 midnight and the following midnight during which the kiln operates 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.

*NO<sub>x</sub>* means nitrogen oxides.

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

*Unit* means a cement kiln identified in paragraph (k)(1) of this section.

(3) *Emissions limitations.* (i) The owner/operator of kiln 4 of the Clarkdale Plant, as identified in paragraph (k)(1) of this section, shall not emit or cause to be emitted from kiln 4 NO<sub>x</sub> in excess of 2.12 pounds of NO<sub>x</sub> per ton of clinker produced, based on a rolling 30-kiln operating day basis.

(ii) The owner/operator of kiln 4 of the Rillito Plant, as identified in paragraph (k)(1) of this section, shall not emit or cause to be emitted from kiln 4 NO<sub>x</sub> in excess of 3.46 pounds of NO<sub>x</sub> per ton of clinker produced, based on a rolling 30-kiln operating day basis.

(4) *Alternative emissions limitation.* In lieu of the emission limitation listed in paragraph (k)(3)(i) of this section, the owner/operator of kiln 4 of the Clarkdale Plant may choose to comply with the following limitation by providing notification per paragraph (k)(13)(iv) of this section. The owner/operator of kiln 4 of the Clarkdale Plant, as identified in paragraph (k)(1) of this section, shall not emit or cause to be emitted from kiln 4 NO<sub>x</sub> in excess of 810 tons per year, based on a rolling 12 month basis.

(5) *Compliance date.* (i) The owner/operator of each unit identified in paragraph (k)(1) of this section shall comply with the NO<sub>x</sub> emissions limitations and other NO<sub>x</sub> -related requirements of this paragraph (k)(3) of this section no later than December 31, 2018.

(ii) If the owner/operator of the Clarkdale Plant chooses to comply with the emission limit of paragraph (k)(4) of this section in lieu of paragraph (k)(3)(i) of this section, the owner/operator shall comply with the NO<sub>x</sub> emissions limitations and other NO<sub>x</sub>-related requirements of paragraph (k)(4) of this section no later than December 31, 2018.

(6) [Reserved]

(7) *Compliance determination—(i) Continuous emission monitoring system.* (A) At all times after the compliance date specified in paragraph (k)(5) of this section, the owner/operator of the unit at the Clarkdale Plant shall maintain, calibrate, and operate a CEMS, in full compliance with the requirements found at 40 CFR 60.63(f) and (g), to accurately measure concentration by volume of NO<sub>x</sub>, diluent, and stack gas volumetric flow rate from the in-line/raw mill stack, as well as the stack gas volumetric flow rate from the coal mill stack. The CEMS shall be used by the owner/operator to determine compliance with the emission limitation in paragraph (k)(3) of this section, in combination with data on actual clinker production. The owner/operator must operate the monitoring system and collect data at all required intervals at all times the affected unit 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).

(B) At all times after the compliance date specified in paragraph (k)(5) of this section, the owner/operator of the unit at the Rillito Plant shall maintain, calibrate, and operate a CEMS, in full

compliance with the requirements found at 40 CFR 60.63(f) and (g), to accurately measure concentration by volume of NO<sub>x</sub>, diluent, and stack gas volumetric flow rate from the unit. The CEMS shall be used by the owner/operator to determine compliance with the emission limitation in paragraph (k)(3) of this section, in combination with data on actual clinker production. The owner/operator must operate the monitoring system and collect data at all required intervals at all times the affected unit 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) *Methods.* (A) The owner/operator of each unit shall record the daily clinker production rates.

(B)(1) The owner/operator of each unit shall calculate and record the 30-kiln operating day average emission rate of NO<sub>x</sub>, in lb/ton of clinker produced, as the total of all hourly emissions data for the cement kiln in the preceding 30-kiln operating days, divided by the total tons of clinker produced in that kiln during the same 30-day operating period, using the following equation:

$$E_D = k \frac{1}{(n)} \sum_{i=1}^n \frac{C_i Q_i}{P_i}$$

Where:

E[D] = 30 kiln operating day average emission rate of NO<sub>x</sub>, lb/ton of clinker;

C[i] = Concentration of NO<sub>x</sub> for hour i, ppm;

Q[i] = volumetric flow rate of effluent gas for hour i, where C[i] and Q[i] are on the same basis (either wet or dry), scf/hr; Clarkdale?

