Billing Code: 6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R09-OAR-2012-0904, FRL-9838-4]

Approval and Disapproval of Air Quality State Implementation Plans; Arizona; Regional Haze and Interstate Transport Requirements

AGENCY: Environmental Protection Agency (EPA)

ACTION: Final rule.

SUMMARY: EPA is taking final action to approve in part and disapprove in part a portion of Arizona's State Implementation Plan (SIP) to implement the regional haze program for the first planning period through 2018. This final rule completes our evaluation of Arizona's Best Available Retrofit Technology (BART) control analyses and determinations, Reasonable Progress Goals (RPGs) for the State's 12 Class I areas, Long-term Strategy (LTS), and other elements of the State's regional haze plan as well as the Interstate Transport requirements for visibility. Today's action includes our responses to comments that we received on our proposed rules published in the **Federal Register** on December 21, 2012, and on May 20, 2013. Regional haze is caused by emissions of air pollutants from numerous sources located over a broad geographic area. The Clean Air Act (CAA) requires states to adopt and submit to EPA SIPs that assure reasonable progress toward the national goal of achieving natural visibility conditions in 156 national parks and wilderness areas designated as Class I areas. EPA will continue to work

with Arizona to develop plan revisions to address the provisions of the SIP that we are disapproving today.

DATES: *Effective date*: This rule is effective [**insert date 30 days after date of publication in the federal register**].

ADDRESSES: EPA has established docket number EPA–R09–OAR–2012–0904 for this action. Generally, documents in the docket are available electronically at *http://www.regulations.gov* or in hard copy at EPA Region 9, 75 Hawthorne Street, San Francisco, California. Please note that while many of the documents in the docket are listed at *http://www.regulations.gov,* some information may not be specifically listed in the index to the docket and may be publicly available only at the hard copy location (e.g., copyrighted material, large maps, multi-volume reports or otherwise voluminous materials), and some may not be available at either locations (e.g., confidential business information). To inspect the hard copy materials, please schedule an appointment during normal business hours with the contact listed directly below.

FOR FURTHER INFORMATION CONTACT: Gregory Nudd, U.S. EPA, Region 9, Planning Office, Air Division, Air-2, 75 Hawthorne Street, San Francisco, CA 94105. Gregory Nudd can be reached at telephone number (415) 947-4107 and via electronic mail at r9azreghaze@epa.gov.

SUPPLEMENTARY INFORMATION:

Definitions

1) The words or initials *Act* or *CAA* mean or refer to the Clean Air Act, unless the context indicates otherwise.
2) The initials *ADEQ* mean or refer to the Arizona Department of Environmental Quality.

3) The words *Arizona* and *State* mean the State of Arizona.

4) The initials *BACT* mean or refer to Best Available Control Technology.

5) The initials *BART* mean or refer to Best Available Retrofit Technology.

6) The term *Class I area* refers to a mandatory Class I Federal area.

7) The initials *CD* mean or refer to Consent Decree.

8) The initials *dv* mean or refer to deciview, a measure of visual range.

9) The words *EPA*, *we*, *us* or *our* mean or refer to the United States Environmental Protection Agency.

10) The initials *FGD* mean or refer to flue gas desulfurization.

11) The initials *FIP* mean or refer to Federal Implementation Plan.

12) The initials *FLM* mean or refer to Federal Land Managers.

13) The initials *IMPROVE* mean or refer to Interagency Monitoring of Protected Visual Environments monitoring network.

14) The initials lb/MMBtu mean or refer to pounds per one million British thermal units.

15) The initials *LTS* mean or refer to Long-term Strategy.

16) The initials *MACT* mean or refer to Maximum Achievable Control Technology.

17) The initials *NAAQS* mean or refer to National Ambient Air Quality Standards.

18) The initials *NM* mean or refer to National Monument.

19) The initials NO_x mean or refer to nitrogen oxides.

20) The initials *NP* mean or refer to National Park.

21) The initials *NPS* mean or refer to the National Park Service.

22) The initials *NSPS* mean or refer to new source performance standards.

23) The initials *PM* mean or refer to particulate matter.

24) The initials *$PM_{2.5}$* mean or refer to fine particulate matter with an aerodynamic diameter of less than 2.5 micrometers.

25) The initials *PM_{10}* mean or refer to particulate matter with an aerodynamic diameter of less than 10 micrometers (coarse particulate matter).

26) The initials *PSD* mean or refer to Prevention of Significant Deter*ior*ation.

27) The initials *PTE* mean or refer to Potential to Emit.

28) The initials *RH* mean or refer to regional haze.

29) The initials *RHR* mean or refer to the Regional Haze Rule, originally promulgated in 1999 and codified at 40 CFR 51.301-309.

30) The initials *RMC* mean or refer to Regional Modeling Center.

31) The initials *RP* mean or refer to Reasonable Progress.

32) The initials *RPG* or *RPGs* mean or refer to Reasonable Progress Goal(s).

33) The initials *SCR* mean or refer to Selective Catalytic Reduction.

34) The initials *SIP* mean or refer to State Implementation Plan.

35) The initials *SNCR* mean or refer to Selective Non-catalytic Reduction.

36) The initials *SO_2* mean or refer to sulfur dioxide.

37) The initials *SRP* mean or refer to Salt River Project Agricultural Improvement and Power District.

38) The initials *tpy* mean tons per year.

39) The initials *TSD* mean or refer to Technical Support Document.

40) The initials *URP* mean or refer to Uniform Rate of Progress.

41) The initials *VOC* mean or refer to volatile organic compounds.

42) The initials *WRAP* mean or refer to the Western Regional Air Partnership.

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I. Summary of Proposed Actions

A. Regional Haze

EPA proposed on December 21, 2012, to approve in part and disapprove in part the remaining portion of Arizona's Regional Haze (RH) SIP submitted to EPA Region 9 on February 28, 2011 ("2011 RH SIP"), to meet the requirements of Section 308 of the Regional Haze Rule (RHR).[1] We proposed to take action on Arizona's BART control analyses and determinations, RPGs for each of the 12 Class I areas, and LTS. We also proposed to take action on the requirements that support these major components of the plan, including the identification of Class I areas impaired by Arizona's emissions, estimated visibility conditions, emission

[1] 77 FR 75704. Please see the proposal for a summary of the requirements of the RHR and the CAA concerning visibility protection.

inventories, and the State's monitoring strategy. Arizona submitted a revision to its 2011 RH SIP on May 3, 2013 ("Arizona RH SIP Supplement" or "Supplement"), addressing some of the elements of its SIP that we had proposed to disapprove in our notice of December 21, 2012. We then proposed in a notice published on May 20, 2013, to approve in part and disapprove in part elements of the supplemental SIP. Today, we are taking final action on those portions of the 2011 RH SIP as modified by the Supplement (collectively "Arizona RH SIP"), which were addressed in our proposed rules on December 21, 2012, and on May 20, 2013. Not included in today's action are the three BART sources in Arizona that we addressed in a final rule published on December 5, 2012.[2] The following is a summary of our proposed rules published on December 21, 2012, and May 20, 2013.

Supporting Elements: In our notice of December 21, 2012, EPA proposed to approve Arizona's identification of Class I areas that may experience visibility impairment due to emissions from sources within the State; Arizona's estimated visibility conditions for baseline, 2018 and 2064; Arizona's uniform rate of progress (URP) for each Class I area; Arizona's emission inventories for 2002 and 2018; and Arizona's identification of the sources of visibility impairment. However, because the 2011 RH SIP did not include the most recently available emission inventory, we proposed to disapprove the 2011 RH SIP with respect to this requirement. In our notice of May 20, 2013, we proposed to approve Arizona's emissions inventory for 2008 submitted on May 3, 2013, as part of the Supplement.

BART-Eligible: In our notice of December 21, 2012, EPA proposed to approve Arizona's determination that specific units at the following six sources are eligible for BART: ASARCO Hayden Smelter (Hayden Smelter); Freeport-McMoRan Inc. Miami Smelter (Miami Smelter); Chemical Lime Nelson Plant (Nelson Lime Plant) Kilns 1 and 2; Arizona Public Service West

[2] See 77 FR 72512.

Phoenix Power Plant (West Phoenix Power Plant) Combined Cycle Units 1 through 3; CalPortland Rillito Cement Plant (Rillito Cement Plant) Kiln 4; and Catalyst Pulp Mill in Snowflake (Catalyst Paper) Power Boiler 2.[3] We proposed to disapprove Arizona's determination that Tucson Electric Power Sundt Generating Station (Sundt) Unit 4 is not eligible for BART. Finally, we proposed to approve the State's determination that no other units in the State are BART-eligible. In particular, we proposed to approve the State's finding that Cholla Power Plant Unit 1 and Sundt Unit 3 are not BART-eligible. In our notice of May 20, 2013, we proposed to approve revisions to the sets of BART-eligible units at the Hayden and Miami Smelters.

Not Subject to BART: In our notice of December 21, 2012, EPA proposed to approve Arizona's decision to set 0.5 deciview (dv) as the threshold for determining whether sources are subject to BART, but requested comments on whether this threshold is reasonable. We proposed to approve Arizona's determination that two eligible sources are exempt from BART based on this threshold. These BART-exempt sources are the West Phoenix Power Plant and the Rillito Cement Plant. We proposed to disapprove Arizona's determination that Nelson Lime Plant is exempt from BART, but sought comments on whether this determination was reasonable. In our notice of May 20, 2013, we proposed again to disapprove Arizona's new determination that the Miami Smelter is exempt from a BART analysis for nitrogen oxides (NO_x), and that the Hayden Smelter is exempt from a BART analysis for coarse particulate matter (PM_{10}). We also proposed to approve the State's finding that a BART analysis is not required for Catalyst Paper due to the plant's closure.

[3] We have already approved ADEQ's determination that Arizona Electric Power Cooperative (AEPCO) Apache Generating Station (Apache) Units 1-3, Arizona Public Service Cholla Power Plant (Cholla) Units 2-4, and Salt River Project Coronado Generating Station (Coronado) 1-2 are BART-eligible. See 77 FR 72512.

BART-Subject: In our notice of December 21, 2012, EPA proposed to approve Arizona's determination that two sources are subject to BART. These sources are the Hayden and Miami Smelters. In our notice of May 20, 2013, we proposed to approve revised sets of BART-subject units for the Miami and Hayden Smelters.

BART Determination: In our notice of December 21, 2012, EPA proposed to approve Arizona's BART determinations for NO_x at Hayden Smelter and for PM_{10} at Miami Smelter. We proposed to disapprove Arizona's conclusion that a BART determination is not required for PM_{10} at the Hayden Smelter and for NO_x at the Miami Smelter. We proposed alternatively to approve or disapprove the State's BART determination for sulfur dioxide (SO_2) at the Hayden and Miami Smelters depending on a more detailed BART demonstration from the State. We proposed not to act on the State's BART determination for Catalyst Paper because this facility is no longer in operation. Further, we proposed to disapprove the compliance schedules and requirements for equipment maintenance and operation related to BART controls at the Hayden Smelter and the Miami Smelter because these were not included in the State's 2011 RH SIP. In our notice of May 20, 2013, we proposed to approve Arizona's determination that BART for PM_{10} at the Hayden Smelter is no additional controls. We also proposed a clarification in the application of the emissions limit to Apache Unit 1, and a correction to Table 4 in our December 21, 2012, notice in which the baseline values for Saguaro East and Saguaro West were reversed.

Reasonable Progress Goals: In our notice of December 21, 2012, EPA proposed to disapprove Arizona's RPGs for 2018 on the 20 percent least impaired ("best") days and 20 percent most impaired ("worst") days at all of the State's Class I areas. We proposed to find that the State has not demonstrated that these goals constitute reasonable progress by 2018 toward the ultimate goal of natural conditions by 2064. Based on our own supplemental analysis, we proposed to approve the State's finding that it is not reasonable to require additional controls on

mobile sources of NO_x, SO_2 or volatile organic compounds (VOCs) or on point sources of SO_2 during this planning period. However, we proposed to disapprove the State's finding that no additional controls are needed on coarse mass and fine soil emissions, point sources of NO_x, and area sources of NO_x and SO_2. In our notice of May 20, 2013, we proposed to approve the State's finding that it is not reasonable to require additional controls on sources of coarse mass and fine soil during the first planning period. However, we proposed to disapprove the State's determination that it is not reasonable to require additional controls on point sources of NO_x or area sources of NO_x and SO_2. Because we were still proposing to disapprove certain aspects of the State's RP analysis, we did not revise our proposal to disapprove the State's RPGs.

Long-term Strategy: In our notice of December 21, 2012, EPA proposed to approve Arizona's interstate consultation process, the technical basis for its apportionment of emission reductions, and the identification of all anthropogenic sources of visibility impairment. Regarding the seven mandatory factors a state must consider for the LTS, we proposed to find that Arizona considered emissions reductions due to ongoing air pollution control programs, measures to mitigate the impacts of construction activities, source retirement and replacement schedules, smoke management techniques, and the anticipated net effect on visibility due to projected changes in emissions through 2018. However, we proposed to find that the Arizona RH SIP did not include all measures needed to achieve the State's apportionment of emission reduction obligations with respect to out-of-state Class I areas. We also proposed to find that Arizona did not meet the requirements for emissions limitations and schedules of compliance to achieve the RPGs or the enforceability of emissions limits and control measures. Our notice of May 20, 2013, did not propose any further action on the LTS since the State did not address these requirements in its supplemental SIP.

B. Interstate Transport of Pollutants that affect Visibility

CAA section 110(a)(2)(D)(i)(II) requires that all SIPs contain adequate provisions to prohibit emissions that will interfere with other states' required measures to protect visibility. In response to the promulgation of the revised National Ambient Air Quality Standard (NAAQS) for ozone in 1997,[4] the new NAAQS for fine particulate matter ($PM_{2.5}$) in 1997,[5] and the revised $PM_{2.5}$ NAAQS in 2006,[6] states were required to submit SIP revisions to address the interstate transport visibility requirement. ADEQ submitted such SIP revisions in 2007 for the 1997 ozone and 1997 $PM_{2.5}$ NAAQS (2007 Transport SIP)[7] and in 2009 for the 2006 $PM_{2.5}$ NAAQS (2009 Transport SIP).[8] Each of these SIP revisions indicated that it would be appropriate to assess Arizona's interference with other states' measures to protect visibility in conjunction with the State's regional haze SIP. Because ADEQ did not specify a particular part of the Arizona RH SIP as addressing the interstate transport visibility requirement, we interpreted those SIP revisions to mean that ADEQ intended the Arizona RH SIP as a whole to address the interstate transport visibility requirement for these three NAAQS. Thus, our December 21, 2012, proposal presented EPA's evaluation of the Arizona RH SIP in addressing these requirements. Based on this evaluation, we proposed to disapprove Arizona's 2007 and 2009 Transport SIPs, along with

[4] 62 FR 38856, July 18, 1997.
[5] 62 FR 38652, July 18, 1997.
[6] 71 FR 61144, October 17, 2006.
[7] "Revision to the Arizona State Implementation Plan Under Clean Air Act Section 110(a)(2)(D)(i) – Regional Transport," submitted by ADEQ on May 24, 2007. As noted in our proposal of December 21, 2012, EPA approved this SIP revision with respect to the first three interstate transport requirements of CAA section 110(a)(2)(D)(i), but deferred action on the interstate transport visibility requirement, often referred to as prong 4, until we received Arizona's final Regional Haze SIP. 72 FR 41629, July 31, 2007.
[8] "Arizona State Implementation Plan Revision under Clean Air Act Section 110(a)(1) and (2); 2006 $PM_{2.5}$ NAAQS, 1997 $PM_{2.5}$ NAAQS, and 1997 8-hour Ozone NAAQS," submitted by ADEQ on October 14, 2009, which addressed the requirements of section 110(a)(2)(D)(i) with respect to the 2006 $PM_{2.5}$ NAAQS in Section 2.4 and Appendix B of the submittal. As noted in our proposal of December 21, 2012, EPA finalized action on this SIP revision with respect to the first three requirements of section 110(a)(2)(D)(i), but deferred action on the interstate transport visibility requirement until we received Arizona's final Regional Haze SIP. 77 FR 66398, November 5, 2012.

the Arizona RH SIP itself, with respect to the interstate transport visibility requirement of CAA section 110(a)(2)(D)(i)(II) for the 1997 8-hour ozone, 1997 PM2.5, and 2006 PM2.5 NAAQS.

II. Review of State and EPA Actions on Regional Haze

A. EPA's Schedule to Act on Arizona's RH SIP

EPA received a notice of intent to sue in January 2011 stating that we had not met the statutory deadline for promulgating Regional Haze FIPs and/or approving Regional Haze SIPs for dozens of states, including Arizona. This notice was followed by a lawsuit filed by several advocacy groups (Plaintiffs) in August 2011.[9] In order to resolve this lawsuit and avoid litigation, EPA entered into a Consent Decree with the Plaintiffs, which sets deadlines for action for all of the states covered by the lawsuit, including Arizona. This decree was entered and later amended by the United States District Court for the District of Columbia over the opposition of Arizona.[10] Under the terms of the Consent Decree, as amended, EPA is currently subject to three sets of deadlines for taking action on Arizona's RH SIP as listed in Table 1.[11]

TABLE 1—CONSENT DECREE DEADLINES FOR EPA TO ACT ON ARIZONA'S RH SIP

EPA Actions		Proposed Rule	Final Rule
Phase 1	BART determinations for Apache, Cholla and Coronado	July 2, 2012[1]	November 15, 2012[2]
Phase 2	All remaining elements of the Arizona RH SIP	December 8, 2012[3]	July 15, 2013
Phase 3	FIP for disapproved elements of the Arizona RH SIP (if required)	September 6, 2013	February 6, 2014

[1] Published in the FEDERAL REGISTER on July 20, 2012, 77 FR 42834.
[2] Published in the FEDERAL REGISTER on December 5, 2012, 77 FR 72512.
[3] Published in the FEDERAL REGISTER on December 21, 2012, 77 FR 75704.

B. History of State Submittals and EPA Actions

[9] National Parks Conservation Association v. Jackson (D.D.C. Case 1:11-cv-01548).
[10] National Parks Conservation Association v. Jackson (D.D.C. Case 1:11-cv-01548), Memorandum Order and Opinion (May 25, 2012), Minute Order (July 2, 2012), Minute Order (November 13, 2012) and Minute Order (February 15, 2013).
[11] *Id.*

Because four of Arizona's twelve mandatory Class I Federal areas are on the Colorado Plateau, the State had the option of submitting a Regional Haze SIP under section 309 of the RHR. A SIP that is approved by EPA as meeting all of the requirements of section 309 is "deemed to comply with the requirements for reasonable progress with respect to the 16 Class I areas [on the Colorado Plateau] for the period from approval of the plan through 2018."[12] When these regulations were first promulgated, 309 SIPs were due no later than December 31, 2003. Accordingly, ADEQ submitted to EPA on December 23, 2003, a 309 SIP for Arizona's four Class I Areas on the Colorado Plateau. ADEQ submitted a revision to its 309 SIP, consisting of rules on emissions trading and smoke management, and a correction to the State's regional haze statutes, on December 31, 2004. EPA approved the smoke management rules submitted as part of the revisions in 2004,[13] but did not propose or take final action on any other portion of the 309 SIP.

In response to an adverse court decision,[14] EPA revised 40 CFR 51.309 on October 13, 2006, making a number of substantive changes and requiring states to submit revised 309 SIPs by December 17, 2007.[15] Subsequently, ADEQ sent a letter to EPA dated December 24, 2008, acknowledging that it had not submitted a SIP revision to address the requirements of 40 CFR 51.309(d)(4) related to stationary sources and 40 CFR 51.309(g), which governs reasonable progress requirements for Arizona's eight mandatory Class I areas outside of the Colorado Plateau.[16] EPA proposed on February 5, 2013,[17] to disapprove Arizona's 309 SIP except for the smoke management rules that we had previously approved.

[12] 40 CFR 51.309(a).
[13] 71 FR 28270 and 72 FR 25973.
[14] Center for Energy and Economic Development v. EPA, 398 F.3d 653 (D.C. Circuit 2005).
[15] 71 FR 60612.
[16] Letter from Stephen A. Owens, ADEQ, to Wayne Nastri, EPA (December 24, 2008).
[17] 78 FR 8083.

EPA made a finding on January 15, 2009, that 37 states, including Arizona, had failed to make all or part of the required SIP submissions to address regional haze.[18] Specifically, EPA found that Arizona failed to submit the plan elements required by 40 CFR 51.309(d)(4) and (g). EPA sent a letter to ADEQ on January 14, 2009, notifying the State of this failure to submit a complete SIP. ADEQ later decided to submit a SIP under section 308, instead of under section 309.

ADEQ adopted and transmitted its 2011 Regional Haze SIP under section 308 of the RHR to EPA Region 9 in a letter dated February 28, 2011. The SIP was determined complete by operation of law on August 28, 2011.[19] The SIP was properly noticed by the State and available for public comment for 30 days prior to a public hearing held in Phoenix, Arizona, on December 2, 2010. Arizona included in its SIP responses to written comments from EPA Region 9, the National Park Service, the U.S. Forest Service, and other stakeholders including regulated industries and environmental organizations. The 2011 RH SIP is available to review in the docket for the proposed rule.[20]

As indicated in Table 1, the first phase of EPA's action on the 2011 RH SIP addressed three BART sources. The final rule for this phase (a partial approval and partial disapproval of the State's plan and a partial FIP) was signed by the Administrator on November 15, 2012, and published in the **Federal Register** on December 5, 2012. The emission limits on the three sources will improve visibility by reducing NO_x emissions by about 22,700 tons per year. In the second phase of our action, we proposed on December 21, 2012, to approve in part and disapprove in part the remainder of the 2011 RH SIP. ADEQ submitted the Arizona RH SIP Supplement on May 3, 2013, to correct certain deficiencies identified in that proposal. We then

[18] 74 FR 2392.
[19] CAA section 110(k)(1)(B).
[20] "Arizona State Implementation Plan, Regional Haze under Section 308 Of the Federal Regional Haze Rule," February 28, 2011.

proposed on May 20, 2013, to approve in part and disapprove in part the Supplement. Today, we are taking final action on those elements of the Arizona RH SIP included in our proposed rules of December 21, 2012, and May 20, 2013. We intend to address all the disapproved elements of the Arizona RH SIP from Phase 2 in a proposed FIP due for signature by September 6, 2013 (See Table 1).

C. Legal Basis for Our Final Action

Our action is based on an evaluation of the Arizona RH SIP submitted on February 28, 2011, and supplemented on May 3, 2013, to meet the requirements of Section 308 of the RHR (collectively "Arizona RH SIP"). We evaluated the Arizona RH SIP for compliance with the requirements of the RHR and CAA sections 169A and 169B. We also applied the general SIP requirements in CAA section 110 and 40 CFR Part 51. Our authority for action on the Arizona RH SIP is based on CAA section 110(k). Our authority to promulgate a FIP is based on CAA section 110(c).

III. Overview of Final Action on Regional Haze and Interstate Transport

This is an overview of today's final action on the rules that were proposed on December 21, 2012, and on May 20, 2013. In this section, we list the final approvals and disapprovals for each of the three major portions of the RHR: BART Analyses and Determinations, RPGs, and LTS. This is followed by our final action on the Interstate Transport requirement. EPA must address all of the final disapprovals in an upcoming proposed FIP, which will be available for review and comment. In addition, we are approving all the supporting elements of the Arizona RH SIP as proposed. For a general description of our evaluation of Arizona's BART and RP analyses, please refer to the section entitled "Summary of Final Action."

EPA takes very seriously the decision to disapprove in part the Arizona RH SIP. However, for the reasons set forth in our proposals and elsewhere in this document, we have determined this partial approval and partial disapproval is consistent with the requirements of the CAA and the RHR, while full approval of the SIP would be inconsistent with these requirements. EPA will continue to work with ADEQ to address all of the elements of the Arizona RH SIP that we have disapproved.

A. BART Analyses and Determinations

Final approval: We are approving Arizona's determination that Cholla Unit 1 and Sundt Unit 3 are not BART-eligible. We are approving Arizona's BART threshold of 0.5 dv and its determination that West Phoenix Power Plant and the Rillito Cement Plant are not subject to BART. We are approving the State's conclusion that the Hayden Smelter is subject to BART for SO_2 and the Miami Smelter is subject to BART for SO_2 and PM_{10}. We also are approving a revised set of emission units that are subject to BART at each smelter. We are approving Arizona's determination that BART for PM_{10} at the Hayden Smelter is no additional controls and that the NESHAP for Primary Copper Smelting constitutes BART for PM emissions at the Miami Smelter. Finally, we are approving the State's determination that a BART analysis is not required for Catalyst Paper, and approving a correction to the applicability of the BART limit for NO_x on Apache Unit 1.

Final disapproval: We are disapproving Arizona's determination that Sundt Unit 4 is not BART eligible, and that Chemical Lime Nelson is not subject to BART. We are disapproving the State's determination that the Hayden Smelter is not subject to BART for PM_{10} and that the Hayden and Miami Smelters are not subject to BART for NO_x. We also are disapproving the State's BART determinations for SO_2 at the Hayden and Miami Smelters. Based on these final

disapprovals, EPA is required to conduct BART analyses in an upcoming FIP for Sundt Unit 4, Chemical Lime Nelson Kilns 1 and 2, the Hayden Smelter (NO_x and SO_2), and the Miami Smelter (NO_x and SO_2).

B. Reasonable Progress Goals

Final approval: We are approving Arizona's calculations of the URP to 2064 and the number of years it will take to attain natural conditions at the State's Class I areas. Regarding sub-parts of the RP analysis, we are approving the State's decision to consider no further reductions from mobile sources, to exclude coarse mass and fine soils, and to require no additional SO_2 controls on non-BART point sources.

Final disapproval: We are disapproving Arizona's RPGs for the 20 percent worst days and 20 percent best days as well as portions of the State's broader RP analysis that provides the basis for the RPGs. In particular, we are disapproving specific elements of the State's RP analysis for area sources of NO_x and SO_2 and point sources of NO_x. We also are disapproving the State's demonstration that the rates of progress reflected in its RPGs are reasonable.

