

Enclosure
EPA Comments on Draft State of Montana Regional Haze Implementation Plan
Second Planning Period

1. *Overall comment on draft SIP.* We commend Montana for its thorough and well-organized state implementation plan (SIP). However, we have a few areas of concern which are discussed in detail below.
2. *Throughout the SIP.* It is not clear which measures are included in the state’s long-term strategy (LTS) and deemed necessary for reasonable progress, and which measures the state is merely discussing in its SIP narrative as part of its consideration of ongoing air pollution control programs. We recommend that the state clearly identify the LTS measures that are necessary for reasonable progress. Any measure/limit that is necessary for reasonable progress must be in the SIP. See related comments 3 and 19 below. See *Clarifications Regarding Regional Haze State Implementation Plans for the Second Implementation Period* (July 8, 2021; hereinafter “Clarifications Memo”) at 8-10.
3. *Throughout the SIP.* To the extent Montana is relying on anticipated source retirements as part of its long-term strategy for making reasonable progress, those retirements must be enforceable and in the SIP. See EPA’s *Guidance on Regional Haze State Implementation Plans for the Second Implementation Period* (August 20, 2019; hereinafter “Guidance”) at 20 and 34 and Clarifications Memo at 10. Further, the Guidance indicates that a state may choose not to select the source for four factor analysis if the source is expected to close by December 31, 2028. Guidance at 20. There are several instances where Montana cites to the *possibility* of source retirements “in the future” as a reason for not selecting additional controls, rather than citing to specifics. More information is required in order for Montana to rely on retirements either to forgo four-factor analyses or to use a shortened remaining useful life in its four factor analyses. See related comments 7 and 8 below.
4. *Throughout the SIP.* Overall comment on enforceable measures in SIPs. Section 110(a) of the Clean Air Act (42 USC section 7410(a)) outlines the requirement that SIPs contain enforceable emissions limitations and other control measures, means, or techniques relied on and include a program for the enforcement of the measures. Therefore, any emission limits or control measures ultimately relied on by Montana to make reasonable progress must be accompanied by provisions to ensure that the emission limits or other control measures are enforceable and contained in the SIP. Guidance at 42. Also, see 40 CFR 51.308(f)(2).
5. *Chapter 5, Emissions Inventory.* The Regional Haze Rule instructs that “State[s] should consider evaluating major and minor stationary sources or groups of sources, mobile sources, and area sources” and that “State[s] must include . . . a description of the criteria it used to determine which sources or groups of sources it evaluated . . .” 40 CFR 51.308(f)(2)(i). Montana acknowledges that visibility impairing emissions largely come from point sources, non-point sources, and oil and gas sources, mobile sources, international emissions, and fire, both prescribed and wild. See, e.g., p. 127-151. Yet Montana chose to select only stationary sources for four factor analysis using a Q/d analysis. EPA recommends that Montana explain why it is reasonable not to consider the other sources or groups of sources that contribute significantly to visibility impairment, especially oil and gas sources, and provide the criteria it used to exclude other sources from consideration. In the alternative, Montana may choose to select additional sources or groups of sources. In general, we encourage Montana to better explain and document how their source selection ensures that reasonable progress will be made.

