6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R06-OAR-2015-0189; FRL-10006-02-Region 6]

Air Plan Approval; Arkansas; Arkansas Regional Haze and Visibility Transport State Implementation Plan Revisions and Withdrawal of Federal Implementation Plan

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: Pursuant to the Clean Air Act (CAA or the Act), the Environmental Protection Agency (EPA) is proposing to approve a revision to the Arkansas State Implementation Plan (SIP) submitted by the State of Arkansas through the Arkansas Division of Environmental Quality (ADEQ) on August 13, 2019. The SIP submittal addresses requirements of the Act and the Regional Haze Rule for visibility protection in mandatory Class I Federal areas (Class I areas) for the first implementation period. The EPA is proposing to approve an alternative measure to best available retrofit technology (BART) for sulfur dioxide (SO_2), particulate matter (PM), and nitrogen oxide (NO_X) at the Domtar Ashdown Mill and elements of the SIP submittal that relate to these BART requirements at this facility. In addition, we are proposing to approve the withdrawal from the SIP the previously approved PM_{10} BART limit and the federal implementation plan (FIP) provisions for the Domtar Ashdown Mill. The EPA is also concurrently proposing to approve Arkansas' interstate visibility transport provisions from the August 10, 2018, regional haze SIP submittal as supplemented by the visibility transport provisions in the October 4, 2019, interstate transport SIP submittal, which covers the following national ambient air quality standards (NAAQS): the 2006 24-hour fine particulate matter

($PM_{2.5}$) NAAQS; the 2012 annual $PM_{2.5}$ NAAQS; the 2008 and 2015 eight-hour ozone (O_3) NAAQS; the 2010 one-hour nitrogen dioxide (NO_2) NAAQS; and the 2010 one-hour SO_2 NAAQS.

DATES: Written comments must be received on or before **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].**

ADDRESSES: Submit your comments, identified by Docket No. EPA-R06-OAR-2015-0189, at *http://www.regulations.gov* or via email to *R6AIR_ARHaze@epa.gov*. Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from *Regulations.gov*. The EPA may publish any comment received to its public docket. Do not submit any information electronically that is considered to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment with multimedia submissions and should include all discussion points desired. The EPA will generally not consider comments or their contents located outside of the primary submission (i.e. on the web, cloud, or other file sharing systems). For additional submission methods, please contact James E. Grady, (214) 665-6745, *grady.james@epa.gov*. For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit *https://www.epa.gov/dockets/commenting-epa-dockets*.

Docket: The index to the docket for this action is available electronically at *www.regulations.gov* and in hard copy at the EPA Region 6, 1201 Elm Street, Suite 500, Dallas, Texas 75270–2102. While all documents in the docket are listed in the index, some information may be publicly available only at the hard copy location (e.g., copyrighted material), and some may not be

publicly available at either location (e.g., CBI).

FOR FURTHER INFORMATION CONTACT: James E. Grady, EPA Region 6 Office, Regional Haze and SO_2 Section, 1201 Elm Street, Suite 500, Dallas TX 72570, 214-665-6745; *grady.james@epa.gov*. To inspect the hard copy materials, please schedule an appointment with Mr. Grady or Mr. Bill Deese at 214-665-7253.

SUPPLEMENTARY INFORMATION: Throughout this document "we," "us," or "our" mean "the EPA."

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I. Background

A. Regional Haze Principles

Regional haze is visibility impairment that is produced by a multitude of sources and activities that are located across a broad geographic area and emit fine particulates ($PM_{2.5}$)[1] into the air. Fine particulates which cause haze are sulfates (SO_4^{2-}), nitrates (NO_3^-), organic carbon (OC), elemental carbon (EC), and soil dust.[2] $PM_{2.5}$ precursors consist of SO_2, NO_X, volatile organic compounds (VOCs), and in some cases, ammonia (NH_3). Airborne $PM_{2.5}$ can scatter and absorb the incident light and, therefore, lead to atmospheric opacity and horizontal visibility degradation. Regional haze limits visual distance and reduces color, clarity, and contrast of view. $PM_{2.5}$ can cause serious adverse health effects and mortality in humans. It also contributes to environmental effects such as acid deposition and eutrophication. Emissions that affect visibility include a wide variety of natural and man-made sources. Natural sources can include windblown dust and soot from wildfires. Man-made sources can include major and minor stationary sources,

[1] Fine particles are less than or equal to 2.5 microns (µm) in diameter and usually form secondary in nature indirectly from other sources. Particles less than or equal to 10 µm in diameter are referred to as PM_{10}. Particles greater than $PM_{2.5}$ but less than PM_{10} are referred to as coarse mass. Coarse mass can contribute to light extinction as well and is made up of primary particles directly emitted into the air. Fine particles tend to be man-made, while coarse particles tend to have a natural origin. Coarse mass settles out from the air more rapidly than fine particles and usually will be found relatively close to emission sources. Fine particles can be transported long distances by wind and can be found in the air thousands of miles from where they were formed.

[2] Organic carbon can be emitted directly as particles or formed through reactions involving gaseous emissions. Elemental carbon, in contrast to organic carbon, is exclusively of primary origin and emitted by the incomplete combustion of carbon-based fuels. Elemental carbon particles are especially prevalent in diesel exhaust and smoke from wild and prescribed fires.

mobile sources, and area sources. Reducing $PM_{2.5}$ and its precursor gases in the atmosphere is an effective method of improving visibility.

Data from the existing visibility monitoring network, "Interagency Monitoring of Protected Visual Environments" (IMPROVE), shows that visibility impairment caused by air pollution occurs virtually all of the time at most national parks and wilderness areas. In 1999, the average visual range[3] in many mandatory Class I Federal areas[4] in the western United States was 100-150 kilometers (km), or about one-half to two-thirds of the visual range that would exist under estimated natural conditions.[5] In most of the eastern Class I areas of the United States, the average visual range was less than 30 km, or about one-fifth of the visual range that would exist under estimated natural conditions. Since the promulgation of the original Regional Haze Rule in 1999, CAA programs have reduced emissions of haze-causing pollution, lessening visibility impairment and resulting in improved average visual ranges.[6]

B. Requirements of the CAA and the EPA's Regional Haze Rule

In section 169A, enacted as part of the 1977 CAA Amendments, Congress created a program for protecting visibility in the nation's national parks and wilderness areas. This section of the CAA establishes as a national goal the prevention of any future, and the remedying of any existing, visibility impairment in mandatory Class I Federal areas where impairment results from

[3] Visual range is the greatest distance, in km or miles, at which a dark object can be viewed against the sky by a typical observer.

[4] Mandatory Class I Federal areas consist of national parks exceeding 6,000 acres, wilderness areas and national memorial parks exceeding 5,000 acres, and all international parks that were in existence on August 7, 1977. The EPA, in consultation with the Department of Interior, promulgated a list of 156 areas where visibility was identified as an important value. The extent of a mandatory Class I area includes subsequent changes in boundaries, such as park expansions. Although states and tribes may designate additional areas as Class I, the requirements of the visibility program set forth in the CAA applies only to mandatory Class I Federal areas. Each mandatory Class I Federal area is the responsibility of a Federal Land Manager (FLM). When the term "Class I area" is used in this action, it means "mandatory Class I Federal areas." See 44 FR 69122 (November 30, 1979) and CAA Sections 162(a), 169A, and 302(i).

[5] 64 FR 35714, 35715 (July 1, 1999).

[6] An interactive story map depicting efforts and recent progress by the EPA and states to improve visibility at national parks and wilderness areas may be visited at: http://arcg.is/29tAbS3.

manmade air pollution. Congress added section 169B to the CAA in 1990 that added visibility protection provisions, and the EPA promulgated final regulations addressing regional haze as part of the 1999 Regional Haze Rule, which was most recently updated in 2017.[7] The Regional Haze Rule revised the existing 1980 visibility regulations and established a more comprehensive visibility protection program for Class I areas. The requirements for regional haze, found at 40 CFR 51.308 and 51.309, are included in the EPA's broader visibility protection regulations at 40 CFR 51.300-309. The regional haze regulations require states to demonstrate reasonable progress toward meeting the national goal of a return to natural visibility conditions for Class I areas by 2064. The CAA requirement in section 169A(b)(2) to submit a regional haze SIP applies to all fifty states, the District of Columbia, and the Virgin Islands. States were required to submit the first implementation plan addressing visibility impairment caused by regional haze no later than December 17, 2007.[8]

C. BART Requirements

Section 169A(b)(2)(A) of the CAA directs states to evaluate the use of BART controls at certain categories of existing major stationary sources built between 1962 and 1977.[9] Under 40 CFR 51.308(e)(1)(ii), any BART-eligible source[10] that is reasonably anticipated to cause or contribute to visibility impairment in a Class I area is classified as subject-to-BART.[11] States are

[7] See the July 1, 1999 Regional Haze Rule final action (64 FR 35714), as amended on July 6, 2005 (70 FR 39156), October 13, 2006 (71 FR 60631), June 7, 2012 (77 FR 33656) and on January 10, 2017 (82 FR 3079).
[8] See 40 CFR 51.308(b). Also, under 40 CFR 51.308(f)-(i), the EPA requires subsequent updates to the regional haze SIPs for each implementation period. The next update for the second implementation period is due by July 31, 2021.
[9] See 42 U.S.C. 7491(g)(7), which lists the 26 source categories of major stationary sources potentially subject-to-BART.
[10] BART-eligible sources are those sources that fall within one of 26 source categories that began operation on or after August 7, 1962, and were in existence on August 7, 1977, with potential emissions greater than 250 tons per year (tpy). (See 40 CFR 51 Appendix Y, section II).
[11] Under the BART Guidelines, states may select a visibility impact threshold, measured in deciviews (dv), below which a BART-eligible source would not be expected to cause or contribute to visibility impairment in any Class I area. The State must document this threshold in the SIP and specify the basis for its selection of that value. Any

directed to conduct BART determinations for each source classified as subject-to-BART. These large, often under-controlled, older stationary sources are required to procure, install, and operate BART controls to address visibility impacts. The determination must be based on an analysis of the best system of continuous emission control technology available and associated emission reductions achievable. States are required to identify the level of control representing BART after considering the five statutory factors set out in CAA section 169A(g)(2).[12] States must establish emission limits, a schedule of compliance, and other measures consistent with the BART determination process for each source subject-to-BART.

D. BART Alternative Requirements

A State may opt to implement or require participation in an emissions trading program or other alternative measure rather than require sources subject-to-BART to install, operate, and maintain BART. Such an emissions trading program or other alternative measure must achieve greater reasonable progress than would be achieved through the installation and operation of BART. In order to demonstrate that the alternative program achieves greater reasonable progress than source-specific BART, a state must demonstrate that its SIP meets the requirements in 40 CFR 51.308(e)(2)(i) to (iv).[13] The state must conduct an analysis of the best system of

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source with visibility impacts that model above the threshold value would be subject to a BART determination review. The BART Guidelines acknowledge varying circumstances affecting different Class I areas. States should consider the number of emission sources affecting the Class I areas at issue and the magnitude of the individual sources' impacts. Any visibility impact threshold set by the state should not be higher than 0.5 dv. (See 40 CFR part 51, Appendix Y, section III.A.1).

[12] The State must take into consideration the five statutory factors: (1) costs of compliance, (2) the energy and non-air quality environmental impacts, (3) any existing control technology present at the source, (4) the remaining useful life of the source, and (5) the degree of visibility improvement.

[13] 40 CFR 51.308(e)(2)(ii) is reserved. Under 40 CFR 51.308(e)(2)(v), "At the State's option, a provision that the emissions trading program or other alternative measure may include a geographic enhancement to the program to address the requirement under 40 CFR 51.302(b) or (c) related to reasonably attributable impairment from the pollutants covered under the emissions trading program or other alternative measure."

continuous emission control technology available and the associated reductions for each source subject-to-BART covered by the alternative program.

Pursuant to 40 CFR 51.308(e)(2)(i)(E), the state must provide a determination under 40 CFR 51.308(e)(3) or otherwise based on "clear weight of evidence" that the alternative measure achieves greater reasonable progress than BART. 40 CFR 51.308(e)(3) provides two specific tests applicable under specific circumstances for determining whether the alternative measure achieves greater reasonable progress than BART. Under the first test, if the distribution of emissions is not substantially different than under BART, and the alternative measure results in greater emission reductions, then the alternative measure may be deemed to achieve greater reasonable progress. Under the second test, if the distribution of emissions is significantly different, then the State must conduct dispersion modeling to determine the difference in visibility between BART and the alternative measure for each impacted Class I area, for the twenty percent best and worst days. The modeling would demonstrate greater reasonable progress if both of the following two criteria are met: (i) Visibility does not decline in any Class I area, and (ii) there is an overall improvement in visibility, determined by comparing the average difference between BART and the alternative over all affected Class I areas.

Alternatively, under 40 CFR 51.308(e)(2)(i)(E), states may show based on "clear weight of evidence" that the alternative achieves greater reasonable progress than would be achieved through the installation and operation of BART at the covered sources. As stated in the EPA's revisions to the Regional Haze Rule governing alternatives to source-specific BART determinations, weight of evidence demonstrations attempt to make use of all available information and data which can inform a decision while recognizing the relative strengths and

weaknesses of that information in arriving at the soundest decision possible.[14] This array of information and other relevant data must be of sufficient quality to inform the comparison of visibility impacts between BART and the alternative. A weight of evidence comparison may be warranted when there is confidence that the difference in visibility impacts between BART and the alternative scenarios are expected to be large enough to show that an alternative is better than BART. The EPA will carefully consider this evidence in evaluating any SIPs submitted by States employing such an approach.

Finally, under 40 CFR 51.308(e)(2)(iii) and (iv), all emission reductions for the alternative program must take place during the period of the first long-term strategy for regional haze, and all the emission reductions resulting from the alternative program must be surplus to those reductions resulting from measures adopted to meet requirements of the CAA as of the baseline date of the SIP. These requirements are discussed in more detail in subsequent sections of this proposed action.

E. Long-Term Strategy and Reasonable Progress Requirements

In addition to BART requirements, 40 CFR 51.308(d)(3)(i to iv) requires each state to include in its SIP a long-term strategy for the planning period that addresses regional haze visibility impairment for each Class I area located within the state and outside the state that may be affected by emissions generated from within the state. The long-term strategy is the vehicle for ensuring continuing reasonable progress toward achieving natural visibility conditions. It is a compilation of all control measures in the SIP that a state will use during the

[14] See 71 FR 60612, 60622 (October 13, 2006). Factors which can be used in a weight of evidence determination in this context may include, but not be limited to, future projected emissions levels under the alternative as compared to under BART; future projected visibility conditions under the two scenarios; the geographic distribution of sources likely to reduce or increase emissions under the alternative as compared to BART sources; monitoring data and emissions inventories; and sensitivity analyses of any models used.

implementation period to meet the applicable reasonable progress goals (RPGs) established under 40 CFR 51.308(d)(1) for each Class I area.[15] The RPGs established by the State provide an assessment of the visibility improvement anticipated to result for that planning period.[16] Section 51.308(d)(3)(v) requires that a state consider certain minimum factors (the long-term strategy factors) in developing its long-term strategy for each Class I area.[17] States have significant flexibility in establishing RPGs but must determine whether additional measures beyond BART and other controls are needed for reasonable progress during the first planning period based on a consideration of the following four reasonable progress factors set out in section 169A(g)(1) of the CAA: (1) the costs of compliance; (2) the time necessary for compliance; (3) the energy and non-air quality environmental impacts of compliance; and (4) the remaining useful life of any potentially affected sources.[18] States must demonstrate in their regional haze SIPs how these factors are considered when selecting their long-term strategies and associated RPGs for each

[15] See 40 CFR 51.308(d)(3)(i to iv). For the first planning period, contributing and impacted states must develop coordinated emission management strategies. Impacted states must demonstrate that they have included all measures necessary in their SIPs to obtain their share of emission reductions needed to meet the RPGs for a Class I area. States must document the technical basis that they relied upon to determine the apportionment of emission reduction obligations necessary and identify the baseline emissions inventory on which their strategies are based. States must also identify all anthropogenic sources of visibility impairment considered in developing the strategy, such as major and minor stationary sources, mobile sources, and area sources.