C. Long-Term Strategy

Final approval: We are approving most of the mandatory factors that a state must consider in the LTS. These factors include interstate consultation, the technical basis for the State's apportionment of emission reduction obligations, identification of anthropogenic sources of visibility impairment, emission reductions from ongoing air programs, measures to mitigate construction activities, smoke management plans and techniques, anticipated net effect on visibility by 2018, and source retirement and replacement schedules.

Final disapproval: We are disapproving the Arizona RH SIP with respect to measures needed to achieve emission reductions, emission limits and schedules of compliance, and enforceability of emission limits and controls.

D. Interstate Transport

Final disapproval: EPA is disapproving Arizona's 2007 and 2009 Transport SIPs and the Arizona RH SIP with respect to the interstate transport visibility requirement of CAA section 110(a)(2)(D)(i)(II) for the 1997 8-hour ozone, 1997 $PM_{2.5}$, and 2006 $PM_{2.5}$ NAAQS. This follows from our finding that, as a result of the partial disapprovals of the RH SIP, the Arizona SIP does not contain adequate provisions to prohibit emissions that will interfere with SIP measures required of other states to protect visibility.

E. Supporting Elements

We are approving the following the supporting elements of the Arizona RH SIP: Arizona's identification of Class I areas that may experience visibility impairment due to emissions from sources within the State; Arizona's estimated visibility conditions for baseline, 2018 and 2064; Arizona's uniform rate of progress for each Class I area; Arizona's emission inventories for 2002, 2008 and 2018; and Arizona's identification of the sources of visibility impairment.

IV. EPA's Responses to Comments

A. Responses to Comments on the Proposal of December 21, 2012

The initial deadline for public comments on our December 21, 2012, proposal was February 4, 2013. After receiving several requests for an extension of the comment period, we

extended the due date for public comments to March 6, 2013.[21] We received timely comments from representatives of the following entities:

- ADEQ;
- Apache County Board of Supervisors (Apache County);
- Arizona Mining Association (AMA);
- Arizona Public Service Co (APS);
- American Smelting and Refining Company (ASARCO);
- CalPortland Company (CalPortland);
- Earthjustice (on behalf of National Parks Conservation Association, Sierra Club, Physicians for Social Responsibility (Arizona Chapter) and San Juan Citizens Alliance);
- Freeport-McMoRan Miami Inc. (FMMI);
- Lhoist North America of Arizona (LNA);
- National Park Service (NPS);
- Phoenix Cement Company (PCC);
- Salt River Project (SRP);
- Mayor, Town of Clarkdale (Clarkdale);
- Tucson Electric Power Company (TEP); and
- Supervisor, Yavapai County District 3 (Yavapai County).

We also received one late comment from the Competitive Enterprise Institute (CEI). All of the comments we received along with attached technical reports and analyses are available for review in the docket for this action. The following sections contain summaries of the comments and our responses to the comments.

[21] 78 FR 7702.

1. State and EPA Actions on Regional Haze

a. State and Federal Roles in the Regional Haze Program

Comment: Several commenters asserted that EPA's proposed disapprovals infringe on Arizona's discretion under the CAA and the RHR. These commenters noted that the CAA and the RHR provide that the states, not EPA, have the primary role in implementing the regional haze program, including making BART determinations and that EPA may disapprove an RH SIP only where the SIP fails to satisfy the minimum requirements of the Act. They generally asserted that there is no basis for EPA to determine that the Arizona RH SIP violates any applicable requirement of the CAA or RHR. In discussing the roles of EPA and states under the CAA, the commenters cited CAA section 110, as well as *Train v. NRDC*;[22] *Union Electric v. EPA;*[23] *Montana Sulphur and Chemical v. EPA; EME Homer City Generation v. EPA*;[24] *Luminant Generation Co. v. EPA*;[25] and *State of Texas, v. EPA*.[26] With regard to the regional haze program specifically, commenters also cited CAA section 169A and *American Corn Growers Ass'n v. EPA*.[27]

One commenter (ASARCO) asserted that EPA is relegated by the Act to a secondary role in the process of determining and enforcing the specific, source-by-source emission limitations, and that in developing SIPs the state has virtually absolute power in allocating emission limitations so long as the national standards are met.

Another commenter (CalPortland) stated that EPA cannot substitute its judgment for Arizona's determination of reasonable progress. According to the commenter, the State reasonably determined that additional controls should not be required during this planning

[22]421 U.S. 60, 79 (1975).
[23]427 U.S. 246 (1976).
[24]696 F.3d 7 (D.C. Cir. 2012).
[25]675 F.3d 917 (5th Cir. 2012).
[26]690 F.3d 670 (5th Cir. 2012).
[27]291 F.3d 1 (D.C. Cir. 2002).

period, and the Arizona RH SIP provides significant and sufficient analysis to support its RPGs. CalPortland asserted that 40 CFR 51.308(d) limits EPA's role to evaluating the sufficiency of Arizona's reasonable progress demonstration "to achieve the progress goal adopted by the State." Citing *Montana Sulphur & Chemical Co. v. EPA,* 666 F.3d 1174, 1181 (9th Cir. 2012), the commenter contended that the State is free to adopt whatever mix of emissions limitations it deems best suited to its particular situation. On this basis, the commenter asserted that EPA must approve the Arizona RH SIP as adopted by the State.

Response: We do not agree that our partial disapproval of the Arizona RH SIP is contrary to the CAA, the RHR, or relevant case law. As noted by several commenters, states have the lead role in developing Regional Haze SIPs. However, EPA also has a crucial role in reviewing SIPs for compliance with the requirements of the CAA and its implementing regulations. Pursuant to CAA section 110, states must submit SIPs to EPA for review and EPA must review SIPs for consistency with the Act's requirements and may not approve any SIP revision that "would interfere with any applicable requirement" of the Act.[28] Furthermore, the CAA mandates that EPA promulgate a FIP when EPA finds that a state has failed to submit a required SIP to the Agency, failed to submit a complete SIP, or where EPA disapproves a SIP in whole or in part.[29] Thus, the CAA provides EPA with a critical oversight role in ensuring that SIPs meet the Act's requirements.

Nothing in the CAA indicates that EPA's role is less important in the context of the regional haze program than under other CAA programs. On the contrary, CAA section 110(a)(2)(J) explicitly requires that SIPs "meet the applicable requirements" of Part C of Title I of the CAA including the requirements for visibility protection set forth in sections 169A and

[28] CAA section 110(a)(1), (k)(3) and (*l*), 42 U.S.C. 7410(a)(1), (k)(3) and (*l*).
[29] *See id.* 7410(c)(1).

169B.[30] Pursuant to section 169A(b), EPA is required to promulgate visibility protection regulations that apply to "each applicable implementation plan" (i.e., each SIP or FIP)[31] for each state containing one or more Class I areas and each state "emissions from which may reasonably be anticipated to cause or contribute to any impairment of visibility in any [Class I area]."[32] The CAA specifies that these regulations (including the RHR) must require each such SIP or FIP to "contain such emission limits, schedules of compliance and other measures as may be necessary to make reasonable progress toward meeting the national goal," including implementation of BART, as determined by the state (or by EPA in the case of a FIP).[33] Thus, the statute provides EPA a key oversight role in reviewing SIPs for compliance with the RHR and BART requirements.

The cases cited by the commenters do not support an argument that EPA's role as a reviewer is any less critical in the regional haze context than it is in reviewing other SIP components. In *American Corn Growers v. EPA*, the petitioners challenged the original RHR because, among other things, the RHR treated one of the five statutory factors differently than the others by requiring states to consider the degree of visibility improvement from imposing BART on a group of sources rather than on a source-specific basis.[34] The D.C. Circuit concluded that such a requirement could force states to apply BART controls at sources without evidence that the individual sources contributed to visibility impairment at a Class I area, which encroached on states' primary authority under the regional haze provisions to determine which

[30] CAA sections 110(a)(2)(J), 169A and 169B, 42 U.S.C. 7410(a)(2)(J), 7491 and 7492.
[31] Under the CAA, "applicable implementation plan" is defined as "the portion (or portions) of the implementation plan, or most recent revision thereof, which has been approved under [CAA 110], or promulgated under [CAA section 110](c) . . . and which implements the relevant requirements of [the CAA]." CAA section 302(q), 42 U.S.C. 7602(q). In other words, an "applicable implementation plan" is an EPA-approved SIP or Tribal Implementation Plan, or an EPA-promulgated FIP.
[32] 42 U.S.C. 7491(b)(2). In promulgating the RHR, EPA determined that "all States contain sources whose emissions are reasonably anticipated to contribute to regional haze in a Class I area and, therefore, must submit regional haze SIPs." 64 FR 35720; see also 40 CFR 51.300(b)(3).
[33] 42 U.S.C. 7491(b)(2).
[34] 291 F.3d 1, 5-9 (D.C. Cir. 2002).

individual sources are subject to BART and what BART controls are appropriate for each source.[35] Therefore, the court vacated the visibility improvement part of the original RHR as contrary to the statute.[36] Contrary to some commenters' suggestions, however, the *American Corn Growers* decision did not address EPA's authority to reject a state's BART determinations for failure to conform to the CAA and the RHR.

Commenters also cite *Luminant Generation v. EPA*[37] and *Texas v. EPA*.[38] Neither of these cases involves BART or the CAA's regional haze provisions. Rather, they involved EPA's disapprovals of SIP revisions involving Texas's minor new source review (NSR) program. As noted by the *Luminant* court, "because 'the Act includes no specifics regarding the structure or functioning of minor NSR programs' and because the implementing regulations are 'very general [,] ... SIP-approved minor NSR programs can vary quite widely from State to State.'"[39] By contrast, Regional Haze SIPs are subject to detailed requirements set forth in CAA sections 169A and the RHR. While in *Luminant* and *Texas*, the Fifth Circuit found that EPA had failed to tie its disapproval to any requirement of the CAA or EPA's implementing regulations,[40] in this case our partial disapproval is based on the SIP's failure to comply with CAA sections 110(a)(2) and 169A, as implemented through the RHR.[41]

The other CAA cases cited by commenters, *Train v. NRDC*, *Union Electric v. EPA* and *Montana Sulphur and Chemical v. EPA*, all pertain to EPA's role in reviewing nonattainment SIPs (i.e., SIPs designed to ensure attainment of the NAAQS). Both *Train* and *Union Electric*

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[35] *Id.*, pages 7-8.
[36] EPA revised the RHR to address the court's decision in *American Corn Growers* at the same time as we promulgated the BART Guidelines. 70 FR 39104 (July 6, 2005). The revised RHR and the Guidelines were upheld by the D.C. Circuit in *Utility Air Regulatory Group v. EPA*, 471 F.3d 1333 (D.C. Cir. 2006).
[37] 675 F.3d 917, 921 (5th Cir. 2012).
[38] 690 F.3d 670 (5th Cir. 2012).
[39] 675 F.3d at 922 (citing 74 FR 51418, 51421 (Oct. 6, 2009).
[40] *Id.* at 924, 929; 690 F.3d at 679, 682, 686.
[41] In particular, as discussed further in our proposals and elsewhere in this rule, our partial disapproval is based on the following provisions of 40 CFR 51.308: (d)(1)(i)(A), (d)(1)(ii), (d)(3)(ii), (d)(3)(v)(C), d)(3)(v)(F), (e)(1)(ii)(A), (e)(1)(ii)(C), (e)(1)(iv), and (e)(1)(v).

were decided *prior* to Congress's adoption of the visibility protection requirements of CAA section 169A and 169B in 1977 and 1990 respectively, and EPA's adoption of the RHR in 1999. Nonetheless, in both cases, the Supreme Court recognized the basic principle that EPA must review SIPs for compliance with the requirements of CAA section 110(a)(2).[42]

As part of the 1977 Amendments to the CAA, Congress added to section 110(a)(2) requirements that SIPs (1) meet the newly enacted visibility protection requirements of Part C of Title I of the Act and (2) prohibit stationary source emissions that interfere with other states' required visibility protection measures.[43] As noted above, these visibility protection requirements include the obligation for SIPs to "contain such emission limits, schedules of compliance and other measures as may be necessary to make reasonable progress" toward elimination of man-made visibility impairment at Class I areas, including implementation of BART.[44] Section 169A further specifies five factors that must be considered in determining BART and four factors that must be considered in determining reasonable progress.[45] The RHR was promulgated pursuant to these requirements and sets forth the specific criteria that all RH SIPs must meet in order to fulfill these requirements. Thus, to the extent that *Train* and *Union Electric* are relevant to RH SIPs, they support the principle that EPA must ensure that RH SIPs adequately address the requirements of 110(a)(2), including the visibility protection requirements of CAA section 169A,

[42] See *Train*, 421 U.S. 60, 79 ("Under §110(a)(2), the Agency is required to approve a state plan which provides for the timely attainment and subsequent maintenance of ambient air standards, *and which also satisfies that section's other general requirements*. The Act gives the Agency no authority to question the wisdom of a State's choices of emission limitations *if they are part of a plan which satisfies the standards of section 110(a)(2)* . . ." (emphasis added)); *Union Electric,* 427 U.S. 246, 250 ("Each State is given wide discretion in formulating its plan, and the Act provides that the Administrator 'shall approve' the proposed plan if it has been adopted after public notice and hearing and *if it meets eight specified criteria* [in section 110(a)(2)]" (emphasis added)).

[43] PL 95–95, 91 Stat 685 (HR 6161) section 108(b) (August 7, 1977) (codified at CAA section 110(a)(2)(J), 42 U.S.C. 7410(a)(2)(J)). In addition, as part of the 1990 amendments to the CAA, Congress added to section 110(a)(2) a requirement that SIPs "include enforceable emission limitations and other control measures, means, or techniques . . . as well as schedules and timetables for compliance, as may be necessary or appropriate to meet the applicable requirements of this Act." PL 101–549, 104 Stat 2399 sec. 101(b)(November 15 1990) (codified at CAA section 110(a)(2)(A), 42 U.S.C. 7410(a)(2)(A)). As explained in our notice of proposed rulemaking and elsewhere in this document, the Arizona RH SIP does not include such enforceable limitations or schedules for compliance.

[44] 42 U.S.C. 7491(b)(2).

[45] 42 U.S.C. 7491(g)(1) and (2).

as implemented through EPA's visibility protection regulations, including the RHR.

The Ninth Circuit's decision in *Montana Sulphur*, which rejected a challenge to EPA's issuance of a SIP call, partial disapproval of a SIP and promulgation of a partial FIP for the State of Montana,[46] also reinforces the importance of EPA's oversight role under the CAA. In upholding EPA's partial disapproval, the court recognized that EPA's role in reviewing of SIPs is not limited to a ministerial review of state decisions, but involves the exercise of technical expertise and judgment.[47] Here, as in *Montana Sulphur*, EPA's partial disapproval results from our determination that the SIP failed to meet all of the applicable statutory and regulatory criteria. Our findings regarding the specific shortcomings of the Arizona RH SIP are set out in detail in our proposals and elsewhere in this final rule.

b. EPA's Schedule to Act on the Arizona RH SIP

Comment: One commenter (CalPortland) asserted that EPA has not given Arizona and affected stakeholders sufficient opportunity to address EPA's concerns with the Arizona RH SIP. While acknowledging that EPA has tried to address this problem by extending the comment deadline and delaying publication of a FIP until after it takes final action on the SIP, the commenter asserted that these two actions are not legally or practically sufficient to provide due process for affected entities such as the commenter.

According to the commenter, EPA has asserted that it must act now given its finding that Arizona failed to submit a complete 309 SIP, but EPA has made no such finding with respect to the State's Section 308 SIP. On this basis, the commenter concluded that unless EPA has the authority (which it has not claimed or identified) to adopt a FIP under a different regulatory provision than the SIP submitted by the State, under CAA section 110(c)(1)(B) EPA's deadline

[46] 666 F.3d 1174 (9th Cir. 2012).
[47] *Id.* at 1189.

to adopt a Section 308 FIP will be July 15, 2015. CalPortland concluded that the best approach would be to seek further revisions to the third-party consent decree so that the State and affected stakeholders have a full and fair opportunity to participate in the SIP process, and EPA has the necessary time to fully and fairly consider the Arizona RH SIP.

Response: We do not agree that the State has been given insufficient time to address our concerns with the Arizona RH SIP or that the timing of our action raises any due process concerns. All RH SIPs, whether adopted pursuant to section 308 or section 309 of the RHR, were due on December 17, 2007. As explained in section II.B of this document, Arizona had submitted a partial SIP under Section 309 in 2003 and 2004, but never re-submitted the SIP in response to the 2006 RHR amendments to include provisions to address stationary source emissions under 40 CFR 51.309(d)(4) or reasonable progress for eight of the State's Class I areas under 40 CFR 51.309(g).[48] On January 15, 2009, EPA found that 37 states, including Arizona, had failed to make all or part of the required SIP submissions to address regional haze and explained that this finding triggered a two-year "FIP clock."[49] Specifically, we found that Arizona had failed to submit a SIP addressing 40 CFR 51.309 (d)(4) and (g).[50]

At the time of our finding of failure to submit in 2009, EPA anticipated that ADEQ would submit a SIP revision covering 309(d)(4) and 309(g), which would enable EPA to fully approve ADEQ's 309 SIP as meeting all of the requirements of the RHR, thus ending the FIP clock. As it turned out, ADEQ did not submit a 309 SIP revision, but instead decided to develop a 308 SIP, which it submitted to EPA in February 2011. Arizona's decision to change from a 309 SIP to a 308 SIP did not nullify EPA's prior finding of failure to submit, nor did it reset the resulting two-year FIP clock under CAA section 110(c). As noted above, December 17, 2007,

[48] Letter from Stephen A. Owens, ADEQ, to Wayne Nastri, EPA (December 24, 2008). We have included a more detailed history of Arizona's submissions under 309 in the docket for this action.
[49] 74 FR 2392 ("2009 Finding").
[50] Id. at 2393.

was the final deadline for states to submit a complete RH SIP under 308 or 309. Accordingly, our January 2009 Finding covered both 308 SIPs and 309 SIPs. The fact that the 2009 Finding reflected Arizona's decision to submit 309 SIP in lieu of a 308 SIP does not relieve the State of its obligation to fulfill all of the requirements of the RHR (whether under section 308 or section 309) and does not relieve EPA of our FIP duty in the event that the State did not meet these requirements.

As explained above, EPA is subject to a consent decree (CD) that sets deadlines for us to promulgate a RH FIP and/or approve a RH SIP action for all of the states for which we missed the statutory deadline under CAA section 110(c). In Arizona's case, we repeatedly sought extensions to the CD in order to have sufficient time to adequately address all of the requirements of the RHR, though approval of the Arizona RH SIP wherever possible and promulgation of a FIP where necessary. Had we not agreed to the deadlines currently reflected in the CD, we would have had to demonstrate to the court that it would have been impossible to comply with the Plaintiff's proposed schedule.[51] Contrary to the commenter's assertion, these deadlines are neither inconsistent with the Act nor unduly accelerated. As explained above, the FIP clock for addressing requirements of the RHR ran out in January 2011. The CD effectively provides EPA with an extension of more than three years to meet that deadline.

We also note that, as a practical matter, ADEQ was informed of EPA's concerns with the 2011 RH SIP well in advance of our December 21, 2012, notice of proposed rulemaking. EPA provided comments on December 2, 2010, to ADEQ regarding the State's proposed version of the 2011 RH SIP, noting that the SIP "does not provide a sufficient level of information and analysis to support its conclusions" and setting out specific concerns with ADEQ's BART and

[51] See Sierra Club v. Johnson, 444 F.Supp.2d 46, 58 (D.D.C. 2006) ("this case devolves to a single issue: whether defendant has met the "heavy burden" of demonstrating that it would be impossible to comply with plaintiff's proposed schedule for the enactment of the remaining standards. . .").

RP analyses.[52] Nonetheless, when ADEQ submitted the 2011 RH SIP to EPA, the SIP did not contain revisions to address the majority of these comments.

With respect to the commenter's concern regarding the burden placed on regulated entities, we note that today's action does not establish any new requirements for any sources. If any new requirements were to apply to CalPortland or any other entity, they would be proposed as part of a FIP in a future notice-and-comment rulemaking. Finally, we note that ADEQ has submitted a Supplement that addresses a number of our proposed disapprovals, and we are approving much of that Supplement in today's action. Therefore, we do not agree that the State has had insufficient time to correct its SIP or that the timing of our action raises any due process concerns.

c. EPA's Final Rule Affecting Three BART Sources

***Comment*:** One commenter (Apache County) raised issues related to the BART determination for the Coronado Generating Station promulgated by EPA in the FIP for Phase 1. The commenter noted that "[t]hroughout the coming planning periods, Apache County wishes to be a coordinating agency and be fully apprised of all actions, hearings, plans, meetings and outcomes as the process moves forward."

Response: While we appreciate the commenter's interest in regional haze planning, this comment pertains to our rule for Phase 1, which was finalized on December 5, 2012, and became effective on January 4, 2013. We encourage the commenter to contact ADEQ in order to engage in consultation for future planning periods.

d. History of State Submittals and EPA Actions

Comment: ADEQ objected to EPA's decision to bifurcate its action on the Arizona RH SIP into two different phases, one for the application of BART to three of Arizona's major

[52] Letter from Colleen McKaughan, EPA, to Eric Massey, ADEQ (December 2, 2010).

power plants and a second action for addressing the remaining elements of the SIP. The commenter indicated that this approach has created problems for the State, as it might be forced to file two appeals with respect to its SIP, and has had to address one EPA decision on its SIP without knowing what EPA's later decision might require. While acknowledging that CAA section 110(k)(3) allows EPA to approve a plan revision in part and disapprove it in part, ADEQ contended that the language of the section plainly requires that action to apply to "the plan revision," not to selected pieces of the revision. ASARCO expressed support for ADEQ's position on this issue.

Response: We do not agree that we are required to act on Arizona's RH SIP in a single rulemaking action. As noted by the commenters, our action on Arizona's SIP is governed by, CAA section 110(k)(3), which provides that:

> In the case of any submittal on which the Administrator is required to act under section 110(k)(2), the Administrator shall approve such submittal as a whole if it meets all of the applicable requirements of this chapter. If a portion of the plan revision meets all the applicable requirements of this chapter, the Administrator may approve the plan revision in part and disapprove the plan revision in part. The plan revision shall not be treated as meeting the requirements of this chapter until the Administrator approves the entire plan revision as complying with the applicable requirements of this chapter.[53]

We disagree with ADEQ's assertion that this language addresses the question of whether EPA may consider different elements of a state's plan in separate notice and comment rulemakings. However, even assuming that this provision of the Act did limit EPA's ability to act sequentially on portions of a SIP submission, the provision of 110(k) that requires EPA to act on a submittal "as a whole" applies only if the submittal meets all of the applicable requirements of the CAA. As explained in our proposal and elsewhere in this document, we have determined that the State's plan does not meet all of the applicable requirements of the CAA. Under these

[53] 42 U.S.C. 7410(k)(3).

circumstances, we are clearly not obligated to act on the plan "as a whole," but are given discretion to act on distinct portions of the plan.[54]

We also do not agree that the bifurcation of our action on the Arizona RH SIP has placed an undue burden on the State. As explained elsewhere in this document, Arizona's 2011 RH SIP was submitted more than three years after the regulatory deadline and more than two years after EPA had found that Arizona had failed to submit a complete RH SIP. As a result, EPA is legally obligated under CAA section 110(c) to promulgate a FIP to address all requirements of the RHR that cannot be addressed through SIP approvals. Initially, we were subject to a court-ordered deadline of November 15, 2012, for addressing all aspects of the RHR via SIP approval or FIP promulgation.[55] We sought, but were unable to obtain, a negotiated extension of the deadline to address all of these elements. Rather than trying to meet the original deadline of November 15, 2012, for all elements of the plan, we agreed to address BART for three sources by this deadline,[56] while receiving an extension of the deadline to address the remaining elements. This extension provided ADEQ sufficient time to submit the RH SIP Supplement, which we are partially approving today. Had we not agreed to bifurcated deadlines, a supplemental SIP submittal would almost certainly not have been possible.

Comment: Citing CAA section 110(k)(1)(A) and (B), PCC asserted that, because EPA did not make a determination that the Arizona RH SIP failed to meet the minimum criteria within six months after it was submitted, the SIP was deemed by operation of law to meet the minimum criteria. The commenter stated that as a result, EPA's proposed disapproval of the State's reasonable progress analysis is invalid. PCC added that, if EPA had notified Arizona within the

[54] Hall v. EPA, 273 F.3d 1146, 1159 (9th Cir. 2001) (section 110(k)(3) "permits EPA to issue 'partial approvals,' that is, to approve the States' SIP revisions in piecemeal fashion").
[55] See National Parks Conservation Association v. Jackson (D.D.C. Case 1:11-cv-01548), Docket # 21, Partial Consent Decree (March 30, 2012).
[56] Although these BART determinations are part of the overall RH SIP they are also severable from that plan, since BART determinations are made on a source-by-source basis and are not dependent upon other elements of the plan.

required six-month timeframe that the 2011 RH SIP was administratively incomplete for failing to include four-factor analyses for non-BART sources of NO_x, the State would have responded with a supplemental submittal as envisioned by the Act.