6. *Chapter 6, Emission Control Analysis, page 160.* Montana states that its sources with an annual average emissions of NO_x and SO₂ combined under 100 tons per year were removed from further analysis. From the remaining 24 sources (out of 271 permitted stationary facilities, the only set of facilities considered), Montana then used a Q/d of 4 or greater for selecting sources to analyze for a four-factor analysis. However, Montana does not explain why either of those thresholds were selected, how the thresholds were selected, or how both thresholds combined ensure that Montana will select a reasonable set of sources for four-factor analyses. Further, Montana opted to begin its source selection process by only including stationary facilities and none of its oil and gas sources which also contribute significantly to visibility impairment. EPA suggests that Montana include additional explanation as to how their source-selection will result in fulfillment of their reasonable progress requirements.
7. *Chapter 6, Emissions Control Analysis, Four-Factor Analysis for Montana Dakota Utilities Co. – Lewis and Clark Station, pg. 211* The basis for Montana’s conclusion for no additional controls at the Lewis and Clark Station is not clear. Montana claims that it concurs with the four-factor analysis from the first planning period to install new low NO_x burners with SOFA, but then cites to the source’s reliance on coal from the Savage mine and *possible* transition to natural gas when ultimately determining that no additional NO_x controls are required for the second planning period. To the extent Montana is relying on anticipated conversion to gas or other anticipated measures (including future shutdowns) to dismiss potential controls for this source or any other source, such anticipated measures must be contained in the SIP as required under Section 110(a) of the CAA. See also Clarifications Memo at 10. In addition, if Montana determines, after a four-factor analysis, that no additional controls are reasonable, it must then clarify whether existing controls are thereby necessary for reasonable progress. We recommend that the state apply this comment and other EPA comments to other four-factor analyses within the SIP submission, to the extent they are applicable.
8. *Chapter 6, Emissions Control Analysis, Four-Factor Analysis for Cenex Harvest States Cooperative, Inc., pg. 268.* In the four factor analysis for NO_x evaluation, under the category of “Remaining Useful Life” Montana states “Although not specifically noted in the submitted four-factor analysis and because the costs for each retrofit were prohibitive, it is believed that the impact of retrofitting these older units could provide some emission reductions[.] However future replacement of these units such as with the planned replacement of Boiler #9, are the best steps forward for this round of regional haze.” This statement does not provide an answer for what Montana, or the source, considers to be its remaining useful life. In addition, to the extent Montana is relying on anticipated measures such as future boiler replacements to dismiss potential controls for this source or any other source, such anticipated measures as well as the analysis must be contained in the SIP. Clarifications Memo at 10. We recommend that the state apply this comment and other EPA comments to other four-factor analyses within the SIP submission, to the extent they are applicable.
9. *Chapter 6, Emission Control Analysis, page 167.* Montana states that the state believes any costs imposed on Montana sources must produce a discernible improvement in modeled visibility during the second planning period and not have the potential to cause detrimental impacts to Montana’s economy, rural communities, and grid stability. As a general matter, costs should be characterized and considered on a cost/ton emissions basis, i.e., as cost-effectiveness. Guidance at 31. The state should not rely on downstream costs impacts to reject cost-effective controls. Relatedly, energy stability impacts should also be subsumed into the costs’ consideration, and not be relied on as an independent basis to reject cost-effective controls. Guidance at 41-42. We also recommend that

Montana explain what it means by “discernible improvement in modeled visibility.” In doing so, we recommend that Montana keep in mind that whether a particular visibility impact or change is “meaningful” should be assessed in the context of an individual state’s contribution to visibility impairment, rather than total impairment at a Class I area. Montana should not reject cost-effective controls and otherwise reasonable controls merely because visibility impacts are small. See Clarifications Memo at 13-14. Due to the nature of regional haze pollution, it is necessary to evaluate and control sources with relatively small visibility impacts in order to achieve the national goal of “the prevention of any future, and the remedying of any existing, [anthropogenic] impairment of visibility in mandatory Class I Federal areas.” 42 USC 7491(a)(1); Clarifications Memo at 4. Additionally, Montana seems to be making the argument that because Canada and North Dakota’s impact on visibility at Montana’s Class I areas are greater than Montana’s impact, that Montana therefore should not impose additional costs on its sources. However, we caution that Montana should not reject cost-effective controls and otherwise reasonable controls merely because some portion of visibility-impairing pollutants come from other states and international sources. The national goal of the visibility protection program is to prevent any future and remedy any existing anthropogenic visibility impairment in Class I areas. Clean Air Act section 169A(a). We acknowledge that Montana cannot directly control emissions from international anthropogenic sources. Nonetheless, the state can focus on its own contributions to visibility impairment and must address the requirement to include emission limits and other measures for in-state sources that are necessary to make reasonable progress towards the national visibility goal. In addition, it appears as if Montana is using visibility as an additional factor to negate the analysis provided by the evaluation of the four statutory factors for reasonable progress. EPA has explained that states choosing to consider visibility benefits as an optional additional factor should not use visibility to summarily dismiss cost-effective potential controls, and that a state that has identified cost-effective controls but rejects most or all of them based on visibility benefits is likely to be improperly using visibility as an additional factor. Clarifications Memo at 13. Please see pages 12 and 13 of the Clarifications Memo for generally permissible ways to consider visibility in a four-factor analysis and control determination. We recommend that the state reconsider its four-factor analysis accordingly.