[16] The process for setting RPGs is as follows: 1) Identify sources that impact visibility; 2) evaluate potential controls based on consideration of the four reasonable progress factors; 3) project the visibility conditions based on implementation of on-the-books and additional selected controls; 4) compare the projected visibility conditions to the uniform rate of progress (URP) needed to attain natural visibility conditions by year 2064 for each Class I area; 5) determine an RPG for each Class I area based on this analysis that will improve the visibility at or beyond the URP on the most impaired days and ensure no degradation for the least impaired days. The Regional Haze Rule allows for the selection of an RPG at a given Class I area that provides for a slower rate of improvement than the URP for that area, but in that case a state must demonstrate that the URP is not reasonable and that the RPG selected is. (see 40 CFR 51.308(d)(1)(ii).

[17] These factors are: (1) emission reductions due to ongoing air pollution control programs, including measures to address reasonably attributable visibility impairment (RAVI); (2) measures to mitigate the impacts of construction activities; (3) emissions limitations and schedules for compliance to achieve the reasonable progress goal; (4) source retirement and replacement schedules; (5) smoke management techniques for agricultural and forestry management purposes including plans as currently exist within the state for these purposes; (6) enforceability of emissions limitations and control measures; and (7) the anticipated net effect on visibility due to projected changes in point, area, and mobile source emissions over the period addressed by the long-term strategy.

[18] *Guidance for Setting Reasonable Progress Goals under the Regional Haze Program*, June 1, 2007, memorandum from William L. Wehrum, Acting Assistant Administrator for Air and Radiation, to the EPA Regional Administrators, EPA Regions 1-10 (pp.4-2, 5-1).

applicable Class I area. We commonly refer to this as the "reasonable progress analysis" or "four-factor analysis."

F. Previous Actions on Arkansas Regional Haze

The State of Arkansas submitted a regional haze SIP on September 9, 2008, intended to address the requirements of the first regional haze implementation period. On August 3, 2010, the State submitted a SIP revision with mostly non-substantive changes that addressed Arkansas Pollution Control and Ecology Commission (APCEC) Regulation 19, Chapter 15.[19] On September 27, 2011, the State submitted a supplemental letter that clarified several aspects of the 2008 submittal. The EPA collectively refers to the original 2008 submittal, the supplemental letter, and the 2010 revision together as the 2008 Arkansas Regional Haze SIP. On March 12, 2012, the EPA partially approved and partially disapproved the 2008 Arkansas Regional Haze SIP.[20] Specifically, the EPA disapproved certain BART compliance dates; the State's identification of certain BART-eligible sources and subject-to-BART sources; certain BART determinations for NO_X, SO_2, and PM_{10}; the State's reasonable progress analysis; and a portion of the State's long-term strategy. The remaining provisions of the 2008 Arkansas Regional Haze SIP were approved. The final partial disapproval started a two-year FIP clock that obligated the EPA to either approve a SIP revision and/or promulgate a FIP to address the disapproved portions of the action.[21] Because a SIP revision addressing the deficiencies was not approved and

[19] The September 9, 2008 SIP submittal included APCEC Regulation 19, Chapter 15, which is the state regulation that identified the BART-eligible and subject-to-BART sources in Arkansas and established BART emission limits for subject-to-BART sources. The August 3, 2010 SIP revision did not revise Arkansas' list of BART-eligible and subject-to-BART sources or revise any of the BART requirements for affected sources. Instead, it included mostly non-substantive revisions to the state regulation.

[20] See the final action on (March 12, 2012) (77 FR 14604).

[21] Under CAA section 110(c), the EPA is required to promulgate a FIP within two years of the effective date of a finding that a state has failed to make a required SIP submission or has made an incomplete submission, or of the effective date that the EPA disapproves a SIP in whole or in part. The FIP requirement is terminated only if a state submits a SIP, and the EPA approves that SIP as meeting applicable CAA requirements before promulgating a FIP.

the FIP clock expired in April 2014, the EPA promulgated a FIP (the Arkansas Regional Haze FIP) on September 27, 2016, to address the disapproved portions of the 2008 Arkansas Regional Haze SIP.[22] Among other things, the FIP established SO_2, NO_X, and PM_{10} emission limits under the BART requirements for nine units at six facilities: Arkansas Electric Cooperative Corporation (AECC) Carl E. Bailey Plant Unit 1 Boiler; AECC John L. McClellan Plant Unit 1 Boiler; American Electric Power/Southwestern Electric Power Company (AEP/SWEPCO) Flint Creek Plant Boiler No. 1; Entergy[23] Lake Catherine Plant Unit 4 Boiler; Entergy White Bluff Plant Units 1 and 2 Boilers and the Auxiliary Boiler; and the Domtar Ashdown Mill Power Boilers No. 1 and 2. The FIP also established SO_2 and NO_X emission limits under the reasonable progress requirements for the Entergy Independence Plant Units 1 and 2.

Following petitions for reconsideration[24] submitted by the State, industry, and ratepayers, on April 25, 2017, the EPA issued a partial administrative stay of the effectiveness of the FIP for ninety days.[25] During that period, Arkansas started to address the disapproved portions of its regional haze SIP through several phases of SIP revisions. On July 12, 2017, the State submitted its proposed Phase I SIP submittal (the Arkansas Regional Haze NO_X SIP revision) to address NO_X BART requirements for all electric generating units (EGUs) and the reasonable progress requirements with respect to NO_X. These NO_X provisions were previously disapproved by the EPA in our 2012 final action on the 2008 Arkansas Regional Haze SIP. The Arkansas Regional Haze NO_X SIP submittal replaced all source-specific NO_X BART determinations for EGUs established in the FIP with reliance upon the Cross-State Air Pollution Rule (CSAPR) emissions

[22] See FIP final action on September 27,2016 (81 FR 66332) as corrected on October 4, 2016 (81 FR 68319).
[23] "Entergy" collectively means Entergy Arkansas Inc., Entergy Mississippi Inc., and Entergy Power LLC.
[24] Copies of the petitions for reconsideration and administrative stay submitted by the State of Arkansas; Entergy; Arkansas Electric Cooperative Corporation (AECC); and the Energy and Environmental Alliance of Arkansas (EEAA) are available in the docket of this action.
[25] See 82 FR 18994.

trading program for O_3 season NO_X as an alternative to NO_X BART. The SIP submittal addressed the NO_X BART requirements for Bailey Unit 1, McClellan Unit 1, Flint Creek Boiler No. 1, Lake Catherine Unit 4; White Bluff Units 1 and 2, and the Auxiliary Boiler. The revision did not address NO_X BART for Domtar Ashdown Mill Power Boilers No. 1 and 2. On February 12, 2018, we took final action to approve the Arkansas Regional Haze NO_X SIP revision and to withdraw the corresponding NO_X provisions of the FIP.[26]

The State submitted its Phase II SIP revision (the Arkansas Regional Haze SO_2 and PM SIP revision) on August 8, 2018, that addressed most of the remaining parts of the 2008 Arkansas Regional Haze SIP that were disapproved in the March 12, 2012, action. The August 8, 2018, SIP submittal was intended to replace the federal SO_2 and PM_{10} BART determinations as well as the reasonable progress determinations established in the FIP with the State's own determinations. Specifically, the SIP revision addressed the applicable SO_2 and PM_{10} BART requirements for Bailey Unit 1; SO_2 and PM_{10} BART requirements for McClellan Unit 1; SO_2 BART requirements for Flint Creek Boiler No. 1; SO_2 BART requirements for White Bluff Units 1 and 2; SO_2, NO_X, and PM_{10} BART requirements for the White Bluff Auxiliary Boiler;[27] and included a requirement that Lake Catherine Unit 4 not burn fuel oil until SO_2 and PM BART determinations for the fuel oil firing scenario are approved into the SIP by the EPA.[28] The

[26] See 82 FR 42627 (September 11, 2017) for the proposed approval. See also 83 FR 5915 and 83 FR 5927 (February 12, 2018) for the final action.

[27] The Arkansas Regional Haze SO_2 and PM SIP revision established a new NO_X emission limit of 32.2 pounds per hour (pph) for the Auxiliary Boiler to satisfy NO_X BART and replaced the SIP determination that we previously approved in our final action on the Arkansas Regional Haze NO_X SIP revision. In the Arkansas Regional Haze NO_X SIP revision, ADEQ incorrectly identified the Auxiliary Boiler as participating in the CSAPR trading program for O_3 season NO_X to satisfy the NO_X BART requirements. The new source-specific NO_X BART emission limit that we approved in our final action on the Arkansas Regional Haze SO_2 and PM SIP revision corrected that error.

[28] The 2012 action disapproved SO_2, NO_X, and PM BART for the fuel oil firing scenario for the Entergy Lake Catherine Plant Unit 4, but a FIP BART determination was not established. Instead, the FIP included a requirement that Entergy not burn fuel oil at Lake Catherine Unit 4 until final EPA approval of BART determinations for SO_2, NO_X, and PM. In the Arkansas Regional Haze NO_X SIP revision, Arkansas relied on participation in CSAPR for O_3 season NO_X to satisfy the NO_X BART requirement for its subject-to-BART EGUs, including Lake Catherine Unit 4.

submittal addressed the reasonable progress requirements with respect to SO_2 and PM_{10} emissions for Independence Units 1 and 2 and all other sources in Arkansas. In addition, it established revised RPGs for Arkansas' two Class I areas and revised the State's long-term strategy provisions. The submittal did not address BART and associated long-term strategy requirements for Domtar Ashdown Mill Power Boilers No. 1 and 2, but they are addressed in this proposed action. On September 27, 2019, we took final action to approve a portion of the Arkansas Regional Haze SO_2 and PM SIP revision and to withdraw the corresponding parts of the FIP.[29] The August 8, 2018, SIP also contained a discussion of the interstate visibility transport provisions, as discussed in more detail in Section I.H.

G. Arkansas Regional Haze Phase III SIP Submittal

On August 13, 2019, ADEQ submitted the Arkansas Regional Haze Phase III SIP (Phase III SIP revision) which we are proposing to approve in this action. The submittal contains a BART alternative measure to address BART and the associated long-term strategy requirements for two subject-to-BART sources (Power Boilers No. 1 and 2) at the Domtar Ashdown paper mill located in Ashdown, Arkansas. Power Boiler No. 1 was first installed in 1967-1968 and is currently permitted to burn only natural gas.[30] It is capable of burning a variety of other fuels too including bark, wood waste, tire-derived fuel (TDF), municipal yard waste, pelletized paper fuel,

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When we took final action on the Arkansas Regional Haze NO_X SIP revision, we also took final action to withdraw the FIP NO_X emission limit for the natural gas firing scenario for Lake Catherine Unit 4. In the Arkansas Regional Haze SO_2 and PM SIP revision, Entergy committed to not burn fuel oil at Lake Catherine Unit 4 until final EPA approval of BART for SO_2 and PM. This commitment was made enforceable by the State through an Administrative Order that was adopted and incorporated in the Arkansas Regional Haze SO_2 and PM SIP revision.

[29] See 83 FR 62204 (November 30, 2018) for proposed approval and 84 FR 51033 (September 27, 2019) for final approval. The Arkansas Regional Haze SO_2 and PM SIP revision also addressed separate CAA requirements related to interstate visibility transport under CAA section 110(a)(2)(D)(i)(II), but we did not take action on that part of the submittal. We are incorporating by reference the visibility transport portion of the Arkansas Regional Haze SO_2 and PM SIP revision in this proposed action.

[30] Power Boiler No. 1 operates as natural gas only subject to the Gas 1 subcategory defined under 40 CFR 63.7575. See ADEQ Air Permit No. 0287-AOP-R22 (page 64) in the docket of this action.

fuel-oil, and reprocessed fuel-oil but is not authorized to do so. It is equipped with a wet electrostatic precipitator (WESP)[31] but the requirements to operate the WESP were removed since it is permitted to combust natural gas only. Power Boiler No. 1 has a design heat input rating of 580 million British Thermal units per hour (MMBtu/hr) and an average steam generation rate of approximately 120,000 pounds per hour (pph). Power Boiler No. 2 was installed in 1975 and is authorized to burn a variety of fuels including coal, petroleum coke, TDF, natural gas, wood waste, clean cellulosic biomass (e.g. bark, wood residuals, and other woody biomass materials), bark, and wood chips used to absorb oil spills. It is equipped with a traveling grate;[32] a combustion air system that includes over-fire air;[33] multi-clones for PM_{10} removal;[34] and two venturi scrubbers in parallel for removal of SO_2 and remaining particulates. Power Boiler No. 2 has a heat input rating of 820 MMBtu/hr and an average steam generation rate of approximately 600,000 pph.

ADEQ's original BART analyses and determinations (dated October 2006 and March 2007) for Power Boilers No. 1 and 2 were included in the 2008 Arkansas Regional Haze SIP.[35] In our 2012 action, we approved ADEQ's identification of these two units as BART-eligible; ADEQ's determination that these units are subject-to-BART; and ADEQ's PM_{10} BART

[31] An electrostatic precipitator is an air pollution control device that functions by electrostatically charging particles in a gas stream that passes through collection plates with wires. The ionized particulate matter is attracted to and deposited on the plates as the cleaner air passes through. A wet electrostatic precipitator is designed to operate with water vapor saturated air streams to remove liquid droplets such as sulfuric acid.
[32] A traveling grate is a moving grate used to feed fuel to the boiler for combustion.
[33] Over-fire air typically recirculates a portion of the flue gas back to both the fuel-rich zone and the combustion zone to achieve complete burnout by encouraging the formation of nitrogen (N_2) rather than NO_X.
[34] A cyclone separator is an air pollution control device shaped like a conical tube that creates an air vortex as air moves through it causing larger particles (PM_{10}) to settle as the cleaner air passes through. Multi-clones are a sequence of cyclone separators in parallel used to treat a higher volume of air. In this particular case, the cleaner air travels to the venturi scrubbers to remove the smaller remaining particles like $PM_{2.5}$ and SO_2.
[35] See "Best Available Retrofit Technology Determination Domtar Industries Inc., Ashdown Mill (AFIN 41–00002)," originally dated October 31, 2006 and revised on March 26, 2007, prepared by Trinity Consultants Inc. This was included as part of the Phase III submittal and included in the docket of this action.

determination for Power Boiler No. 1.[36] In that action, we also disapproved the SO_2 and NO_X BART determinations for Power Boiler No. 1; and the SO_2, NO_X, and PM_{10} BART determinations for Power Boiler No. 2. In the 2016 Arkansas Regional Haze FIP and its associated technical support document (TSD),[37] the EPA promulgated SO_2, NO_X, and PM_{10} emission limits for these boilers. The FIP BART limits were based on consideration of the 2006 and 2007 BART analyses, a revised BART analysis (dated May 2014),[38] and additional information provided by Domtar for the disapproved BART determinations. On March 20, 2018, Domtar provided ADEQ with a proposed BART alternative based on changing boiler operations as part of the company's planned re-purposing and mill transformation from paper production to fluff pulp production. On September 5, 2018, Domtar further revised its BART alternative approach in response to additional boiler operation changes planned at the Ashdown Mill.[39] In October 2018, ADEQ proposed a SIP revision that included Domtar's BART alternative approach to address the BART requirements for Power Boilers 1 and 2 at the Ashdown Mill.[40]

The October 2018 proposal included an administrative order as the enforceable mechanism for the emission limits established under the BART alternative; and the order also contained monitoring, reporting, and recordkeeping requirements for the boilers. During the

[36] See the March 12, 2012 final action (77 FR 14604).
[37] See final FIP action on September 27, 2016 (81 FR 66332) as corrected on October 4, 2016 (81 FR 68319) and the associated TSD, "AR020.0002-00 TSD for EPA's Proposed Action on the Arkansas Regional Haze FIP" in Docket No. EPA-R06-OAR-2015-0189 for the FIP BART analysis for SO_2 and NO_X for Power Boiler No. 1; and SO_2, NO_X, and PM_{10} for Power Boiler No. 2. This was included as part of the Phase III submittal and included in the docket of this action.
[38] See "Supplemental BART Determination Information Domtar A.W. LLC, Ashdown Mill (AFIN 41–00002)," originally dated June 28, 2013 and revised on May 16, 2014, prepared by Trinity Consultants Inc. in conjunction with Domtar A.W. LLC. This was included as part of the Phase III SIP submittal and is included in the docket of this action.
[39] See section III.B of the Arkansas Regional Haze Phase III submittal and the associated September 4, 2018, "Ashdown Mill BART Alternative TSD" in the docket of this action.
[40] The proposed October 2018 SIP revision was intended to replace the portion of our FIP addressing Domtar and would also resolve the claims regarding Domtar in petitions for review of the FIP that are currently being held in abeyance, *State of Arkansas v. EPA*, No. 16-4270 (8th Cir.).

