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VIA E-mail (airplancomments@adeq.state.ar.us)

April 26, 2022

Erika Droke
Arkansas Department of Energy and Environment
Division of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118

Re: Comments on the Proposed Arkansas Regional Haze Planning Period II State Implementation Plan

Dear Ms. Droke:

Domtar A.W. LLC (Domtar) submits the following comments on the Arkansas Department of Energy and Environment, Division of Environmental Quality's (DEQ's) proposed *Arkansas Regional Haze Planning Period II State Implementation Plan* ("the proposed SIP").

1. The Ashdown Mill's No. 2 Power Boiler is described in the proposed SIP (at V-36) as burning coal among other fuels. An air permit modification application was submitted to the DEQ on April 12, 2022 that includes a fuel switch from coal to natural gas for the No. 2 Power Boiler. Once the air permit is finalized and the cessation of coal burning in the No.2 Power Boiler is completed, Domtar expects to see significant reductions in emissions in several pollutants such as nitrogen oxides (NO_X), etc.

2. Domtar objects to the consideration of "SNCR (Scenario 2)" (i.e., SNCR based on a 27.5 percent control efficiency) in the proposed SIP at V-41 – V-42, Table V-17 and Table V-18. As presented in the ICR Response (at 3-3 and 5-1), selective non-catalytic reduction (SNCR) could provide only approximately three (3) percent overall control efficiency. As such, considering a 27.5-percent scenario is inappropriate for the Ashdown power boilers, even as a sensitivity analysis is an inappropriate application.

3. Domtar agrees with DEQ's conclusion in the proposed SIP (at V-38 and V-39) that selective catalytic reduction (SCR) is technically infeasible for the Ashdown Mill's power boilers.

4. The "Controlled Emission Rate" and "Emission Reductions" values, 85.9 tons per year (tpy) and 773 tpy, respectively, for the "New downstream scrubber" strategy at No. 2 Power Boiler in the proposed SIP at V-40, Table V-17, are incorrect. As presented in Domtar's revised (August 14, 2020) *Response to January 8, 2020 Regional Haze Four-Factor Analysis Information Collection Request* (the ICR Response) (at 2-4, Table 2-4), the values should be 279.8 tpy and 579.1 tpy, respectively.

5. DEQ should not use 3.25 percent – the bank prime rate at the time of the SIP proposal – for the capital recovery calculations in the proposed SIP (at V-41 and other locations for other affected sources). Neither should it use 3.125 percent, which is an additional value used in DEQ's spreadsheet in the proposed SIP, Appendix H. As discussed in the Texas Commission on Environmental Quality's *Response to Comments Received Concerning the 2021 Regional Haze State Implementation Plan (SIP) Revision* (herein referred to as the "TCEQ RTC"), "[u]sing the bank prime rate in the four-factor analysis would not reflect ***real*** costs expected to be imposed on selected sources." (TCEQ RTC at 23-24, emphasis added). Moreover, even if the bank prime rate were representative of actual costs in real time, there is no guarantee that it will not change before costs are realized several years in the future. As illustrated in Attachment 1, the bank prime rate has fluctuated significantly, and it has recently increased from 3.25 percent to 3.5 percent. Based on the history of the bank prime rate, the unprecedented amount of inflation in 2021 and 2022, and the current worldwide economic pressures, it is inappropriate to rely upon the bank prime rate for capital recovery calculations.

   In its Control Cost Manual, EPA guides sources when performing a cost analysis, that it is important to use the nominal interest rate that the company faces and not a general interest rate, such as short-term prime. The base rates used by banks do not reflect entity- and project-specific characteristics and the credit risk of borrowers. As presented in the ICR Response (at 2-5, 2-6), Domtar's capital projects group uses 10.5 percent as the weighted average cost of capital. As such, the 7 percent interest rate is a more appropriate rate (than the bank prime rate), and is very conservative, for assessing a capital project related to the installation of additional controls.

6. The cost effectiveness values in the SIP should be updated to reflect the corrections to the emission rates and capital recovery interest rate discussed above. The updated values are summarized in the table below.

Unit	SO_2 Reduction Option	Cost Effectiveness ($2019/ton)
No. 2 Power Boiler	New downstream scrubber	17,914
	Increased scrubbing reagent use	3,600
No. 3 Power Boiler	Wet FGD low	81,182
	Wet FGD high	400,565
	Dry FGD low	98,572
	Dry FGD high	1,213,925

7. Domtar appreciates DEQ's documentation in the proposed SIP (at IV-9 – IV-26) of the recent, substantial emissions reductions that have occurred in Arkansas.