10. *Chapter 6, Emission Control Analysis.* Throughout, there are several instances where the state indicated that because a certain technology was determined to be infeasible during the first planning period, it is therefore also infeasible during the second planning period, without additional explanation. It would be helpful to have additional information as to why certain technologies were not considered in the four-factor analyses besides simply following what was done in the first planning period. Given the passage of time and the ongoing commercialization and application of control technologies, it is possible that some technologies that were previously infeasible are now feasible. In addition, if the state still concludes that certain technology is still infeasible proper documentation needs to be provided to demonstrate this.
11. *Chapter 6, Emission Control Analysis.* Throughout, the state points to a number of other factors, including “future project economics of coal” and “the need for stable baseload generation” as well as “the shift in electrical generation away from coal toward renewables and natural gas” as reasons why further controls, including emission limit tightening, are not reasonable. The rationale for the control determination chosen must be based on the four-factor analysis. 40 CFR 51.308(f)(2)(i). In addition, it is generally not appropriate to rely on other factors to summarily dismiss cost-effective controls. Clarifications Memo at 12-13. More specifically, it is not clear why a preference to favor one form electricity generation over others is relevant in determining reasonable progress toward the national visibility goal. This is particularly true where the favored form, coal, causes higher visibility impacts

than the other forms at issue (gas, renewables). Montana should explain and provide documentation why considering factors such as these will nonetheless result in a reasonable determination of new or additional controls.

12. *Chapter 6, Emission Control Analysis, pages 176-178.* Montana's selection of varying equipment life and interest rates shows that variations could result in a range +/- 30% (e.g., annual costs of \$102,039 versus \$188,786). We recommend that the equipment life used to calculate costs for each control technology option, unless constrained by a SIP-enforceable retirement date for the source, be consistent with that found in the respective chapter of the Control Cost Manual. See Guidance at 33-34; Clarifications Memo at 10. Likewise, we also recommend that Montana follow the recommendations for determining interest rates found in EPA's Control Cost Manual at Chapter 2, page 15. Specifically, where a firm-specific interest rate is available, we recommend that it be used to assess costs. We also recommend that the basis for any firm-specific interest rate be well-documented and justified. If a firm-specific interest rate is not available, then the bank prime rate (currently 3.25%¹) can be an appropriate estimate of the interest rate. Any deviations from the Control Cost Manual need to be documented and an appropriate rationale provided.
13. *Chapter 6, Emission Control Analysis.* Thank you for defining upfront some of the constants (e.g., remaining useful life, interest rates, etc...) and assumptions made throughout the state's analysis of the sources four-factor analyses.
14. *Chapter 6, Emission Control Analysis.* Throughout, if Montana determines, for a particular source, that no additional (i.e., new) measures are necessary to make reasonable progress, the state must determine whether the source's existing measures are necessary to make reasonable progress. See section 4 (pages 8 – 12) of the Clarifications Memo for information on determining when a source's existing measures are necessary to make reasonable progress. Generally, a source's existing measures are needed to prevent future emission increases and are thus needed to make reasonable progress. If Montana concludes that the existing controls at a selected source are necessary to make reasonable progress, Montana must adopt emissions limits based on those controls as part of its long-term strategy for the second planning period and include those limits in its SIP (to the extent they do not already exist in the SIP). Alternatively, if Montana can demonstrate that the source will continue to implement its existing measures and will not increase its emission rate and provide appropriate documentation to support its demonstration, it may be reasonable for the state to conclude that the existing controls are not necessary to make reasonable progress. In such case, the emission limits may not need to be adopted into the long-term strategy. For example, the existence of an enforceable emission limit or other enforceable requirement reflecting a source's existing measures may also be evidence that the source will continue implementing those measures. Thus, Montana should provide information on any enforceable emission limits associated with sources' existing measures and clearly identify the instrument in which the relevant limit(s) exist (by providing, e.g., the applicable permit number and where it can be found) and provide information on the specific permit provision(s) on which they are relying. We recommend that Montana make clear its determination for each source and explain whether it is including either existing or new emission limits for each source in the long-term strategy and SIP (or whether emission limits already exist in the SIP). See Guidance at 43; Clarifications Memo at 8-10.
15. *Chapter 7, Long-Term Strategy for Second Planning Period.* The SIP should clearly identify which out-of-state Class I areas are affected by emissions from the state and consult with those states that

¹ <https://www.federalreserve.gov/releases/h15/>

contain the Class I area. 40 CFR 51.308(f)(2). Note that this is distinct from assessing which out-of-state Class I areas are affected by particular in-state sources. This assessment should evaluate all anthropogenic sources of all visibility-impairing pollutants in Montana. See Guidance at 8-9. EPA has explained that the statute and EPA's regulations at 40 CFR 51.308(f) "require that the cause-or-contribute assessment consider all emissions of visibility-impairing pollutants from a State, as opposed to emissions of a particular pollutant or emissions from a certain set of sources."² The Guidance also states that all types of anthropogenic sources (such as major and minor stationary sources, mobile sources, and area sources) are to be included in the determination of affected Class I areas in other states. Guidance at 8.