State's public comment period, Domtar submitted comments stating that while it agrees with the BART alternative approach and with the emission limits themselves, it does not agree with the use of the administrative order as the enforceable mechanism of the proposed SIP revision. Domtar requested that the portion of its New Source Review (NSR) permit containing the regional haze requirements be included in the proposed SIP revision as the enforceable mechanism instead of the administrative order. ADEQ addressed Domtar's request in April 2019 by proposing a supplemental SIP revision to the October 2018 proposal. The supplemental SIP revision proposal replaced the administrative order with the incorporation of certain provisions of Domtar's revised NSR permit into the SIP as the enforceable mechanism for Domtar's regional haze requirements. On August 1, 2019, the ADEQ issued a final minor permit modification letter to Domtar,[41] which included enforceable emission limitations and compliance schedules for the BART alternative.

ADEQ submitted its third corrective regional haze SIP submittal to the EPA on August 13, 2019, which is the subject of this proposed rulemaking (the Arkansas Regional Haze Phase III SIP revision). The Phase III SIP revision includes Domtar's BART alternative approach and revises all of the prior BART determinations for Power Boilers No. 1 and 2 at the Ashdown Mill. The Phase III SIP submittal also incorporates plantwide provisions from the August 1, 2019, permit including emission limits and conditions for implementing the BART alternative.[42] If the

[41] See ADEQ Air permit #0287-AOP-R22 (effective August 1, 2019) included as part of the Phase III submittal and is included in the docket of this action.

[42] See ADEQ Air permit #0287-AOP-R22, Section VI, Plantwide Conditions #32 to #43. The "Regional Haze Program (BART Alternative) Specific Conditions" portion of the Plantwide Conditions section of the permit states the following: "For compliance with the CAA Regional Haze Program's requirements for the first planning period, the No. 1 and 2 Power Boilers are subject-to-BART alternative measures consistent with 40 CFR 51.308. The terms and conditions of the BART alternative measures are to be submitted to EPA for approval as part of the Arkansas SIP. Upon initial EPA approval of the permit into the SIP, the permittee shall continue to be subject to the conditions as approved into the SIP even if the conditions are revised as part of a permit amendment until such time

EPA takes final action to approve the Arkansas Regional Haze Phase III SIP revision, ADEQ will have a fully-approved regional haze SIP for the first implementation period. The Arkansas Regional Haze NO_X SIP revision,[43] the Arkansas Regional Haze SO_2 and PM SIP revision,[44] and the Arkansas Regional Haze Phase III SIP revision (if approved by EPA) will together fully address all deficiencies of the 2008 Arkansas Regional Haze SIP that EPA previously identified in the March 12, 2012 partial approval/disapproval action.[45]

H. Arkansas Visibility Transport

Sections 110(a)(1) and (2) of the CAA direct each state to develop and submit to the EPA a SIP that provides for the implementation, maintenance, and enforcement of a new or revised NAAQS.[46] This type of SIP submission is referred to as an infrastructure SIP. Section 110(a)(1) provides the timing and procedural requirements for infrastructure SIPs. Specifically, each state is required to make a new SIP submission within three years after promulgation of a new or revised primary or secondary NAAQS. Section 110(a)(2) lists the substantive elements that states must address for infrastructure SIPs to be approved by the EPA. Section 110(a)(2)(D)(i) includes four distinct elements related to interstate transport of air pollution, commonly referred to as prongs, that must be addressed in infrastructure SIP submissions. The first two prongs are codified in section 110(a)(2)(D)(i)(I) and the third and fourth prongs are codified in section

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as the EPA approves any revised conditions into the SIP. The permittee shall remain subject to both the initial SIP-approved conditions and the revised conditions, until EPA approves the revised conditions."

[43] See final action approved on February 12, 2018 (83 FR 5927).

[44] See final action approved on September 27, 2019 (84 FR 51033) and the proposed approval on November 30, 2018 (83 FR 62204).

[45] The proposed approval of the Arkansas Regional Haze Phase III SIP submittal is not proposing to revise the Arkansas Regional Haze Phase I or II SIP revisions.

[46] See the final rules promulgating the NAAQS requirements: 71 FR 61144 (October 17, 2006); 77 FR 50033 (August 20, 2012); 80 FR 11573 (March 4, 2015); 80 FR 38419 (July 6, 2015); 78 FR 53269 (August 29, 2013); 73 FR 16436 (March 27, 2008). 81 FR 74504 (October 26, 2016); 75 FR 35520 (June 22, 2010); 75 FR 6474 (February 9, 2010); and 78 FR 3086 (January 15, 2013).

110(a)(2)(D)(i)(II). These four prongs prohibit any source or type of emission activities in one state from:

- contributing significantly to nonattainment of the NAAQS in another state (prong 1);
- interfering with maintenance of the NAAQS in another state (prong 2);
- interfering with measures that prevent significant deterioration of air quality in another state (prong 3); and
- interfering with measures that protect visibility in another state (prong 4 or "visibility transport").

We are only addressing the prong 4 element in this proposed action. The Prong 4 element is consistent with the requirements in the regional haze program, which explicitly require each state to address its share of emission reductions needed to meet the RPGs for surrounding Class I areas. The EPA most recently issued guidance that addressed prong 4 on September 13, 2013.[47] The 2013 guidance indicates that a state can satisfy prong 4 requirements with a fully-approved regional haze SIP that meets 40 CFR 51.308 or 309. Alternatively, in the absence of a fully-approved regional haze SIP, a state may meet the prong 4 requirements through a demonstration showing that emissions within its jurisdiction do not interfere with another air agency's plans to protect visibility. Lastly, the guidance states that prong 4 is pollutant-specific, so infrastructure SIPs only need to address the particular pollutant (including precursors) for which there is a new or revised NAAQS for which the SIP is being submitted that is interfering with visibility protection.

[47] See "Guidance on Infrastructure State Implementation Plan (SIP) Elements under CAA sections 110(a)(1) and 110(a)(2)" by Stephen D. Page (Sept. 13, 2013), (pages 32-35).

On March 24, 2017, the State submitted a SIP revision that addressed all four infrastructure prongs from section 110(a)(2)(D)(i) for the 2008 lead (Pb) NAAQS, the 2006 and 2012 $PM_{2.5}$ NAAQS, the 2008 O_3 NAAQS, the 2010 SO_2 NAAQS, and the 2010 NO_2 NAAQS. We deferred taking action on the 110(a)(2)(D)(i)(II) prong 4 portion of that infrastructure SIP for a future rulemaking with the exception of the 2008 Pb NAAQS.[48] On August 10, 2018, the State also included a discussion on visibility transport in its Phase II Arkansas Regional Haze SO_2 and PM SIP revision, but we deferred proposing action on the visibility transport requirements in that submittal too.[49] In the Phase II SIP revision, ADEQ concluded that Missouri is on track to achieve its visibility goals; that observed visibility progress from Arkansas sources are not interfering with Missouri's RPG achievements for Hercules-Glades Wilderness and Mingo National Wildlife Refuge; and that no additional controls on Arkansas sources are necessary to ensure that other states' Class I areas meet their visibility goals for the first planning period. On October 4, 2019, the State submitted the Arkansas 2015 O_3 NAAQS Interstate Transport SIP revision to meet the requirements of CAA section 110(a)(2)(D) regarding interstate transport for the 2015 O_3 NAAQS. In that SIP submittal, Arkansas also addressed the 2006 and 2012 $PM_{2.5}$ NAAQS, the 2008 O_3 NAAQS, the 2010 SO_2 NAAQS, and the 2010 NO_2 NAAQS prong 4 visibility transport obligations in 110(a)(2)(D)(i)(II), and we are proposing to approve those prong 4 requirements in this action. The State's prong 4 visibility transport analysis in the October 4, 2019 submittal supersedes the prong 4 visibility transport portion of the March 24, 2017, infrastructure SIP submittal and supplements the August 10, 2018, Phase II Arkansas

[48] The EPA approved the visibility transport requirement for the 2008 Pb NAAQS only in the February 2018 final action effective March 16, 2018 (see 83 FR 6470).
[49] See 84 FR 51033, 51054 (September 27, 2019).

Regional Haze SO_2 and PM SIP revision[50] for the 2006 and 2012 $PM_{2.5}$ NAAQS, the 2008 and 2015 O_3 NAAQS, the 2010 SO_2 NAAQS, and the 2010 NO_2 NAAQS. All other applicable infrastructure SIP requirements in the October 4, 2019, SIP submission have been or will be addressed in separate rulemakings.

II. Evaluation of the Arkansas Regional Haze Phase III SIP Submittal

On August 13, 2019, the EPA received a SIP revision (The Arkansas Regional Haze Phase III SIP), which we are proposing to approve in this action. The submittal contains a BART alternative measure pursuant to 40 CFR 51.308(e)(2) for Domtar Ashdown Mill's Power Boilers No. 1 and 2.[51] ADEQ submitted this SIP revision to address the remaining deficiencies identified by the EPA in the March 12, 2012 previous partial approval/disapproval action on the 2008 Arkansas Regional Haze SIP revision. The SIP revision establishes an alternative to BART for SO_2, NO_X, and PM_{10} for Power Boilers No. 1 and No. 2; and replaces all of the prior SIP-approved and FIP BART determinations for those units. Specifically, it replaces the SIP-approved PM_{10} BART determination[52] for Power Boiler No. 1; the SO_2 and NO_X FIP BART determinations for Power Boiler No. 1; and the SO_2, NO_X, and PM_{10} FIP BART determinations for Power Boiler No. 2. The Phase III SIP revision includes the State's assessment of Domtar's BART alternative, including analysis of the modeled visibility impacts across four-affected Class

[50] See 83 FR 62204 (November 30, 2018) for proposed approval and 84 FR 51033 (September 27, 2019) for final action. The Arkansas Regional Haze SO_2 and PM SIP revision addressed separate CAA requirements related to interstate visibility transport under CAA section 110(a)(2)(D)(i)(II), but we did not take action on that part of the submittal. We are incorporating by reference the prong 4 portion of the Arkansas Regional Haze SO_2 and PM SIP revision in this proposed action.

[51] Previously, on March 20, 2018, Domtar provided to ADEQ a proposed BART alternative based on boiler operational changes, fuel switching and repurposing of Ashdown Mill to produce fluff paper. On September 5, 2018, Domtar proposed to ADEQ a revised BART alternative with new emission limits and modeling that would accommodate potential further changes in operation at the Ashdown Mill and it is included with this SIP submittal. See the associated September 4, 2018 TSD, "Ashdown Mill BART Alternative TSD" in the docket of this action in Docket No. EPA-R06-OAR-2015-0189.

[52] See the final action on March 12, 2012 (77 FR 14604).

I areas in Arkansas and Missouri: Caney Creek Wilderness, Upper Buffalo Wilderness, Hercules-Glades Wilderness, and Mingo National Wildlife Refuge.[53] The BART alternative analysis is based on a demonstration that the clear weight of evidence of the alternative will result in greater reasonable progress than the FIP BART limits. We agree with the State's assessment and propose to approve the Arkansas Regional Haze Phase III SIP revision on the basis that it satisfies the requirements of 40 CFR 51.308(e)(2) as explained in further detail in each subsequent section. We also propose to withdraw the FIP provisions concerning BART for the Domtar power boilers, as they will be replaced by our approval of the State's BART alternative. In addition, we propose to approve additional requirements that rely on the Domtar BART alternative measure. These include the State's revisions to its long-term strategy and the components of the State's reasonable progress determination for Arkansas' Class I areas (discussed in sections III and IV). We also propose to approve the interstate visibility transport requirements under CAA section 110(a)(2)(D)(i)(II) for pollutants that affect visibility in Class I areas in nearby states. Our evaluation of the interstate visibility transport requirements pertaining to a portion of the August 10, 2018, Phase II Arkansas Regional Haze SO_2 and PM SIP, as supplemented by the Arkansas 2015 O_3 NAAQS Interstate Transport SIP revision (submitted on October 4, 2019) is discussed in section V.

A. Summary of Arkansas' BART Alternative for Domtar Ashdown Mill

[53] Arkansas has two Class I areas within its borders: Upper Buffalo and Caney Creek Wilderness areas. Upper Buffalo Wilderness area, located in Newton County, Arkansas, is an oak-hickory forest with intermittent portions of shortleaf pine located in the Ozark National Forest and offers 12,108 acres of boulder strewn and rugged scenery along the Buffalo River. Caney Creek Wilderness is located in Polk County, Arkansas, and covers 14,460 acres on the southern edge of the Ouachita National Forest and protects a rugged portion of the Ouachita Mountains. Two Class I areas outside Arkansas' borders at Hercules-Glades Wilderness and Mingo National Wildlife Refuge in Missouri are impacted by emissions from within Arkansas.

The State's BART alternative operating conditions and emission rates are summarized in Table 1.[54] Under the BART alternative, Power Boiler No. 1 operates at maximum permitted emission rates consistent with the combustion of natural gas.[55] The emission rates for Power Boiler No. 2 were adjusted downward from their previous permitted emission rates of 984 pph SO_2 and 574 pph NO_X (44 and 51 percent, respectively, of previous permitted rates).[56] The PM_{10} emission rate for Power Boiler No. 2 is equivalent to the 2001 to 2003 baseline rate in the 2008 Arkansas Regional Haze SIP and the 2016 FIP, which is slightly less than the previous permitted maximum rate of 82 pph PM_{10} (99.5 percent of the prior authorized rate).

Table 1: BART Alternative Emission Rates*

Unit	Operating Scenario	Pollutant	Emission Rates (pph)
Power Boiler No. 1	Burn only natural gas	SO_2	0.5
		NO_X	191.1
		PM_{10}	5.2
Power Boiler No. 2	Adjusted emission rates for SO_2 and NO_X.	SO_2	435
		NO_X	293
		PM_{10}	81.6

*These limits are for a thirty boiler-operating-day rolling average as defined in Plantwide Condition #32 of ADEQ Air Permit No. 0287-AOP-R22.

B. Demonstration That BART Alternative Achieves Greater Reasonable Progress

Pursuant to 40 CFR 51.308(e)(2)(i), the State must demonstrate that the alternative measure will achieve greater reasonable progress than would have resulted from the installation and operation of BART at all sources subject-to-BART in the State and covered by the

[54] See Table 3 of the Arkansas Regional Haze Phase III submittal (pages 9-10). See also Plantwide Conditions #32 to #43 from ADEQ Air permit #0287-AOP-R22.

[55] See ADEQ Air Permit No. #0287-AOP-R22. The BART alternative emission rates for Power Boiler No. 1 in the permit are 0.5 pph SO_2, 191.1 pph NO_X, and 5.2 pph PM_{10} and are based on the max design heat input capacity of 580 MMBtu/hr.

[56] The BART alternative emission rates for Power Boiler No. 2 in the current ADEQ Air permit No. 0287-AOP-R22 are 44.2, 51, and 99.5 percent of the previous permit rates. The previous permitted emission rates for Power Boiler No. 2 in ADEQ Air Permit No. 0287-AOP-R20 were 984 pph SO_2, 574 pph NO_X, and 82.0 pph PM_{10}. These are based on emission limits of 1.2, 0.7, and 0.1 lb/MMBtu for SO_2, NO_X, and PM_{10} with a design heat input capacity of 820 MMBtu/hr.

alternative program. This demonstration must be based on the following five criteria, which are addressed in the subsequent sections:

1) A list of all BART-eligible sources within the State.
2) A list of all BART-eligible sources and source categories covered by the alternative.
3) An analysis of BART and associated emission reductions.
4) The projected emission reductions achievable through the alternative measure.
5) A determination that the alternative achieves greater reasonable progress than BART.

1. List All BART-Eligible Sources Within the State

Pursuant to 40 CFR 51.308(e)(2)(i)(A), the SIP must include a list of all BART-eligible sources within the State. The State included a list of facilities with BART-eligible sources in Arkansas in its original 2008 Arkansas Regional Haze SIP submittal.[57] As part of the final 2012 action on the 2008 SIP submittal, the EPA approved the majority of the State's list of BART-eligible sources. The 2008 Arkansas Regional Haze SIP omitted Georgia Pacific Crossett Mill Boiler 6A from the list of BART-eligible sources,[58] but it was later included in the list of BART-eligible sources adopted into APCEC Regulation No. 19, Chapter 15. The most recently updated BART-eligible source list by the State is in the August 8, 2018, Arkansas Regional Haze SO_2 and PM SIP revision, which the EPA approved on September 27, 2019.[59] This recent list includes the Domtar Ashdown Mill Power Boilers No. 1 and No. 2 as BART-eligible. Therefore, with this revision, all BART-eligible sources within the State have been identified in the Arkansas Regional Haze SIP. We propose to find that the existing list in the Arkansas Regional

[57] See Figure 9.1 and Table 9.1 (page 45) of the 2008 Arkansas Regional Haze SIP included in the docket of this proposed action. A detailed description of each BART-eligible unit is included in Appendix 9.1A.
[58] See 77 FR 14604, 14605 (March 12, 2012).
[59] See Table 1 (pages 8-10) of the Arkansas Regional Haze SO_2 and PM SIP revision.