8. Domtar supports DEQ's consideration in the proposed SIP (at V-8) of visibility impairment potential in its selection of sources for four-factor analyses:

> *Consistent with EPA Guidance, this analysis was designed to ensure that source selection resulted in a set of pollutants and sources the evaluation of which has the potential to meaningfully reduce their contributions to visibility impairment.*

9. Domtar supports DEQ's consideration in the proposed SIP (at V-12, V-13, and V-16) of visibility conditions in addition to the four-statutory factors:

> *[A] state is not limited to solely considering these factors. In addition to the mandatory factors, DEQ also considered in its evaluation the progress that has been achieved at these federal Class I areas, the anticipated visibility impairment in 2028 at these federal Class I areas. This approach is consistent with the flexibility provided to states under the RHR, the recommendations included in EPA's guidance, and the iterative nature of the regional haze program.*
>
> *Consideration of historical and projected visibility progress provides valuable context for the consideration of potential control measures that may be necessary for ensuring reasonable progress. As described in Chapters II and III, federal Class I areas in Arkansas and federal Class I areas in other states that may be affected by emissions from Arkansas made considerable progress towards natural visibility conditions on the most impaired days during Planning Period I. Projected 2028 conditions for each Class I area, with the exception of Wichita Mountains, are on track with any glidepath the relevant state may choose to establish in their Planning Period II SIP before consideration of additional control measures to ensure reasonable progress. Any additional controls required by DEQ and/or other states will further accelerate progress toward natural visibility conditions during Planning Period II.*

10. Domtar appreciates DEQ's documentation of the progress in visibility conditions at the two Arkansas Class I areas – Caney Creek and Upper Buffalo – from the start of the regional haze program through 2019 (proposed SIP at II-4, Table II-1 and Table II-2, at II-18, Table II-3 and Table II-4, and at IV-16, Table IV-3). Further, Domtar is providing in Attachment 2 updated versions of the four tables in proposed SIP section II. These updated versions consider the latest visibility data for 2020 that was made available to the Interagency Monitoring of Protected Visual Environments (IMPROVE) steering committee members on February 7, 2022.[1] Domtar is also providing in Attachment 3 two figures that graphically present the trends in visibility conditions at the Class I areas through 2020 (these figures present the same information, but in a different format and with 2020 data, as provided in the proposed SIP at II-5, Figure II-2, at II-6, Figure II-3, at II-19, Figure II-14, and at II-20, Figure II-15). Domtar has not undertaken an effort to update the other figures in the proposed SIP with 2020 visibility information or to verify the information presented by the DEQ based on its own modeling or the modeling conducted by the Visibility Improvement - State and Tribal Association of the Southeast (VISTAS).

11. Domtar appreciates DEQ's effort in undertaking to complete its own predictive modeling using the Comprehensive Air Quality Model with Extensions (CAMx) to correct certain inaccuracies in EPA's modeling (proposed SIP Appendix L and elsewhere).

12. Domtar supports DEQ's conclusions in the proposed the SIP (at V-44) that "no additional controls are necessary for [the] Ashdown Mill."

Please contact me at 870-898-2711 ext 26168 or kelley.crouch@domtar.com if you have any questions regarding Domtar's comments.