Response: We agree that Arizona's 2011 RH SIP was deemed "complete" by operation of law under CAA section 110(k)(1)(B).[57] However, this completeness determination does not remove EPA's legal authority and obligation under CAA section 110(k)(3) to review the SIP for compliance with the requirements of the CAA and EPA's implementing regulations.[58] The completeness determination simply sets a deadline for EPA to complete this review and take action on the SIP under CAA section 110(k)(2).[59]

Contrary to the commenter's suggestion, the completeness criteria that the 2011 RH SIP has been deemed to meet by operation of law, are administrative and technical in nature and do not include a comprehensive list of the *substantive* provisions required for particular types of SIP revisions.[60] The substantive regulatory requirements applicable to Regional Haze SIPs are found at 40 CFR part 51, subpart P. It is these substantive requirements that we must consider in reviewing the SIP for approvability. Among these is the requirement that RPGs must be based on an analysis of the compliance, time necessary for compliance, energy and non-air quality

[57] 42 U.S.C. 7410(k)(1)(B).
[58] 42 U.S.C. 7410(k)(3) ("In the case of any submittal on which the Administrator is required to act under [110(k)(2)], the Administrator shall approve such submittal as a whole if it meets all of the applicable requirements of this chapter. If a portion of the plan revision meets all the applicable requirements of this chapter, the Administrator may approve the plan revision in part and disapprove the plan revision in part.").
[59] 42 U.S.C. 7410(k)(2) ("Within 12 months of a determination by the Administrator (or a determination deemed by operation of law) under [110(k)(1)] that a State has submitted a plan or plan revision . . . that meets the minimum criteria established pursuant to [110(k)(1)] . . . the Administrator shall act on the submission in accordance with [110(k)(3)]."
[60] See 40 CFR part 51, appendix V.

environmental impacts, and the remaining useful life of potentially affected sources.[61] The plan must also include documentation supporting this analysis.[62]

2. EPA's Evaluation of Visibility Conditions in Arizona's Class I Areas

Comment: CalPortland commented that EPA has been inconsistent and selective in its assessment of the State's 2018 emission inventory, 2018 RPGs and 2064 natural visibility conditions. According to the commenter, EPA proposed to find that the State's 2018 inventory is adequate, even though EPA mentions that the State's estimates are incorrect. The commenter asserted that to the extent that the State's emission inventory estimate did not properly account for the recession, EPA must determine, or ask Arizona to reassess, estimated emissions for 2018. CalPortland asserted that this is a significant issue because the extent to which the State overestimated 2018 emissions affects the need for, and the sufficiency of, any supplemental RP analysis.

CalPortland also indicated that the extent to which the State underestimated natural visibility conditions also affects the results of the State's RP analysis. The commenter stated that EPA's review of the State's extremely low estimates for natural visibility conditions is cursory and insufficient, particularly when compared to its review of the State's RP analysis. The commenter asserted that EPA cannot disapprove the State's RP analysis without also conducting a thorough review of the State's natural visibility conditions estimate.

Response: EPA disagrees with the commenter's assertion that our proposed actions on the State's 2018 emissions inventory, 2018 visibility projections and estimates of natural visibility conditions are inconsistent. These three elements of the Arizona RH SIP are subject to

[61] 40 CFR 51.308(d)(1)(i).
[62] 40 CFR 51.308(d).

distinct requirements under the RHR, and EPA's actions on each of these elements are consistent with these requirements.

With regard to the 2018 emissions inventory, RH SIPs must include "[a] statewide inventory of emissions of pollutants that are reasonably anticipated to cause or contribute to visibility impairment in any mandatory Class I Federal area" including "estimates of future projected emissions."[63] Thus, the RHR does not require exact precision for future emissions inventories, but rather *estimates* of future *projected* emissions. Arizona's 2018 inventory is sufficiently accurate to fulfill this requirement.

The commenter correctly noted that both the 2018 emissions inventory and the natural visibility conditions estimate impact the determination as to whether the State has met the URP by the end of the first planning period. However, the commenter appears to misunderstand the role of the URP under the RHR. The RHR requires that a state consider four factors when setting RPGs: costs of compliance, time necessary for compliance, energy and non-air quality environmental impacts, and the remaining useful life of potentially affected sources.[64] This requirement applies to all states with Class I areas, regardless of whether or not those areas are projected to meet the URP. The rule does require an additional demonstration based on the four factors, when the URP is not projected to be met,[65] but merely meeting the URP does not exempt the State from having to perform a four-factor analysis.[66]

Finally, EPA disagrees with the commenter's assertion that EPA's review of the State's natural conditions estimate was cursory and insufficient. The RHR provides that "[n]atural visibility conditions must be calculated by estimating the degree of visibility impairment existing

[63] 40 CFR 51.308(d)(4)(v).
[64] 40 CFR 51.308(d)(1)(i)(A).
[65] 40 CFR 51.308(d)(1)(ii).
[66] See, e.g. 77 FR 14604, 14621(March 12, 2012) ("The RHR and EPA's guidance for establishing RPGs do not provide that a State may forego an analysis of the four statutory factors if modeling demonstrates that it is expected to meet the URP in 2018 for . . . its Class I areas.").

under natural conditions for the most impaired and least impaired days, based on available monitoring information and appropriate data analysis techniques."[67] EPA has reviewed the State's natural conditions estimate in relation to this requirement. As mentioned in Section VI.B of the December 21, 2012, proposed action, Arizona used the natural conditions estimates developed by the Western Regional Air Partnership (WRAP) for the western states. A description of EPA's thorough review of the WRAP methodology may be found in the WRAP TSD.[68]

Comment: ADEQ noted that EPA proposed to disapprove the emissions inventory element of the 2011 RH SIP on the grounds that it does not include the most recent inventory available and that it is working on a SIP revision to cure this deficiency.

Response: EPA acknowledges ADEQ's efforts in submitting a SIP revision that includes the most recent inventory. That inventory was submitted to the Agency on May 3, 2013 as part of the Supplement. Our evaluation of the inventory may be found in our May 20, 2013, proposed action. We find that the Arizona RH SIP now meets the requirement for inclusion of the most recent emission inventory.

3. EPA's Evaluation of Arizona's BART-Eligibility Determinations

a. Cholla Unit 1

Comment: One commenter (APS) expressed agreement with EPA's proposal to approve ADEQ's determination that the commenter's Cholla Unit 1 is not BART-eligible because it was placed into commercial operation before August 7, 1962. The commenter attached supporting documentation to the comments.

Response: We agree that Cholla Unit 1 is not BART-eligible.

[67] 40 CFR 51.308(d)(2)(iii).
[68] "Technical Support Document for Technical Products prepared by the Western Regional Air Partnership in Support of Western Regional Haze Plans," Final, February 2011 (WRAP TSD).

b. Sundt Unit 4

Comment: Two commenters (Earthjustice, NPS) supported EPA's proposal to disapprove the State's determination that Sundt Unit 4 is not BART-eligible, arguing that Sundt Unit 4 is BART-eligible despite a 1987 coal-conversion reconstruction because it never underwent New Source Review/Prevention of Significant Deterioration (NSR/PSD) review as part of the reconstruction. Earthjustice and NPS further asserted that Sundt Unit 4 causes and contributes to visibility impairment and is therefore subject to BART.

In contrast, TEP and ADEQ argued that Sundt Unit 4 is not BART-eligible because it was reconstructed in 1987 and the BART Guidelines specify that "any emissions unit for which a reconstruction 'commenced' after August 7, 1977, is not BART-eligible."[69] Citing *New Jersey v. EPA*,[70] the commenters asserted that in the context of the Act, the word "any" has an expansive meaning. TEP and ADEQ further stated that the footnote in the preamble to the BART Guidelines that EPA cited to support its proposed disapproval simply reflected the reality that post-1977 source reconstructions in most cases would have gone through NSR/PSD permitting.[71] They also contended that while it is generally true that BART was intended to apply to sources that had been grandfathered from NSR/PSD permitting requirements, it does not follow that BART applies to all grandfathered sources.

TEP also noted that, while Appendix Y is not binding on Arizona with respect to Sundt Unit 4, EPA encouraged states to follow the BART Guidelines. TEP asserted that it is arbitrary and capricious for EPA to claim it can ignore the BART Guidelines in reviewing a particular

[69] Citing 40 CFR part 51, appendix Y, section II.A.2.
[70] 517 F.3d 574, 582 (D.C. Cir. 2008).
[71] The footnote in the preamble to the BART Guidelines is located at 70 FR 39111, footnote 9, and stated that "sources reconstructed after 1977, which reconstruction had gone through NSR/PSD permitting, are not BART-eligible." EPA cited this footnote in the preamble for the present action at 77 FR 75722.

SIP, given that the BART Guidelines are the means by which EPA intends to ensure that consistency is maintained across the states.

Response: We do not agree with ADEQ and TEP that we ignored the BART Guidelines in finding Sundt Unit 4 to be BART-eligible. On the contrary, we carefully considered the BART Guidelines' statement that, "any emissions unit for which a reconstruction 'commenced' after August 7, 1977, is not BART-eligible."[72] We further noted that:

> This language in the Guidelines, read in isolation, seems to indicate that *any* reconstruction commenced after August 7, 1977 exempts a source from BART eligibility. However, the BART Guidelines are not binding with respect to TEP Sundt Unit 4 because it is not part of a fossil fuel-fired electric generating plant with a total generating capacity in excess of 750 MW. The Guidelines still provide important guidance, but must be considered in the context of the relevant statutory and regulatory provisions, none of which even refer to such an exemption for post-1977 reconstructions.[73]

Therefore, we considered the BART Guidelines in conjunction with the applicable statutory and regulatory requirements. Based on our review of these requirements, we found that:

> . . . given that the Guidelines are not mandatory for TEP Sundt, and that no binding statutory or regulatory provision provides for such a post-1977 reconstruction exemption, it is appropriate to read this exemption narrowly. An interpretation of "BART-eligible" as including reconstructed sources that did not go through NSR/PSD permitting is also consistent with Congressional intent and with EPA's intent in promulgating the relevant regulations. . . .[74]

We are not persuaded by the commenters' assertions that we should read the reconstruction exemption more broadly because the relevant sentence in the BART Guidelines uses the word "any." While we agree that the word "any" generally has an expansive meaning, this expansiveness applies with equal force to the regulatory definition of "existing stationary facility" as "*any* of the following stationary sources of air pollutants, *including any* reconstructed source, which was not in operation prior to August 7, 1962, and was in existence on August 7,

[72] BART Guidelines § II.A.2.
[73] Memorandum to Docket Regarding TEP Sundt Unit 4 – BART Eligibility (Nov. 21, 2011)[hereinafter "Sundt Memorandum] at 4 (internal citations omitted).
[74] *Id.* at 5.

1977 . . ."[75] The use of the word "any" modifying both "stationary source" and "reconstructed source" indicates that EPA intended to include all such sources within the definition of "existing stationary facility" (and hence the definition of "BART-eligible source"). To the extent that the reconstruction exemption provided by the BART Guidelines is inconsistent with this definition, it is the regulatory definition, not the BART Guidelines, which is binding on states and EPA.

The BART Guidelines must also be read in the context of Congressional intent with regard to the visibility requirements of the CAA and EPA's visibility regulations. When EPA promulgated our initial visibility regulations in 1980, we explained our view that "a source either is new (i.e., subject to PSD) or existing (subject to BART) and *that it cannot be neither*."[76] Consistent with this interpretation, we defined the term 'in existence' for purposes of visibility protection, "to assure, as Congress intended, that a major stationary source be subject to BART under [CAA section] 169A as an existing source, or to PSD as a new source."[77]Similarly, when EPA promulgated the BART Guidelines, we noted that "sources reconstructed after 1977, which reconstruction had gone through NSR/PSD permitting, are not BART-eligible." We read this statement to mean that EPA intended for the reconstruction exemption to apply only to sources that went through NSR/PSD permitting. Like the Guidelines themselves, this preamble language is not binding with respect to TEP Sundt, but it still provides important guidance as to how EPA interprets the applicable statutory and regulatory provisions. If EPA had intended for the reconstruction exemption to apply to all sources reconstructed after 1977, there would have been no reason to include the clause "which reconstruction had gone through NSR/PSD permitting."

[75] 40 CFR 51.301 (emphasis added). As noted in the Sundt Memorandum, the "reconstruction" provision of the definition was intended "to ensure that sources reconstructed between 1962 and 1977 were included in the definition of BART-eligible sources. Neither the text nor the preamble to this regulation refers to an exemption for sources reconstructed *after* August 7, 1977.
[76] Summary of Comments and Responses on the May 22, 1980, Proposed Regulations for Visibility Protection for Federal Class I Areas, page 225.
[77] *Id.*

Thus, Congress did not intend and EPA does not read the RHR or BART as allowing a source to use reconstruction as a way to circumvent both BART and PSD review and thereby not address the source's effect on visibility in any fashion. Accordingly, while we acknowledge that the BART Guidelines provide an exemption from BART-eligibility for sources reconstructed after August 7, 1977, we find that this reconstruction exemption does not apply to Sundt Unit 4. Therefore, we are finalizing our disapproval of ADEQ's determination that Sundt Unit 4 is not BART-eligible. Since our action today is limited to the Arizona RH SIP, we are not making a determination on whether TEP Sundt Unit 4 is subject to BART. We expect to address this issue in a partial FIP, which will be the subject of a future rulemaking.

Comment: Two commenters (Earthjustice and NPS) who assert that Sundt Unit 4 is subject to BART provided comments on appropriate BART controls.

Response: We have not proposed BART determinations for any pollutants for Sundt Unit 4, but proposed disapproval of the State's finding that Sundt Unit 4 is not BART-eligible. We acknowledge the information provided by the commenters, and will examine it, along with similar information provided by other commenters on this issue, as we work toward developing and proposing a FIP for those elements of the Arizona RH SIP that we do not approve.

c. Hayden Smelter

Comment: Earthjustice requested that EPA analyze the BART eligibility of all the emission units at the Hayden Smelter and support its independent analysis with documents demonstrating when the smelter's units began operations. The analysis should include all available operating records for the relevant time periods and all CAA construction and operating permits issued to the smelter. The commenter also requested that EPA post all relevant documentation to the docket and allow the public to comment on EPA's determination.

Response: ADEQ relied upon a combination of information contained in the current Title V permit, with additional information provided by the facility, to make its determination regarding which units constitute the BART-eligible source. Based upon our review of the information provided by the facility[78] as well as our review of the Title V permit, we consider ADEQ's determination regarding BART-eligible units to be reasonable.[79] ADEQ included information revising the scope of BART-eligible sources at the Hayden Smelter as part of the Arizona RH SIP Supplement submitted on May 3, 2013. We proposed to approve this determination in our May 20, 2013 notice of proposed rulemaking on the SIP supplement, and are finalizing that proposed approval in today's action.

d. Miami Smelter

Comment: FMMI asserted that EPA did not properly identify the BART-eligible emissions units at the Miami Smelter. According to FMMI, the 2011 RH SIP identified the converters, the Remelt Vessel and the acid plant as potentially BART-eligible, while Table 11 in the proposal preamble incorrectly listed "Converters 1-5, Anode Furnace, Shaft Furnace, Fugitives" as BART-eligible.

FMMI also stated that, based on an independent review of its records, the Remelt Vessel should not be considered BART-eligible because it commenced operations before 1962. Although the estimated SO_2 emissions from the Remelt Vessel are less than two tons per year and therefore relatively insignificant, the commenter requested that the EPA remove the Remelt Vessel as part of the necessary corrections to the emissions units that comprise the Miami Smelter BART-eligible source.

[78] See Docket Item H-09, which contains the 1948 purchase order for Converter No. 2.
[79] See ADEQ Title V Permit 10042, Attachment C "Equipment List", which contains equipment installation dates.

Response: The Arizona RH SIP Supplement submitted on May 3, 2013, included this revision to the list of units comprising the BART-eligible source at the FMMI Miami Smelter. In our May 20, 2013 proposed rulemaking on the Supplement, we proposed approval of this element. As part of today's action, we are finalizing our proposed approval of the revised set of BART-eligible units.

4. EPA's Evaluation of Arizona's Subject-to-BART Analyses and Determinations

a. Contribution Threshold

Comment: Six commenters stated that EPA should approve ADEQ's use of the 0.5 dv threshold as proposed. Commenters emphasized the discretionary nature of the threshold selection and noted that EPA has approved other states' use of a 0.5 dv threshold. Some of the commenters also contended that EPA's discussion of the BART-eligible sources in proximity to Class I areas makes clear that there is no basis for choosing a threshold lower than 0.5 dv because lower thresholds would subject at most one or two additional sources to BART.

LNA also commented that EPA appears to question the reasonableness of the threshold because the modeled impacts of the Nelson Lime Plant were very close to the threshold. The commenter asserted that this is not a legitimate reason to question the reasonableness of this threshold or any threshold. The commenter stated that, just as is true for dispersion modeling to determine compliance with NAAQS and for stack testing to determine compliance with emission limits, a modeled impact is either above or below the threshold with no further assessment as to the degree to which the value is above or below the threshold.

Response: Arizona set a 0.5 dv as the threshold for determining whether a source "contributes" to visibility impairment. The BART Guidelines state that ''[as] a general matter, any threshold that you use for determining whether a source 'contributes' to visibility

impairment should not be higher than 0.5 deciviews.[80] In setting a threshold, states should consider the number of BART-eligible sources within the state and the magnitude of each source's impacts.[81] ADEQ did not provide a rationale for choosing 0.5 dv as the threshold for determining BART eligibility. In our December 21, 2012 proposal, we examined whether there was any evidence that a lower threshold was justified.[82] Based on our analysis of the possible implications of a lower threshold, we proposed to approve ADEQ's threshold, but sought comment on whether it the threshold was reasonable.

In our proposal of December 21, 2012, we noted that the source with a modeled impact closest to the 0.5 dv threshold is the Nelson Lime Plant. As explained elsewhere in today's notice, we have determined that Nelson Lime Plant is subject to BART. Setting the threshold as low as 0.3 dv would only subject two additional sources to BART and those sources have their maximum impact at different Class I areas.[83] Based on this analysis and the comments received, EPA finds that a subject-to-BART threshold of 0.5 dv is reasonable. Therefore, we are approving this threshold.

Comment: Earthjustice urged EPA to disapprove the 0.5 dv threshold and set a lower threshold for Arizona in the final rule. Earthjustice stated that ADEQ's 0.5 dv contribution threshold ignores all cumulative visibility impacts, with the consequence that (if approved) a source that is just under the contribution threshold – such as the Nelson Lime Plant – may have a cumulative visibility impact of over 2 dv or more but not be subject to BART. The commenter asserts that EPA has rightfully recognized the importance of analyzing cumulative visibility impacts when making BART determinations in Arizona (citing the proposed and final Phase 1 rule). The commenter asserted that EPA would be acting inconsistently with its prior actions if it

[80] BART Guidelines, 40 CFR part 51, appendix Y, section III.A.1.
[81] Id.
[82] 77 FR 75722.
[83] Ibid.

now approves a contribution threshold that isolates the analysis to one Class I area, while excluding impacts to other Class I areas. The commenter noted that Arizona did not explain why its 0.5 dv contribution threshold was reasonable, and concluded on this basis that EPA owes no deference to the State's unsupported threshold. In addition, Earthjustice noted that the Arizona RH SIP does not come close to making reasonable progress toward the 2064 natural visibility goal, so significant additional emissions reductions are needed. Finally, Earthjustice questioned the modeling ADEQ relied on in exempting several BART-eligible sources under the 0.5 dv threshold. Consequently, the commenter requested that EPA independently evaluate and rerun ADEQ's modeling.

Response: EPA shares the commenter's concerns about the importance of reducing visibility impairment at Arizona's Class I areas and ensuring that reasonable progress is being made toward eliminating human-caused impairment at these important areas. However, the BART requirement is intended to address a particular set of sources that are of a certain age and "which may reasonably be anticipated to cause or contribute to any impairment of visibility" in any mandatory Class I area.[84] A source that is not subject to BART is not necessarily free from the requirement to reduce emissions. It must be considered in the RP analysis in this and subsequent planning periods.

As explained in the preceding response, EPA has found that conditions in Arizona do not justify a threshold lower than 0.5 dv. Therefore, we are approving the State's decision to set a threshold of 0.5 dv when determining if a source is subject to BART. EPA disagrees with the commenter's assertion that cumulative impacts must be considered when determining if a source is subject to BART. A source might have very small impacts across many Class I areas, but not "contribute," within the meaning of the CAA and RHR, to visibility impairment at any one of

[84] CAA section 169A(b)(2)(A), 42 U.S.C. 7491(b)(2)(A).

them. Therefore, EPA does not agree that a cumulative analysis is required for purposes of determining whether sources are subject to BART.

By contrast, once a source has been found subject to BART, a complete five-factor analysis is required. One of the five factors that must be considered is "the degree of improvement in visibility which may reasonably be anticipated to result" from implementation of controls. If modeling indicates that controls will significantly benefit multiple Class I areas, those benefits should be considered as part of this visibility improvement factor.[85] However, such an evaluation of potential visibility benefits is only required once a source has been found to cause or contribute to visibility impairment at one or more Class I areas based upon the threshold selected by the state or EPA in accordance with the BART Guidelines.

In response to the commenter's request that we independently evaluate and rerun ADEQ's modeling, we note that, for purposes of determining whether individual sources were subject-to-BART, ADEQ relied upon modeling either performed by the by the WRAP Regional Modeling Center (RMC) or performed in accordance with the modeling protocol developed by the RMC ("CALMET/CALPUFF Protocol for BART Exemption Screening Analysis for Class I Areas in the Western United States"). EPA's review of this protocol may be found in the WRAP TSD.[86] The commenter has not raised any specific concerns with this protocol or its use for BART-eligible sources in Arizona. Accordingly, it is not necessary or appropriate for EPA to rerun all of the modeling underlying the Arizona RH SIP. Issues related to the interpretation of modeling results for specific sources are addressed further below.

b. Nelson Lime Plant

[85] See e.g., 77 FR 72519.
[86] "Technical Support Document for Technical Products Prepared by the Western Regional Air Partnership in Support of Western Regional Haze Plans", Final, February 2011 (WRAP TSD).

***Comment*:** Two commenters (Earthjustice and NPS) expressed support for EPA's proposal to disapprove the State's determination that the Nelson Lime Plant is not subject to BART. Two other commenters (LNA and ADEQ) opposed the proposal. The two supportive commenters both argued that it was inappropriate for the State to use the three-year average impact rather than the PSD-style method of looking at each year individually, which would have resulted in a finding of contribution (0.624 dv in 2003). Earthjustice also asserted that the State's adoption of a contribution threshold for the regional haze program that is less stringent than the federal land managers' (FLMs) methodology under the PSD program is inappropriate and unreasonable because the regional haze program's primary purpose is to protect and improve visibility at Class I areas, while visibility impacts at Class I areas are just one of a much broader array of air quality issues addressed by the PSD program.

NPS also conducted modeling, using the same emissions inputs as were used by the facility in its own modeling, but included condensable PM_{10} emissions and used the best 20 percent of days for natural background. NPS's modeling showed an impact on the 98th percentile highest day greater than 0.50 dv for both 2002 and 2003. The NPS results showed an average 98th percentile impact of 0.684 dv, which is well above the 0.5 dv threshold. Based on this analysis, NPS asserted that the Nelson Lime Plant is subject to BART.

In contrast, ADEQ and LNA argued that EPA does not have the authority to decide which approach to determining BART applicability is the most reasonable. ADEQ contended that EPA can point to no provision of the CAA or the applicable rules that is violated by the State's determination (1) to use three-year averages or (2) not to round up the 0.498 dv impact for the facility. LNA similarly stated that the BART Guidelines are not binding and that EPA has stated that average and merged values are both unbiased estimates of the true 98th percentile

impacts. Based on these arguments, LNA asserted that the State's decision to use the 3-year average of the 98th percentile impacts is both reasonable and appropriate.

LNA and ADEQ also argued that the use of the 3-year average for comparison to the 0.5 dv threshold is justified because it is in line with other regulatory programs involving compliance thresholds, such as determining compliance with many NAAQS on the basis of three-year averages. ADEQ added that the FLM guidance on which EPA relies uses one-year modeling results as a screening level for further scrutiny of the applicant's proposal, not a threshold for action.

Finally, LNA cited recent additional modeling performed by LNA using the same CALMET meteorological inputs used by EPA Region 9 in other haze FIP modeling and the revised Interagency Monitoring of Protected Visual Environments (IMPROVE) equation, and reported that the resulting three-year average 98th percentile impact at the Grand Canyon was only 0.424 dv, which is well below the 0.5 dv threshold. This would make the rounding issue moot.

Response: As an initial matter, we wish to emphasize that the purpose of the 0.5 dv threshold is to screen out those BART-eligible facilities that may not reasonably be anticipated to cause or contribute to visibility impairment at any single Class I area. The subject-to-BART determination is not a decision to require air pollution controls; it is a screening step that states may take to determine if further analysis is required.[87]

EPA acknowledges the supportive comments from Earthjustice. However, as explained above, states are not required to consider cumulative baseline visibility impacts when

[87] Under the BART Guidelines, States are permitted to require a five-factor BART analysis for all BART-eligible sources without conducting this initial screening. 40 CFR pt. 51, appendix Y, section II ("Once you have compiled your list of BART-eligible sources, you need to determine whether (1) to make BART determinations for all of them or (2) to consider exempting some of them from BART because they may not reasonably be anticipated to cause or contribute to any visibility impairment in a Class I area.").

determining if a source is subject to BART. We agree with the State that the maximum impact on the most affected Class I area is the appropriate parameter to use for screening out sources that do not cause or contribute to visibility impairment.

EPA also acknowledges the additional modeling work completed by the NPS. We agree that it is appropriate to include condensable PM when modeling visibility impacts from BART-eligible facilities. The results provided by the NPS support EPA's conclusion that it is appropriate to conduct a full BART analysis for this facility. We also agree with the NPS that the method used by the State (averaging the 98th percentile impacts of the three years instead of selecting the highest impact), is not how the threshold is typically applied and is less stringent than the FLM's preferred approach.

EPA disagrees with ADEQ's assertion that the modeling for the Nelson Lime Plant shows that the source is not causing or contributing to visibility impairment. ADEQ set the threshold at 0.5 dv, a decision with which EPA agrees for reasons explained in section IV.A.4.a above. It's unlikely that the modeling could provide a result that is precise to 1/1000th of a deciview. To say that an estimate of 0.498 dv is definitively less than 0.5 dv overburdens the modeling results. In addition, averaging the 98th percentile impacts across the three years is not the standard approach and is less conservative than the FLM-recommended approach of selecting the highest impact from among the annual 98th percentile results.

It should be noted that EPA is not making a finding that a specific control technology or any controls at all are required to satisfy BART in this case. We are finding that further analysis is needed, based on the fact that the average of the 98th percentile impacts is conceivably within the margin of error of the results, and that the highest of the three 98th percentile impacts is above the threshold. We are also finding that the commenters' arguments in favor of a three-year average are not persuasive, especially given the screening nature of the subject-to-BART test.

EPA's position is that the highest 98th percentile impact is more appropriate for this test. EPA disagrees with ADEQ's characterization of a subject-to-BART determination being a threshold for action. It is screen to determine if further analysis is needed. Any regulatory requirements on the source would be the result of this full BART analysis. The subject-to-BART determination does not automatically result in additional requirements for the source.