P[i] = total kiln clinker produced during production hour i, ton/hr;

k = conversion factor, 1.194 x 10<sup>-7</sup> for NO<sub>x</sub>; and

n = number of kiln operating hours over 30 kiln operating days, n = 1 up to 720.

(2) For each kiln operating hour for which the owner/operator does not have at least one valid 15-minute CEMS data value, the owner/operator must use the average emissions rate (lb/hr) from the most recent previous hour for which valid data are available. Hourly clinker production shall be determined by the owner/operator in accordance with the requirements found at 40 CFR 60.63(b).

(C) At the end of each kiln operating day, the owner/operator shall calculate and record a new 30-day rolling average emission rate in lb/ton clinker from the arithmetic average of all valid hourly emission rates for the current kiln operating day and the previous 29 successive kiln operating days.

(D) Upon and after the completion of installation of ammonia injection on a unit, the owner/operator shall install, and thereafter maintain and operate, instrumentation to continuously monitor and record levels of ammonia injection for that unit.

(8) *Alternative compliance determination.* If the owner/operator of the Clarkdale Plant chooses to comply with the emission limits of paragraph (k)(4) of this section, this paragraph may be used in lieu of paragraph (k)(7) of this section to demonstrate compliance with the emission limits in paragraph (k)(4) of this section.

(i) *Continuous emission monitoring system.* At all times after the compliance date specified in paragraph (k)(5) of this section, the owner/operator of the unit at the Clarkdale Plant shall maintain, calibrate, and operate a CEMS, in full compliance with the requirements found at 40 CFR 60.63(f) and (g), to accurately measure concentration by volume of NO<sub>x</sub>, diluent, and stack gas volumetric flow rate from the in-line/raw mill stack, as well as the stack gas volumetric flow rate from the coal mill stack. The CEMS shall be used by the owner/operator to determine

compliance with the emission limitation in paragraph (k)(3) of this section, in combination with data on actual clinker production. The owner/operator must operate the monitoring system and collect data at all required intervals at all times the affected unit 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) *Method.* Compliance with the ton per year NO<sub>x</sub> emission limit described in paragraph (k)(4) of this section shall be determined based on a rolling 12 month basis. The rolling 12-month NO<sub>x</sub> emission rate for the 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<sub>x</sub> emitted for the month just completed and the eleven (11) months preceding the month just completed, to calculate the total pounds of NO<sub>x</sub> emitted over the most recent twelve (12) month period for that kiln; Step two, divide the total pounds of NO<sub>x</sub> calculated from Step one by two thousand (2,000) to calculate the total tons of NO<sub>x</sub>. Each rolling 12-month NO<sub>x</sub> emission rate shall include all emissions that occur during all periods within the 12-month period, including emissions from startup, shutdown and malfunction.

(iii) Upon and after the completion of installation of ammonia injection on the unit, the owner/operator shall install, and thereafter maintain and operate, instrumentation to continuously monitor and record levels of ammonia injection for that unit.

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

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

(ii) All records of clinker production.

(iii) Daily 30-day rolling emission rates of NO<sub>x</sub>, calculated in accordance with paragraph (k)(7)(ii) of this section.

(iv) 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.

(v) Records of ammonia consumption, as recorded by the instrumentation required in paragraph (k)(7)(ii)(D) of this section.

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

(vii) Any other records specified by 40 CFR part 60, Subpart F, or 40 CFR part 60, Appendix F, Procedure 1.

(10) *Alternative recordkeeping requirements.* If the owner/operator of the Clarkdale Plant chooses to comply with the emission limits of paragraph (k)(4) of this section, the owner/operator shall maintain the records listed in this paragraph in lieu of the records contained in paragraph (k)(9) of this section. The owner or 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; emissions and parameters sampled or measured; and results.

(ii) Monthly rolling 12-month emission rates of NO<sub>x</sub>, calculated in accordance with paragraph (k)(8)(ii) of this section.

(iii) 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.

(iv) Records of ammonia consumption, as recorded by the instrumentation required in paragraph (k)(8)(iii) of this section.

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

(vi) Any other records specified by 40 CFR part 60, Subpart F, or 40 CFR part 60, Appendix F, Procedure 1.