Haze SO_2 and PM SIP revision fulfills the requirement of 40 CFR 51.308(e)(2)(i)(A) to provide a list of all BART-eligible sources within the State.

2. List All BART-Eligible Sources and Source Categories Covered by the Alternative Program

Pursuant to 40 CFR 51.308(e)(2)(i)(B), each BART-eligible source in the State must be subject to the requirements of the alternative program, have a federally enforceable emission limitation determined by the State and approved by the EPA as meeting BART in accordance with RAVI under 40 CFR 51.302(c) or source-specific BART under 40 CFR 51.308(e)(1); or otherwise addressed under source-specific BART or the 40 CFR 51.308(e)(4) BART alternative provisions. In this instance, the BART alternative measure covers two BART-eligible units, Power Boilers No. 1 and 2 at Domtar Ashdown Mill. All other BART-eligible sources have already been addressed in the 2008 Arkansas Regional Haze SIP and subsequent SIP revisions.[60] As a result, we propose to find that the Arkansas Regional Haze Phase III SIP revision meets the requirement of 40 CFR 51.308(e)(2)(i)(B).

3. Analysis of BART and Associated Emission Reductions

Pursuant to 40 CFR 51.308(e)(2)(i)(C), the SIP must include an analysis of BART and the associated emission reductions achievable at the Domtar Ashdown Mill for Power Boilers No. 1 and 2. ADEQ relied on the BART determinations in the 2016 FIP for comparison to the baseline emissions and analysis of emission reductions under BART. The BART determinations in the 2016 FIP were based on consideration of ADEQ's 2006 and 2007 BART analyses,[61] a supplemental BART analysis (dated May 2014) developed by Domtar that included a five-factor

[60] See the 2017 Arkansas Regional Haze NO_X SIP revision approved on February 12, 2018 (83 FR 5927), and the 2018 Arkansas Regional Haze SO_2 and PM SIP revision approved on September 27, 2019 (84 FR 51033).
[61] See "Best Available Retrofit Technology Determination Domtar Industries Inc., Ashdown Mill (AFIN 41–00002)," originally dated October 31, 2006 and revised on March 26, 2007, prepared by Trinity Consultants Inc. This was included as part of the Phase III SIP submittal and included in the docket of this action in Docket No. EPA-R06-OAR-2015-0189.

analysis,[62] and additional information regarding the existing venturi scrubbers for Power Boiler No. 2.[63] The SO_2 BART determination for Power Boiler No. 1 is the SO_2 baseline emission rate of 21.0 pph or 504 pounds per day (ppd) on a thirty boiler-operating-day rolling average, which does not require the installation of additional control equipment. The SO_2 BART determination for Power Boiler No. 2 is an emission limit of 0.11 lb/MMBtu on a thirty boiler-operating-day rolling average, based on the boiler's maximum heat input of 820 MMBtu/hr. This is achieved by operating the existing venturi scrubbers at ninety percent control efficiency with additional scrubbing reagent and upgraded scrubber pumps. This results in a controlled emission rate of 91.5 pph SO_2 for Power Boiler No. 2. The NO_X BART determination for Power Boiler No. 1 is an emission limit of 207.4 pph on a thirty boiler-operating-day rolling average with no additional control equipment needed. This emission limit is based on the boiler's NO_X baseline emission rate. The NO_X BART determination for Power Boiler No. 2 is an emission limit of 345 pph on a thirty boiler-operating-day rolling average, achieved by the installation and operation of low NO_X burners. The PM_{10} BART determination for Power Boiler No. 2 is subject to the maximum achievable control technology (MACT) standard for boilers promulgated under CAA section 112, which provides for a PM_{10} emission limit of 0.44 lb/MMBtu and no additional control equipment. Power Boiler No. 2 falls under the "biomass hybrid suspension grate" subcategory for the Boiler MACT at 40 CFR Part 63, Subpart DDDDD-National Emission Standards for Hazardous Air Pollutants (NESHAP) for Major Sources: Industrial, Commercial, and

[62] See "Supplemental BART Determination Information Domtar A.W. LLC, Ashdown Mill (AFIN 41–00002),'' originally dated June 28, 2013 and revised on May 16, 2014, prepared by Trinity Consultants Inc. in conjunction with Domtar A.W. LLC. This was included as part of the Phase III SIP submittal and included in the docket of this action in Docket No. EPA-R06-OAR-2015-0189.

[63] See final FIP action on September 27, 2016 (81 FR 66332) as corrected on October 4, 2016 (81 FR 68319) and the associated technical support document (TSD), "AR020.0002-00 TSD for EPA's Proposed Action on the Arkansas Regional Haze FIP" in Docket No. EPA-R06-OAR-2015-0189 for the FIP BART analysis for SO_2 and NO_X for Power Boiler No. 1; and SO_2, NO_X, and PM_{10} for Power Boiler No. 2. The FIP TSD was included as part of the Phase III SIP submittal and included in the docket of this action.

Institutional Boilers and Process Heaters. Finally, the EPA approved the State's PM_{10} BART determination of 0.07 lb/MMBtu for Power Boiler No. 1 in 2012, which was based on the then-final Boiler MACT. The FIP BART limits and the SIP-approved PM_{10} BART limit for Power Boiler No. 1 are listed in Table 2.

Table 2: Summary of EPA-Approved SIP and FIP BART Limits for Domtar Ashdown Mill

Unit	Emission Limits*		
	SO_2	NO_X	PM_{10}
Power Boiler No. 1	504 ppd	207.4 pph	0.07 lb/MMBtu**
Power Boiler No. 2	91.5 pph	345 pph	Satisfied by reliance on applicable PM_{10} standard under 40 CFR part 63, subpart DDDDD (currently 0.44 lb/MMBtu).

*See the final BART emission limits in Table 1 of the final action of the approved FIP (81 FR 66332, 66339).
**The EPA approved the State's PM_{10} BART determination for Power Boiler No. 1 in the March 12, 2012, final action (77 FR 14604).

The baseline emission rates assumed in the 2016 FIP for purposes of determining the visibility improvement anticipated from BART controls (based on Domtar's May 2014 supplemental BART analysis) are summarized in Table 3. The State did not make any changes in the Phase III SIP submittal to the modeled baseline emission rates presented in the 2014 report. ADEQ is relying on these baseline emission rates for comparison of the BART alternative to BART (see Table 3 note). The baseline rates for Power Boiler No. 1 in Domtar's May 2014 BART analysis and our 2016 FIP were based on the 2009 to 2011 adjusted baseline period. The adjusted 2009 to 2011 baseline rates for Power Boiler No. 1, as presented in the 2016 FIP, were 21 pph SO_2; 207.4 pph NO_X; and 30.4 pph PM_{10}. These replaced the 2001 to 2003 original baseline rates (442.5 pph SO_2; 179.5 pph NO_X; and 169.5 pph PM_{10}) submitted by the State. The 2009 to 2011 period was used as the baseline for Power Boiler No. 1 because a WESP was installed on Power Boiler No. 1 in 2007 to meet MACT standards under CAA section 112, resulting in a reduction in PM and SO_2 emissions from Power Boiler No. 1. In the 2016 FIP, we found that the use of the 2009 to 2011 baseline rates to be consistent with the BART Guidelines,

which provide that the baseline emission rates should represent a realistic depiction of anticipated annual emissions for the source. The baseline rates for Power Boiler No. 2 were based on the original 2001 to 2003 baseline period. The 2001 to 2003 baseline rates for Power Boiler No. 2 as presented in the 2016 FIP were 788.2 pph SO_2; 526.8 pph NO_X; and 81.6 pph PM_{10}.

Table 3: Summary of Baseline Annual Emission Rates

Unit	Emission Rates (tpy)*		
	SO_2	NO_X	PM_{10}
Power Boiler No. 1 (2009 to 2011 Baseline)	92	908.4	133.2
Power Boiler No. 2 (2001 to 2003 Baseline)	3,452	2,307.4	357.4
Total	3,544	3,215.8	490.6

*These baseline rates from the FIP are being incorporated into this proposed action. These baseline emission rates are based on Table 43 of the April 8, 2015 proposed FIP (80 FR 18979) in terms of pph but have been converted here to tpy. Supporting documentation for this data was included in the SIP submittal from the State and is included in the docket of this action.

A summary of the annual emissions resulting from the implementation of BART estimated by the State in the Phase III SIP is shown in Table 4. These rates are based on the BART limits from the 2016 Arkansas Regional Haze FIP (see Table 2) and the approved PM_{10} BART limit for Power Boiler No. 1 from the 2008 Arkansas Regional Haze SIP in the 2012 action.

Table 4: Annual BART Emission Rates

Unit	Emission Rates (tpy)*		
	SO_2	NO_X	PM_{10}
Power Boiler No. 1	92	908.4	177.8**
Power Boiler No. 2	400.7	1,511.1	359.16†
Total	492.7	2,419.5	536.9

*These BART rates are being incorporated into this proposed action. These BART emission rates are based on Table 1, "Final BART Emission Limits" of the September 27, 2016, final action on the FIP (81 FR 66332, 66339) and the EPA-approved PM_{10} BART determination for Power Boiler No. 1 in the March 12, 2012, final action (77 FR 14604). These emission rates were reported in terms of pph but have been converted here to tpy. Supporting documentation for this data was included in the SIP submittal from the State and is included in the docket of this action.

**The estimated annual PM_{10} emission rate for Power Boiler No. 1 was calculated in Domtar's May 2014 supplemental BART determination report using 0.066 lb/MMBtu (an emission factor developed from analysis of past stack testing) and a heat input rate from 2009 to 2011 of 11,069.67 MMBtu/day (461 MMBtu/hr), resulting in 30.4 pph PM_{10} (or 133.2 tpy). In the Phase III SIP submittal, for purposes of comparing the emission reductions achievable through BART versus the BART alternative, the State calculated the PM_{10} BART emission rate for Power Boiler No. 1 by multiplying the actual PM_{10} BART determination (0.07 lb/MMBtu) that was approved in the

2012 final action and a maximum design heat input capacity of 580 MMBtu/hr to reflect the current emission reductions achievable (resulting in 40.6 pph PM_{10} or 177.8 tpy) instead of relying on the analysis from the 2014 BART determination.
†This does not reflect the FIP BART limit which is subject to the 40 CFR part 63, subpart DDDDD Boiler MACT PM_{10} emission limit of 0.44 lb/MMBtu for the biomass hybrid suspension grate subcategory (resulting in 360.8 pph). Instead, the State used the more conservative permit limit of 0.1 lb/MMBtu and the design heat input capacity of 820 MMBtu/hr, resulting in 82 pph, which is more stringent than the FIP limit.

Table 5 compares the BART controlled emissions from Power Boilers No. 1 and 2 to the baseline emissions and shows the estimated annual emission reductions achievable with BART. The BART controls result in reduced SO_2 and NO_X emissions for Power Boiler No. 2 only. There are no SO_2 and NO_X emission reductions expected to result from Power Boiler No. 1 since the SO_2 and NO_X BART emission rates for Power Boiler No. 1 are consistent with the baseline. BART controls for Power Boiler No. 2 reduce the total SO_2 and NO_X annual emissions by 3,051 and 796 tpy from the baseline (86 and 25 percent decreases, respectively). Calculated emissions under the BART controls for PM_{10} exhibit slight increases in PM_{10} emissions for both power boilers totaling 46.3 tpy above the baseline (nine percent increase in PM_{10}). As mentioned in the Table 4 notes, this difference is because the calculated baseline emissions by the State were based on stack test data and actual heat input capacity while the estimated BART emissions were based on the BART emission limit and the maximum capacity. We propose to find that the Arkansas Regional Haze Phase III SIP revision has met the requirement for an analysis of BART and associated emission reductions achievable at the Domtar Ashdown Mill for Power Boilers No. 1 and 2 under 40 CFR 51.308(e)(2)(i)(C).

Table 5: Domtar Emission Reductions Achievable with BART

Condition	Power Boilers 1 and 2 Total Emissions (tpy)		
	SO_2	NO_X	PM_{10}
Baseline	3,544.3	3,215.8	490.6
BART	492.7	2,419.5	536.9
Emission Reduction	3,051	795.5	-46.3

*A negative number indicates an increase in emissions from the baseline.

4. Analysis of Projected Emission Reductions Achievable Through BART Alternative

Pursuant to 40 CFR 51.308(e)(2)(i)(D), the SIP must also include an analysis of the projected emission reductions achievable through the BART alternative measure. The estimated annual emission reductions achievable with the BART alternative can be seen in Table 6. The BART alternative would result in a decrease in SO_2, NO_X, and PM_{10} emissions from the baseline for both power boilers. The BART alternative results in greater emission reductions of NO_X and PM_{10} than the BART controls. The implemented BART alternative controls would reduce NO_X and PM_{10} emissions by 1,096 and 111 tpy, respectively, from the baseline. The BART alternative reduces fewer SO_2 emissions compared to the BART controls (BART achieves 3,051 tpy SO_2 reduction) but still achieves a decrease of 1,637 tpy SO_2 from the baseline. Since the distribution of emission reductions between the BART alternative and BART are slightly different, the State conducted dispersion modeling to determine differences in visibility improvement between BART and the alternative measure as discussed in section II.B.5. We propose to find that ADEQ has met the requirement in this section for reporting an analysis of the projected emission reductions achievable through the BART alternative measure under 40 CFR 51.308(e)(2)(i)(D).

Table 6: Domtar Emission Reductions Achievable with the BART Alternative

Condition	Power Boilers 1 and 2 Total Emissions (tpy)		
	SO_2	NO_X	PM_{10}
Baseline	3,544.3	3,215.8	490.6
BART Alternative	1,907.5	2,120.3	380.18
Emission Reduction	1,637	1,096	111

5. Determination That Alternative Achieves Greater Reasonable Progress than BART

Pursuant to 40 CFR 51.308(e)(2)(i)(E), the State must provide a determination under 40 CFR 51.308(e)(3) or otherwise based on the clear weight of evidence that the alternative measure achieves greater reasonable progress than BART. Based on the data provided by Domtar in the BART alternative analysis, ADEQ performed a clear weight of evidence approach to determine

whether the Ashdown Mill satisfies the requirements of 40 CFR 51.308(e)(2)(i)(E). Factors which can be used in a weight of evidence determination in this context may include, but are not limited to, future projected emissions levels under the alternative as compared to under BART and future projected visibility conditions under the two scenarios. When comparing the summary of overall emission reductions in Tables 5 and 6, the BART alternative achieves greater emission reductions than the BART controls for NO_X and PM_{10}, but not for SO_2. Because the BART controls achieve higher SO_2 emission reductions than the BART alternative, the State also relied on a modeling analysis to support its conclusion that Domtar's BART alternative is better than BART.[64] This weight of evidence analysis is based on the comparison of emissions under the BART and alternative control scenarios, as well as a modified version of the two-part modeling test set forth in 40 CFR 51.308(e)(3), and described in section I.D of this action. The State used an air quality modeling methodology approach using the maximum 98th percentile visibility impact of three modeled years using the CALPUFF model instead of modeled visibility conditions for the twenty percent best and worst days. This modeling approach differs from the modeling contemplated under 40 CFR 51.308(e)(3) for BART alternatives. However, this approach is consistent with the approach recommended by the BART guidelines[65] for comparing different control options at a single source when developing BART determinations relying on the 98th percentile visibility impact as the key metric,[66] and is also consistent with the methodology

[64] See BART Alternative Analysis Domtar A.W. LLC, Ashdown Mill (AFIN 41–00002) submitted March 20, 2018.
[65] See 40 CFR 51 Appendix Y section III.A.3 and IV.D.5, "Guidelines for BART Determinations Under the Regional Haze Rule." CALPUFF is a single source air quality model that is recommended in the BART Guidelines. Since CALPUFF was used for this BART alternative analysis, the modeling results were post-processed in a manner consistent with the BART guidelines.
[66] The EPA recognized the uncertainty in the CALPUFF modeling results when the EPA made the decision, in the final BART Guidelines, to recommend that the model be used to estimate the 98th percentile visibility impairment rather than the highest daily impact value. "Most important, the simplified chemistry in the model tends to magnify the actual visibility effects of that source. Because of these features and the uncertainties associated with the model,

followed in EPA's 2016 FIP BART determination for Domtar. This approach is, therefore, acceptable for the comparison of the proposed BART alternative to the FIP BART for Domtar since it is the same modeling used to determine BART in the FIP, and the BART alternative is focused on only the BART sources at Domtar.