Regarding LNA's additional modeling, it is not clear what emissions inputs or natural background conditions were used. EPA cannot evaluate results without complete information on the inputs. Also, individual year results were not provided, so it only addresses the rounding issue, since the single highest year 98th percentile criterion cannot be evaluated. Given the omission of condensables in the LNA modeling, and the lack of documentation of the model inputs and outputs, EPA does not consider LNA's results to be persuasive in showing that the source clearly does not contribute to visibility impairment.

Comment: Three commenters (LNA, Earthjustice, and NPS) responded to EPA's request for comments on whether there are cost-effective pollution controls for the Nelson Lime Plant. LNA, the owner of the plant, stated that the plant uses state-of-the-art baghouse controls to control particulate emissions from both kilns at the plant and that there are no gaseous emission controls at the plant.

Earthjustice stated that EPA's partial FIP must include a BART determination for Nelson Lime Plant. The commenter indicated that lime plants across the nation have successfully employed various pollution controls to reduce emissions, including Selective Catalytic Reduction (SCR) for NO_x, wet scrubbers for SO_2, and fabric filters for PM. The commenter opined that many of these controls will likely be cost-effective at the facility and will result in significant emissions reductions and visibility benefits compared to the existing controls.

NPS requested that, upon finding the Nelson Lime Plant is subject to BART, EPA should make a complete BART analysis available for public review and comment.

Response: EPA acknowledges the information on air pollution controls provided by LNA and Earthjustice. We plan to provide a complete BART analysis for review and comment in our upcoming FIP proposal.

c. Rillito Cement Plant

Comment: One commenter (CalPortland) agreed with EPA's proposed approval of the determination that the Rillito Cement Plant does not contribute to visibility at any Class I area and is therefore not subject to BART. The commenter noted that the Arizona RH SIP relied on modeling conducted by WRAP's RMC to determine that the average visibility impact from Rillito at Saguaro National Park is 0.4 dv (citing Table 10 in the proposal).

Response: As shown in Table 10 of our December 21, 2012, proposal, according to the WRAP RMC BART Modeling Results for Arizona, Kiln 4 at the Rillito Cement plant has a maximum 98th percentile impact of 0.48 dv at the Saguaro National Monument. This is below the 0.5 dv threshold that ADEQ used to determine which sources are subject to BART. As explained in section IV.A.4.a above, we are approving the use of that threshold. Therefore, we are finalizing our approval of the State's determination that the Rillito plant is not subject to BART.

d. Hayden Smelter

Comment: ADEQ agreed that it had erred in applying a 250 tpy threshold for PM_{10}, and noted that the correct threshold for PM_{10} is 15 tpy under 40 CFR 51.308(e)(1)(ii)(C), but asserted that EPA erred in proposing to apply the 15 tpy threshold to the aggregate PM_{10} emissions from all the BART-eligible sources at the smelter. Citing the definitions of "BART-eligible source," "existing stationary source," "stationary source," "building, structure or facility," and

"installation" in 40 CFR 51.301, the commenter asserted that each identifiable piece of process equipment at the Hayden Smelter constitutes a separate BART-eligible source and the 15 tpy PM_{10} threshold applies to each such piece of equipment individually. ADEQ also noted that the aggregate potential to emit (PTE) for PM_{10} at the Hayden Smelter is 70 tpy, and therefore the average PTE for each BART-eligible unit is less than 15 tpy. The commenter asserted that at least some of the BART-eligible units at the plant must be exempt from BART on this basis.

Response: We disagree with the commenter's assertion that, at the Hayden Smelter, the "BART-eligible source" can be defined at the equipment level for the purpose of exempting emission units from BART. In the Arizona RH SIP Supplement, ADEQ reiterated the position set forth in this comment. As part of our notice of proposed rulemaking on May 20, 2013, we explained why this position is inconsistent with the RHR and proposed to disapprove ADEQ's determination that the Hayden Smelter is not subject to BART for PM_{10}.[88] As part of today's action, we are finalizing our proposed disapproval of this element from both our proposals dated December 21, 2012, and May 20, 2013.

We also note, however, that despite its determination that the Hayden Smelter is not subject to BART for PM_{10}, ADEQ also included in its May 3, 2013, Supplement, a PM_{10} BART determination for the Hayden Smelter indicating that no additional controls were required as BART. We proposed to approve this determination in our May 20, 2013, notice of proposed rulemaking on the Supplement, and are finalizing that proposed approval in today's action.

Comment: One commenter (Earthjustice) agreed with EPA's proposed disapproval of ADEQ's determination that a BART analysis is not required at the Hayden Smelter for PM_{10}. Two other commenters (ADEQ and ASARCO) disagreed with the proposed disapproval.

[88] 77 FR 29302.

Earthjustice pointed out that the State incorrectly exempted this smelter from BART based on PM_{10} emissions of less 250 tpy when the correct exception threshold for PM_{10} was 15 tpy once the facility had been found to be BART-eligible and subject to BART for SO_2. In contrast, ADEQ and ASARCO asserted that, despite the incorrect application of a 250 tpy threshold, the Hayden Smelter is not subject to BART for PM because its projected visibility impairment impacts are too low to warrant a BART analysis. ADEQ contended that a BART determination is not required for every pollutant emitted in amounts exceeding the exemption levels in 40 CFR 51.308(e)(1)(ii)(C).

ASARCO added that the CALPUFF model inputs used for the Hayden Smelter in the WRAP's visibility analysis were the facility's PTE values rather than high utilization emissions rates as required under the BART Guidelines. ASARCO therefore recalculated the CALPUFF model inputs using what the commenter characterized as the approach set forth in the BART Guidelines and provided the results of its revised modeling. Based on these results, ASARCO concluded that PM emissions from the Hayden Smelter are a *de minimis* contributor to visibility impairment.

Response: Based on the visibility results provided by ASARCO, we agree that the visibility impact of particulate emissions from the Hayden Smelter is below 0.50 dv. However, under the RHR, the determination of whether a source causes or contributes to visibility impairment is not made on a pollutant-by-pollutant basis.[89] Rather, as explained in the BART Guidelines, states must "look at SO_2, NO_x, *and* direct PM emissions in determining whether sources cause or contribute to visibility impairment . . ."[90] As indicated in the Arizona RH SIP,

[89] See 40 CFR 51.308(e)(1)(ii) (requiring a BART determination "for each BART-eligible source in the State that emits *any* air pollutant which may reasonably be anticipated to cause or contribute to *any* impairment of visibility in any mandatory Class I Federal area.").
[90] 40 CFR part 51, appendix Y, section III. A.2, "What Pollutants Do I Need To Consider?" (emphasis added).

when all of these emissions are accounted for, the Hayden Smelter has a total visibility impact greater than 0.50 dv, and is therefore subject to BART.

Once a source is determined to be subject to BART, the RHR allows for the exemption of a specific pollutant from a BART analysis only if the PTE for that pollutant is below a specified *de minimis* level.[91] Although a small pollutant-specific baseline visibility impact may be informative in determining what control option may be BART, a BART analysis is still required for any pollutant with a PTE that exceeds the *de minimis* threshold at an otherwise subject-to-BART source. As explained in the preceding response, the PTE for PM_{10} from the BART eligible units at the Hayden Smelter exceed the *de minimis* threshold of 15 tpy. Therefore, a BART analysis for PM_{10} is required.

Comment: ASARCO agreed with EPA's evaluation that the Hayden Smelter is not subject to BART for NO_x. The commenter concurred that a BART determination is not needed for NO_x emissions, which according to the commenter are less than 40 tpy. ASARCO also indicated, based on the modeling analysis presented in the previous comment, that the Hayden Smelter's visibility impacts from NO_x emissions are at most 0.01 dv and may be effectively zero. The commenter concluded from this that Hayden's NO_x emissions are not subject to BART because CAA section 169A(g)(2) mandates that the reviewing agency consider the degree of improvement in visibility that may reasonably be anticipated from the use of BART. The commenter also stated that if a BART analysis is undertaken, the commenter agrees with the conclusion in the State's RH SIP that no NO_x controls are available for primary copper smelting converter and anode furnace operations; the commenter contended that this conclusion is as applicable to BART as it was to reasonable progress goal determination.

[91] 40 CFR 51.308(e)(1)(ii)(C). This provision was promulgated at the same time as the BART Guidelines. 77 FR 39104, 39156 (July 6, 2005).

Another commenter (Earthjustice) asserted to the contrary that EPA should disapprove ADEQ's BART determination and independently determine whether the Hayden Smelter is subject to BART for NO_x. The commenter stated that there is no discussion in the 2011 RH SIP or the proposal preamble of why this smelter is not subject to BART for NO_x, which the commenter finds unjustified and unreasonable. According to the commenter, the Hayden Smelter emits 80 tpy of NO_x based on the same WRAP modeling document relied on by EPA as the source for NO_x emissions data for the Miami Smelter. Because this is well in excess of the 40 tpy exception threshold for NO_x, the commenter requested that EPA independently determine whether the Hayden Smelter is subject to BART for NO_x and include a NO_x BART determination in the proposed FIP.

Response: As part of our proposed rulemaking on December 21, 2012, we proposed to approve ADEQ's determination that a BART analysis was not required for NO_x at the Hayden Smelter. As noted by Earthjustice, the total NO_x emission rate used by WRAP in determining the baseline NO_x visibility impact was 2.27 grams/second (g/s). This modeled emission rate, when converted to tons/year based on 8,760 hours/year of operation, equals 78.9 tpy.

Since this estimate is based on continuous operation of the BART eligible source at 2.27 g/s, we consider this to be an overly conservative estimate of NO_x PTE given the batch nature of the operations at the Hayden Smelter. However, in our review of the Hayden Smelter's current Title V permit and the Arizona RH SIP, we were unable to identify any physical or operational limitations that would limit the PTE of the BART-eligible source below the NO_x *de minimis* threshold of 40 tpy. Although the baseline NO_x visibility impact is below 0.50 dv, we note that, as explained in the response to a comment regarding PM_{10} emissions from the Hayden Smelter, once a facility is determined to be subject to BART, the RHR allows for the exemption of

specific pollutants from a BART analysis only if they are below specified *de minimis* levels.[92] As a result, we are today finalizing disapproval of ADEQ's determination that a BART determination is not required for NO_x at the Hayden Smelter.

e. Miami Smelter

Comment: ADEQ agreed that it had erred in applying a 250 tpy threshold for NO_x, and noted that the correct threshold for NO_x is 40 tpy under 40 CFR 51.308(e)(1)(ii)(C). However, ADEQ asserted that each BART-eligible unit at the smelter constitutes a separate BART-eligible source under the RHR and that EPA therefore erred in proposing to apply the 40 tpy threshold to the aggregate NO_x emissions from all the BART-eligible units at the smelter. ADEQ also noted that the aggregate PTE for NO_x at the Miami Smelter is 158 tpy, and therefore the average PTE for the BART-eligible sources is less than 40 tpy. The commenter asserted that at least some of the BART-eligible sources at the plant must be exempt from BART on this basis.

Response: As noted in a previous response to a similar comment about the ASARCO Hayden Smelter, we disagree with the commenter's assertion that the "BART-eligible source" can be defined at the equipment-level. When determining if a subject-to-BART source can be exempted from a BART analysis for a particular pollutant, the total emissions of that pollutant from all units that comprise the BART-eligible source must be compared to the *de minimis* threshold.

ADEQ reiterated in its RH SIP Supplement submitted on May 3, 2013, that the Miami Smelter was exempt from a NO_x BART determination. As discussed in our May 20, 2013, notice of proposed rulemaking on the RH SIP Supplement, we proposed disapproval of this element. As

[92] 40 CFR 51.308(e)(1)(ii)(C). This provision was promulgated at the same time as the BART Guidelines. 77 FR 39104, 39156 (July 6, 2005).

part of today's action, we are finalizing our proposed disapproval of this element from both our December 21, 2012, and May 20, 2013, proposals.

Comment: Earthjustice agreed with EPA's proposed disapproval of the State's determination that BART is not required for NO_x emissions from the Miami Smelter. Two FMMI and ADEQ took the opposite position, contending that EPA is mistaken if it based its proposed disapproval on the position that a BART determination is mandatory for any emissions of a visibility-impairing pollutant that exceed the exemption threshold. Instead, the commenters asserted that a BART determination is required only when the emissions are reasonably anticipated to cause or contribute to visibility impairment in a Class I area which, at a modeled impact of 0.11 dv, the commenters asserted is not the case for NO_x emissions from the Miami Smelter.

Response: Based on the visibility results provided by the commenters, we agree that the visibility impact of NO_x emissions from the Miami Smelter is below 0.50 dv. However, as explained in response to a similar comment regarding PM_{10} emissions from the Hayden Smelter, once a facility is determined to be subject to BART, the RHR allows for the exemption of specific pollutants from a BART analysis only if they are below specified *de minimis* levels.[93] Although a small pollutant-specific baseline visibility impact may be informative in determining what control option may be BART, a BART analysis is still required for any pollutant that exceeds the *de minimis* threshold at an otherwise subject-to-BART source. Emissions of NO_x from the BART-eligible units at Miami exceed the *de minimis* threshold of 40 tpy. Therefore, we are finalizing our proposed disapproval of ADEQ's determination that the Miami Smelter is exempt from BART for NO_x.

[93] *Id.*

Comment: FMMI asserted that even if the Miami Smelter is subject to BART for NO_x, the State effectively conducted a streamlined BART determination in its RP analysis and concluded that existing controls constitute BART. According to the commenter, the State recognized that the Miami Smelter holds a PSD permit that contains Best Available Control Technology (BACT) limits for NO_x. FMMI added that the State considered the costs of compliance, time necessary for compliance, energy and non-air quality impacts of compliance and remaining useful life of Arizona's copper smelters, and concluded that no additional NO_x controls were retrofit options for this source category.

Response: We partially agree with this comment. We agree with the commenter's assertion that several elements of ADEQ's RP analysis for the copper smelters are potentially relevant and could inform a BART determination. However, neither the 2011 RH SIP nor the Supplement contained or identified a NO_x BART analysis for the Miami Smelter. As a result, we are not able to approve a streamlined NO_x BART determination of no additional controls.

Comment: FMMI also included a five-factor NO_x BART analysis in its comments. The commenter indicated that the BACT analysis for NO_x conducted in support of the Miami Smelter's 1997 PSD permit eliminated combustion modifications and selective non-catalytic reduction (SNCR) due to technical infeasibility and eliminated SCR based on economic infeasibility (costs of at least $10,000/ton of NO_x reduced).

Response: In our proposal of December 21, 2012, we did not propose a NO_x BART determination for the Miami Smelter. Rather, we proposed to disapprove ADEQ's finding that the Miami Smelter was exempt from a NO_x BART determination. We acknowledge the information provided by the commenters, and will examine it, along with similar information provided by other commenters on this issue, as we develop a proposed FIP for those elements of the Arizona RH SIP that we do not approve.

5. EPA's Evaluation of Arizona's BART Analyses and Determinations

a. BART Determination for Catalyst Paper

Comment: ADEQ commented that Catalyst Paper has now cancelled the operating permit for its permanently closed facility. Accordingly, the commenter stated that there is no reason for EPA to require Catalyst Paper to notify EPA prior to resuming operation, as proposed. The commenter added that since the plant has permanently closed, resuming operation will be treated as the construction of a new plant and will be subject to NSR, rather than BART. Two other commenters (Earthjustice and NPS also provided comments regarding the proposed approach to BART at Catalyst Paper.

Response: ADEQ submitted as Appendix B to its comments two letters regarding the Snowflake Mill at Catalyst Paper: a letter from the site manager seeking termination of the facility's operating permit and a letter from the ADEQ Air Division Director terminating the permit.[94] Both letters, as well as ADEQ's comments describe the plant's closure as "permanent."[95] Pursuant to long-standing EPA policy, "reactivation of a permanently shutdown facility will be treated as operation of a new source for purposes of PSD review."[96] Consistent with this policy, ADEQ's comments affirm that reactivation of the Snowflake Mill "will be treated as the construction of a new plant and will be subject to new source review."[97] In addition, as part of the May 3, 2013, Supplement, ADEQ revised various sections of its plan to clarify that this facility is permanently closed and that they are therefore not conducting a BART analysis.

[94] Letter from John Groothuizen, Site Manager at the Catalyst Paper Snowflake to Eric Massey, Director Air Quality Division, ADEQ, Re: Catalyst Paper (Snowflake) Inc Facility Closure, Title V Permit No. 46898 Termination (December 21, 2012); Letter from Eric Massey, Director Air Quality Division, ADEQ to John Groothuizen, Site Manager at the Catalyst Paper Snowflake, Re: Termination of Air Quality Control Permit No. 46898, Snowflake Paper Mill (Jan. 24, 2013).
[95] *Id;* ADEQ Comments at page 12.
[96] In re Monroe Electric Generating (Petition No. 6-99-2), EPA Order Partially Granting and Partially Denying Petition for Objection to Permit at 8 (June 11, 1999).
[97] ADEQ Comments at page 12.

In our notice of May 20, 2013, we proposed to approve ADEQ's decision not to include such an analysis in the SIP.[98] We did not receive any adverse comments on that proposal and we are finalizing that approval today.

b. BART Analysis and Determination for PM_{10} at Miami Smelter

Comment: Earthjustice disagreed with EPA's proposal to approve ADEQ's streamlined BART analysis for PM at the Miami Smelter, stating that a full five-factor BART analysis for PM is required. The commenter noted that the State conducted a streamlined BART analysis for PM based on the maximum achievable control technology (MACT) standard for primary copper smelters, which requires various controls limiting PM emissions as a surrogate for hazardous air pollutants. While conceding that the BART Guidelines allow, in general, a streamlined BART analysis if the source is subject to a MACT standard, the commenter asserted that the BART Guidelines require a full five-factor BART analysis in circumstances where the MACT standard likely does not represent the most stringent level of control, such as when new technologies that are likely cost-effective and more stringent are introduced after the MACT determination was made

Response: We disagree with the commenter's assertion that a full five-factor BART analysis is required for PM_{10} at the Miami Smelter. The BART Guidelines specifically note that "unless there are new technologies subsequent to the MACT standards that would lead to cost-effective increases in the level of control, you may rely on the MACT standards for purposes of BART."[99] Based on the most recent Title V permit for the facility, the maximum allowable emission rate for particulate matter at the acid plant tail gas stack, which represents emissions

[98] 77 FR 29304.
[99] 40 CFR Part 51, Appendix Y, Section IV.C.

from the converters and acid plant, is 87.67 tpy.[100] Although this emission limit does not precisely apply to the BART-eligible source, the relatively small quantity of PM_{10} emissions from the acid plant tail gas stack indicates that large amounts of additional particulate emission reductions from the BART-eligible source are not likely. As a result, we did not identify any control options that "would lead to cost-effective increases in the level of control." The commenters, similarly, have not identified any new technologies or any control options that would result in cost-effective increases in the level of particulate matter control. As a result, we continue to consider ADEQ's streamlined BART analysis for PM_{10} appropriate for the Miami Smelter, and are today finalizing our proposed approval of this element of the Arizona RH SIP.

c. BART Analyses and Determinations for SO_2 at the Hayden and Miami Smelters

Comment: One commenter (Earthjustice) supported EPA's proposal to disapprove ADEQ's BART determination for SO_2 at the Hayden and Miami Smelters, asserting that the streamlined BART determinations carried out by the State are impermissible under the BART Guidelines. Other commenters (ADEQ, ASARCO and FMMI) opposed EPA's proposed disapproval, arguing that ADEQ's analyses were consistent with all applicable legal requirements and that EPA had not demonstrated that ADEQ's approach was arbitrary or capricious. ASARCO added that EPA cannot disapprove the State's BART analysis for the Hayden Smelter on the basis that it does not comply with the BART Guidelines because the EPA has expressly stated that the BART Guidelines do not bind the states for non-electric generating units.

Response: As an initial matter, we agree that the BART Guidelines are not binding for sources other than fossil fuel-fired electric generating plants with a total generating capacity in

[100] ADEQ Title V Permit 53592, issued 2012-11-26.

excess of 750 megawatts.[101] However, as explained in the preamble to the BART Guidelines, EPA "encourage[s] States to follow the guidelines for all source categories."[102] Moreover, the Arizona RH SIP itself indicates that ADEQ generally followed the BART Guidelines in conducting all of its BART analyses.[103] Therefore, we considered the BART Guidelines in our review of ADEQ's BART determinations. Where we found that ADEQ's analyses diverged from the BART Guidelines, we did not consider this as a cause for disapproval *per se*, but as an indication that we needed to perform a more thorough review of the analyses.

The CAA and the RHR require BART to be determined based upon an analysis of five factors: (1) The costs of compliance; (2) the energy and non-air quality environmental impacts of compliance; (3) any existing pollution control technology in use at the source; (4) the remaining useful life of the source; and (5) the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology.[104] ADEQ did not conduct such a five-factor analysis for SO_2 at either of the copper smelters, but instead chose to conduct "streamlined" analyses relying on the 1974 New Source Performance Standard (NSPS) for primary copper smelters at 40 CFR part 60, subpart P. While the BART Guidelines allow for streamlined analyses under specific circumstances (e.g., for VOC and PM sources subject to MACT standards), they also note that "we do not believe that technology determinations from the 1970s or early 1980s, including new source performance standards (NSPS), should be considered to represent best control for existing sources, as best control levels for recent plant

[101] See 40 CFR part 51, appendix Y, section I.H ("For sources other than 750 MW power plants . . . States retain the discretion to adopt approaches that differ from the guidelines."
[102] 70 FR 39104, 39108 (July 6, 2005).
[103] See, e.g., Arizona RH SIP, Appendix D at 33-39 (explaining Arizona's approach to it five-factor analyses and how it corresponds to the process set out in the Guidelines).
[104] CAA section 169A(g)(2), 40 CFR 51.308(e)(1)(ii)(A). The RHR also allows states to adopt an emissions trading program or other alternative program instead of source-specific BART controls, as long as the alternative provides greater reasonable progress towards improving visibility than BART. 40 CFR 51.308(e)(2). However, this "better than BART" approach was not employed by ADEQ and is not relevant here.

retrofits are more stringent than these older levels."[105] The Guidelines also explain that "[a]nalysis of the BART factors could result in the selection of a NSPS level of control, *but you should reach this conclusion only after considering the full range of control options*."[106] Accordingly, ADEQ's streamlined analysis based on the NSPS of 1974 is inconsistent with the general statutory and regulatory requirement for a complete five-factor analysis and with the BART Guidelines' admonition that NSPS should be selected as BART only after a complete five-factor analysis.

Moreover, even if a streamlined analysis were appropriate in this instance, ADEQ should have considered whether any new technologies had become available subsequent to the NSPS.[107] As part of its streamlined analysis, ADEQ did examine the RBLC[108] and found that no emission limitation or air pollution control devices have been approved for copper smelters for sulfur oxides since the installation of the double-contact acid plant in 1974. However, in order to determine whether new technologies have become available, ADEQ should have looked more broadly at other sources of information.[109] In particular, acid plant catalyst vendor information and industry trade journals indicate that a number of advances in acid plant catalyst technology have been made since promulgation of Subpart P in 1974, including development of cesium-promoted catalyst as well as certain enhancements to standard potassium-promoted catalysts.[110,111,112] These improvements to acid plant catalysts have the ability to increase

[105] 40 CFR part 51, appendix Y, section IV.C.
[106] *Id.* section IV.D.1., n. 13 (emphasis added).
[107] 40 CFR part 51, appendix Y, section IV.C.
[108] The Reasonably Available Control Technology (RACT)/Best Available Control Technology (BACT)/Lowest Achievable Emission Rate (LAER) Clearinghouse. The RBLC is a database of control technology determinations and emission limits established in construction permits issued by state and local agencies.
[109] See the BART Guidelines 40 CFR part 51, appendix Y, section IV.D (listing various sources of information regarding control options, including the RBLC, State and Local Best Available Control Technology Guidelines, control technology vendors; NSR permits and associated inspection/performance test reports; environmental consultants; and technical journals, reports and newsletters, air pollution control seminars).
[110] "Improving Sulfuric Acid Plant Performance," AIChE Clearwater Convention 2011, Phosphate Fertilizer and Sulfuric Acid Technology Conference.

conversion rates of SO_2 to SO_3 in the acid plant, resulting in decreased SO_2 emissions.[113,114] Accordingly, ADEQ should have considered whether any such improvements could be made at the Hayden and Miami acid plants. Without even considering such potential improvements, it was not reasonable for ADEQ to conclude that the existing acid plant at each facility constitutes the most stringent control available and to thus avoid performance of a complete five-factor analysis.[115] In sum, because ADEQ performed neither a full five-factor analysis nor an adequate streamlined analysis for SO_2 at the Hayden and Miami Smelters, we find that its determinations do not comply with CAA section 169A(g)(2) and 40 CFR 51.308(e)(1)(ii)(A) .

Comment: ASARCO and FMMI asserted that there are substantial technical and operational differences between sulfur-burning and other acid-producing plants and metallurgical plants used for emissions control, and there is no technical basis for seeking to compare metallurgical acid plant conversion efficiencies to such other plants. ASARCO also asserted that there are considerable differences between metallurgic acid plants at lead and zinc smelters, primarily as a result of the concentration of SO_2 at the acid plant inlet.

Response: While we appreciate the information provided by the commenters, we find it is insufficient to rule out the consideration of other acid plants in the BART analyses for the copper smelters. We note that, with respect to identification of available controls, the BART Guidelines indicate that, "control alternatives can include not only existing controls for the source category in question but also take into account technology transfer of controls that have

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[111] "VK Series sulphuric acid catalysts", Haldor Topsoe.
[112] Winkler, Chris "MECS Catalyst Products and Technical Services Update", The Southern African Institute of Mining and Metallurgy, Sulphur and Sulphuric Acid Conference 2009.
[113] "Meeting future SO2 emission challenges with Topsøe's new VK-701 LEAP5™ sulphuric acid catalyst", Haldor Topsoe.
[114]Malevu, Siyabonga "J Acid Plant Capacity Increase", The Southern African Institute of Mining and Metallurgy, Sulphur and Sulphuric Acid Conference 2009.
[115] See BART Guidelines section IV.D.1. ("If you find that a BART source has controls already in place which are the most stringent controls available (*note that this means that all possible improvements to any control devices have been made*), then it is not necessary to comprehensively complete [a full five-factor analysis]".

been applied to similar source categories and gas streams."[116] In this case, all sulfuric acid plants, whether elemental sulfur, spent acid, or metallurgical, utilize the contact process to manufacture sulfuric acid. That is, *all plants* use the same equipment and the same technology to convert SO_2 to sulfuric acid –the same converters, catalyst, and absorbing towers. Also, all sulfuric acid plants utilize the same pollution control technology. In dual absorption contact plants, maximization of catalyst loading and updates to catalyst, including the use of cesium promoted catalyst in the fourth pass of the converter, is demonstrated as being very effective at reducing SO_2 emissions. The efficacy of catalyst improvements is independent of whether the sulfuric acid plant is attached to a copper smelter.