(11) *Reporting.* All reports and notifications required under this paragraph (k) shall be submitted by the owner/operator to U.S. Environmental Protection Agency, Region 9, Enforcement Division via electronic mail to aeo\_r9@epa.gov and to Air Division via electronic mail to R9AirPermits@epa.gov. Reports required under this paragraph (k)(11)(iii) through (k)(11)(vii) of this section shall be submitted within 30 days after the applicable compliance date in paragraph (k)(5) 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 report describing the design of the SNCR system. This report shall include: reagent type, description of the locations selected for reagent injection, reagent injection rate (expressed as a molar ratio of reagent to exhaust gas), equipment list, equipment arrangement, and a summary of kiln characteristics that were relied upon as the design basis for the SNCR system.

(ii) Within 30 days following the NO<sub>x</sub> compliance date in paragraph (k)(5)(i) of this section,

the owner/operator shall submit to EPA a report of any process improvement or debugging activities that were performed on the SNCR system. This report shall include: a description of each process adjustment performed on the SNCR system or the kiln, a discussion of whether the adjustment affected NO<sub>x</sub> emission rates, a description of the range (if applicable) over which the adjustment was examined, and a discussion of how the adjustment will be reflected or account for in kiln operating practices. If CEMS data or kiln operating data were recorded during process improvement or debugging activities, the owner/operator shall submit the recorded CEMS and kiln operating data with the report. The data shall be submitted in an electronic format consistent with and able to be manipulated by a spreadsheet program such as Microsoft Excel.

(iii) The owner/operator shall submit a report that lists the daily 30-day rolling emission rates for NO<sub>x</sub>.

(iv) The owner/operator shall submit excess emissions reports for NO<sub>x</sub> limits. Excess emissions means emissions that exceed the emissions limits specified in paragraph (k)(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 unit, the nature and cause of any malfunction (if known), and the corrective action taken or preventative measures adopted.

(v) The owner/operator shall submit CEMS performance reports, 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.

(vi) The owner/operator shall also submit results of any CEMS performance tests specified by 40 CFR part 60, Appendix F, Procedure 1 (Relative Accuracy Test Audits, Relative Accuracy

Audits, and Cylinder Gas Audits).

(vii) 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 reports required by paragraph (k)(9)(ii) of this section.

(12) *Alternative reporting requirements.* If the owner/operator of the Clarkdale Plant chooses to comply with the emission limits of paragraph (k)(4) of this section, the owner/operator shall submit the reports listed in this paragraph in lieu of the reports contained in paragraph (k)(11) of this section. All reports required under this paragraph (k)(12) shall be submitted within 30 days after the applicable compliance date in paragraph (k)(5) 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) The owner/operator shall submit a report that lists the monthly rolling 12-month emission rates for NO<sub>x</sub>.

(ii) The owner/operator shall submit excess emissions reports for NO<sub>x</sub> limits. Excess emissions means emissions that exceed the emissions limits specified in paragraph (k)(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 unit, the nature and cause of any malfunction (if known), and the corrective action taken or preventative measures adopted.

(iii) The owner/operator shall submit CEMS performance reports, 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.

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

(v) 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 reports required by paragraph (k)(9)(ii) of this section.

(13) *Notifications.* (i) The owner/operator shall submit notification of commencement of construction of any equipment which is being constructed to comply with the NO<sub>x</sub> emission limits in paragraph (k)(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.

(iv) By June 30, 2018, the owner/operator of the Clarkdale Plant shall notify EPA Region 9 by letter whether it will comply with the emission limits in paragraph (k)(3)(i) of this section or whether it will comply with the emission limits in paragraph (k)(4) of this section. In the event that the owner/operator does not submit timely and proper notification by June 30, 2018, the owner/operator of the Clarkdale Plant may not choose to comply with the alternative emission limits in paragraph (k)(4) of this section and shall comply with the emission limits in paragraph (k)(3)(i) of this section.

(14) *Equipment operation.* (i) At all times, including periods of startup, shutdown, and

malfunction, the owner or operator shall, to the extent practicable, maintain and operate the unit 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 unit.

(ii) After completion of installation of ammonia injection on a unit, the owner or operator shall inject sufficient ammonia to achieve compliance with NO<sub>x</sub> emission limits set forth in paragraph (k)(3) of this section for that unit while preventing excessive ammonia emissions.

(15) *Enforcement.* Notwithstanding any other provision in this implementation plan, any credible evidence or information relevant as to whether the unit would have been in compliance with applicable requirements if the appropriate performance or compliance test had been performed, can be used to establish whether or not the owner or operator has violated or is in violation of any standard or applicable emission limit in the plan.

[FR Doc. 2016-15305 Filed: 6/29/2016 8:45 am; Publication Date: 6/30/2016]