ADEQ considered two methods of modeling evaluation provided by Domtar for this approach of using the maximum 98th percentile visibility impact. Method 1 assesses visibility impairment on a per source per pollutant basis and does not account for the full chemical interaction of emissions from the two boilers. Method 1 was performed to create a direct comparison with the approach that the EPA used in the Arkansas Regional Haze FIP, based on the modeling submitted by Domtar in the 2014 analysis. The 2014 Domtar analysis and the FIP focused on modeling each unit and pollutant separately to evaluate the potential visibility benefit from specific controls at each unit to inform the BART determination. In method 2, all sources and pollutants were combined into a single modeling run per year for the baseline and each control scenario. Method 2 allows for interaction of the pollutants from both boilers, as emitted pollutants from each unit disperse and compete for the same reactants in the atmosphere, providing modeled overall impacts due to emissions from both units. The State followed the same general CALPUFF modeling protocol and used the same meteorological data inputs for the BART alternative assessment as discussed in Appendix B to the FIP TSD.[67] Only the modeled emission rates change to represent the modeled scenarios for each method.

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we believe it is appropriate to use the 98th percentile--a more robust approach that does not give undue weight to the extreme tail of the distribution." (see 70 FR 39104, 39121).

[67] See final FIP action on September 27, 2016 (81 FR 66332) as corrected on October 4, 2016 (81 FR 68319) and the associated FIP TSD, titled "AR020.0002-00 TSD for EPA's Proposed Action on the AR RH FIP" which was included in the SIP submittal from the State and in the docket of this action. See Docket No. EPA-R06-OAR-2015-0189 for a detailed discussion of the FIP modeled emission rates and results of the visibility modeling.

Domtar completed the BART alternative analysis using both methods and documented that the proposed BART alternative results in greater visibility improvement than the BART controls at Caney Creek and on average across the four Class I areas. The modeled baseline visibility impairment, in deciviews (dv), was compared to the modeled visibility impairment under the implementation of the modeled control scenarios for BART and the BART alternative. ADEQ included an analysis utilizing method 1 that shows that the BART alternative controls achieve greater overall reductions in visibility impairment (Δdv) from the baseline cumulatively across the four Class I areas when compared to BART (0.549 Δdv for the alternative versus 0.473 Δdv for BART).[68] ADEQ also included the visibility improvement anticipated (see Tables 7 and 8) at each Class I area utilizing method 2 (the full chemistry assessment method).[69] ADEQ determined that the visibility benefits contained in Table 7 from method 2 and the BART determinations[70] in Table 2 (see section II.B.3) form an appropriate BART benchmark for the purposes of the evaluation of Domtar's BART alternative. We agree with ADEQ that because method 2 provides for the full chemical interaction of emissions from both power boilers, method 2 analysis results shown in Tables 7 and 8 are a more reliable assessment of the anticipated overall visibility improvement of controls than method 1 analysis results under each scenario.

Table 7: Method 2 - Visibility Improvement from BART Controls (98th Percentile Impacts) Max of Three Modeled Years

Unit	Class I Area	Baseline (dv)	BART (dv)	Visibility Improvement from Controls (Δdv)

[68] See Table 4 of the Arkansas Regional Haze Phase III SIP revision to see the method 1 results (page 11).
[69] See Table 5 (page 12) of the Arkansas Regional Haze Phase III submittal for a comparison of the cumulative visibility improvement under BART versus the BART alternative. See also the associated September 4, 2018, "Ashdown Mill BART Alternative TSD" which was included in the SIP submittal from the State and in the docket of this action in Docket No. EPA-R06-OAR-2015-0189.
[70] Associated with the approved PM_{10} BART determination for Power Boiler No. 1 in the 2008 SIP and the FIP BART determinations for SO_2, NO_X, and PM_{10} for Power Boilers No. 1 and 2.

Both Boilers	Caney Creek Wilderness	1.137	0.776	0.361
	Upper Buffalo Wilderness	0.163	0.103	0.060
	Hercules-Glades Wilderness	0.118	0.057	0.061
	Mingo National Wildlife Refuge	0.072	0.038	0.034
	Total	1.49	0.974	0.516

Table 8: Method 2 - Visibility Improvement from BART Alternative Controls (98th Percentile Impacts) Max of Three Modeled Years

Unit	Class I Area	Baseline (dv)	BART Alternative (dv)	Visibility Improvement from Controls (Δdv)
Both Boilers	Caney Creek Wilderness	1.137	0.753	0.384
	Upper Buffalo Wilderness	0.163	0.104	0.059
	Hercules-Glades Wilderness	0.118	0.069	0.049
	Mingo National Wildlife Refuge	0.072	0.044	0.028
	Total	1.49	0.97	0.520

The BART alternative modeling in Table 8 demonstrates that visibility does not degrade in any Class I area from the baseline and shows greater visibility improvement at Caney Creek and cumulatively across the four impacted Class I areas than the modeled BART controls in Table 7. Despite a smaller reduction in SO_2 emissions than BART (a 1,414 tpy SO_2 difference), the BART alternative results in 300 tpy fewer NO_X emissions and 157 tpy fewer PM_{10} emissions compared to BART. The additional reduction in NO_X emissions under the BART alternative controls results in more overall modeled visibility improvement than BART even with the smaller reduction in SO_2 emissions. Greater visibility improvement occurs because Domtar's baseline NO_X emissions contribute more to visibility impairment across all four Class I areas for Power Boiler No. 1, and also contribute more at Caney Creek for Power Boiler No. 2 than other

pollutants.[71] Specifically, for Power Boiler No. 1, baseline modeled NO_3^- and NO_2 impacts have the highest contribution to visibility impairment at all Class I areas. For Power Boiler No. 2, baseline modeled NO_3^- and NO_2 impacts are the primary driver for visibility impacts at Caney Creek, which is the Class I area impacted the most by the Domtar units. As a result, for Power Boiler No. 2, the visibility impacts resulting from NO_X at Caney Creek outweigh SO_4^{2-} species contributions (from SO_2 precursors) to impacts at the other three Class I areas combined (see Table 9). The baseline visibility impacts and the benefits modeled under the control scenarios at Caney Creek are significantly larger than at the other Class I areas.

Table 9: Baseline CALPUFF modeled Pollutant Species Contributions to Impacts from Power Boilers No 1 and 2*

Unit	Class I Area	98th Percentile Visibility Impacts (dv)	Species Contribution to Impacts			
			% SO_4^{2-}	% NO_3^-	% PM_{10}	% NO_2
Power Boiler No. 1	Caney Creek Wilderness	0.335	2.23	85.26	6.68	5.83
	Upper Buffalo Wilderness	0.038	2.75	85.89	8.03	3.32
	Hercules-Glades Wilderness	0.020	2.70	91.82	3.94	1.55
	Mingo National Wildlife Refuge	0.014	4.03	90.06	5.13	0.78
Power Boiler No. 2	Caney Creek Wilderness	0.844	22.04	70.68	4.58	2.69
	Upper Buffalo Wilderness	0.146	76.99	20.76	2.26	0
	Hercules-Glades Wilderness	0.105	61.17	37.68	1.06	0.09
	Mingo National Wildlife Refuge	0.065	81.46	15.47	3.07	0

*Max values among the three modeled years.

ADEQ determined that the BART alternative controls reduce the overall visibility impairment from the baseline by 0.520 Δdv for method 2 and is greater than the overall visibility improvement modeled under BART, which is 0.516 Δdv. ADEQ noted that the most impacted Class I area, Caney Creek (1.137 dv baseline impairment), improves the greatest (0.384 Δdv)

[71] See Appendix C "Supplemental BART Determination Information Domtar A.W. LLC, Ashdown Mill (AFIN 41–00002)," originally dated June 28, 2013 and revised on May 16, 2014, prepared by Trinity Consultants Inc. in conjunction with Domtar A.W. LLC.

with the BART alternative for method 2, and would experience greater visibility improvement under the BART alternative scenario than under the BART scenario, which improves by 0.361 Δdv. Given that baseline impacts at Caney Creek are much larger than impacts at the other Class I areas, it is reasonable to give greater weight to visibility benefits at Caney Creek due to the alternative over BART. The baseline visibility impacts and the level of visibility benefit from controls at the other three Class I areas are smaller than those at Caney Creek and well below the 0.5 dv threshold used by the State to determine if a source contributes to visibility impairment at a Class I area. We took this same approach in our 2016 FIP to emphasize the visibility benefits at Caney Creek when considering different potential BART controls. Our FIP analysis also showed that the anticipated visibility benefits due to potential BART controls at the other three Class I areas were much smaller.[72]

Tables 10 and 11, provided by the EPA to complement the State's analysis, compare the average visibility impact across the top ten highest impacted days at each Class I area (average 8th to 17th highest).[73] This analysis provides a broader look at those days with the highest impacts at each Class I area. The results are consistent with the State's analysis based on the 98th percentile day, which was selected as representative of the highest impact (the 8th highest day).[74] The average results across the top ten highest impacted days also support that it is appropriate to focus on Caney Creek impacts (0.9819 dv baseline impairment) since they are much larger than impacts at the other Class I areas (see Table 10). The BART alternative results in more visibility improvement at Caney Creek and slightly less at the other Class I areas when compared to the

[72] See 80 FR 18944, 18978-18989 (April 8, 2015) and 81 FR 66332, 66347 (September 27, 2016).
[73] This data is based on the CALPUFF modeling provided by Domtar and relied on by the State in the Phase III SIP. See "EPA - CALPUFF summary for Method 2.xlsx" for the EPA's summary of the modeling data, available in the docket for this action.
[74] See 70 FR 39104, 39121 (July 6, 2005), Regional Haze Regulations and Guidelines for Best Available Retrofit Technology (BART) Determinations.

BART limits, but the visibility improvement at Caney Creek outweighs the difference in visibility benefit at the other three Class I areas altogether. On average, (see Table 11) the BART alternative controls achieve greater overall visibility improvement from the baseline compared to BART for the ten highest impacted days (0.439 Δdv for the alternative versus 0.423 Δdv for BART).

Table 10: Average Modeled Visibility Impacts of the Ten Highest Impacted Days (average 8th-17th highest)

Area	Visibility Impacts (dv) (Max of Three Modeled Years)		
	Baseline	FIP Limits	Alternative
Caney Creek Wilderness	0.982	0.692	0.655
Hercules-Glades Wilderness	0.086	0.045	0.053
Mingo National Wildlife Refuge	0.066	0.031	0.039
Upper Buffalo Wilderness	0.138	0.082	0.087
Total	*1.273*	*0.850*	*0.834*

Table 11: Average Visibility Improvement of the Ten Highest Impacted Days (average 8th-17th highest)

Area	Visibility Improvement (Δdv) (Max of Three Modeled Years)	
	BART	BART Alternative
Caney Creek Wilderness	0.290	0.327
Hercules-Glades Wilderness	0.041	0.034
Mingo National Wildlife Refuge	0.035	0.027
Upper Buffalo Wilderness	0.057	0.051
Total	*0.423*	*0.439*

Table 12, also provided by the EPA to complement the State's analysis, evaluates the modeled number of days impacted by Domtar over 1.0 dv and 0.5 dv for each scenario at each Class I area.[75] These metrics provide additional information comparing the frequency and duration of higher visibility impacts. Caney Creek is the only Class I area with days of modeled

[75] This data is based on the CALPUFF modeling provided by Domtar and relied on by the State in the Phase III SIP revision. See "EPA - CALPUFF summary for Method 2.xlsx" for the EPA's summary of the modeling data, available in the docket for this action.

visibility impacts from Domtar greater than 0.5 dv. Overall, the FIP limits and the BART alternative both significantly reduce the number of impacted days over 1.0 dv and 0.5 dv from the baseline at Caney Creek. Table 12 shows that both the FIP limits and the BART alternative reduce the total modeled days with visibility impacts over 1.0 dv from fifteen days in the baseline to four days for each scenario. For days with modeled visibility impacts over 0.5 dv, the FIP limits reduce the number of days from 82 to 36, compared to the BART alternative which reduces the number to 37 days. This metric of days impacted over 0.5 dv very slightly favors the FIP limits over the BART alternative.

Table 12: Modeled Number of Days with Visibility Impacts over 0.5 dv and 1.0 dv

	Area	Baseline (Days)		FIP Limits (Days)		Alternative (Days)	
		Δdv ≥ 0.5	Δdv ≥ 1.0	Δdv ≥ 0.5	Δdv ≥ 1.0	Δdv ≥ 0.5	Δdv ≥ 1.0
2001	Caney Creek	41	10	23	4	23	3
	Upper Buffalo, Hercules-Glades, and Mingo	0	0	0	0	0	0
2002	Caney Creek	22	4	7	0	8	1
	Upper Buffalo, Hercules-Glades, and Mingo	0	0	0	0	0	0
2003	Caney Creek	19	1	6	0	6	0
	Upper Buffalo, Hercules-Glades, and Mingo	0	0	0	0	0	0
Total	Caney Creek	82	15	36	4	37	4
	Upper Buffalo, Hercules-Glades, and Mingo	0	0	0	0	0	0

In accordance with our regulations governing BART alternatives, we support the use of a weight of evidence determination as an alternative to the methodology set forth in 40 CFR 51.308(e)(3).[76] In evaluating Arkansas' weight of evidence demonstration, we have evaluated ADEQ's analysis and additional model results (relying primarily on the analysis of the 98th percentile impacts at Caney Creek), the analysis of emission reductions, and the analysis of Domtar's visibility impacts due to NO_3^- compared to SO_4^{2-}, which all support the conclusion that the BART alternative provides for greater reasonable progress than BART. In addition, we also

[76] 71 FR 60622 (October 13, 2006).

considered our analysis of the ten highest impacted days and our analysis of the number of days impacted over 0.5 dv and 1.0 dv. Our analysis of the ten highest impacted days similarly supports the conclusion that the BART alternative provides for greater reasonable progress than BART, but the analysis of the number of days impacted over 0.5 dv and 1.0 dv slightly favored BART over the BART alternative. This single metric, however, on which BART performed better than the BART alternative (days impacted over 0.5 dv) is not sufficient to outweigh the substantial evidence presented using the other metrics as to the relatively greater benefits of the BART alternative over BART. Based on this weight of evidence analysis of emission reductions and visibility improvement by the State (using the 98th percentile metric) as complemented by the EPA's analysis of the ten highest impacted days and number of days impacted over 0.5 dv and 1.0 dv, we propose to approve the determination by the State that the BART alternative achieves greater reasonable progress than BART under 40 CFR 51.308(e)(2)(i)(E).

C. Requirement That Emission Reductions Take Place During the Period of the First Long-Term Strategy

Pursuant to 40 CFR 51.308(e)(2)(iii), the State must ensure that all necessary emission reductions take place during the period of the first long-term strategy for regional haze, i.e. the first regional haze implementation period for Arkansas. To meet this requirement, the State must provide a detailed description of the alternative measure, including schedules for implementation, the emission reductions required by the program, all necessary administrative and technical procedures for implementing the program, rules for accounting and monitoring emissions, and procedures for enforcement.