The difference between primary sulfuric acid plants and metallurgical sulfuric acid plants is the source of the SO_2 coming into the acid plant and the front-end equipment necessary to prepare the SO_2-rich gas to be introduced to the converter. The commenters assert that there is variation in the concentration SO_2 gas feed to their sulfuric acid plant converters. However, the fact that the Hayden and Miami Smelters successfully operate dual absorption sulfuric acid plants demonstrates that they can handle variations in SO_2 concentration. So long as this is the case, these plants would be expected to achieve cost-effective SO_2 emissions reductions through catalyst improvements. In order to assess what improvements may be achievable at the copper smelters, it is appropriate to look to what degree of control has been achieved at other acid plants. Therefore, we do not agree that it was reasonable for ADEQ not to evaluate the emissions levels achieved at primary sulfuric acid plants in the State's SO_2 BART analyses for the Hayden and Miami Smelters.

[116] See BART Guidelines, 40 CFR part 51, appendix Y, section IV.D. As explained elsewhere in this document, although the Guidelines are not binding for copper smelters, EPA recommends their use for all source categories.

Comment: ASARCO disagreed with EPA's suggestion that ADEQ did not analyze whether the acid plant at the Hayden Smelter was operating at an optimal control level in establishing the double contact acid plant as BART.

ASARCO asserted that EPA's suggestion that its acid plant may be able to achieve higher levels of control than the NSPS was made without any technical support. It argued that EPA had not pointed to any change in technology or practice that would make irrelevant the technical considerations that drove the NSPS subpart P conclusions.

Response: The NSPS for primary copper smelters was issued approximately four decades ago. As noted in a previous response, significant improvements have been made to catalyst technology, computerized process control, and continuous process monitoring since that time. For these reasons, we find that higher levels of control may well be achievable in practice. Nonetheless, we are not finalizing any additional requirements or any particular level of control in today's action. We will consider these comments as we develop a FIP proposal including a BART analysis for the Hayden Smelter.

Comment: ASARCO stated that the company's experts were not able to identify any control technology that would result in more substantial SO_2 emission reductions than the present double absorption, double contact acid plant at the Hayden Smelter. The commenter indicated that replacement of the five existing variably-sized converters with three identically-sized converters to allow more balanced operation could result in decreased SO_2 emissions, but asserted that changing the Hayden Smelter from a five-converter operation to a three-converter operation constitutes a redesign of the source, which is not required as BART.

Response: We agree that replacing the converters would constitute fundamental redesign of the source and is not required as BART. However, before concluding that the existing controls constitute BART, it is necessary to consider not only whether there are any new control

technologies are available, but also whether there are any improvements that could be made to the operations of existing equipment, the capture of process emissions, and the control of captured emissions. ADEQ did not consider any such improvements in its streamlined analysis.

Comment: Three commenters (FMMI, ADEQ and ASARCO) asserted that NSPS subpart P's limit on SO_2 emissions from primary copper smelters was designed and intended to apply to emissions controlled by a double-contact acid plant. The commenters stated that the NSPS does not apply to emissions that are not susceptible to acid plant control such as fugitives and secondary converter emissions.

Response: As explained elsewhere in this document, we are disapproving ADEQ's SO_2 BART determinations for the Hayden and Miami Smelters because they are not based on a complete five-factor analysis or an adequate streamlined analysis. Therefore, the applicability of the NSPS subpart P emission limit is not directly relevant to our action today. We will take these comments into consideration as we prepare to propose a FIP that will include SO_2 BART analyses and determinations for the Hayden and Miami Smelters.

Comment: FMMI indicated that the Miami Smelter has been evaluating potential additional SO_2 controls in preparation for the State's revised SIP to demonstrate compliance with the recent one-hour SO_2 NAAQS, resulting in the preliminary conclusion that the only possible additional controls involve upgrades to the scrubbing system and the capture of fugitive SO_2 emissions for treatment in a scrubber. The commenter asserted that while some such measures may ultimately be necessary to achieve the one-hour NAAQS, the costs and possibly the degree of visibility improvement would not justify these controls as BART.

Response: In our December 21, 2012 proposal we did not propose an SO_2 BART determination for the Miami Smelter. Rather, we proposed to disapprove ADEQ's streamlined SO_2 BART analysis. We acknowledge the information provided by the commenters, and will

consider it, along with similar information provided by other commenters on this issue, as we develop a proposed FIP for those elements of the SIP that we do not approve.

Comment: FMMI commented that EPA should consider the forthcoming Arizona SIP revision to address the new one-hour SO_2 NAAQS, as part of EPA's proposed action on ADEQ's BART determination for the Miami Smelter. The commenter noted that ADEQ has determined that the Miami Smelter is the only major source of SO_2 in the proposed Miami one-hour SO_2 nonattainment area. As a result, all reductions in SO_2 emissions necessary to bring the Miami area into attainment must be accomplished by the Miami Smelter by 2018. The commenter noted that this timing is consistent with the 2018 milestone year adopted by EPA in the RHR and adopted by Arizona in its RH SIP. Given these parallel timing requirements and EPA's past practice of allowing entities several years to install BART controls, the commenter requested that EPA give this alternative compliance approach due consideration.

Response: We recognize that there are potentially similar timing requirements between BART and complying with the one-hour SO_2 NAAQS, and that some of the measures planned for attaining the NAAQS may also affect the BART-subject units at the Miami Smelter. At this time, we have not received information related to the State's SO_2 SIP revisions. In the event that we receive such information, we will consider it as we work toward proposal of a FIP.

d. Compliance Provisions for Hayden and Miami Smelters

Comment: FMMI and ASARCO disagreed with EPA's finding that the Arizona RH SIP lacks adequate compliance provisions. FMMI contended that the controls and limits determined to be BART are already in place and currently enforceable. It noted that, to the extent that the State's BART determinations are based on NESHAP or NSPS requirements, these requirements are, by definition, "federally enforceable." These and other requirements, including those necessary to ensure compliance (e.g., testing, monitoring, recordkeeping and reporting) with the

limits identified as BART are also included in the source's permit as conditions, which are likewise federally enforceable. The commenter also indicated that because the source is currently required to maintain the controls determined to be BART, and has established and must comply with procedures to ensure that the equipment is properly operated and maintained, the EPA's concerns in this area also appear unwarranted.

Response: As explained in our proposal, Regional Haze SIPs must include requirements to ensure that BART emission limits are enforceable.[117] In particular, the RHR requires inclusion of (1) a schedule for compliance with BART emission limitations for each source subject to BART; (2) a requirement for each BART source to maintain the relevant control equipment and (3) procedures to ensure control equipment is properly operated and maintained.[118] General SIP requirements also mandate that the SIP include all regulatory requirements related to monitoring, recordkeeping and reporting for the BART emissions limitations.[119] While some of the required compliance provisions may be contained in the Hayden and Miami Smelters' Title V permits, these provisions are not incorporated into the applicable SIP. Likewise the SIP contains no compliance schedules or requirements or procedures to ensure that the control equipment is properly operated and maintained. Therefore, we find that the SIP does not meet the requirements of 40 CFR 51.212(c) and 51.308(e)(1)(iv) and (v).

6. EPA's Evaluation of Arizona's Reasonable Progress Goals

a. Reasonable Progress Goals for the Best Days

Comment: ADEQ expressed support for EPA's proposed determination that the modeled increase in visibility impairment at IMPROVE monitors CHIR1 and SAGU1 is not a concern. The commenter added that this determination is supported by the analysis supplied in a

[117] 77 FR 75725-75726 (internal citations omitted).
[118] 40 CFR 51.308(e)(1)(iv), (v).
[119] See, e.g. CAA section 110(a)(2)(F) and 40 CFR 51.212(c).

November 21, 2011, letter from Eric Massey of ADEQ to Deborah Jordan, which the commenter attached as Appendix C to the comments.

In contrast, Earthjustice found fault with EPA's statement that it is not overly concerned with the modeling results, which the commenter characterized as downplaying the projected visibility degradation at these two monitors that represent four Class I areas. The commenter stated that the evidence cited by EPA regarding improvement in visibility on the worst days provides no support for the conclusion that visibility would correspondingly improve on the best days. The commenter also asserted that while visibility at these four Class I areas may be better than ADEQ's modeling predicts because the State did not take into account EPA's BART FIP for three coal-fired power plants in Arizona, EPA cannot dismiss modeling that shows visibility degradation simply based on speculation that the model may not be accurate. The commenter expressed support for EPA's proposed disapproval of ADEQ's RPGs for the 20 percent best visibility days because, contrary to the requirements of the RHR, visibility at four Class I areas represented by these two monitors is projected to be degraded under the Arizona RH SIP.

Response: EPA acknowledges ADEQ's support on this issue. The analysis provided in the November 21, 2011, letter was helpful. Table 14 of the Supplemental TSD was also helpful in demonstrating that the model's prediction of increased impairment from fine soil is not supported by the monitoring data. Nonetheless, we wish to clarify that a lack of degradation does not necessarily constitute reasonable progress for the best days. In addition to ensuring no degradation for the 20-percent best days, a state's RPGs must be based on an analysis of the four RP factors when setting these goals: costs of compliance, time necessary for compliance, energy and non-air quality environmental impacts, and the remaining useful life of potentially affected

sources.[120] As described elsewhere in this document, we have determined that ADEQ has not conducted an adequate four-factor analysis in support of its RPGs. In addition, ADEQ's RPGs rely on emission reductions from BART determinations for which there are no enforceable emissions limitations in the applicable SIP. . Therefore, we are finalizing our proposed disapproval of ADEQ's RPGs for the 20-percent best days.

With regard to Earthjustice's concern, we note that we are not dismissing the modeling results. Rather, we are considering these results in the context of additional information and analysis that has been developed since the modeling was performed. In particular the emissions inventory upon which the modeling was based was completed before the nationwide recession that began in late 2008. The inventory was updated in 2009 with more up-to-date data on projected emissions from electric generating units, but many source categories that are sensitive to economic growth projections were not updated.

b. Reasonable Progress Goals for the Worst Days

Comment: ADEQ indicated that EPA failed to recognize the "wide latitude" and "considerable flexibility" afforded to states by the CAA and the RHR in its review of the State's analysis and RPGs,[121] instead substituting its own judgment for the State's. The commenter asserted that the 2011 RH SIP includes an analysis that considers the four statutory factors and provides a reasoned basis for excluding various emission sources from consideration for additional controls in establishing the State's initial RPGs. The commenter added that while the proposal asserts that a number of the elements of the State's RPG analysis lacked "adequate" analysis or included "insufficient" information, the proposal is short on specifics and fails to

[120] 40 CFR 51.308(d)(1)(i)(A).
[121] Citing EPA's *Guidance for Setting Reasonable Progress Goals Under the Regional Haze Program* at 4-2 (June 1, 2007) ("RP Guidance").

identify any requirement of the CAA or RHR that the State has violated. CalPortland similarly asserted that EPA failed to adequately explain why Arizona's RP analysis is insufficient.

Response: While the CAA and the RHR do provide considerable flexibility to states in setting RPGs, they also provide specific requirements that must be met in order for the RPGs to be approved. In particular, both the CAA and the RHR require states to consider four factors when setting RPGs: costs of compliance, time necessary for compliance, energy and non-air quality environmental impacts, and the remaining useful life of potentially affected sources.[122] In addition, because Arizona's RPGs provide for a rate of improvement slower than the URP, the RHR requires the State to demonstrate why its RPGs are reasonable and why a rate of progress leading to natural visibility conditions by 2064 is not reasonable.[123] The Arizona RH SIP does not meet these requirements.

In conducting its RP analysis, ADEQ elected to focus on point and area sources of SO_2 and NO_x.[124] ADEQ then identified several categories of sources with significant NO_x and SO_2 emissions.[125] However, in most instances, ADEQ did not conduct a four-factor analysis of sources in these categories. For example, with respect to boilers (including non-BART electric generating units), the SIP states, "it is not possible to complete a exhaustive facility-by-facility review to evaluate each unit and therefore no further analysis was conducted."[126] Thus, the SIP contains no four-factor analysis of the very sources that the State has identified as potentially contributing to visibility impairment.[127]

[122] CAA section 169A(g)(1), 42 U.S.C. 7491(g)(1). 40 CFR 51.308(d)(1)(i)(A).
[123] 40 CFR 51.308(d)(1)(ii).
[124] Arizona RH SIP Section 11.3.1 (Supplement, page 47).
[125] See Arizona's RH SIP Tables 11.2 and 11.3.
[126] Arizona RH SIP Section 11.3.3 (Supplement, page 50).
[127] The Arizona RH SIP Supplement does contain a four-factor analysis for NO_X PCC. However, as explained elsewhere in this document, this analysis is inadequate to meet the requirements of 40 CFR 51.308(d)(1)(i)(A), since it does not include an accurate assessment of the four reasonable progress factors.

Accordingly, we find that the Arizona RH SIP does not meet the requirements of 40 CFR 51.308(d)(1)(i)(A) and (ii) with respect to point and area sources of NO_x and SO_2. Nonetheless, as explained elsewhere in this document, we have conducted our own four-factor analysis for point sources of SO_2 and have concluded that it is reasonable not to require additional controls for this source category during this planning period. Therefore, we are approving the State's decision not to require additional controls for SO_2 emissions from point sources for this planning period.

Comment: CalPortland noted that Arizona, in conjunction with WRAP, conducted an extraordinarily detailed and thorough RP analysis for each Class I area that identified and analyzed existing emission sources, the rate of progress needed to attain natural visibility conditions, pollutant-specific contributions to regional haze, and reasonable controls. The commenter added that the data developed by WRAP has been relied on in several other SIPs, has been reviewed and approved by EPA and, as EPA has agreed, should be considered in EPA's review of Arizona's SIP.

CalPortland also indicated that the results of Arizona's thorough analysis demonstrate that significant progress is being made. According to the commenter, the 2011 RH SIP indicates that anthropogenic emissions of NO_x and SO_2 will decrease by 39.4 and 29.6 percent, respectively, by 2018. The commenter asserted that the proposal to disapprove Arizona's RP analysis subjects Arizona to a higher standard for reasonable progress demonstrations than EPA has approved, and promulgated itself, for other states. In particular, CalPortland stated that Arizona's analysis for Saguaro National Park compares favorably to the approved approaches taken by New Mexico and California, and with the approach taken by EPA for the Hawaii FIP.

Regarding New Mexico, CalPortland noted that even though the State's Class I areas were not projected to meet the URP, EPA approved the State's RP analysis because

uncontrollable sources such as natural wildfires, wind-blown dust, and emissions from Mexico were significant contributors to regional haze.[128] The commenter pointed out that these same uncontrollable sources are significant contributors to regional haze in Arizona and the major impediment to meeting the URP at Saguaro National Park.

CalPortland added that EPA also approved California's RP analysis even though the State's Class I areas did not all meet the URP. The commenter reproduced a 17-line paragraph that it asserted was the full extent of California's RP analysis for 35 facilities that emit more than 100 tons per year of SO_x in the California Coastal sub-region. In addition, the commenter reproduced a paragraph that was purported to be the entire four-factor analysis for NO_x point sources in Hawaii. Given that these RP analyses were deemed adequate by EPA, the commenter asserted that it would be inconsistent to conclude that Arizona's "thorough and accurate" RP analysis is insufficient.

Response: EPA agrees that the technical work conducted by the WRAP for the emissions inventory, natural conditions estimates and IMPROVE monitoring data analysis was of appropriate technical quality to meet the requirements of the RHR. We also concur that significant progress in reducing NO_x and SO_2 emissions is projected by 2018. However, as detailed in section IV.B.2 of this document, Arizona did not provide an adequate four-factor analysis as required by the RHR.

EPA disagrees with the commenter's assertion that we are holding Arizona to a higher standard than other states. As described elsewhere in this rule, EPA finds that Arizona's RP analysis was not adequate to comply with the requirements of the RHR. This determination is not inconsistent with our findings in New Mexico, California and Hawaii.

[128] Citing 77 FR 36044 and 77 FR 70693.

In the case of New Mexico, the State's plan[129] provided a more complete analysis of the four factors than was found in the Arizona RH SIP. New Mexico's analysis fully incorporated the work performed by WRAP and included an additional four-factor analysis for select refinery sources. The New Mexico SIP also provided a RP analysis for individual Class I areas, addressing the requirement for additional analysis when the URP is not projected to be met.

Moreover, the commenter is making an incomplete presentation of the RP analysis in the California RH SIP. Chapter 4 of California's RH SIP[130] provides a detailed state-wide four-factor analysis as well as a region-by-region assessment of the reasonableness of additional controls. Another key difference between California and Arizona is that California's point sources are well controlled because nearly all are in areas that exceed state and Federal standards for ozone and/or $PM_{2.5}$.[131] In addition, California's on-road mobile sources are subject to State requirements that exceed the Federal requirements in Arizona.[132] These facts were all key factors in EPA's evaluation of California's RP analysis. Similarly, the commenter has mischaracterized the nature of the four-factor analysis in the Hawaii RH FIP. The quoted section covered only a small part of the RP analysis for Hawaii.[133] In addition, the situation in Hawaii is not comparable with any other regional haze plan in the United States. The visibility impairment on the worst 20 percent of days is dominated by sulfur emissions from natural and man-made sources.[134] Due to the highly variable nature of volcanic sulfur emissions, it was not practicable to perform

[129] "New Mexico State Implementation Plan Regional Haze Section 309(g)", New Mexico Department of Environmental Quality, Revised March 31, 2011. See Chapter 11 and Appendices E and F (http://www.nmenv.state.nm.us/aqb/reghaz/NMRegionalHazeandInfrastructureSIPsubmittals.htm).
[130] California Regional Haze Plan submitted to EPA on March 16, 2009, Sections 4.6-4.7.
[131] California Regional Haze Plan, Sections 4.3 and 4.7.
[132] California Regional Haze Plan, Section 4.2.1.
[133] See Hawaii RH FIP proposal, May 29, 2012, 77 FR 31707-31712 and Hawaii RH FIP final rule, October 9, 2012, 77 FR 61489-61493.
[134] See "Technical Support Document for the Proposed Action on the Federal Implementation Plan for the Regional Haze Program in the State of Hawaii", Air Division, U.S. EPA Region 9, May 14, 2012, sections II.A.3 and II.B.3.

photochemical grid modeling to set RPGs.[135] As a result, the Hawaii-specific method of gauging reasonable progress that was used makes any comparisons with Arizona inappropriate. [136]

Comment: Earthjustice supported EPA's proposal to disapprove the State's RPGs for the 20 percent worst visibility, since the State did not explain why the 2064 natural visibility goal is unreasonable at Arizona's Class I areas, nor how the State's RPGs could possibly be reasonable. Earthjustice also argued that even if the State had attempted to defend its RPGs, EPA's disapproval would be well justified, since a RH SIP that attempts to transform the RHR's 50-year compliance window into a 125-year to 8,370-year compliance window is unreasonable and legally indefensible.

Response: EPA acknowledges the supportive comments. We agree that the State failed to meet the requirements of 40 CFR 51.308(d)(1) in that the State failed to fully demonstrate, using the four factors required for a RP analysis, why its goals are reasonable. EPA notes, however, that the State is not required to provide a plan that demonstrates elimination of anthropogenic visibility impairment by 2064. Rather, as noted above, the RHR requires the State to demonstrate why its RPGs are reasonable and why a rate of progress leading to natural visibility conditions by 2064 is not reasonable.[137] As explained above, EPA has determined that Arizona's SIP does not meet this requirement and that further analysis is required to determine whether there are any additional cost-effective controls that could reasonably be required in this planning period.

Comment: Earthjustice supported EPA's proposal to disapprove the State's determination that no RP controls are necessary or reasonable on non-BART sources, but disagreed with EPA's proposal to approve the State's determination that RP controls are not necessary for certain source categories, arguing that it is premature to exempt any source

[135] See 77 FR 31707.
[136] See 77 FR 31708.
[137] 40 CFR 51.308(d)(1)(ii).

category from RP controls until EPA knows what emissions reductions will be necessary to maintain the glide path to natural visibility by 2064.

Specifically, Earthjustice supported EPA's proposed disapproval of the State's conclusion that it would be unreasonable: (1) to reduce coarse mass or fine soil emissions from any sources, (2) to require any emissions reductions from area sources, and (3) to reduce NO_x emissions from point sources, but disagreed with EPA's proposal to approve the State's conclusion that no reductions in VOC or primary organic aerosol emissions are necessary across the State, and that no reductions are necessary from mobile sources, fire, and SO_2 point sources.

Response: EPA acknowledges the commenter's support for our proposed disapproval of the State's determination that no controls on non-BART sources are required to provide for reasonable progress. However, it is important to emphasize that the State's plan is not required to provide for a uniform rate of progress toward the goal of zero anthropogenic visibility impairment at Class I areas. Calculation of the URP is an analytical requirement for setting RPGs, but the URP does not constitute a presumptive target.[138]

Regarding the comment that it is premature to determine that no additional controls are required on some sources, EPA finds that our four-factor analyses, along with the information provided by the State, are sufficient to conclude that it is not reasonable to impose additional air pollution controls on the following source categories for the purposes of ensuring reasonable progress: mobile sources, primary organic aerosol sources, VOC sources and point sources of SO_2. The determination of whether additional controls are required is to be made using the four factors specified in the RHR.[139] The commenter does not provide any evidence that additional reasonable, cost-effective controls are available for these sources with the exception of

[138] See 64 FR 35730-35731.
[139] 40 CFR 52.308(d)(1)(i) and (ii).

Springerville power plant. EPA's response to these facility-specific comments may be found elsewhere in this rule.

Comment: PCC asserted that EPA is inappropriately applying to non-BART sources the standards that apply to BART sources. The commenter questioned this interpretation both generally and to the extent that EPA applies the interpretation to the PCC's plant, arguing that EPA should maintain a meaningful distinction in practice between control technology determinations required for BART sources and reasonable progress evaluations.

Response: EPA disagrees with the commenter's assertion that we are applying BART standards to non-BART sources. In reviewing Arizona's RP analysis, we have applied the requirements of 40 CFR 51.308(d)(1), not the BART requirements in 40 CFR 51.308(e)(1). As explained elsewhere in this document, we have concluded that Arizona's analysis of NO_x controls on point source does not meet these requirements. We are therefore disapproving the State's determination that it is not reasonable to require additional controls on point sources of NO_x during this planning period.

EPA acknowledges the commenter's assertion that we should maintain a meaningful distinction between BART and non-BART sources when making control technology determinations. However, we also note that there is substantial overlap in the statutory and regulatory requirements applicable to BART and non-BART sources. In particular, the CAA and the RHR require consideration of the costs of compliance, the energy and non-air quality environmental impacts of compliance and the remaining useful life of the source for both BART and non-BART sources.[140] In addition, the ultimate purpose of requiring controls for both types of sources is to achieve reasonable progress toward the national goal of eliminating man-made

[140] CAA section 169A(g)(1) and (2), 42 U.S.C. 7491(g)(1) and (2); 40 CFR 51.308(d)(1)(i)(A) and (e)(1)(ii)(A). See also RP Guidance pages 5-1 and 5-3 (referring to the BART Guidelines for guidance on how to apply these factors to non-BART sources).

visibility impairment.[141] Therefore, it is appropriate for analyses of potential controls for non-BART sources to resemble BART analyses in many respects.

Comment: NPS asserted that additional emission controls should be required at Cholla Unit 1 in order for Arizona to achieve reasonable progress. While conceding that the RP analysis differs from the BART analysis, the commenter indicated that there is also substantial overlap between these analyses and it can be informative to consider relevant BART guidance and examples in conducting RP analyses. Accordingly, the commenter analyzed the cost-effectiveness of potential additional SO_2 and NO_x controls for Cholla Unit 1. Based on these analyses the commenter argued that EPA should consider requiring the replacement of or upgrades to the existing wet flue gas desulfurization (FGD) scrubber for SO_2 control and installation of an SCR system for NO_x control.

Response: We agree with NPS that BART guidance and examples can be helpful for estimating the cost of controls as part of an RP analysis.[142] However, the analyses performed by NPS are not entirely consistent with the BART Guidelines. In particular, NPS provided a cost analysis indicating that the cost-effectiveness of a new FGD system is $1,320 per ton, based on an uncontrolled baseline emission rate that does not reflect the effect of the existing wet lime FGD at Cholla Unit 1. This approach is inconsistent with the BART Guidelines, which provide that, for purposes of calculating the costs of compliance:

> The baseline emissions rate should represent a realistic depiction of anticipated annual emissions for the source. In general, for the existing sources subject to BART, you will estimate the anticipated annual emissions based upon actual emissions from a baseline period.[143]

[141] CAA section 169A(b) (2), 42 U.S.C. 7491(b)(2).
[142] See, e.g. RP Guidance page 5-1 ("For additional guidance on applying the cost of compliance factor to stationary sources, you may wish to consult the BART guidelines.").
[143] BART Guidelines, 40 CFR Part 51, Appendix Y, section IV.D.4.d.1.