16. *Chapter 6, Emission Control Analysis.* Throughout, for each of the selected sources, and for each emission unit evaluated, the four-factor analysis should identify the baseline control scenario, and associated emissions and emissions limits (lb/MMBtu, tons/year, lb/ton, etc., depending on unit type) used in the analysis. Further guidance regarding these issues can be found on pages 29 and 30 of our 2019 Guidance, respectively. See also 40 CFR 51.308(f)(2)(iii). The state should provide appropriate documentation of all this information, including with citations to regulatory and technical documents. We specifically recommend that the SIP narrative identify existing emission limits and where those limits are located (e.g., in the SIP, in a federal and/or state permit, in a consent decree). In addition, we recommend that the SIP narrative discuss how these limits compare to the baseline emissions used in the four-factor analyses.
17. *Chapter 6, Emission Control Analysis.* We recommend that for each selected source the state considers whether the source can achieve or is already achieving a lower emission rate using its existing measures. If a source is capable of operating or is already operating at a lower emission rate than assumed either (1) as the basis for not conducting a full four-factor analysis or (2) as the baseline for four-factor analysis, that lower rate should be analyzed as a potential control measure. Similarly, we recommend Montana consider whether equipment upgrades might be reasonable. If either more efficient use of existing measures or equipment upgrades are potentially reasonable control options, we recommend the state either conduct a four-factor analysis or explain why it is reasonable to forgo doing so. See Clarifications Memo at 5, 7.
18. *Chapter 6, Emission Control Analysis.* In the Q/d analysis used to select sources for four factor analysis, Montana uses average annual emissions from 2012 through 2017. To meet the requirements of 40 CFR 51.308(f)(2)(iii) of the regional haze rule, "emissions information must include, but need not be limited to, information on emissions in a year at least as recent as the most recent year for which the state has submitted emission inventory information to EPA as part of the triennial National Emissions Inventory process." Guidance at 17 and 18. Accordingly, we recommend that the state assess whether using more recent emissions data (at least as recent as its last NEI submission) would alter which sources are selected for four factor analysis.
19. *Chapter 8, Long Term Strategy for Second Planning Period.* It is not clear what the basis is for the 2028 reasonable progress goals (RPGs). Please include a description of what sources and associated emission reductions, if applicable, are included in the 2028 RPG modeling. Guidance at 46-48; Clarifications Memo at 6. The RPGs are generally based on the LTS. 40 CFR 51.308(f)(3).
20. *Chapter 8, Determination of RPG, pg 311.* In Montana's submission, it suggests that due to the relationship between the 2028 RPGs and its Class I areas' uniform rate of progress (URP), that it has

² 86 FR 19793, 19802 (April 15, 2021).

“demonstrated that all necessary emission reduction measures are included in [its] LTS.” However, the uniform rate of progress or glidepath is not a “safe harbor,” and Class I Areas’ position vis-à-vis the glidepath cannot be a basis for justifying a particular set of controls or decision to not require controls. Instead, the uniform rate of progress is a planning metric used to gauge the amount of progress made thus far and the amount left to make. Because the uniform rate of progress is not based on the four statutory factors, it cannot be used to determine whether the amount of progress made in any particular implementation period is reasonable. See Guidance at 50 and Clarifications Memo at 15. Therefore, it is not appropriate for Montana to claim that simply because its RPGs are below the URP, that its LTS (which outlines no additional controls) makes reasonable progress.

21. *Federal Land Manager Consultation.* Montana indicates that it intends to post comments received during the FLM consultation period to their Regional Haze website and respond to all comments either in the SIP revision, or in an Appendix. However, per 40 CFR 51.308(i)(3) a description of how of how the state addressed FLM comments should be in the final SIP submittal to EPA. Further, CAA 169A(d) requires the state to “include a summary of the conclusions and recommendations of the FLMs in the notice to the public” rather than in an appendix.
22. *Equity and Environmental Justice.* We encourage Montana to consider whether the SIP revision will result in equity and environmental justice impacts or impacts on any potentially affected communities. We also encourage Montana to describe any outreach to environmental justice communities that the state conducted, the opportunities Montana has provided for communities to give feedback on its proposed strategy, and the consideration Montana gave environmental justice in its technical analyses. See Clarifications Memo at 16.