While the BART alternative emission limits became enforceable by the State immediately upon issuance of a minor modification letter sent by the State to Domtar on

February 28, 2019,[77] the State notes in its Phase III SIP revision that Domtar provided documentation demonstrating that Power Boilers No. 1 and 2 have actually been operating at emission levels below the BART alternative emission limits since December 2016. This documentation included a letter dated December 20, 2018, submitted to ADEQ by Domtar,[78] providing emissions data for Power Boilers No. 1 and 2 from December 2016 to November 2018. The letter noted that because Power Boiler No. 1 has been in standby mode, it has emitted zero emissions since early 2016. The letter also provided continuous emissions monitoring system (CEMS) daily average and thirty-day rolling average emissions data for SO_2 and NO_X for Power Boiler No. 2 from December 1, 2016 through November 30, 2018. Based on this CEMS data (see Table 13), the highest thirty-day rolling averages for Power Boiler No. 2 were found to be 294 pph SO_2 and 179 pph NO_X, which are below the BART alternative emission limits of 435 pph SO_2 and 293 pph NO_X. The December 20, 2018 letter explained that compliance with the PM_{10} BART alternative limit for Power Boiler No. 2 is demonstrated via compliance with the Boiler MACT. Based on previous compliance stack testing results conducted by Domtar in January 2016, PM_{10} emissions for Power Boiler No. 2 are equal to 34 pph PM_{10},[79] which is below the BART alternative PM_{10} emission limit of 81.6 pph PM_{10}.[80] Based on this demonstration, we are proposing to find that Power Boilers No. 1 and No. 2 at the Ashdown Mill

[77] See Minor Modification Letter entitled, "Application for Minor Modification Determination of Qualifying Minor Modification," included with the SIP revision and in the docket for this action.
[78] See letter from Domtar to ADEQ entitled, "Demonstration of Compliance with Proposed BART Alternative," included with the SIP revision documenting compliance with the Phase III SIP emission limits.
[79] Based on the January 2016 stack testing, it was found that the actual PM_{10} emissions from Power Boiler No. 2 are 0.059 lb/MMBtu (thirteen percent of the MACT standard of 0.44 lb/MMBtu), which Domtar estimated to equal 34 pph based on a heat input of 569 MMBtu/hr during testing.
[80] See information provided in letters dated December 20, 2018, and January 19, 2017, submitted by Domtar to ADEQ. These letters can be found in the "Documentation of Compliance with Phase III SIP Emission Limits" section of the Arkansas Regional Haze Phase III SIP revision.

satisfy the timing requirements of 40 CFR 51.308(e) that the necessary emission reductions associated with the BART alternative occur during the first long-term strategy for regional haze.

Table 13: Actual Emissions for Power Boiler No. 2 from December 2016 Through November 2018

Date	Emission Rates, (pph) (Based on Maximum of Thirty-Day Rolling Averages)		
	SO_2	NO_X	PM_{10}
December 2016 through November 2018	294 (-141)	179 (-114)	34 (-47.6)

*The numbers in parentheses indicate an increase (+) or decrease (-) in emissions from the BART alternative rates of 435 pph SO_2; 293 pph NO_X; and 81.6 pph PM_{10}.

Domtar submitted additional letters to ADEQ containing CEMS emission data from January 2018 to April 2019.[81] This CEMS data demonstrates continued compliance for Power Boilers No. 1 and 2 by showing emission levels below the BART alternative emission limits beyond 2018 (see Table 14). Domtar noted that Power Boiler No. 1 continued to be in standby mode and that its emissions have continued to be zero since early 2016. The Domtar letters also noted that the CEMS daily average and thirty-day rolling average emissions for SO_2 and NO_X were below the BART alternative limits for each month from January 2018 to April 2019. Additionally, based on the previous January 2016 Boiler MACT stack testing results, actual PM_{10} emissions from Power Boiler No. 2 were conservatively estimated to be 48 pph PM_{10}, which is below the BART alternative emission limit of 81.6 pph PM_{10} for Power Boiler No. 2.[82]

Table 14: Actual Emissions for Power Boiler No. 2 from January 2019 to April 2019

Date	Emission Rates, (pph)* (Based on Maximum of Thirty-Day Rolling Averages)		
	SO_2	NO_X	PM_{10}
January 2019	280 (-155)	170 (-123)	48 (-33.6)
February 2019	305 (-130)	178 (-115)	48 (-33.6)
March 2019	270 (-165)	153 (-140)	48 (-33.6)

[81] See letters from Domtar to ADEQ dated February 21, 2019; March 15, 2019; April 16, 2019; and May 16, 2019. These letters can be found in the "Documentation of Compliance with Phase III SIP Emission Limits" section of the Arkansas Regional Haze Phase III SIP revision.

[82] The PM_{10} emission rates were based on the 0.059 lb/MMBtu stack testing result (thirteen percent of the MACT standard, 0.44 lb/MMBtu) and a maximum heat input capacity of the boiler of 820 MMBtu/hr.

April 2019	250 (-185)	137 (-156)	48 (-33.6)

*The numbers in parentheses indicate an increase (+) or decrease (-) in emissions from the BART alternative rates of 435 pph SO_2; 293 pph NO_X; and 81.6 pph PM_{10}.

We propose to conclude that the State has adequately addressed the applicable provisions under 40 CFR 51.308(e)(2)(iii) to ensure all reductions take place during the period of the first long-term strategy.

D. Demonstration That Emission Reductions from Alternative Measure Will Be Surplus

Pursuant to 40 CFR 51.308(e)(2)(iv), the SIP must demonstrate that the emission reductions resulting from the alternative measure will be surplus to those reductions resulting from measures adopted to meet requirements of the CAA as of the baseline date of the SIP. When promulgating this requirement in 1999, the EPA explained that emission reductions must be "surplus to other Federal requirements as of the baseline date of the SIP, that is, the date of the emission inventories on which the SIP relies."[83] The baseline date for the 2008 Arkansas Regional Haze SIP emission inventory was previously established as 2002 during SIP planning stages for the first implementation period.[84] In the Arkansas Regional Haze Phase III SIP revision, ADEQ states that the BART alternative emission reductions are based on operational changes for Domtar and are surplus to reductions as of the baseline of the 2008 Arkansas Regional Haze SIP. We agree with the State that the emission reductions required by the State's BART alternative are additional and will not result in double-counting of reductions from other Federal requirements since they will occur after the original 2002 emission inventory. Therefore, we propose to find that the Domtar BART alternative meets the requirements of 40 CFR 51.308(e)(2)(iv).

[83] See 64 FR 35714, 35742 (July 1, 1999); see also 70 FR 39104, 39143 (July 6, 2005).
[84] See Memorandum from Lydia Wegman and Peter Tsirigotis, 2002 Base Year Emission Inventory SIP Planning: 8-hr Ozone, $PM_{2.5}$, and Regional Haze Programs, November 8, 2002.

E. Implementation of the BART Alternative Through Permit Conditions

The Arkansas Regional Haze Phase III SIP revision incorporates certain provisions of the permit that became effective August 1, 2019 and includes all conditions for implementing the Domtar BART alternative and making it enforceable in practice.[85] The emission limits became enforceable by the State immediately upon issuance of the minor modification letter sent to Domtar on February 28, 2019.[86,87] The final permit revision that became effective August 1, 2019 (0287-AOP-R22) includes plantwide conditions 32 through 43 that contain enforceable emission limits for NO_X, SO_2, and PM_{10} (see Table 1) as well as compliance requirements for the power boilers. Compliance with SO_2, NO_X and PM_{10} emissions limits (0.5, 191.1, and 5.2 pph, respectively) for Power Boiler No. 1 is based on a thirty-day boiler operating day rolling average[88] based on natural gas fuel usage records and the following AP-42 emission factors: 0.6 lb SO_2/MMscf, 280 lb NO_X/MMscf, and 7.6 lb PM_{10}/MMscf (conditions 32 and 33).[89] In the

[85] See Plantwide Conditions #32 to #43 from permit #0287-AOP-R22. For compliance with the CAA Regional Haze Program's requirements for the first planning period, the No. 1 and 2 Power Boilers are subject-to-BART alternative measures consistent with 40 CFR 51.308. These Plantwide Conditions state that the terms and conditions of the BART alternative measures are to be submitted to the EPA for approval as part of the Arkansas SIP, which ADEQ has done through submittal of the Phase III SIP revision. The Plantwide Conditions also state that upon initial EPA approval of the permit into the SIP, the permittee shall continue to be subject to the conditions as approved into the SIP even if the conditions are revised as part of a permit amendment until such time as the EPA approves any revised conditions into the SIP. The permittee shall remain subject to both the initial SIP-approved conditions and the revised conditions, until the EPA approves the revised conditions.

[86] See Minor Modification Letter entitled, "Application for Minor Modification Determination of Qualifying Minor Modification," included with the SIP revision and in the docket for this action.

[87] Under APCEC Reg. 26.1007, "a source may make the change proposed in its minor permit modification application upon receipt of written notification from the Department." After the source makes the proposed change and until the Department takes action on the minor modification application, the source "must comply with both the applicable requirements governing the change and the proposed permit terms and conditions."

[88] A thirty-day boiler operating day rolling average is defined as the arithmetic average of thirty consecutive daily values in which there is any hour of operation, and where each daily value is generated by summing the pounds of pollutant for that day and dividing the total by the sum of the hours the boiler was operating that day. A day is from 6 am one calendar day to 6 am the following calendar day.

[89] AP–42, *Compilation of Air Pollutant Emission Factors*, has been published since 1972 as the primary compilation of the EPA's emission factor information. It contains emission factors and process information for more than 200 air pollution source categories. The emission factors have been developed and compiled from source test data, material balance studies, and engineering estimates. The Fifth Edition of AP–42 was published in January 1995. Since then, the EPA has published supplements and updates to the fifteen chapters available in Volume I, Stationary Point and Area Sources.

event Power Boiler No. 1 is permanently retired, the BART alternative limits and conditions applicable to Power Boiler No. 1 shall be satisfied by the permanent retirement and ADEQ receipt of a disconnection notice (condition 34). Records showing compliance for Power Boiler No. 1 are required and shall be retained for at least five years and made available to ADEQ or EPA upon request (condition 36). Compliance with SO_2, NO_X, and PM_{10} emission limits (435, 293, and 81.6 pph, respectively) for Power Boiler No. 2 is based on a thirty-day boiler operating day rolling average (condition 37). Compliance with the SO_2 and NO_X emission limits for Power Boiler No. 2 is based on CEMS data that is subject to 40 CFR part 60, as amended (condition 38). Since Power Boiler No. 2 is subject to 40 CFR Part 63 subpart DDDDD, the applicable PM_{10} compliance demonstration requirements under the Boiler MACT shall be utilized to demonstrate compliance for PM_{10} emissions (condition 41). If Power Boiler No. 2 switches to natural gas combustion, the applicable natural gas AP-42 emission factors of 0.6 lb SO_2/MMscf, 280 lb NO_X/MMscf, and 7.6 lb PM_{10}/MMscf in conjunction with natural gas fuel usage records (condition 40) shall be used to demonstrate compliance with the BART emission limits. In the event Power Boiler No. 2 is permanently retired, the BART alternative limits and conditions applicable to Power Boiler No. 2 shall be satisfied by the permanent retirement and ADEQ receipt of a disconnection notice (condition 39).[90] Records showing compliance for Power Boiler No. 2 are required and shall be retained for at least five years and made available to ADEQ or EPA upon request (condition 43). With the EPA concurrence with the State, Domtar may request alternative sampling or monitoring methods that are equivalent to the methods specified in conditions 32 to 35 for Power Boiler No. 1, and in conditions 37 to 41 for Power Boiler No. 2

[90] This is a notice to ADEQ that indicates that a unit is being taken permanently out-of-service.

(conditions 35 and 42). We propose to approve these specific plantwide permit provisions for the BART alternative as source-specific SIP requirements.

F. EPA's Conclusion on Arkansas' BART Alternative Determination for Domtar

We are proposing to find that the State submitted as part of their Arkansas Regional Haze Phase III SIP revision all of the required plan elements under 40 CFR 51.308(e)(2) and documentation of all required analyses for the BART alternative determination. We are proposing to find that the State demonstrated through a clear weight of evidence approach that the BART alternative achieves greater reasonable progress than would be achieved through the installation and operation of BART. The State also established that all necessary emission reductions took place during the period of the first long-term strategy, and that no double-counting of emission reductions would occur but would be surplus to those from other Federal requirements as of 2002, the baseline date for the 2008 SIP.[91] The BART alternative limits in this proposed action are enforceable by the State through certain provisions in Permit No. 0287-AOP-R22. These specific permit conditions have been submitted as part of the Arkansas Regional Haze Phase III SIP submittal as source-specific SIP requirements.

We, therefore, propose to approve the BART alternative demonstration for Domtar as meeting the applicable requirements under 40 CFR 51.308(e)(2). We also propose to approve the specific plantwide permit provisions for the BART alternative as source-specific SIP requirements. We propose to withdraw the SO_2, NO_X, and PM_{10} BART emission limits in the FIP and associated compliance requirements for Domtar Power Boiler Nos. 1 and 2; and replace them with the State's SO_2, NO_X, and PM_{10} BART alternative emission limitations and compliance requirements in the Arkansas Regional Haze Phase III SIP revision. In addition, we

[91] The emission limits and estimated annual emission reductions under the BART alternative are presented in Tables 1 and 6, respectively.

propose to approve the State's replacement of the current PM_{10} BART determination of 0.07 lb/MMBtu that was approved for Power Boiler No. 1 in our March 2012 final action on the 2008 Arkansas Regional Haze SIP with the PM_{10} BART alternative limit.

G. Consultation with States and Federal Land Managers

The Regional Haze Rule requires states to provide the designated FLMs with an opportunity for consultation at least sixty days prior to holding any public hearing on a SIP revision for regional haze for the first implementation period. Arkansas sent emails to the FLMs on August 9, 2018, providing notification of the proposed SIP revision and electronic access to the draft SIP revision and related documents. The FLMs did not provide comments to Arkansas on the proposed SIP revision.

The Regional Haze Rule at section 51.308(d)(3)(i) also provides that if a state has emissions that are reasonably anticipated to contribute to visibility impairment in a Class I area located in another state, the state must consult with the other state(s) in order to develop coordinated emission management strategies. Since Missouri has two Class I areas impacted by Arkansas sources, Arkansas sent an email to the Missouri Department of Natural Resources (MDNR) on August 9, 2018, providing notification of the proposed SIP revision and electronic access to the draft and related documents. Missouri did not provide comments to Arkansas on the proposed SIP revision.

We propose to find that Arkansas provided an opportunity for consultation to the FLMs and to Missouri for the proposed SIP revision, as required under section 51.308(i)(2) and 51.308(d)(3)(i).

III. Evaluation of Arkansas' Long-Term Strategy Provisions for Domtar Ashdown Mill

We approved the majority of Arkansas' long-term strategy requirements in the 2012 final action on the 2008 Arkansas Regional Haze SIP. Because we disapproved some of ADEQ's BART determinations and disagreed with the calculated RPGs for Arkansas' two Class I areas in that action, we disapproved the corresponding emission limits and schedules of compliance section under 51.308(d)(3)(v)(C) since that section relies on the State having approved BART determinations and established RPGs as part of its long-term strategy. The 2016 FIP later established emission limits and included revised RPGs that became components of the long-term strategy for Arkansas' Class I areas. The EPA-approved Phase I and II SIP revisions (mentioned in section I.F of this action) replaced all of the 2016 FIP BART determinations with enforceable SIP measures except for the requirements pertaining to the two Domtar power boilers. With our approval of the Phase II SIP revision, all of the elements of the long-term strategy were approved except for those pertaining to Domtar. ADEQ did not revise the long-term strategy elements in the Arkansas Regional Haze Phase III SIP submittal except for inclusion of enforceable emission limitations and compliance schedules for Domtar. ADEQ is addressing those remaining FIP BART requirements for Domtar with the BART alternative provisions in section II of this action. Based upon this, we propose to approve the emission limits and schedules of compliance section under 51.308(d)(3)(v)(C) pertaining to Domtar in the Arkansas Regional Haze Phase III SIP submittal. Pending final approval of the BART alternative requirements for the Domtar Ashdown Mill being addressed in this action, ADEQ will have satisfied all long-term strategy requirements under section 51.308(d)(3) for the first implementation period.

IV. Evaluation of Reasonable Progress Requirements for Domtar Ashdown Mill

On September 27, 2019, in our final action on the Arkansas Regional Haze SO_2 and PM SIP revision, we determined that Arkansas had fully addressed the reasonable progress

requirements under section 51.308(d)(1) for the first implementation period and we agreed with the State's revised RPGs for its Class I areas. In that action, we noted that the 2016 FIP BART requirements for Domtar were still in place but we agreed with the State that as long as those requirements continue to be addressed by the measures in the FIP, nothing further is needed to satisfy the reasonable progress requirements for the first implementation period. We acknowledged in that action that we would assess the August 13, 2019, Arkansas Regional Haze Phase III SIP submittal to address the regional haze requirements for Domtar and evaluate any conclusions drawn by ADEQ regarding the need to conduct a reasonable progress analysis for that facility. In addition, we stated that we would also assess the August 13, 2019, submittal to see if changes are needed with respect to the revised RPGs, based on any differences between the SIP and FIP-based measures for Domtar.