Accordingly, the baseline emissions rate for Cholla Unit 1 should reflect use of the existing wet lime FGD, which is more than 30 years old, but continues to operate effectively.[144] Based on this more accurate baseline, we estimate that the cost-effectiveness of a new scrubber would be over $20,000/ton.[145]

Although the existing wet FGD was upgraded in 2007, the scope and precise nature of the upgrades are unclear. Therefore, we have included wet FGD upgrades as a control option in our SO_2 cost-effectiveness calculations. Based on these calculations, we estimate that upgrades to the wet FGD would cost more than $5,200/ton and result in emissions reductions of less than 250 tons per year.[146] Given the significant reductions in point source SO_2 emissions achieved through ADEQ's BART determinations in this planning period,[147] we find that it was reasonable for ADEQ not to require additional SO_2 controls for Cholla 1 as a reasonable progress measure. However, such controls may be necessary in the next planning period to ensure continued progress toward eliminating anthropogenic visibility impairment.

In addition, the commenter provided estimates of visibility improvement and cost-effectiveness for NO_x control options such as SCR. At this time, we are finalizing a disapproval of ADEQ's finding that no RP controls for NO_x at point sources are reasonable. However, we have not proposed any NO_x controls for any point sources as a RP measure. We will consider the information submitted by the commenter as we work towards proposing a FIP.

Comment: TEP agreed with EPA's conclusion that it is not reasonable to require additional SO_2 controls on Springerville Units 1 and 2. Two commenters (Earthjustice and NPS)

[144] Under Section II.D.1.a of Cholla's Title V Permit (2012) the existing wet FGD is required to achieve at least 80 percent SO_2 removal efficiency. As a point of comparison, the BART Guidelines recommend that states consider upgrading, rather than replacing, existing scrubbers that achieve greater than 50 percent removal.
[145] See "Cholla 1 SO_2 costs.xls".
[146] *Id.*
[147] See Arizona RH SIP, page 67, Table 8.1 (projecting 28.81 percent reduction in annual point source SO_2 emissions between 2002 and 2018); Arizona RH SIP Supplement, page 5, Table 8 (showing reduction in annual point source SO_2 emissions of 15,700 tpy between 2002 and 2008).

disagreed with EPA's conclusion. TEP stated that Springerville Units 1 and 2 are equipped with dry FGD systems for SO_2 control, which operate at greater than 90-percent control efficiency, and both systems were upgraded as recently as 2006 reducing the emission rate from these units to between 0.17 and 0.26 lb/MMBtu on an annual average basis. The commenter asserted that EPA's estimate of $17,000 to $22,000/ton to install additional controls is far beyond any reasonable threshold for cost-effectiveness, noting that EPA used an initial screening level of $5,000 per ton to gauge cost-effectiveness. The commenter expressed the belief that a cost per ton of pollutant removed below this screening level could very well be not cost-effective, and encouraged EPA to refrain from applying a generalized cost-effectiveness threshold. The commenter added that cost-effectiveness should be considered on a site-specific basis and be weighed in reference to the other factors.

NPS asserted that additional emission controls should be required at Springerville Units 1 and 2 in order for Arizona to achieve reasonable progress. While conceding that the RP analysis differs from the BART analysis, the commenter indicated that there is also substantial overlap between these analyses and it can be informative to consider relevant BART guidance and examples in conducting RP analyses. Accordingly, the commenter analyzed the cost-effectiveness and visibility benefits of potential additional SO_2 and NO_x controls for Springerville Units 1 and 2. Based on these analyses, the commenter argued that EPA should consider requiring the replacement of or upgrades to the existing scrubbers for SO_2 control and installation of an SCR system for NO_x control.

Earthjustice noted that Springerville is the second largest source of SO_2 emissions in Arizona, and commented that it is premature for EPA to conclude that controls should not be required at this source before it knows what emissions reductions will be necessary to ensure reasonable progress. The commenter argued that EPA's assumption that wet FGD would reduce

existing SO_2 emissions from 0.21 lb/MMBtu at Unit 1 and 0.18 lb/MMBtu at Unit 2 down to 0.06 lb/MMBtu at both units was overly conservative and that power plants across the nation have achieved 0.04 lb/MMBtu or lower SO_2 emission rates with wet FGD and upgrades to existing dry scrubbers. The commenter also argued that EPA's cost estimates were inflated by various factors, such as use of a 7-percent interest rate and a 20-year estimated life and amortization period. Based on these points, Earthjustice urged EPA to delay determining whether RP controls are warranted at Springerville Units 1 and 2 until after (1) EPA knows what emissions reductions will be necessary to achieve reasonable progress and maintain the glide path to the 2064 natural visibility goal, and (2) EPA obtains more accurate cost-effectiveness information for wet FGD at the units.

Response: As noted in our response regarding Cholla Unit 1 above, we agree with NPS that the BART Guidelines can be helpful for estimating the cost of controls as part of an RP analysis.[148] Among other things, the BART Guidelines recommend use of a baseline emissions rate that represents a realistic depiction of anticipated annual emissions, which generally may be determined from actual emissions from a baseline period.[149] In this case, the baseline emissions rate for Springerville Units 1 and 2 should reflect use of the existing dry FGD systems. The average cost-effectiveness of a new dry FGD system based on the units' existing baselines is approximately $16,000/ton and $19,000/ton, which we do not consider cost-effective for reasonable progress. In addition, Earthjustice argued that we should have used a FGD emission rate of 0.04 lb/MMBtu (rather than 0.06 lb/MMBtu) in our calculations of cost-effectiveness, as this is an emission rate that has been achieved by power plants operating new wet FGD systems. While we acknowledge that emission rates more stringent than 0.06 lb/MMBtu have been

[148] See, e.g., RP Guidance, page 5-1, "For additional guidance on applying the cost of compliance factor to stationary sources, you may wish to consult the BART guidelines."
[149] BART Guidelines, 40 CFR Part 51, Appendix Y, section IV.D.4.d.1.

achieved, use of a more stringent 0.04 lb/MMBtu emission rate would only reduce cost-effectiveness values to approximately $14,000/ton.

We also disagree with commenters' assertions that our use of a 7-percent interest rate and 20-year lifetime have resulted in inflated or overestimated control costs. For cost analyses related to government regulations, an appropriate "social" interest (discount) rate should be used. The latest real interest rate for cost-effectiveness analyses published by the Office of Management and Budget (OMB) is 2.8 percent for a 20-year period (Revised January 2008). EPA calculated capital recoveries using 3-percent and 7-percent interest rates in determining cost-effectiveness for the Regulatory Impact Analysis (RIA) for the Guidelines for BART Determinations under the Regional Haze regulations. We consider our use of 7 percent over a 20-year period to be consistent within the context of Regional Haze regulations, and to result in a reasonable estimate of control costs.[150]

Although the existing dry FGDs have been upgraded recently, the scope and precise nature of the upgrades is unclear. As a result, we agree with NPS's assertion that additional upgrades should be considered. Therefore, we have included dry FGD upgrades as a control option in our SO_2 cost-effectiveness calculations.[151] Based on these calculations, we estimate that upgrades to the existing dry FGDs would cost $6,000 to 10,000/ton and result in a total annual emissions reduction of approximately 1,200 tpy.[152] Given the significant reductions in point source SO_2 emissions achieved through ADEQ's BART determinations in this planning

[150] Regulatory Impact Analysis for the Final Clean Air Visibility Rule or the Guidelines for Best Available Retrofit Technology (BART) Determinations Under the Regional Haze Regulations, EPA-0452/R-05-004, June 2005.
[151] See Docket Item I.12, "Springerville FGD costs (updated), a revised version of docket item F.10, Springerville FGD costs.xls".
[152] *Id.*

period,[153] we find that it was reasonable for ADEQ not to require additional SO_2 controls for Springerville Units 1 and 2 as a RP measure. However, such controls may be necessary in the next planning period to ensure continued progress toward eliminating anthropogenic visibility impairment.

With regard to NO_x, we note that in our proposal of December 21, 2012, we did not propose RP controls on NO_x for any point sources, but instead only proposed disapproval of the State's finding that it is not reasonable to require additional NO_x controls. We acknowledge the information provided by the commenter, and will examine it, along with similar information provided by other commenters on this issue, as we develop a proposed FIP.

Comment: Two commenters, NPS and TEP, noted that Sundt Units 1-3 are all fired with pipeline-quality natural gas and agreed with EPA that it is not reasonable to require more stringent SO_2 controls on this facility at this time.

Response: We agree with these comments.

Comment: NPS agreed that it is not reasonable to require additional SO_2 controls on the Douglas Lime Plant at this time because emissions inventory data indicate that production at this plant essentially stopped during the recession. The commenter added that this plant should be considered for SO_2 controls in future planning periods, as it may return to its previous levels of emissions.

Response: We agree with this comment.

Comment: NPS concurred with the proposal to disapprove Arizona's finding that it is not reasonable to require additional NO_x controls on non-BART point sources. The commenter agreed that given the slow rate of visibility improvement on the worst days at all Class I areas in

[153] Arizona RH SIP, page 67, Table 8.1 (projecting 28.81 percent reduction in annual point source SO_2 emissions between 2002 and 2018); Arizona RH SIP Supplement, page 5, Table 8 (showing reduction in annual point source SO_2 emissions of 15,700 tpy between 2002 and 2008).

Arizona, a thorough analysis is required before concluding that nothing more can be done to improve visibility.

In contrast, three other commenters (TEP, ADEQ and PCC) stated that EPA is not justified in its proposed disapproval of Arizona's finding that it is not reasonable to require additional NO_x controls on non-BART point sources. TEP indicated that it is premature for EPA to disapprove the State's finding, based on the commenter's understanding that the State is interested in addressing EPA's concerns about the adequacy of the analyses in its SIP. This commenter asserted that EPA's proper course of action is to work with and support the State in developing the analysis required for the evaluation of additional NO_x controls on non-BART point sources.

PCC added that EPA cannot disapprove the State's RP determination for the Phoenix Cement Plant without first concluding that a four-factor analysis under 40 CFR 51.308(d)(l)(i)(A) would have indicated that additional emissions controls at PCC are needed to improve visibility in the Sycamore Canyon Wilderness Area. The commenter stated that there is nothing in the proposal or rulemaking docket that indicates that EPA has found that the Phoenix Cement Plant contributes to visibility impairment in a Class I area, or that additional emissions controls at the Phoenix Cement Plant would improve visibility in a Class I area.

Response: EPA acknowledges the support of NPS for our disapproval of the State's conclusion that it is not reasonable to require further NO_x control on non-BART sources. We agree that the State did not provide sufficient analysis to justify that position. We also note that we have worked with ADEQ on various aspects of the Arizona RH SIP over the last several months. Based on the contents of the Arizona RH SIP Supplement, which ADEQ submitted in May 2013, we have approved more of the State's conclusions with respect to what sources are

reasonable to control during this progress period.[154] Unfortunately, as explained in section IV.B.3 of our May 20, 2013, proposal[155] and later in this section, the State still has not provided sufficient analysis for EPA to approve its determination that no additional controls are required for sources of NO_x.

Comment: PCC stated that EPA has shared an RP analysis concerning Phoenix Cement. The commenter asserted that this RP analysis has no legal bearing on the sufficiency of the Arizona RH SIP for NO_X emissions from non-BART stationary sources. Nonetheless, the commenter provided various comments on the contents of this analysis

Response: The draft analysis of potential controls at Phoenix Cement[156] was conducted in preparation for a possible FIP action and it is not complete or final. We shared this analysis with PCC in order to give the company an opportunity to correct any errors or weak assumptions in the analysis. The analysis was not used as a basis for this action. Rather, EPA's disapproval of the State's conclusion with respect to further control on NO_x point sources is based on our review of the SIP and supporting material submitted by ADEQ. EPA's analyses of potential controls on point sources of NO_x in Arizona will be included in our upcoming FIP proposal. All of the supporting material for those analyses will be in the docket for that proposal and the public will have an opportunity to review and comment on our analysis and supporting documentation and data.

Comment: Two commenters (Clarkdale and Yavapai County) urged EPA to substantially reconsider its proposal, especially as it relates to RPG determinations involving non-BART sources like Phoenix Cement. While acknowledging that the proposal does not identify the

[154] 78 FR 29292.
[155] 78 FR 29299-29300.
[156] See email from Colleen McKaughan, EPA to Verle Martz, Salt River Materials Group dated November 6, 2012 and attachments, Non EGU_RP_Ch5 (Phoenix Cement, CalPortland only).xls and WA5-12 Task 9 Deliverable - RPAnalysis Report (CalPortland-Phoenix ONLY)_final.docx.

precise impacts upon Phoenix Cement, the commenter stated that it does clearly indicate that emissions reductions from non-BART sources like PCC will be needed to achieve reasonable progress. The commenters expressed concern that the proposal could unnecessarily and negatively impact the local economy and jobs provided by PCC.

Response: We appreciate the commenters' concerns about potential impacts on the local economy. However, the commenters appear to misunderstand the scope of this action. Today's action simply approves certain provisions of the Arizona RH SIP and disapproves certain other provisions. It does not impose controls upon any source. If EPA proposes any controls on PCC, it will be in a separate notice-and-comment rulemaking.

Comment: CalPortland stated that EPA's proposal treats SO_2 and NO_x point sources differently in its review of Arizona's RP analysis. The commenter noted that, while EPA concluded that Arizona's analysis is insufficient for both, for SO_2 point sources EPA conducted a supplemental analysis and proposed to approve Arizona's conclusion based on that analysis. The commenter pointed out that for NO_x point sources, EPA carried out no supplemental analysis, and EPA proposed to disapprove Arizona's determination. The commenter indicated that EPA made no attempt to explain why it proposed to treat NO_x and SO_2 sources differently.

The commenter (CalPortland) asserted that on its face, this differential treatment is unreasonable and does not make sense in the context of the determination of RPGs. The commenter expressed the opinion that the original analysis conducted by Arizona is legally sufficient and should be approved.

PCC similarly asserted that the absence of a four-factor analysis for non-BART point sources of NO_x deprives the commenter and other non-BART point sources of NO_x of their due process right to comment in an informed manner on the proposal.

Response: EPA addresses the approvability of the State's RP analyses for point source NO_x and SO_2 in section IV.B.2 of this document. Given the inadequacy of the State's analyses, EPA has undertaken supplemental analyses of potential additional NO_x and SO_2 controls for point sources to determine whether any such controls are reasonable. In the case of point sources of SO_2, the relatively small number of sources and the fact that they were well controlled made it possible for EPA to do the analyses necessary to determine that no further controls are reasonable. EPA is conducting similar analyses for point sources of NO_x. These analyses are more complex and EPA has therefore sought input from potentially affected sources in order to ensure that our analyses are accurate and complete.[157] As a result, we have not yet concluded with the necessary analyses. We intend to complete our initial analyses prior to proposing the FIP that will address the disapprovals we are finalizing today.

Comment: One commenter (CalPortland) argued that Arizona reasonably determined that additional controls are not necessary for the commenter's Rillito Cement Plant at this time. According to the commenter, EPA stated in the proposal that there is no technical documentation to support Arizona's conclusion that Rillito does not impair visibility, and that EPA implied that a thorough analysis was not conducted for NO_x point sources such as Rillito. The commenter asserted that there is an ample record that contradicts the implications that Arizona's analysis was not legally sufficient under 40 CFR 51.308(d)(l) for NO_x sources near Saguaro National Park.

CalPortland also speculated that perhaps EPA is concerned that Arizona's RH SIP does not contain an explicit, source-specific four-factor analysis for Rillito. The commenter stated that such a concern would be unfounded because the applicable guidelines do not require a full four-

[157] See email from Colleen McKaughan, EPA to Verle Martz, Salt River Materials Group dated November 6, 2012 and attachments; email from Colleen McKaughan, EPA to Erik Bakken and Jeff Yockey, Tuscon Electric Power dated November 6, 2012, and email from Colleen McKaughan, EPA to Jay Grady, California Portland Cement dated November 9, 2012.

factor analysis for every potential source (citing *Guidance for Setting Reasonable Progress Goals under the Regional Haze Program*, Section 3). Based on the fact that Arizona reasonably determined that Rillito did not contribute to visibility impairment, the commenter stated that there was no requirement to conduct an explicit four-factor analysis.

The commenter (CalPortland) further asserted that, even if a four-factor analysis were required for the Rillito plant, it would be unreasonable to disapprove the SIP on this basis because the significant analysis contained in Arizona's RH SIP fits within the framework of a four-factor analysis and is consistent with the analysis conducted by New Mexico and approved by EPA. According to the commenter, New Mexico's reasonable progress demonstration relied in part on WRAP's *Supplementary Information for Four Factor Analyses by WRAP States*.

Response: In our December 12, 2012, proposed action we stated that "with respect to cement kilns, the SIP contends that the Rillito Cement Plant does not 'appreciably diminish or impair visibility', but the plan does not provide technical documentation of that assertion."[158] In fact, the quoted sentence in the 2011 RH SIP referred to the Phoenix Cement Plant, not the Rillito Cement Plant.[159] With respect to the Rillito Plant, the Arizona Regional Haze SIP does provide a visibility analysis for kiln 4, but not for kilns 1-3.[160] Thus, there is no information in the SIP regarding the visibility impacts of the entire Rillito Plant.

Moreover, the fact that nitrate-driven visibility impairment is projected to decrease at Class I areas such as Saguaro National Park does not remove the requirement to perform a complete RP analysis. Given the State's decision to focus its RP analysis on point and area sources of NO_x and SO_2, the Rillito Cement plant's high NO_x emission rates and proximity to

[158] 77 FR 75730.
[159] See 2011 Arizona RH SIP at 165; 2013 Arizona RH SIP Supplement at 52.
[160] *Id*.

Class I areas make it a good candidate for a source-specific four factor analysis. The State failed to either conduct such an analysis or adequately explain why it was not needed.

7. EPA's Evaluation of Arizona's Long-Term Strategy

Comment: One commenter (Earthjustice) expressed support for EPA's proposal to disapprove portions of the LTS described in the 2011 RH SIP. Another commenter (CalPortland) opposed the proposed disapproval.

The opposing commenter (CalPortland) asserted that the 2011 RH SIP complies with the Act's LTS requirements. The commenter stated that EPA's conclusion that the State's BART and reasonable progress determinations are insufficient is not a valid reason to disapprove the LTS. Citing 40 CFR 51.308(d)(3), the commenter contended that EPA does not propose to find, nor can it, that the State's LTS is insufficient to meet the RPGs established by the State.

This commenter (CalPortland) also asserted that the proposed disapproval was incorrect when it indicated that the State's LTS does not include all measures needed to achieve its allotment of emission reductions agreed upon through the WRAP process. The commenter stated that page 178 of the 2011 RH SIP indicates that Arizona and neighboring states agreed that the implementation of BART and other existing measures in state regional haze plans were sufficient. According to the commenter, the states that participated in the WRAP process are in the best position to determine whether each other's plans are sufficient, and they agreed that Arizona's SIP is sufficient.

Response: As an initial matter, we would like to clarify the scope of our proposed partial disapproval of Arizona's LTS. We did not propose to disapprove the LTS as whole. Rather, we proposed to disapprove only those portions of the LTS that rely on other elements of the SIP that we have disapproved or proposed to disapprove. Specifically, we proposed to find that the LTS

does not meet the requirements of 40 CFR 51.308(d)(3)(ii), (v)(C) and (v)(F). As we explained in the proposal, pursuant to 40 CFR 51.308(d)(3)(ii), Arizona is required to include in its LTS all measures needed to achieve its allotment of emission reductions agreed upon through the WRAP process. The commenter is correct that the SIP indicates that Arizona and neighboring states in the WRAP agreed that "implementation of BART and other existing measures in state regional haze plans were sufficient to address interstate impacts."[161] However, because we have disapproved portions of Arizona's BART determinations, the reductions that Arizona agreed to through the WRAP process are not all SIP-approved and therefore cannot be relied upon for purposes of the LTS. In addition, because Arizona's BART determinations lack the necessary compliance dates and requirements for operation and maintenance of control equipment and monitoring, recordkeeping and reporting, the SIP does not ensure that the reductions attributed to these BART determinations will be realized. Therefore, the SIP does not include all measures needed to achieve Arizona's apportionment of emission reduction obligations agreed upon through the WRAP process.

The other two elements of Arizona's LTS that we proposed to disapprove pertain to consideration of emissions limitations and schedules for compliance to achieve the RPGs and the enforceability of emissions limitations and control measures. Since the SIP lacks measures to ensure the enforceability of its BART determinations, and contains no other emissions limitations, schedules for compliance or other control measures, these two elements of the LTS are also not approvable. Therefore, we are finalizing our proposed disapproval of the Arizona RH SIP with respect to the requirements of 40 CFR 51.308(d)(3)(ii), (d)(3)(v)(C) and (d)(3)(v)(F).

[161] Arizona RH SIP, page 178.

8. EPA's Evaluation of Arizona's Provisions for Interstate Transport of Pollutants

Comment: EPA received adverse comments from CalPortland and CEI on the portion of our December 21, 2012, proposal that relates to the CAA requirement that SIPs contain adequate provisions to prohibit emissions that will interfere with other states' required measures to protect visibility per CAA section 110(a)(2)(D)(i)(II). We refer to this requirement herein as the interstate transport visibility requirement.

CalPortland asserted that, even if EPA found Arizona's BART and RP analyses to be insufficient, such a determination would not be a lawful reason to find that the Arizona SIP submittals do not comply with the interstate transport visibility requirement. The commenter contended that EPA did not propose that the Arizona SIP interferes with measures in another state's SIP to protect visibility.

CEI argued that EPA failed to articulate how Arizona interferes with visibility protection measures required by the CAA of downwind states. The commenter interpreted section XI ("EPA's Evaluation of Arizona's Provisions for Interstate Transport of Pollutants") of our December 21, 2012, proposal to mean that any emission of haze pollutants above the levels assumed by the WRAP modeling constituted interference with downwind attainment. The commenter asserted that this approach violates the proportionality "requirement" of the D.C. Circuit Court's decision in *EME Homer City Generation L.P. v. EPA* (*EME Homer City*)[162] because it does not take into account the commitment of other WRAP states to reduce the emission of haze pollutants beyond the emission levels assumed by the WRAP modeling.

Response: The commenters appear to misunderstand the relevant statutory requirement. Section 110(a)(2)(D)(i)(II) of the CAA requires that each SIP "*contain adequate provisions prohibiting* … any source or other type of emissions activity within the State from emitting any

[162] *EME Homer City Generation, L.P. v. EPA.,* 696 F.3d 7 (D.C. Cir. 2012).

air pollutant in amounts which will… interfere with measures required to be included in [other states' SIPs]… to protect visibility."[163] As explained in our proposal, Arizona relied on its RH SIP for purposes of satisfying this requirement.[164] However, EPA has disapproved certain provisions of the SIP and is today disapproving several other aspects of the submission.[165] Therefore, the SIP as a whole will not be incorporated into the applicable SIP. Since Arizona has not provided any other analysis or explanation of how the Arizona SIP fulfills the requirement of 110(a)(2)(D)(i)(II), it follows that the Arizona SIP does not contain adequate provisions to prohibit emissions that would interfere with other states' visibility protection measures.

This analysis is not inconsistent with the *EME Homer City* decision. *EME Homer City* concerned the Cross State Air Pollution Rule,[166] which addressed only section 110(a)(2)(D)(i)(I) of the CAA (often referred to as prongs 1 and 2 of the interstate transport requirements). This decision does not apply to the interstate transport *visibility* requirement (often referred to as prong 4). Since the interstate transport portion of our December 21, 2012, proposed rule addressed only the visibility requirement for Arizona, the *EME Homer City* decision does not apply to this action.

Furthermore, even if the concept of "proportionality" set out in the *EME Homer City* decision were to apply to the visibility prong of the transport requirements, we disagree that our action here is contrary to that concept. We are not specifying a particular amount of emissions reductions that Arizona must achieve to meet the requirement of prong 4, nor are we making an

[163] 42 U.S.C. 7410(a)(2)(D)(i)(II) (emphasis added). This interstate visibility transport requirement is often referred to as "prong 4" of the interstate transport requirements of section 110(a)(2)(D)(i).
[164] See 77 FR 75735.
[165] EPA has previously disapproved Arizona's determinations for NO_x emission limits at most of the units at Apache, Cholla, and Coronado power plants (77 FR 72512, December 5, 2012), and, in this final action, is disapproving several aspects of Arizona's other BART and reasonable progress analyses, and related deficiencies in Arizona's long-term strategy. Thus, the Arizona SIP lacks enforceable emissions limits to achieve the RPGs for Class I areas affected by emissions from Arizona, including those in other states (as noted in our proposal rule), and we are disapproving the State's SIP submittals for the interstate transport visibility requirement for the 1997 8-hour ozone, 1997 $PM_{2.5}$, and 2006 $PM_{2.5}$ NAAQS. 77 FR 75704 at 75735, December 21, 2012.
[166] 76 FR 48208, August 8, 2011.

affirmative determination that emissions from Arizona are interfering with other states' visibility protection measures. Rather, we are finding that the Arizona SIP does not contain adequate provisions to prohibit emissions that would interfere with other states' visibility protection measures. In particular, Arizona asserted that its SIP would achieve the emissions reductions necessary to meet the requirement of prong 4. However, due to our partial disapproval of the SIP, the Arizona SIP will not include many of these reductions. Accordingly, the SIP does not contain the emissions reductions that Arizona itself determined to be necessary to meet the interstate visibility transport requirement.

Finally, we note that ADEQ asserts in section 11.8 ("Emission Reductions with Respect to Out-of-State Class I Areas") of the Arizona RH SIP Supplement that its revised demonstration showing reasonable progress at Arizona's Class I areas is adequate to achieve the necessary reductions in visibility impairment in Class I areas in neighboring states. However, the vast majority of the deficiencies in the Arizona RH SIP, which led to our proposed disapproval for the interstate transport visibility requirement, remain. Accordingly, we are finalizing our disapproval of the State's SIP revisions for the interstate transport visibility requirement for the 1997 8-hour ozone, 1997 $PM_{2.5}$, and 2006 $PM_{2.5}$ NAAQS.

9. Statutory and Executive Order Reviews

Comment: PCC noted that it is a division of the government of the Salt River Pima-Maricopa Indian Community (SRPMIC), and asserted that SRPMIC relies substantially on the revenues of PCC to meet the safety, health and educational needs of its members. The commenter noted that, while EPA's proposal refers to the "Rillito Cement Plant" at 77 FR 75730 in its discussion of the proposed disapproval of the State's finding that it is not reasonable to require additional NO_x controls on non-BART sources; the 2011 RH SIP actually refers to the

Phoenix Cement Plant in this context, not the Rillito Cement Plant. The commenter concluded that the proposed disapproval is based materially on the SIP's treatment of the Phoenix Cement Plant and, therefore, directly affects the commenter.