In the Arkansas Regional Haze Phase III SIP submittal, which we are proposing to approve in this action, the BART alternative analysis performed for the Domtar power boilers is based, in part, on an assessment of the same factors that must be addressed in a reasonable progress analysis establishing the RPGs.[92] The 2007 guidance for reasonable progress explains that, "it is reasonable to conclude that any control requirements imposed in the BART determination also satisfy the RPG-related requirements for source review in the first RPG planning period. Hence, you may conclude that no additional emission controls are necessary for these sources in the first planning period."[93] This rationale applies for Domtar since a previous BART determination for Domtar was developed in the 2016 FIP. That BART analysis was

[92] See 40 CFR 51.308(d). The State must evaluate and determine the emission reduction measures that are necessary to make reasonable progress by considering the costs of compliance, the time necessary for compliance, the energy and non-air quality environmental impacts of compliance, and the remaining useful life of any potentially affected anthropogenic source of visibility impairment.

[93] *Guidance for Setting Reasonable Progress Goals Under the Regional Haze Program,* June 1, 2007, memorandum from William L. Wehrum, Acting Assistant Administrator for Air and Radiation, to EPA Regional Administrators, EPA Regions 1–10 (pp. 4–2, 4–3, and 5-1).

compared to the BART alternative controls in the Arkansas Regional Haze Phase III SIP submittal. As detailed in Section II above, the BART alternative measures for Domtar result in greater visibility improvement than the BART requirements in the FIP and the previously approved BART PM_{10} limit for Power Boiler No. 1. We propose to agree with ADEQ's conclusion in the Arkansas Regional Haze Phase III submittal that nothing further is needed to satisfy the reasonable progress requirements for the first implementation period.

ADEQ also provided calculations in the Arkansas Regional Haze Phase III SIP submittal, estimating the effect of emission reductions from the BART alternative on the 2018 revised RPGs for Caney Creek and Upper Buffalo.[94] ADEQ scaled CENRAP's CAMx[95] 2018 modeled light extinction components from Arkansas sources for SO_4^{2-} and NO_3^- in proportion to emission reductions anticipated for SO_2 and NO_X from the SIP controls in the previously approved Phase I and Phase II SIPs, as wells as the BART alternative controls for Domtar. The estimation of the revised 2018 RPGs in the Phase II SIP accounted for emission reductions anticipated under the FIP for Domtar, and the emission reductions due to the controls in the Phase I and Phase II SIP revisions.[96] In our final action on the Arkansas Regional Haze SO_2 and PM SIP revision, we agreed with the State's revised RPGs for its Class I areas.[97] We note that based on IMPROVE monitoring data, both Caney Creek and Upper Buffalo Wilderness areas are achieving greater visibility improvement than the revised 2018 RPGs.[98] ADEQ estimated that the emission reductions from the BART alternative would negligibly impact the revised 2018 RPGs

[94] See Excel spreadsheet "Phase III SIP Rev RPG.xlsx," which is part of the Arkansas Regional Haze Phase III SIP revision and can be found in the docket for this proposed rulemaking.
[95] Comprehensive Air Quality Model with extensions, i.e. CAMx, is a multi-scale, three-dimensional photochemical grid model.
[96] See appendix F6 of the Arkansas Regional Haze SO_2 and PM SIP revision.
[97] The 2018 RPGs for Caney Creek and Upper Buffalo were revised slightly downward from the 2008 SIP RPGs to 22.47 dv and 22.51 dv for the twenty percent worst days.
[98] See Figures 11 and 12 of the Arkansas Regional Haze SO_2 and PM SIP revision (pages 50-52).

established in the Phase II SIP revision for the twenty percent worst days. As a result, ADEQ did not make revisions to the 2018 RPGs for its Class I areas in the Arkansas Regional Haze Phase III SIP submittal. Power Boilers No. 1 and 2 have been operating at emission levels below the BART alternative emission limits since December 2016 (as discussed in section II.C), so emission reductions from Domtar are reflected in the current monitoring data which shows that current visibility conditions are better than the revised 2018 RPGs. We propose to agree with ADEQ that the BART alternative for Domtar would have only a minor impact on the 2018 RPGs previously established in the Phase II SIP revision and that there is no need to revise them in conjunction with this action.

We propose to approve the reasonable progress components under 40 CFR 51.308(d)(1) relating to Domtar Power Boilers No. 1 and 2. With the approved Arkansas Regional Haze SO_2 and PM SIP revision requirements and the Arkansas Regional Haze Phase III BART alternative requirements being addressed in this proposed action (pending final approval), Arkansas will have addressed all reasonable progress requirements under section 51.308(d)(1) and will have a fully-approved regional haze SIP for the first implementation period.

V. Evaluation of Arkansas Visibility Transport

On October 4, 2019, the State submitted the Arkansas 2015 O_3 NAAQS Interstate Transport SIP revision to meet the requirements of CAA section 110(a)(2)(D) regarding interstate transport for the 2015 O_3 NAAQS. In that proposed SIP submittal, Arkansas addressed the prong 4 visibility transport obligations in section 110(a)(2)(D)(i)(II) for the 2006 and 2012 $PM_{2.5}$ NAAQS; the 2008 and 2015 O_3 NAAQS; the 2010 SO_2 NAAQS; and the 2010 NO_2 NAAQS. We are proposing to approve these elements in this action. All other applicable Infrastructure SIP requirements for that SIP submission have been or will be addressed in

separate rulemakings. On August 10, 2018, the State also submitted a discussion on visibility transport in its Phase II Arkansas Regional Haze SO_2 and PM SIP revision. In this action, we are also proposing to approve that portion of the Phase II SIP submittal as supplemented by the 2015 O_3 NAAQS Interstate Transport SIP revision.

The EPA most recently issued guidance for infrastructure SIPs on September 13, 2013. The 2013 guidance lays out how a state's infrastructure SIP submission may satisfy prong 4.[99] The guidance indicates that one way that a state can satisfy prong 4 requirements is with a fully-approved regional haze SIP that meets the requirements found in 40 CFR 51.308 or 309. Requirements under 40 CFR 51.308(d)(3)(ii) specifically require that a state participating in a regional planning process include all measures needed to achieve its apportionment of emission reduction obligations agreed upon through that process. A fully-approved regional haze plan will ensure that emissions from sources under an air agency's jurisdiction are not interfering with measures required to be included in other air agencies' plans to protect visibility. The 2009 guidance,[100] which the 2013 guidance built upon, explained how the development of regional haze SIPs was intended to occur in a collaborative environment among the states. It was envisioned that through this process states would coordinate emission controls to protect visibility and take action to achieve the emission reductions relied upon by other states in their reasonable progress demonstrations.

Alternatively, the 2013 guidance explains that in the absence of a fully-approved regional haze SIP, a state may meet the prong 4 requirement through a demonstration showing that emissions within its jurisdiction do not interfere with another air agencies' plans to protect

[99] See "Guidance on Infrastructure State Implementation Plan (SIP) Elements under Clean Air Act Sections 110(a)(1) and 110(a)(2)" by Stephen D. Page (Sept. 13, 2013).
[100] See "Guidance on SIP Elements Required Under sections 110(a)(1) and (2) for the 2006 24-Hour Fine Particle ($PM_{2.5}$) National Ambient Air Quality Standards (NAAQS)" by William T. Harnett (September 25, 2009).

visibility. According to the guidance, such an infrastructure SIP submission would need to include an analysis of measures that limit visibility-impairing pollutants and ensure that the reductions conform with any mutually agreed upon regional haze RPGs for Class I areas in other states.

A. Fully-Approved Regional Haze SIP to Meet Visibility Transport Requirement

The State indicated in the October 4, 2019, Arkansas 2015 O_3 NAAQS Interstate Transport SIP submittal that a fully-approved regional haze SIP will meet the prong 4 visibility transport requirement of CAA section 110(a)(2)(D)(i)(II). The Arkansas Regional Haze NO_X SIP revision (Phase I),[101] the Arkansas Regional Haze SO_2 and PM SIP revision (Phase II),[102] and the Arkansas Regional Haze Phase III SIP revision, if finalized, together will fully address the deficiencies in the 2008 Arkansas Regional Haze SIP as identified in our March 12, 2012 final action. If we take final action to approve the Phase III SIP submittal, Arkansas will have a fully-approved regional haze SIP for the first planning period. This will ensure that emissions from Arkansas will not interfere with measures required to be included in other air agencies' plans to protect visibility. We are, therefore, proposing to approve the CAA section 110(a)(2)(D)(i)(II) visibility transport elements included in the 2018 Arkansas Regional Haze SO_2 and PM SIP revision, as supplemented in the Arkansas 2015 O_3 NAAQS Interstate Transport SIP revision. These revisions address prong 4 for the following NAAQS: the 2006 24-hour $PM_{2.5}$ NAAQS; the 2012 annual $PM_{2.5}$ NAAQS; the 2008 and 2015 eight-hour O_3 NAAQS; the 2010 one-hour NO_2 NAAQS; and the 2010 one-hour SO_2 NAAQS. Finalization of the Arkansas prong 4 visibility

[101] Final action approved on February 12, 2018 (83 FR 5927).
[102] Final action approved on September 27, 2019 (84 FR 51033). Proposed approval on November 30, 2018 (83 FR 62204).

transport elements in these submittals on the basis of a fully-approved SIP is contingent upon final approval of the Arkansas Regional Haze Phase III SIP submittal.

B. Alternate Demonstration to Meet Visibility Transport Requirement

As stated previously, the 2013 guidance provides that in the absence of a fully-approved regional haze SIP, a state may meet the prong 4 requirement through a demonstration showing that emissions within its jurisdiction do not interfere with other air agencies' plans to protect visibility. ADEQ provided such a demonstration in the Arkansas 2015 O_3 NAAQS Interstate Transport SIP submittal that addresses the requirements of CAA section 110(a)(2)(D)(i)(II) for the six NAAQS previously mentioned. Arkansas documented its apportionment of emission reduction obligations needed at affected Class I areas in other states and provided a demonstration that the SIP includes approved federally enforceable measures that contribute to achieving the 2018 RPGs set for those areas.

Through collaboration with the Central Regional Air Planning Association (CENRAP),[103] ADEQ worked with other central states to assess state-by-state contributions to visibility impairment in specific Class I areas affected by emissions from Arkansas. ADEQ used CENRAP as the main vehicle for developing its 2008 regional haze SIP for the first implementation period.[104] CENRAP developed regional photochemical modeling results, visibility projections for 2018, and source apportionment modeling to assist in identifying contributions to visibility impairment. Two Class I areas outside Arkansas' borders, Hercules-Glades Wilderness and Mingo National Wildlife Refuge in Missouri, were identified as being impacted by emissions

[103] The CENRAP is a collaborative effort of tribal governments, state governments and various federal agencies representing the central states (Texas, Oklahoma, Louisiana, Arkansas, Kansas, Missouri, Nebraska, Iowa, Minnesota; and tribal governments included in these states) that provided technical and policy tools for the central states and tribes to comply with the EPA's Regional Haze regulations.
[104] 77 FR 14604 (March 12, 2012).

generated from within Arkansas.[105] Based on the emission assessments and modeled visibility impacts, the EPA agreed with the 2018 RPGs developed by Missouri that account for Arkansas' emission contributions to those two Class I areas.[106]

In the Arkansas 2015 O_3 NAAQS Interstate Transport SIP, ADEQ presented the CENRAP modeled 2018 projected contributions to visibility impairment at Missouri's two Class I areas that included particulate source apportionment (PSAT) results. CENRAP contracted with ENVIRON International and the University of California at Riverside (Collectively "Environ/UCR") to perform the emissions and air quality modeling. The CENRAP modeling projected that Arkansas emissions contribute 7.6 percent of the total light extinction at Hercules-Glades and 4.4 percent of the total light extinction at Mingo.[107] Based on the projected CENRAP modeling results, ADEQ noted that both Hercules-Glades and Mingo were expected to achieve visibility improvements greater than or equal to what would be achieved under a uniform rate of progress by 2018.[108] The modeling included some emission reductions anticipated from BART controls at EGUs in Arkansas and other states. Missouri set its RPGs based on these 2018 visibility projections by CENRAP and did not request Arkansas to include any specific measures beyond the anticipated BART reductions included as inputs in the projected modeling.[109] ADEQ met its share of emission reduction obligations that Missouri agreed to and relied on in establishing their own RPGs by implementing BART emission limits for EGUs in the Phase I and II SIP submittals that were approved by the EPA. ADEQ summarized those measures in the Arkansas 2015 O_3 NAAQS Interstate Transport SIP and then compared the SIP-controlled

[105] See 2008 Arkansas Regional Haze SIP (page 45).
[106] 77 FR 38007 (June 26, 2012).
[107] See Figures 69 to 72 from the Arkansas 2015 O_3 NAAQS Interstate Transport SIP submittal (pages 98-102).
[108] Environ International Corporation and University of California at Riverside (2007). "Technical Support Document for CENRAP Emissions and Air Quality Modeling to Support Regional Haze State Implementation Plans."
[109] See Alpine Geophysics, LLC (2006) "CENRAP Regional Haze Control Strategy Analysis Plan."

emissions to what was originally projected. The State demonstrated that its emission reduction obligations have been met because the EPA-approved Phase I and II SIP revision controls achieve greater emission reductions than Arkansas had committed to by reducing the emissions to less than the projections used to develop Missouri's 2018 RPGs for Hercules-Glades and Mingo for the first implementation period.[110]

Specifically, the Phase I SIP revision replaced source-specific NOx emission limits for EGUs with reliance on CSAPR for O_3 season NO_X as an alternative to BART. The CSAPR update revised the O_3 season NO_X budget for Arkansas units from 15,110 tons NO_X in 2015 to 12,048 tons NO_X (11,808 allocated to existing EGUs) in 2017. The budget was further reduced to 9,210 tons NO_X (9,025 allocated to existing EGUs) in 2018 and beyond, which is 5,164 tons less than the 2014 to 2016 O_3 season average. When comparing the 2018 O_3 season emissions, Arkansas totaled 10,952 tons NO_X, which is 2,912 tons below the 13,865 tons projected for EGUs. ADEQ noted that three of the Arkansas subject-to-BART EGUs, White Bluff units 1 and 2 and Flint Creek, have recently installed low NO_X burners with separated overfire air to reduce NO_X emissions. The Phase II SIP revision included measures to address all remaining disapproved portions of the 2008 Arkansas Regional Haze SIP, with the exception of those portions specifically pertaining to the Domtar Ashdown Mill, the only non-EGU subject-to-BART facility in Arkansas. The Phase II SIP revision controls are estimated to reduce the total annual SO_2 emissions from Arkansas subject-to-BART sources to 18,699 tons lower than what was assumed in the 2018 projections (see Table 15). We are proposing to find that the controlled emission rates from each of these SIP revisions show that Arkansas has obtained its share of the emission reductions agreed upon and necessary to achieve the 2018 RPGs set by Missouri at

[110] See Tables 15 and 16 from the Arkansas 2015 O_3 NAAQS Interstate Transport SIP submittal (page 103).

Hercules-Glades and Mingo areas for the first planning period.

Table 15: 2018 Projected SO_2 Emissions Compared to Phase II Controlled EGU SO_2 Emissions (tons)

Subject-to-BART Facility	2018 Projected Emissions[111]	Annual Controlled Emissions[112]	Annual Emission Reductions Beyond the Projections
Entergy Arkansas White Bluff*	45,970	29,175[113]	16,795
Arkansas Electric Cooperatives John L. McClellan	< 1	75	-75
Southwestern Power Company Flint Creek	2,896	907	1,989
Arkansas Electric Cooperatives Carl E. Baily Generating Station	0	10	-10
Entergy Arkansas Lake Catherine	0	< 1	0
Total	48,866	30,167	18,699

*There are no source-specific NO_X measures for Arkansas subject-to-BART EGUs, except for a limit for White Bluff Auxiliary boiler. The Phase I SIP revision replaced source-specific NOx emission limits for EGUs in the FIP with reliance on CSAPR for O_3 season NO_X as an alternative to BART.

The 2018 emission projections did not assume any emission reductions from Domtar. Therefore, Missouri did not rely on any reductions from the Domtar Ashdown Mill when calculating 2018 RPGs for Mingo and Hercules-Glades. Thus, Arkansas has demonstrated that it is meeting its visibility transport obligations even without the BART alternative emission limits for the Domtar Ashdown Mill in the Phase III SIP revision. The EPA is adding Table 16 to show that additional SO_2 and NO_X emission reductions of 333 tpy and 1,719 tpy, respectively, will occur from the Domtar BART alternative controls evaluated in section II of this proposed action.

Table 16: Arkansas Phase III SIP Controlled Emissions for Domtar BART Alternative (tons)

Subject-to-BART	2018 Projected	SIP-Controlled	SIP Emission

[111] These values have been included in the spreadsheet that Arkansas adapted from a Reasonable Progress Goal scaling spreadsheet developed by EPA for use in determining the extent that changes in control requirements are anticipated to result in changes in visibility impairment on the twenty percent worst days for Arkansas Class I areas. This spreadsheet was included in the submittal by the State and is in the docket of this action. It can also be accessed at https://www.adeq.state.ar.us/air/planning/sip/pdfs/regional-haze/f.6-sip-rev-rpg-data-sheet.xlsx.

[112] Except for White Bluff Controlled Emission Rates, controlled emission rates can be found on the 2018 tab of the F.6 SIP Rev RPG Data Sheet. (https://www.adeq.state.ar.us/air/planning/sip/pdfs/regionalhaze/f.6-sip-rev-rpg-data-sheet.xlsx)

[113] Entergy (2017) "Updated BART Five-Factor Analysis for SO_2 for Units 1 and 2" for White Bluff Steam Electric Station (Available at https://www.adeq.state.ar.us/air/planning/sip/pdfs/regional-haze/appendix-d-d.1---d.8.pdf).

Facility	Emissions		Emissions		Reduction	
	SO_2	NO_X	SO_2	NO_X	SO_2	NO_X
Domtar Ashdown Mill	2,241	3,839	1,907	2,120	333	1,719

The visibility improvement observed at the IMPROVE monitors by ADEQ in the Arkansas 2015 O_3 NAAQS Interstate Transport SIP indicates that Missouri is achieving greater visibility improvement for Hercules-Glades and Mingo than Missouri's 2018 RPGs.[114] The 2012 to 2016 five-year rolling average of observed visibility impairment for the twenty percent haziest days at Hercules-Glades Wilderness Area is 20.72 dv (2.34 dv below Missouri's 2018 RPG). The 2012 to 2016 five year-rolling average of observed visibility impairment for the twenty percent haziest days at Mingo National Wildlife Refuge is 22.34 dv (1.37 dv below Missouri's 2018 RPG goal).

C. EPA's Conclusion on Arkansas Visibility Transport

We propose to approve the CAA section 110(a)(2)(D)(i)(II) visibility transport provisions included in the October 4. 2019, Arkansas 2015 O_3 NAAQS Interstate Transport SIP revision for the 2006 24-hour $PM_{2.5}$ NAAQS; the 2012 annual $PM_{2.5}$ NAAQS; the 2008 and 2015 eight-hour O_3 NAAQS; the 2010 one-hour NO_2 NAAQS; and the 2010 one-hour SO_2 NAAQS on the basis that Arkansas will have a fully-approved Regional Haze SIP once we finalize our proposed approval of the Arkansas Regional Haze Phase III SIP submittal. We also propose to approve the visibility transport portion of the August 8, 2018, Phase II SIP revision as supplemented by the October 4, 2019, Arkansas 2015 O_3 NAAQS Interstate Transport SIP submittal. The Arkansas Regional Haze NO_X SIP revision, the Arkansas Regional Haze SO_2 and PM SIP revision, and the Arkansas Regional Haze Phase III SIP revision (if approved) together fully address all deficiencies of the 2008 Arkansas Regional Haze SIP that were identified in our March 12, 2012,

[114] See Figures 73 and 74 of the Arkansas 2015 O_3 NAAQS Interstate Transport SIP submittal (pages 109-110).

partial approval/disapproval action. A fully-approved regional haze plan will ensure that emissions from Arkansas will not interfere with measures required to be included in other air agencies' plans to protect visibility as required by CAA section 110(a)(2)(D)(i)(II). In addition, we propose to find that Arkansas has provided an adequate demonstration in the Arkansas 2015 O_3 NAAQS Interstate Transport SIP revision. The demonstration adequately shows that emissions within Arkansas' jurisdiction do not interfere with other air agencies' plans to protect visibility because of EGU control measures in the EPA-approved Phase I and Phase II SIP revisions.

VI. Evaluation of CAA Section 110(l)

Under CAA Section 110(l), the EPA cannot approve a plan revision "if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress, or any other applicable requirement of this chapter."[115] Sections II, III, and IV of this action explain how the Arkansas Regional Haze Phase III SIP revision will comply with the requirements of the regional haze program. i.e., the other applicable requirements. Based on those conclusions, we propose to approve that the SIP revision will not interfere with the regional haze requirements in the CAA, including requirements pertaining to BART or reasonable progress under 40 CFR 51.308(d) or (e). 40 CFR 51.308 details the required process for determining the appropriate emission limitations and compliance schedules for the regional haze program. As discussed in section II of this action, the State followed the prescribed process for determining the level of control required for the BART alternative for the Domtar Ashdown

[115] Note that "reasonable further progress" as used in CAA section 110(l) is a reference to that term as defined in section 301(a) (i.e., 42 U.S.C. 7501(a)), and as such means reductions required to attain the NAAQS set for criteria pollutants under section 109. This term as used in section 110(l) (and defined in section 301(a)) is not synonymous with ''reasonable progress'' as that term is used in the regional haze program. Instead, section 110(l) provides that the EPA cannot approve plan revisions that interfere with regional haze requirements (including reasonable progress requirements) as far as they are "other applicable requirements" of the CAA.

Mill and adequately supported its determination with analysis that meets the requirements under section 40 CFR 51.308(e)(2). In section III of this notice, we explain how ADEQ submitted emission limits and schedules of compliance pertaining to the Domtar Ashdown Mill that will satisfy all long-term strategy requirements under section 51.308(d)(3). In section IV of this notice, we discuss how ADEQ fully addressed the reasonable progress requirements under section 51.308(d)(1) and we agree that no additional controls are necessary to achieve reasonable progress for the first implementation period. Our proposed approval of the Arkansas Regional Haze Phase III SIP revision is supported by our evaluation of the State's analytical conclusions and our rationale that the State has met the BART alternative and reasonable progress requirements for regional haze under the CAA as discussed in sections II, III, and IV of this action. For these reasons, we propose to find that our proposed approval of the Arkansas Regional Haze Phase III SIP revision and concurrent proposed withdrawal of the corresponding parts of the FIP do not interfere with the CAA requirements pertaining to BART or reasonable progress under 40 CFR 51.308(d) or (e).

We also propose to find that approval of the Arkansas Regional Haze Phase III SIP revision and concurrent withdrawal of the corresponding parts of the FIP pertaining to Domtar will not interfere with attainment and maintenance of the NAAQS. The EPA interprets CAA section 110(l) as applying to all NAAQS that are in effect, including those that have been promulgated but for which the EPA has not yet made designations. The EPA has concluded that 110(l) can be satisfied by demonstrating that substitute measures ensure that status quo air quality is preserved. However, 110(l) can also be satisfied by an air quality analysis demonstrating that any change in emissions will not interfere with any applicable requirement concerning attainment and reasonable further progress, or any other applicable CAA

requirement. In general, the level of rigor needed for any CAA section 110(l) demonstration will vary depending on the nature of the revision, its potential impact on air quality and the air quality in the affected area. As discussed in sections II.B.3 and II.B.4 of this action,[116] the BART alternative limits do not reduce SO_2 emissions as much as the BART controls, however, all areas in Arkansas have been and are currently attaining all of the NAAQS, even though the BART controls for Domtar have not been implemented. Therefore, even though the BART alternative will not achieve the same level of emission reductions for SO_2, this will not negatively impact current air quality, which is already sufficient to attain the SO_2 NAAQS in Arkansas. Further, the State of Missouri did not rely on reductions from Domtar for its Regional Haze plans and the EPA is not aware of any other air quality analyses that rely on implementation of the BART requirements for Domtar in the FIP. Thus, the proposed withdrawal of the BART provisions in the FIP and replacement with the BART alternative requirements in the SIP will not negatively impact current air quality. While it is true that the FIP included more stringent SO_2 emission limits for Domtar than the BART alternative, there is no evidence that withdrawal of the SO_2 limits in the FIP for Domtar and the approval of the SO_2 emission limits in the Phase III SIP revision will interfere with attainment of the SO_2 NAAQS. In addition, as noted in section II.C of this action, Domtar provided documentation demonstrating that Power Boilers No. 1 and 2 have actually been operating at emission levels below the BART alternative emission limits since December 2016. At this time, and notwithstanding the fact that the FIP provisions have not gone into effect, the areas that would be potentially impacted by the increase in SO_2 emissions allowed under the SIP revision as compared to the FIP are attaining the 2010 SO_2 NAAQS. Based on an assessment of current air quality in the areas most affected by this SIP revision, we are

[116] See Tables 5 and 6 of this proposed action.

concluding that the less stringent SO_2 emission limits in the Phase III SIP will not interfere with attainment of the NAAQS.

Since SO_4^{2-} is a precursor to PM, there is also a need to address whether withdrawal of the FIP and approval of the SIP revision will interfere with attainment of the PM NAAQS. There is no evidence that withdrawal of the SO_2 limits in the FIP and the approval of the SO_2 emission limits in the SIP revision will interfere with attainment of the PM NAAQS. At this time, and notwithstanding the fact that the FIP provisions have not gone into effect, the areas that would be potentially impacted by the increase in SO_2 emissions are attaining the 2006 and 2012 $PM_{2.5}$ NAAQS.

For these reasons we propose to conclude that the proposed approval of the Arkansas Regional Haze Phase III SIP revision and withdrawal of the remaining FIP will not interfere with attainment or maintenance of the NAAQS in Arkansas.

VII. Proposed Action

A. Arkansas Regional Haze Phase III SIP Submittal

We propose to approve the Arkansas Regional Haze Phase III SIP revision (submitted August 13, 2019) as meeting the applicable regional haze BART alternative provisions set forth in 40 CFR 51.308(e)(2) for the Domtar Ashdown Mill. We propose to approve the reasonable progress components under 40 CFR 51.308(d)(1) relating to Domtar Power Boilers No. 1 and 2. With the approved Phase I and II SIP revision requirements and the Arkansas Regional Haze Phase III BART alternative requirements being addressed in this proposed action (pending final approval), Arkansas will have addressed all reasonable progress requirements under section 51.308(d)(1) with a fully-approved regional haze SIP. We, therefore, propose to approve the emission limits and schedules of compliance section under 51.308(d)(3)(v)(3) pertaining to the

Domtar Ashdown Mill in the August 13, 2019, submittal. Pending final approval of the BART alternative requirements for the Domtar Ashdown Mill being addressed in this action, ADEQ will have satisfied all long-term strategy requirements under section 51.308(d)(3). We agree with ADEQ's determination that the revised 2018 RPGs in the Phase II action do not need to be further revised. We propose to find that Arkansas has fulfilled its consultation requirements to FLMs and to Missouri for the proposed SIP submittal under sections 51.308(i)(2) and 51.308(d)(3)(i). Lastly, we propose to approve regional haze program-specific plantwide conditions 32 to 43 from section VI of permit revision #0287-AOP-R22 into the SIP (effective August 1, 2019) for implementing the Domtar BART alternative. Specifically, these plantwide conditions of permit #0287-AOP-R22 are to be included in the SIP and approved as source-specific SIP requirements for Power Boilers No. 1 and 2 are as follows:[117]

- The SO_2, NO_X, and PM_{10} emission limits in pph for Power Boiler No. 1 (condition 32) and Power Boiler No. 2 (condition 37) based on a thirty boiler operating day rolling average.
- Monitoring, recordkeeping, and reporting requirements for Power Boiler No. 1 (conditions 33 to 36) and Power Boiler No. 2 (conditions 38 to 43).

B. FIP Withdrawal

We propose to withdraw the remaining portions of the Arkansas Regional Haze FIP at 40 CFR 52.173 that impose SO_2 and NO_X BART requirements for Domtar Ashdown Mill Power Boiler No. 1; and SO_2, NO_X, and PM_{10} BART requirements for Domtar Ashdown Mill Power Boiler No. 2. We propose to replace these portions of the withdrawn FIP with our approval of the

[117] For compliance with the CAA Regional Haze Program's requirements for the first planning period, Power Boilers No. 1 and 2 are subject-to-BART alternative measures consistent with 40 CFR 51.308. Upon final EPA approval of the permit into the SIP, the permittee continues to be subject to the conditions as approved into the SIP even if the conditions are revised as part of a permit amendment by ADEQ until such time as EPA approves any revised conditions into the SIP. The permittee shall remain subject to both the initial SIP-approved conditions and the revised SIP conditions, unless and until EPA approves the revised conditions.

State's SO_2, NO_X, and PM_{10} BART alternative emission limitations in the Arkansas Regional Haze Phase III SIP submittal. In addition, we propose to approve the State's withdrawal of the current PM_{10} BART determination of 0.07 lb/MMBtu for Power Boiler No. 1 in the 2008 Arkansas Regional Haze SIP, and propose to replace it with our approval of the PM_{10} BART alternative limit in the Arkansas Regional Haze Phase III SIP submittal.

C. Arkansas Visibility Transport

We propose to approve the portion of the Arkansas 2015 O_3 NAAQS Interstate Transport SIP revision (submitted October 4, 2019) addressing CAA section 110(a)(2)(D)(i)(II) prong 4 visibility transport provisions for Arkansas for the 2006 24-hour $PM_{2.5}$ NAAQS; the 2012 annual $PM_{2.5}$ NAAQS; the 2008 and 2015 eight-hour O_3 NAAQS; the 2010 one-hour NO_2 NAAQS; and the 2010 one-hour SO_2 NAAQS. We also propose to approve the visibility transport portion of the 2018 Phase II SIP revision, as supplemented by the Arkansas 2015 O_3 NAAQS Interstate Transport SIP revision. The State's analysis in the Arkansas 2015 O_3 NAAQS Interstate Transport SIP supersedes the visibility transport portion of the 2017 infrastructure SIP. We propose to approve the prong 4 portions of these SIP submittals on the basis that Arkansas will have a fully-approved regional haze SIP if we finalize our proposed approval of the Arkansas Regional Haze Phase III SIP submittal. The Arkansas Regional Haze NO_X SIP revision,[118] the Arkansas Regional Haze SO_2 and PM SIP revision,[119] and the Arkansas Regional Haze Phase III SIP revision (if finalized) together will fully address the deficiencies of the 2008 Arkansas Regional Haze SIP that were identified in the March 12, 2012, partial approval/disapproval action. A fully-approved regional haze plan ensures that emissions from Arkansas sources do not

[118] Final action approved on February 12, 2018 (83 FR 5927).
[119] See 83 FR 62204 (November 30, 2018) for proposed approval and 84 FR 51033 (September 27, 2019) for final approval.

interfere with measures required to be included in another air agencies' plans to protect visibility. As an alternative basis for approval of CAA section 110(a)(2)(D)(i)(II) prong 4 for these NAAQS, we propose to find that Arkansas has provided an adequate demonstration in the October 4, 2019 submittal showing that emissions within its jurisdiction do not interfere with other air agencies' plans to protect visibility.

D. CAA Section 110(l)

We propose to find that approval of the Arkansas Regional Haze Phase III SIP revision and concurrent withdrawal of the corresponding parts of the FIP, as proposed, meet the provisions of CAA section 110(l).

VIII. Incorporation by Reference

In this action, we propose to include in a final rule regulatory text that includes incorporation by reference. In accordance with the requirements of 1 CFR 51.5, we propose to incorporate by reference revisions to the Arkansas source specific requirements as described in the Proposed Action section above. We have made, and will continue to make, these documents generally available electronically through *www.regulations.gov* and in hard copy at the EPA Region 6 office (please contact James E. Grady, 214-665-6745, *grady.james@epa.gov* for more information).

IX. Statutory and Executive Order Reviews

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, the EPA's role is to approve state choices, provided that they meet the criteria of the CAA. Accordingly, this action merely proposes to approve state law as meeting Federal requirements and does not impose additional requirements

beyond those imposed by state law. For that reason, this action:

- Is not a "significant regulatory action" subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993), 13563 (76 FR 3821, January 21, 2011), and 13771 (82 FR 9339, February 2, 2017);
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq*.);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq*.);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and
- Does not provide the EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area

where the EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the proposed rule does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Best Available Retrofit Technology, Carbon monoxide, Incorporation by reference, Intergovernmental relations, Lead, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Regional haze, Sulfur dioxide, Visibility, Volatile organic compounds.

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

Dated: March 6, 2020.

Kenley McQueen,
Regional Administrator, Region 6.

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