PCC argued that EPA did not satisfy tribal consultation requirements that apply to the proposed disapproval of the portion of the State's RH SIP that addresses the Phoenix Cement Plant. The commenter indicated that EPA was incorrect in stating in the preamble that the proposal does not have tribal implications, as specified in Executive Order 13175, because it will not impose substantial direct costs on tribal governments. The commenter stated that the proposed disapproval creates the basis for a FIP that could impose on SRPMIC costly requirements to install additional NO_x controls at the Phoenix Cement Plant and, therefore, does have significant tribal implications warranting consultation with the tribe early in the process. The commenter asserted that if SRPMIC had been consulted, the tribe would have provided to EPA information on the real costs to SRPMIC of installing NO_x controls at the Phoenix Cement Plant and the true measure of visibility benefits that would result. The commenter added that this information would have informed EPA's decision on whether to propose to disapprove the State's finding that it is not reasonable to require additional NO_x controls on non-BART point sources.

Response: The commenter is correct that the sentence in the Arizona RH Plan quoted in our proposal concerns the Phoenix Cement Plant, not the Rillito Cement Plant. However, we do not agree that our action on the Arizona RH SIP directly impacts the Tribe. Today's action simply approves certain provisions of the Arizona RH SIP and disapproves certain other provisions, based on an evaluation of their compliance with the applicable statutory and regulatory requirements.

Under Executive Order 13175 the term "'[p]olicies that have tribal implications' refers to (among other things) "regulations . . . and other policy statements or actions that have substantial direct effects on one or more Indian tribes . . ."[167] EPA's action on the Arizona RH SIP has no such substantial direct effects. Our statement that "this action creates the basis for future action which could impact a tribally-owned source" was intended as an acknowledgment of the possible tribal implications of a potential future Regional Haze FIP for Arizona. We do not agree that "[b]ut for the proposed SIP disapproval in relation to PCC, there could lawfully be no FIP proposal in relation to PCC." As explained elsewhere, EPA has a pre-existing FIP obligation with respect to the regional haze requirements for Arizona, resulting from our January 2009 finding of failure to submit. However, even if the SIP disapproval were a prerequisite to any FIP proposal in relation to the Phoenix Cement Plant, it is the future notice-and-comment rulemaking process for that FIP that would be the appropriate subject of consultation. Accordingly, EPA Region 9 has offered SRMPIC opportunities for meetings and formal consultation in anticipation of such a possible FIP.[168]

Finally, we note that we sent our initial analysis of potential controls at the Phoenix Cement Plant to PCC on November 6, 2012.[169] PCC provided feedback on this analysis as part of its comments on our initial proposal and in materials submitted to ADEQ and EPA.[170] ADEQ incorporated this feedback into its RH SIP Supplement.[171] EPA will also take this information into account in any future analyses regarding the Phoenix Cement Plant.

10. Other Comments

[167] EO 13175: Consultation and Coordination with Indian Tribal Governments, 65 FR 67249, section 1(a) (Nov. 9, 2000).
[168] See Memorandum to File from Colleen McKaughan regarding EPA Region 9 communications with SRPMIC (May 8, 2013).
[169] Email from Colleen McKaughan, EPA, to Verle Martz, PCC (November 6, 2012).
[170] Letter from Verle Martz, PCC, to Gregory Nudd, EPA, (March 6, 2013), Attachment 3; Arizona RH SIP Supplement, Attachments; Email from Brett Lindsay, PCC, to Balaji Vaidyanathan, ADEQ (March 21, 2013).
[171] See Arizona RH SIP Supplement, page 52.

Comment: AMA detailed the importance of the mining industry to the economy of Arizona and noted that copper has become one of the most important metals in the generation and transmission of renewable energy and in helping to drive down auto emissions through its application in hybrid and electrical vehicles. The commenter expressed support for the comments submitted by FMMI and ASARCO.

Response: We acknowledge the comment. We have responded to specific comments from FMMI and ASARCO in the preceding sections.

B. Responses to Comments on the Proposal of May 20, 2013

1. State and EPA Actions on Regional Haze

Comment: ADEQ summarized the contents of the Arizona RH SIP Supplement and expressed appreciation for the opportunity to work with EPA on the Supplement, despite the fact that EPA is not proposing to approve all of the supplemental analyses.

Response: We acknowledge the comment and appreciate ADEQ's efforts to revise the Arizona RH SIP. We look forward to working with ADEQ on future revisions to the Arizona RH SIP.

Comment: ADEQ commented that states have the primary role in implementing the regional haze program and asserted that, "EPA has proposed disapproval of elements of the Arizona Regional Haze Plan on the basis of considerations that find no basis in the CAA or rule and that in some cases violate the RHR."

Response: As explained in our response to similar comments on our December 21, 2012, proposal in section V.A.1.a, we do not agree that we have exceeded our authority under the CAA and the RHR in any of our actions on the Arizona RH SIP. The commenter did not specify which aspects of our May 20, 2013, proposal it believes are inconsistent with the CAA and RHR. To

the extent the commenter is referring to other comments regarding specific elements of the Supplement, our responses are included below.

Comment: ADEQ reiterated its objection to the bifurcation of EPA's action on the Arizona RH SIP into two different phases, arguing that this created an unfair burden on the State and is forbidden by Section 110(k)(3) of the Clean Air Act.

Response: Please see our response to a nearly identical comment in section IV.A.1.d above.

2. EPA's Evaluation of Arizona's Reasonable Progress Analysis

a. Reasonable Progress Analysis for Coarse Mass and Fine Soil

Comment: Earthjustice argued that EPA should disapprove Arizona's determination that no reductions in coarse mass and fine soil emissions are necessary to make reasonable progress for this planning period. The commenter asserted that, "[u]ntil EPA conducts modeling demonstrating that its regional haze plan will put Arizona's Class I areas on the glide path to achieving natural visibility by 2064, EPA should not limit opportunities to require additional emissions reductions from sources of coarse mass and fine soil emissions."

Response: We do not agree with this comment. As explained in our May 20, 2013, proposal, the State's monitoring analysis and our supplemental analysis of sources of coarse mass and fine soil showed no clear relationship between any particular source category of these pollutants and observed visibility impairment at the State's Class I areas.[172] The commenter has not provided any data or analysis to rebut this finding. Therefore, we are approving the State's decision to exclude coarse mass and fine soils from its four-factor reasonable progress analysis for the first planning period.

We also disagree with the commenter's suggestion that meeting the URP is a requirement

[172] See 77 FR 29297-29298.

of the RHR. The URP is not a presumptive target and a state or EPA may set RPGs that provide for less progress than the URP if those RPGs are demonstrated to be reasonable (and achievement of the URP to be unreasonable) based upon an analysis of the four RP factors.[173] Therefore, we do not agree that we must conduct modeling to demonstrate achievement of the URP prior to approving any portion of the State's RP analysis.

b. Visibility Monitoring Trend Analysis

Comment: Earthjustice expressed support for EPA's proposed disapproval of portions of Arizona's revised RP analysis. In particular, Earthjustice agreed with EPA's determination that Arizona's monitoring trend analysis was insufficient to establish that no additional controls were reasonable for this planning period.

Response: We acknowledge Earthjustice's support on this issue.

Comment: ADEQ noted that its monitoring trend analysis is not intended as a substitute for a four-factor RP analysis. Rather, the analysis was intended to support ADEQ's position that its categorical four-factor analysis is the appropriate approach. ADEQ noted that it intends to develop guidance for conducting a comprehensive analysis for the next planning period.

Response: EPA notes ADEQ's clarification regarding the intent of its monitoring trend analysis. The RHR requires a complete analysis for every planning period. The approach that ADEQ used in this planning period was incomplete in that ADEQ did not evaluate the reasonableness of controls for the categories of sources that it identified as contributing to visibility impairment.

Comment: Quoting EPA's RP Guidance, ADEQ asserted that, in proposing to disapprove portions of Arizona's RP analysis, EPA had not recognized the "wide latitude" and "considerable flexibility" that the CAA and RHR provide states with respect to RP analyses. ADEQ noted that

[173] See 64 FR 35730-35731.

EPA found that a number of the elements of ADEQ's RP analysis lacked "adequate" support or included "insufficient" information, but that EPA had not identified any requirement of the CAA and RHR that the Arizona RH SIP violated. ADEQ added that the monitoring trend analysis in the Supplement indicates that further progress has been made than projected in ADEQ's 2011 RH SIP and that existing source controls have resulted in improvement in visibility or maintenance of current trends. ADEQ noted that it plans to develop guidance for conducting a comprehensive four-factor analysis of non-BART source categories and individual sources for the next planning period.

Response: Please see our response to a similar comment from ADEQ on our December 21, 2012, proposal, in section IV.A.6.b above. With regard to the monitoring trend analysis included in the Supplement, as explained in section IV.B.2 of our May 20, 2013, proposal, this analysis cannot substitute for the four-factor analysis required by the RHR.[174] In addition, while the Supplement provides helpful information about trends in monitored visibility impairment between the baseline period of 2000-2004 and the following five-year period of 2005-2009, it does not provide any analysis that indicates that these trends will continue through 2018.

c. Point Sources of NO_x

Comment: PCC reiterated its assertion that EPA lacks authority to disapprove the Arizona RH SIP with regard to non-BART sources of NO_x because the SIP was previously deemed complete by operation of law.

Response: As explained in section IV.A.1 above, completeness findings under CAA section 110(k)(1)(B) deal with administrative and technical criteria and do not remove our authority to review SIPs for compliance with the substantive requirements of the CAA and 40 CFR part 51. Our evaluation of the Arizona RH SIP in relation to these substantive criteria is set

[174] 78 FR 29298-29299.

out in our proposals and elsewhere in this preamble.

Comment: TEP disagreed with what it characterized as EPA's assessment that ADEQ had "failed to submit sufficient evidence to demonstrate that it is achieving its Reasonable Progress Goals for this planning period." TEP asserted that the State was not required to conduct a four-factor analysis and that by proposing to disapprove the State's RP analysis, EPA was not fully considering the flexibility that states have in conducting such analyses. TEP noted that the monitoring trend analysis supplied by the State demonstrates that actual progress in reducing visibility impairment exceeds the projected improvement in the original 2011 RH SIP. TEP concluded that "EPA should have concluded that ADEQ has met all the elements required to demonstrate RPG during this progress period."

Response: We do not agree with this comment. Contrary to TEP's suggestion, the question of whether the State's Class I areas are likely to meet the State's chosen RPGs is not relevant to our evaluation of the Arizona RH SIP. This type of analysis is a required component of regional haze progress report SIPs, which are due five years after submittal of the State's initial RH SIP.[175] The Arizona RH SIP Supplement, however, is not a progress report SIP, but a revision to the State's 2011 RH SIP, which is subject to the requirements of 40 CFR 51.308(d) and (e). Among these is the requirement to demonstrate that the State's RPGs are reasonable, based on an analysis of the four RP factors.[176] In this case, Arizona identified point sources of NO_x as contributing to visibility impairment, but did not complete a four-factor analysis for most NO_x point sources or source categories, because it deemed the analysis to be too resource intensive.[177] Therefore, the State did not fulfill the requirements of 40 CFR 51.308(d)(1)(i)(A) and (ii) to demonstrate that its RPGs are reasonable based on an analysis of the four RP factors.

[175] See 40 CFR 51.308(g) and (h).
[176] 40 CFR 51.308(d)(1)(i)(A) and (ii).
[177] See Section 11.3.3 of the Supplement, pages 23, 24 and 25.

Comment: Citing EPA's RP Guidance, CalPortland asserted that "[s]ources that contribute to visibility impairment at a Class I area must undergo a four-factor analysis. Sources that do not contribute are not required to undergo such analysis." CalPortland argued that in this case, Arizona's decision not to conduct a four-factor RP analysis for the Rillito Cement Plant was lawful and reasonable. The commenter noted that visibility modeling performed by the WRAP indicated that the baseline visibility impact of emissions from Kiln 4 at the Rillito Cement Plant was less than 0.5 dv and that Kiln 4 therefore not subject-to-BART. Quoting Arizona's RH SIP Supplement, CalPortland asserted that ADEQ reasonably concluded that, given the lack of visibility impacts from Kiln 4, no RP analysis for this unit was needed and that any other conclusion would render the subject-to-BART exercise meaningless. CalPortland further commented that ADEQ's decision to defer consideration of Kilns 1-3 is reasonable and consistent with 40 CFR 51.308, given that the three kilns have been in care and maintenance mode since 2008. Finally, CalPortland asserted that Arizona's monitoring trend analysis for Saguaro National Park supports ADEQ's decision not to conduct a four-factor analysis for the Rillito Cement Plant.

Response: We do not agree with this comment. CalPortland has mischaracterized the contents of the RHR, EPA's RP Guidance, Arizona's RP analysis, and EPA's evaluation of that analysis. The RHR provides that, in determining whether Arizona's RPGs provide for reasonable progress towards natural visibility conditions, we must evaluate the State's demonstration "that the rate of progress for the implementation plan to attain natural conditions by 2064 is not reasonable; and that the progress goal adopted by the State is reasonable."[178] This demonstration, in turn, must be based on an analysis of the four RP factors.[179] Contrary to the commenter's

[178] 40 CFR 51.308(d)(1)(ii) and (iii).
[179] 40 CFR 51.308(d)(1)(i) and (ii).

assertion, neither the RHR nor EPA's RP Guidance provides that a determination that an individual source "contributes" to visibility impairment is a prerequisite to conducting a four-factor analysis for that source. Rather, the RP Guidance recommends that, prior to conducting source- or category-specific four-factor analyses, states should first identify key pollutants and source *categories* that are contributing to visibility impairment at the Class I area.[180]

In this instance, ADEQ identified NO_x and SO_2 as key pollutants and internal combustion engines and turbines, boilers, asphalt plants, lime plants, Portland cement plants, primary copper smelters, and nitric acid plants as key source categories. However, ADEQ did not conduct source-specific four-factor analyses for any sources in these categories (except for the Phoenix Cement Plant) and conducted only a cursory four-factor analysis for two source categories.[181] In other words, ADEQ did not conduct four-factor analyses for the majority of sources and categories that it identified as contributing to visibility impairment at the State's Class I areas. In the absence of such analysis, we find that ADEQ has not demonstrated that achievement of the URP at its Class I areas is unreasonable and that ADEQ's RPGs are reasonable.[182] As explained in section IV.B.2 of our May 20, 2013, proposal and section IV.B.3 above, the monitoring trend analysis included in the Supplement cannot substitute for the four-factor analysis required by the RHR. Therefore, we are finalizing our disapproval of ADEQ's determination that no additional controls for point sources of NO_x are reasonable.

This disapproval is based on the inadequacy of ADEQ's overall analysis for point sources of NO_x and does not pertain to the Rillito Cement Plant specifically. Nonetheless, we note that Kiln 4's modeled visibility impact at the most affected Class I area was 0.48 dv. On this basis, Arizona concluded that "the modeling has shown Kiln 4 is not a contributor to visibility

[180] RP Guidance page 3-1 (emphasis added).
[181] See Arizona RH SIP section 11.3.3 (RH Supplement pages 48-54).
[182] As explained elsewhere in this rule, we have found, based on additional analyses performed by ADEQ and ourselves, we are approving other portions of the State's RP analysis.

impairment and as such, should be excluded from the requirement for a 4-factor analysis."[183] However, while ADEQ set a contribution threshold of 0.5 dv for BART sources, it set no such threshold for its RP sources, nor did it explain why a visibility impact of 0.48 dv from a single emissions unit is too small to warrant consideration of potential controls. Accordingly, we do not agree that ADEQ reasonably concluded that no four-factor analysis for Kiln 4 was needed.

Comment: CalPortland commented that EPA's May 20, 2013, proposal overlooked new information provided in the Supplement. In particular, CalPortland asserted that our proposal failed to evaluate additional explanation and analysis regarding the Rillito Cement Plant in Section 11.3.3.5 of the Supplement. The commenter also alleged that neither of EPA's proposals provided notice or an explanation of EPA's proposed decision to disapprove Arizona's RP analysis for the Rillito Cement Plant.

Response: We do not agree with the commenter's suggestion that we are required to evaluate and take action on Arizona's discussion of the Rillito Cement Plant separately from the remainder of the State's RP analysis for point sources of NO_x. The 2011 RH SIP contained a single paragraph setting out ADEQ's rationale for not conducting a four-factor analysis for any of the four kilns at the Rillito Cement Plant, which was included as part of the overall assessment of non-BART point sources of NO_x and SO_2.[184] The Supplement contained the following two additional sentences concerning the Rillito Cement Plant:

> Pursuant to EPA guidance for setting RP goals, determining the sources that contribute to visibility impairment in a Class I area is a pre-requisite to conducting a 4-factor analysis. From perspective, the modeling has shown Kiln 4 is not a contributor to visibility impairment and as such, should be excluded from the requirement for a 4-factor analysis.[185]

[183] Arizona RH SIP section 11.3.3 (page 52 of the RH Supplement).
[184] 2011 RH SIP page 165.
[185] Supplement page 51-52.

As explained in the preceding response, we find that this rationale is insufficient to support ADEQ's conclusion that no further analysis of controls at the Rillito Cement Plant is needed. In particular, ADEQ based its determination not to consider controls on Kiln 4 on the incorrect premise that an individual unit must have a baseline impact above 0.5 dv in order to be considered for RP controls.

Comment: CalPortland noted that Kilns 1-3 at the Rillito Cement Plant had been shut down since 2008 due to economic conditions as had the Douglas Lime Plant. CalPortland noted that EPA found that it wasn't reasonable to require SO_2 controls for the Douglas Lime Plant at this time, given that the plant had not been operating. CalPortland asserted that because EPA did not make a similar finding about NO_x at CalPortland's facility, it was treated differently than the Douglas Lime Plant. While contending that such an analysis is not necessary for EPA to approve Arizona's findings, CalPortland also included a four-factor analysis for Kilns 1-3 and for Kiln 4.

Response: EPA's analysis regarding the Douglas Lime Plant was part of a larger assessment of SO_2 point sources. At the time, EPA did not have sufficient data to conduct a similar assessment of NO_x point sources. As a result, we were not able to determine whether it was reasonable to control any point sources of NO_x in Arizona in order to ensure reasonable progress. Because Arizona did not conduct an adequate analysis to support its conclusions on this subject, we are finalizing our disapproval of that aspect of the Arizona RH SIP. We will address this disapproval in our upcoming FIP proposal. We will consider the economic shutdown of Kilns 1-3 and the information provided in the four-factor analyses for Kilns 1-3 and Kiln 4 as we develop our proposed FIP. Because these analyses were not submitted as part of the Arizona RH SIP, we are not acting on them at this time.

Comment: ADEQ provided additional information regarding its decision not to conduct a source-specific RP analysis for the CalPortland Rillito Cement Plant. ADEQ used modeling

conducted by the WRAP demonstrating that Kiln 4 did not contribute to visibility impairment at nearby Class I areas. ADEQ also said that Kilns 1-3 had been in maintenance mode since 2008. ADEQ further noted that visibility is improving more quickly than expected at the Class I area closest to the Rillito Cement Plant. ADEQ also noted that CalPortland had performed a source-specific RP analysis, but submitted it after ADEQ had submitted the Arizona RH SIP Supplement. ADEQ explained that it has reviewed this analysis and believes it supports ADEQ's position not to require additional controls on the Rillito Cement Plant at this time.

Response: Because the source-specific RP analysis was not submitted as part of the Arizona RH SIP Supplement and was not made available for public review and comment, we are not considering it under this action. However, EPA will consider that analysis and other information presented by ADEQ in our upcoming FIP.

Comment: Earthjustice agreed with EPA's proposal to disapprove the State's RP control determination for the Phoenix Cement Plant.

Response: We acknowledge the commenter's support.

Comment: ADEQ and PCC disagreed with EPA's assessment of the four-factor analysis of the Phoenix Cement Plant included in the Supplement. In particular, PCC objected to EPA's reliance on the RP Guidance, BART Guidelines, and Control Cost Manual in its evaluation of the State's analysis because these are non-binding guidance documents. ADEQ added that it had "reviewed the cost analysis provided by PCC and found it to be [an] acceptable and appropriate substitute for the Cost Control Manual." ADEQ further asserted that "EPA does not justify its cost analysis over the site-specific costs submitted by the source" and that "[t]he EPA costing approach based mostly on generic assumptions essentially amounts to a group-BART approach that has been rejected by the courts."

Response: We agree with the commenters that the RP Guidance, BART Guidelines and

Control Cost Manual are not binding with respect to RP analyses. Contrary to the commenters' assertions, however, our disapproval of ADEQ's RP analysis for point sources of NO_x is not based solely or primarily on these guidance documents. While we considered the guidance documents in our review of the Arizona RH SIP, our disapproval results from the Arizona RH SIP's failure to meet the requirements of 40 CFR 51.308(d)(1)(i)(A) and (ii) with respect to point sources of NO_x.

In evaluating ADEQ's four-factor analysis for the Phoenix Cement Plant, we did take into consideration the RP Guidance, which recommends use of the BART Guidelines and the Control Cost Manual in performing four-factor analyses.[186] While these materials are not legally binding, they are relevant to our evaluation of whether the State's four-factor analysis was reasonable. For example, in evaluating PCC's analysis of the cost of compliance for SNCR, we compared PCC's method to the costing method provided by the Control Cost Manual in order to ensure a reasonable "apples-to-apples" comparison of pollution control costs at Phoenix Cement Plant with costs at other facilities. In this case, PCC's analysis assumed an equipment lifetime of 10 years without any explanation or support, despite the fact that the Control Cost Manual establishes an economic lifetime of 20 years for an SNCR system and the kiln itself is expected to last for 50 years. We found that PCC's 10-year assumption effectively inflated the annualized cost of SNCR.[187] Neither the Arizona RH SIP nor ADEQ's comments provide any evidence of an independent review by ADEQ or any explanation as to why this assumption is reasonable.[188]

[186] See RP Guidance page 5-1 ("For additional guidance on applying the cost of compliance factor to stationary sources, you may wish to consult the BART guidelines") and 5-3 ("To maintain and improve consistency wherever possible, cost estimates should be based on EPA's Air Pollution Control Cost Manual.").
[187] PCC objects to our characterization of this inflation as "significant" because it amounts to approximately $80,000 per year or less than seven percent of the total annual cost. Given that ADEQ did not specify what cost of control it would consider to be reasonable, we consider a difference of seven percent to be significant, albeit not overwhelming.
[188] Indeed, ADEQ's four-factor analysis consists almost entirely of text provided by PCC itself. *Compare* Arizona RH SIP Supplement at 52-53 *with* "4-Factor Reasonable Progress Analysis for Phoenix Cement Company Facility in Clarkdale, Arizona", sent from PCC to ADEQ on March 21, 2013.

Therefore, contrary to ADEQ's suggestion, EPA is not insisting that ADEQ employ EPA's own cost analysis in lieu of PCC's.[189] Rather, we are finding that ADEQ did not independently evaluate PCC's analysis to determine whether its assumptions were reasonable and supported by appropriate documentation.[190] In doing so, we are not requiring a "group BART" approach, as suggested by ADEQ. The term "group BART" refers to the consideration of the combined visibility impacts (or benefits) from multiple BART sources.[191] No such consideration is at issue here.

In any case, our disapproval of the Arizona RH SIP with regard to non-BART sources of NO_x is not based solely on the shortcomings of ADEQ's analysis for the Phoenix Cement Plant, but rather on the overall inadequacy of the analysis for the categories of NO_x point sources that ADEQ had identified as contributing to visibility impairment at the State's Class I areas.[192] Given this lack of analysis, we find that the Arizona RH SIP does not meet the requirements of 40 CFR 51.308(d)(1)(i)(A) and (ii) with respect to point sources of NO_x.

3. BART for the Miami Smelter

a. BART-Eligibility Determination

Comment: FMMI agrees and strongly supports EPA's proposal to approve ADEQ's clarification that the BART-eligible source at the Miami Smelter does not include the Remelt Vessel.

[189] ADEQ refers to PCC's cost analysis as a "site-specific" analysis. However, PCC's analysis relied largely on cost estimates from an entirely different facility, with no explanation as to why these estimates were reasonable for PCC. See Docket No. B.12, Attachment to the Regional Haze SIP Revision, Attachment to PCC Comments on Proposed SIP Disapproval.

[190] See 40 CFR 51.308(d)(To meet the core requirements for regional haze for these areas, the State must submit an implementation plan containing the following plan elements [including analyses of the four RP factors] *and supporting documentation for all required analyses* . . .")(emphasis added).

[191] See *American Growers*, # F.3d at 4-5; *CEED*, 398 F.3d at 660.

[192] Please see section VIII.B of our proposal dated December 21, 2012, and section IV.B.3 of our proposal dated May 20, 2013, and sections IV.A.6 and IV.B.2 of this document for the details of our evaluation.

Response: We agree with this comment and are finalizing our proposed approval of ADEQ's clarification of the BART-eligible source at the Miami Smelter.

b. NOx Subject-to-BART Analysis and Determination

Comment: Earthjustice supported EPA's proposed disapproval of Arizona's determination that the Miami Smelter is not subject to BART for NO_x.

Response: We acknowledge this commenter's support.

Comment: FMMI disagreed that enforceable limits are required for purposes of determining the maximum capacity of the NO_x emission units at the Miami Smelter. FMMI noted that EPA guidance indicates that inherent[193] physical limitations and operational design features, which restrict the potential emissions of individual emission units, should be taken into account when estimating PTE at facilities for which the theoretical use of equipment is much greater than could ever actually occur in practice.[194] FMMI asserted that this is the case with natural gas usage at the units that constitute the Miami Smelter BART-eligible source and that FMMI was therefore not required to obtain legally and practically enforceable limitations to restrict natural gas usage to those levels for purposes of estimating PTE.

Response: Under the RHR, PTE is defined as "the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. . . ."[195] Based on this definition, we agree that an inherent physical limitation and operational design features, which restrict the potential emissions of individual emission units, should be taken into account when estimating PTE. We disagree, however, that FMMI has identified any inherent physical or operational limitation that restricts PTE at the Miami Smelter.

[193] Citing "Options for Limiting the Potential to Emit of a Stationary Source Under Section 112 and Title V of the Clean Air Act" (January 25, 1995).
[194] Citing "Calculating Potential to Emit (PTE) and Other Guidance for Grain Handling Facilities" (November 14, 1995); "Calculating Potential to Emit (PTE) for Emergency Generators" (September 6, 1995).
[195] 40 CFR 51.301.

As explained in the guidance document cited by FMMI, the most straightforward examples of inherent limitations are for single-emission unit type operations, whereas such limitations are more difficult to identify for larger sources involving multiple emission units and complex operations.[196] The Miami Smelter is just such a large source with multiple emission units and complex operations. The other two guidance documents cited by FMMI concern grain elevators and emergency generators, two source categories for which EPA has identified "inherent limitations."[197] In contrast, EPA has never identified such an inherent limitation for primary copper smelters, nor has ADEQ identified such a limitation here. Accordingly, in the absence of an enforceable limit on operations, the NO_x PTE for the BART-eligible units at the Miami Smelter is greater than 40 tpy and a BART analysis for NO_x is required.

Comment: Noting that visibility modeling performed by WRAP indicated that the visibility impact attributable to NO_x emissions from the Miami Smelter is approximately 0.11 dv, FMMI asserted that the Miami Smelter should not be considered subject-to-BART for NO_x.

Response: We disagree with this comment. As explained in sections IV.A.4.d and e above, once a facility is determined to be subject to BART, the RHR allows for the exemption of a specific pollutant from a BART analysis only if the PTE for that pollutant is below the specified *de minimis* level.[198] Therefore, we disagree that NO_x emissions from the Miami smelter are not "subject to BART" or are exempt from a BART analysis simply because the NO_x-specific baseline impact from the Miami Smelter is less than 0.5 dv.

[196] "Options for Limiting the Potential to Emit of a Stationary Source under Section 112 and Title V of the Clean Air Act", memorandum from John Seitz to EPA Air Directors (January 25, 1995).
[197] See "Calculating Potential to Emit (PTE) for Emergency Generators," September 6, 1995 (explaining that emergency generators are "are used only during periods where electric power from public utilities is unavailable") and "Calculating Potential to Emit (PTE) and Other Guidance for Grain Handling Facilities" November 14,1995 (explaining that grain elevators are "designed to service, and as a matter of operation only service, a limited geographic area from which a finite amount of grain can be grown and harvested.").
[198] 40 CFR 51.308(e)(1)(ii)(C).

Comment: FMMI states that given the Miami Smelter's low baseline NO_x emissions and the low baseline visibility impact indicated by WRAP visibility modeling results, improvements in visibility resulting from reductions in NO_x emissions at the units that constitute the Miami Smelter BART-eligible source would be negligible. Accordingly, FMMI requests that EPA consider this alternative determination and conclude that NO_x visibility impacts are so small that additional controls are not warranted for purposes of BART.

Response: As noted in section IV.A.4.e above, we did not propose a NO_x BART determination for the Miami Smelter; we proposed disapproval of the ADEQ's finding that the Miami Smelter was exempt from a NO_x BART determination. We acknowledge the information provided by the commenters, and will examine it as we work towards developing and proposing a FIP for those elements of the Arizona RH SIP that we do not approve today.

V. Summary of Final Action

EPA is taking final action to approve in part and disapprove in part the remaining portion of the Arizona RH SIP. Along with our final rule dated December 5, 2012, that addressed three major BART sources (Apache, Cholla and Coronado), today's action completes our evaluation of the Arizona RH SIP for the first planning period through 2018. In this section of the notice, we provide a summary of our evaluation of the BART analyses and determinations, RPGs, and Interstate Transport followed by a description of our legal obligation to promulgate a FIP to fill the gap left by the disapproved elements of the State's plan. EPA acknowledges ADEQ's efforts in developing the RH SIP Supplement that resulted in approval of additional elements of the Arizona RH SIP. We look forward to continuing our collaborative working relationship with ADEQ to resolve the outstanding issues and to ensure the Arizona RH SIP includes all the elements of a regional haze program.

In today's final action, we are approving much of Arizona's RH SIP including all the supporting elements, many of the State's BART-eligibility and BART-subject findings, two of the State's BART control determinations, aspects of the reasonable progress analysis, and most of the mandatory factors in the LTS. As a result of the RH SIP Supplement, we are approving an emissions inventory for 2008; some aspects of a reasonable progress analysis (i.e., decision to focus on SO_2 and NO_x and that no controls are needed on sources of PM in the first planning period); and the BART determination that no additional controls are needed for PM_{10} at the Hayden Smelter.

We are disapproving Arizona's determinations that Sundt Generating Station Unit 4 is not BART-eligible; that the Nelson Lime Plant is not subject to BART; that the Miami and Hayden Smelters are not subject to BART for NO_x; and that the existing controls at the Hayden and Miami Smelters constitute BART for SO_2. We also are disapproving the RPGs for all of Arizona's Class I areas because the State did not perform a complete four-factor analysis and demonstration of reasonable progress. Moreover, our final disapproval of the RPGs and partial disapproval of the LTS is based on the fact that the Arizona RH SIP does not include enforceable emission limits to implement the State's BART determinations. We also are partially disapproving two transport SIPs with respect to the visibility protection requirements of 110(a)(2)(D)(i)(II), since these submittals relied entirely on the Arizona RH SIP to meet these requirements.

A. Regional Haze

1. BART Analyses and Determinations

Sources not eligible or subject to BART: EPA is approving Arizona's BART threshold (0.5 dv) and its determination that West Phoenix Power Plant and the Rillito Cement Plant are not subject to BART. We also are approving Arizona's determination that Cholla Unit 1 and

Sundt Unit 3 are not eligible for BART, and that a BART analysis is not required for Catalyst Paper.

Sundt Unit 4: EPA is disapproving Arizona's determination that Sundt Unit 4 is not BART-eligible. Our decision is based on the fact that this unit did not undergo NSR/PSD review as part of its reconstruction.

Chemical Lime Nelson: EPA is disapproving Arizona's determination that Nelson Lime Plant is not subject to BART. Our decision is based on the fact that the plant had a modeled 98th percentile impact on visibility in 2003 that exceeded 0.5 dv as well as additional modeling results from NPS.

Miami Smelter: We are approving Arizona's determination that the Miami Smelter is eligible and subject to BART for SO_2 and PM_{10}, but disapproving the State's determination that a BART analysis is not required for NO_x. Our disapproval is based on the fact that the facility's NO_x PTE is greater than the *de minimis* threshold of 40 tpy. Regarding SO_2, we are disapproving Arizona's streamlined analysis and determination that BART for SO_2 is the existing double contact acid plant. Our decision is based on the fact that the State did not conduct a five-factor analysis or an adequate streamlined analysis, and that the Arizona RH SIP lacks emission limits and compliance requirements. Regarding PM_{10}, we are approving Arizona's streamlined BART determination for PM_{10} at the Miami Smelter that compliance with MACT Subpart QQQ is BART. We are also approving the revised set of BART-eligible units at the Miami Smelter that were identified in the State's Supplement.

Hayden Smelter: We are approving Arizona's determination that the Hayden Smelter is BART-eligible and subject to BART for SO_2, but disapproving the State's determination that a BART analysis is not required for NO_x and PM_{10}. Regarding SO_2, we are disapproving Arizona's streamlined determination that BART for SO_2 is the existing double contact acid plant. Our

decision is based on the fact that the State did not conduct a five-factor analysis or an adequate streamlined analysis. In addition, the SIP does not require all BART-eligible units to meet the emission limit and lacks compliance requirements. Regarding our disapprovals, a BART analysis and determination is required for NO_x because the facility's NO_x PTE exceeds the *de minimis* threshold of 40 tpy. Regarding PM_{10}, we are disapproving the State's determination that the Hayden Smelter is exempt from a BART determination because the facility's PM_{10} is greater than the *de minimis* level of 15 tpy. However, we are approving Arizona's BART analysis and determination for PM_{10} in its Supplement, which concluded that BART is no additional controls.

2. Reasonable Progress

EPA is finalizing our disapproval of the State's RPGs for the 20-percent worst days and 20-percent best days for three reasons. First, the Arizona RH SIP does not meet the requirements of 40 CFR 51.308(d)(1)(i)(A) and (ii) because it does demonstrate, based on an analysis of the four RP factors, that the State's RPGs are reasonable, while achievement of the URP is not reasonable. In particular, the State has not demonstrated that it is reasonable not to require any additional controls on point sources of NO_x and area sources of NO_x and SO_2 during this planning period. Second, EPA has disapproved ADEQ's BART determinations for NO_x at three power plants and its determinations for SO_2 at two copper smelters. Third, all of Arizona's BART determinations, including the ones we are approving, lack enforceable emission limitations and compliance schedules to ensure that the emissions reductions attributed to BART will, in fact, be achieved during this planning period. For each of these three reasons, we are disapproving Arizona's RPGs for this planning period.

However, we are approving certain elements of the State's RP analysis. In particular, EPA is approving the State's decision to focus on NO_x and SO_2 sources for this planning period.

As explained in our December 21, 2012, proposal[199] and in our May 20, 2013, proposal, [200] the best information available indicates that VOC and secondary organic aerosols are largely uncontrollable. Therefore, it makes sense for Arizona to focus on other pollutants for this planning period. Similarly, as discussed in our May 20, 2013, proposal,[201] EPA is approving the State's decision not to pursue additional controls for coarse mass and fine soil during this first planning period, based on the monitoring data analysis supplied by the State as well as our own supplemental analysis of the major sources of these air pollutants. No commenter provided evidence that it was reasonable to control any particular source of these pollutants.

EPA is also approving the State's decision not to require additional controls on point sources of SO_2 in order to ensure reasonable progress during this planning period. EPA conducted our own four-factor analyses that confirmed the State's conclusion with regard to these sources. These analyses may be found in our December 21, 2012, proposal[202] and our responses to comments on these analyses may be found in section IV.A.6.b above.

However, EPA is not approving ADEQ's RP analyses and determinations for area sources of SO_2 and NO_x and point sources of NO_x. ADEQ identified categories of area sources of SO_2 and NO_x as appropriate candidates for four-factor analyses, but did not conduct complete four-factor analyses for these categories.[203] While the RHR does not require a complete four-factor analysis for every source or category in every planning period, it also does not allow for the deferral of all such analyses to future planning periods, particularly for the source categories that the State has identified as contributing to visibility impairment. Therefore, EPA is finalizing our proposed disapproval of the State's determination that it is not reasonable to control area

[199] 77 FR 75728.
[200] 78 FR 29296-29297.
[201] 78 FR 29297-29299.
[202] 77 FR 75728-75730.
[203] See Arizona Supplement Section 11.3.3.

sources of SO_2 and NO_x in order to ensure reasonable progress this planning period. We will conduct our own analyses of these categories and present it for public comment in our upcoming FIP proposal.

Similarly, ADEQ did not complete four-factor analyses for most of the point sources of NO_x that were identified as contributing to visibility impairment.[204] EPA is currently conducting our own four-factor analyses of these sources. We are consulting with the owners and operators of these facilities in order to make certain that we are using the best possible technical information to make our determination. However, that process did not conclude in time for us to present our findings in our proposed action on the Arizona RH SIP. Therefore, we were unable to fully evaluate whether the State correctly determined that it is not reasonable to require additional controls on point sources of NO_x at this time. As a result, we are disapproving the State's determination on this question and are planning to address it in our upcoming FIP proposal.

B. Interstate Transport

As discussed in section III.D ("Overview of Final Action on Regional Haze and Interstate Transport: Interstate Transport") and section IV.A.8 ("EPA's Response to Comments: Arizona's Provisions for Interstate Transport of Pollutants") of this final rule, EPA finds that the Arizona SIP, as revised by Arizona's 2007 and 2009 Transport SIPs and RH Plan, does not contain adequate provisions to prohibit emissions that will interfere with SIP measures required of other states to protect visibility. Therefore, we disapprove Arizona's 2007 and 2009 Transport SIPs and the Arizona RH Plan for the interstate transport visibility requirement of section 110(a)(2)(D)(i)(II) for the 1997 8-hour ozone, 1997 $PM_{2.5}$, and 2006 $PM_{2.5}$ NAAQS.

[204] ADEQ did conduct a four-factor analysis for the Phoenix Cement Plant, but, as explained in section IV.B.3.a of our May 20, 2013 proposal, and section IV.B.2.c above, this analysis was inadequate to support ADEQ's determination that it was not reasonable to require any additional controls at this source.

This disapproval triggers the obligation under CAA section 110(c)(1) for EPA to promulgate a FIP for the interstate transport visibility requirement for these NAAQS within two years from the effective date of this final rule. We anticipate that this FIP obligation could be satisfied by a combination of the measures that we previously approved (i.e., for Apache, Cholla, and Coronado power plants), the measures we are approving today with respect to the SIP, and EPA's promulgation of FIPs for the disapproved elements of the Arizona RH Plan. Alternately, this FIP obligation could be resolved by EPA approval of subsequent SIP revisions from ADEQ that either resolve the deficiencies in the SIP or provide a demonstration that emissions from the State's sources and activities will not have the prohibited impacts under the existing SIP.

C. Federal Implementation Plan

CAA section 110(c)(1) requires EPA to promulgate a FIP within two years after finding that a state has failed to make a required submission or disapproving a SIP submission in whole or in part, unless EPA approves a SIP revision correcting the deficiencies within that two-year period. As explained above, due to our previous finding that Arizona had failed to make part of the required regional haze submission, EPA is already subject to a FIP duty under section 110(c)(1) with respect to the regional haze requirements for Arizona. Moreover, we are also subject to a set of court-ordered deadlines for approval of a SIP and/or promulgation of a FIP that collectively meet the regional haze implementation plan requirements for Arizona, based on this FIP obligation.[205] Thus, we do not construe today's partial disapproval as creating any new FIP obligation with respect to RHR requirements. However, Arizona is appealing the district court's entry and modification of the consent decree that sets the deadlines for EPA action on regional haze plans for Arizona.[206] If Arizona's challenge ultimately results in any changes to the

[205] National Parks Conservation Association v. Jackson (D.D.C. Case 1:11-cv-01548).
[206] National Parks Conservation Association v. EPA (D.C. Cir., USCA Case #12-5211).

scope of EPA's existing FIP duty with respect to regional haze in Arizona, then today's action will trigger a two-year FIP clock for the elements of the SIP that we are disapproving and that are not subject to the already-expired FIP clock. We intend to fulfill our FIP obligation by proposing a FIP addressing the elements of the SIP that we have disapproved today.

Under section 179(a) of the CAA, final disapproval of a submittal that addresses a requirement of part D, title I of the CAA (CAA sections 171-193) or is required in response to a finding of substantial inadequacy as described in CAA section 110(k)(5) (SIP Call) starts a sanction's clock. Arizona's 308 Regional Haze SIP was not submitted to meet either of these requirements. Therefore, today's action will not trigger mandatory sanctions under CAA section 179.

VI. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

This action is not a "significant regulatory action" under the terms of Executive Order (EO) 12866 (58 FR 51735, October 4, 1993) and is therefore not subject to review under the EO.

B. Paperwork Reduction Act

This action does not impose an information collection burden under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 et seq., because this partial approval and partial disapproval of SIP revisions under CAA section 110 will not in-and-of itself create any new information collection burdens but simply approves certain State requirements, and disapproves certain other State requirements, for inclusion into the SIP. Burden is defined at 5 CFR 1320.3(b).

C. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) generally requires an agency to conduct a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small not-for-profit enterprises, and small governmental jurisdictions. For purposes of assessing the impacts of today's 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.

After considering the economic impacts of today's rule on small entities, I certify that this action will not have a significant impact on a substantial number of small entities. This rule does not impose any requirements or create impacts on small entities. This partial SIP approval and partial SIP disapproval under CAA section 110 will not in-and-of itself create any new requirements but simply approves certain State requirements, and disapproves certain other State requirements, for inclusion into the SIP. Accordingly, it affords no opportunity for EPA to fashion for small entities less burdensome compliance or reporting requirements or timetables or exemptions from all or part of the rule. Therefore, this action will not have a significant economic impact on a substantial number of small entities.

D. Unfunded Mandates Reform Act

This action contains no Federal mandates under the provisions of Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), 2 U.S.C. 1531-1538 for state, local, or tribal governments or the private sector. EPA has determined that the partial approval and partial

disapproval action does not include a Federal mandate that may result in estimated costs of $100 million or more to either state, local, or tribal governments in the aggregate, or to the private sector. This action approves certain pre-existing requirements, and disapproves certain other pre-existing requirements, under state or local law, and imposes no new requirements. Accordingly, no additional costs to state, local, or tribal governments, or to the private sector, result from this action.

E. Executive Order 13132: Federalism

Executive Order 13132, entitled "Federalism" (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" is defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government."

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 on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132, because it merely approves certain state requirements, and disapproves certain other state requirements, for inclusion into the SIP and does not alter the relationship or the distribution of power and responsibilities established in the Clean Air Act. Thus, Executive Order 13132 does not apply to this action.

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

This action does not have tribal implications, as specified in Executive Order 13175 (65 FR 67249, November 9, 2000), because the SIP on which EPA is taking action would not apply in Indian country located in the state, and EPA notes that it will not impose substantial direct costs on tribal governments or preempt tribal law. Thus, Executive Order 13175 does not apply to this action.

Nonetheless, we note that the Phoenix Cement Plant is owned by the tribal government of the Salt River Pima-Maricopa Indian Community (SRPMIC). Our disapproval of ADEQ's determination not to require additional controls on this source leaves open the possibility that this source could be regulated in a future regional haze FIP. Therefore, consistent with the EPA Policy on Consultation and Coordination with Indian Tribes (May 2, 2011), we have shared our initial analyses with SRPMIC and PCC to ensure that the tribe has an early opportunity to provide feedback on such a potential FIP. In addition EPA Region 9 has offered opportunities for meetings and formal consultation.[207]

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

EPA interprets EO 13045 (62 FR 19885, April 23, 1997) as applying only to those regulatory actions that concern health or safety risks, such that the analysis required under section 5-501 of the EO has the potential to influence the regulation. This action is not subject to EO 13045 because it is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997). This partial approval and partial disapproval under CAA section 110 will not in-and-of itself create any new

[207] Memo dated May 8, 2013, from Colleen McKaughan regarding EPA Region 9 communications with SRPMIC.

regulations but simply approves certain state requirements, and disapproves certain other state requirements, for inclusion into the SIP.

H. Executive Order 13211: Actions that Significantly affect Energy Supply, Distribution, or Use

This rule is not subject to Executive Order 13211 (66 FR 28355, May 22, 2001) because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 ("NTTAA"), Public Law 104-113, 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards. The EPA has determined that this action is not subject to requirements of Section 12(d) of NTTAA because application of those requirements would be inconsistent with the Clean Air Act.

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

Executive Order (EO) 12898 (59 FR 7629 (Feb. 16, 1994)) establishes federal executive policy on environmental justice. Its main provision directs federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by

identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States. EPA lacks the discretionary authority to address environmental justice in this rulemaking.

K. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 et seq., as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the Federal Register. A major rule cannot take effect until 60 days after it is published in the Federal Register. This action is not a "major rule" as defined by 5 U.S.C. section 804(2). This rule will be effective on December 5, 2012.

L. Petitions for Judicial Review

Under section 307(b)(1) of the Clean Air Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by January 4, 2013. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this rule for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements (see section 307(b)(2)).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Nitrogen oxides, Sulfur dioxide, Particulate matter, Reporting and recordkeeping requirements, Visibility, Volatile organic compounds.

Dated: July 15, 2013

Jane Diamond
Director, Water Division
Region 9

Part 52, chapter I, title 40 of the Code of Federal Regulations is 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. Section 52.120 is amended by adding paragraphs (c)(154)(ii)(A)(*2*) and (c)(158) to read as follows:

§ 52.120 Identification of plan.

* * * * *

(c) * * *

(154) * * *

(ii) * * *

(A) * * *

(*2*) Arizona State Implementation Plan, Regional Haze Under Section 308 of the Federal Regional Haze Rule (January 2011), excluding:

(*i*) Chapter 6: table 6.1; chapter 10: sections 10.4, 10.6 (regarding Unit I4 at the Irvington (Sundt) Generating Station), 10.7, and 10.8; chapter 11; chapter 12: sections 12.7.3 ("Emission Limitation and Schedules of Compliance") and 12.7.6 ("Enforceability of Arizona's Measures"); and chapter 13: section 13.2.3 ("Arizona and Other State Emission Reductions Obligations");

(*ii*) Appendix D: chapter I; chapter V (regarding Unit I4 at the Irvington (Sundt) Generating Station); chapter VI, sections C and D; chapter VII; chapter IX; chapter X, section E.1; chapter XI, section D; chapter XII, sections B and C; chapter XIII, sections B, C, and D; and chapter XIV, section D; and

(*iii*) Appendix E.

* * * * *

(158) The following plan was submitted May 3, 2013, by the Governor's designee.

(i) [Reserved]

(ii) Additional materials.

(A) Arizona Department of Environmental Quality (ADEQ).

(*1*) Arizona State Implementation Plan Revision, Regional Haze Under Section 308 of the Federal Regional Haze Rule (May 2013), excluding:

(*i*) Chapter 10, section 10.7 (regarding ASARCO Hayden Smelter (PM_{10} emissions) and Chemical Lime Company – Nelson Lime Plant);

(*ii*) Chapter 11, except subsection 11.3.1(3)("Focus on SO_2 and NO_x pollutants");

(*iii*) Appendix D: chapter I, except for the footnotes in tables 1.1, 1.2 and 1.3 to the entries for AEPCO [Apache], and the entry in table 1.2 for Freeport-McMoRan Miami Smelter; chapter VI, section C (regarding PM_{10} emissions from ASARCO Hayden smelter); chapter XII, section C, and chapter XIII, subsection D; and

(*iv*) Appendix E.

3. Section 52.123 is amended by revising paragraphs (l), (m), and (n) to read as follows:

§ 52.123 Approval status.

* * * * *

(l) *1997 8-hour ozone NAAQS:* The SIPs submitted on May 24, 2007, October 14, 2009 and August 24, 2012 are fully or partially disapproved for Clean Air Act (CAA) elements 110(a)(2)(C), (D)(i)(II) (interfere with measures in any other state to protect visibility), (D)(ii), (J) and (K) for all portions of the Arizona SIP; for CAA element 110(a)(2)(E)(ii) for the Maricopa County, Pima County, and Pinal County portions of the Arizona SIP; and for CAA element 110(a)(2)(F) for the Pima County portion of the Arizona SIP.

(m) *1997 $PM_{2.5}$ NAAQS:* The SIPs submitted on May 24, 2007, October 14, 2009 and August 24, 2012 are fully or partially disapproved for Clean Air Act (CAA) elements 110(a)(2)(C), (D)(i)(II) (interfere with measures in any other state to protect visibility), (D)(ii), (J) and (K) for all portions of the Arizona SIP; for CAA element 110(a)(2)(E)(ii) for the Maricopa County, Pima County, and Pinal County portions of the Arizona SIP; and for CAA element 110(a)(2)(F) for the Pima County portion of the Arizona SIP.

(n) *2006 PM $_{2.5}$ NAAQS:* The SIPs submitted on October 14, 2009 and August 24, 2012 are fully or partially disapproved for Clean Air Act (CAA) elements 110(a)(2)(C), (D)(i)(II) (interfere with measures in any other state to prevent significant deterioration of air quality or to protect visibility), (D)(ii), (J) and (K) for all portions of the Arizona SIP; for CAA element 110(a)(2)(E)(ii) for the Maricopa County, Pima County, and Pinal County portions of the Arizona SIP; and for CAA element 110(a)(2)(F) for the Pima County portion of the Arizona SIP.

4. Section 52.145 is amended by adding paragraphs (e)(2) and (g) to read as follows:

§ 52.145 Visibility protection.

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(e) * * *

(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.

(iii) The NO_X BART determination for Units ST2 and ST3 at AEPCO Apache Generating Station;

(iv) The NO_X BART determination for Units 2, 3, and 4 at APS Cholla Power Plant;

(v) The NO_X BART determination for Units 1 and 2 at SRP Coronado Generating Station; and

(vi) The BART compliance provisions for all BART emissions limits at Units ST1, ST2 and ST3 at AEPCO Apache Generating Station, Units 2, 3, and 4 at APS Cholla Power Plant, and Units 1

and 2 at SRP Coronado Generating Station .

* * * * *

(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]

5. Add §52.147 to subpart D to read as follows:

§ 52.147 Interstate transport.

(a) *Approval.* The SIP submitted on May 24, 2007 meets the requirements of Clean Air Act section 110(a)(2)(D)(i)(I) (contribute significantly to nonattainment or interfere with maintenance of the NAAQS in any other state) and section 110(a)(2)(D)(i)(II) (interfere with measures in any other state to prevent significant deterioration of air quality, only) for the 1997 8-hour ozone and 1997 $PM_{2.5}$ NAAQS.

(b) *Disapproval*. The SIPs submitted on May 24, 2007, February 28, 2011, and May 3, 2013 do not meet the requirements of Clean Air Act section 110(a)(2)(D)(i)(II) (interfere with measures in any other state to protect visibility, only) for the 1997 8-hour ozone and 1997 $PM_{2.5}$ NAAQS.

(c) *Approval.* The SIP submitted on October 14, 2009 meets the requirements of Clean Air Act section 110(a)(2)(D)(i)(I) (contribute significantly to nonattainment or interfere with maintenance of the NAAQS in any other state) for the 2006 $PM_{2.5}$ NAAQS.

(d) *Disapproval.* The SIPs submitted on October 14, 2009 and August 24, 2012 do not meet the requirements of Clean Air Act section 110(a)(2)(D)(i)(II) (interfere with measures in any other state to prevent significant deterioration of air quality, only) for the 2006 $PM_{2.5}$ NAAQS.

(e) *Disapproval.* The SIPs submitted on October 14, 2009, February 28, 2011, and May 3, 2013 do not meet the requirements of Clean Air Act section 110(a)(2)(D)(i)(II) (interfere with measures in any other state to protect visibility, only) for the 2006 $PM_{2.5}$ NAAQS.

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