Domtar A.W. LLC – Ashdown Mill

Kelley R. Crouch

Kelley R. Crouch
Environmental & Quality Manager

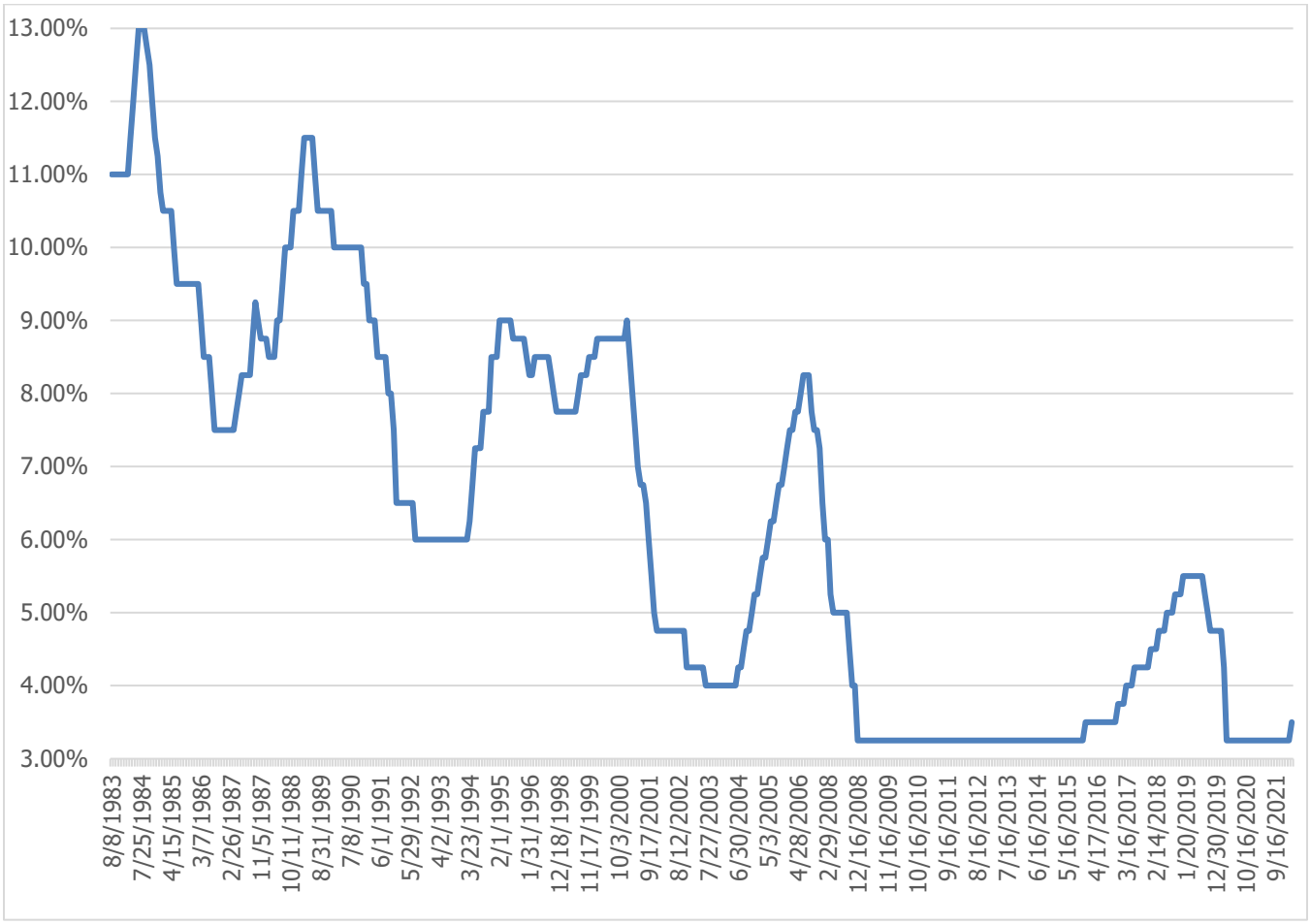
ec: Tricia Treece, DEQ
Annabeth Reitter, Domtar
Jeremy Jewell, Trinity Consultants

Domtar

[1] E-mail from Scott Copeland (USDA Forest Service), "2020 IMPROVE Data", Received by Jeremy Jewell (Trinity Consultants), February 7, 2022.

Attachment 1. History of Bank Prime Rate

Figure 1. History of Bank Prime Rate, Aug. 8, 1983 to Mar. 17, 2022



Attachment 2. Class I Area Visibility Progress – Updated Information

Proposed SIP Table II-1, *Updated to Include 2020 Data*
Baseline (2000-2004), Current (2016-2020), and Natural Visibility Conditions for the Twenty Percent Most Impaired Days and Twenty Percent Clearest Days at Caney Creek [a]

Metric	Baseline Visibility Conditions [b] (deciviews)	Current Visibility Conditions [c] (deciviews)	Natural Visibility Conditions (deciviews)
Most Impaired Days	23.99	17.02	9.54
Clearest Days	11.24	7.78	4.23

[a] *See* proposed SIP at II-4, footnote 10
[b] *See* proposed SIP at II-4, footnote 11
[c] 2016-2020 average

Proposed SIP Table II-2, *Updated to Include 2020 Data*
Progress Toward Natural Visibility Conditions at Caney Creek

Metric	Progress to Date [a] (deciviews)	Progress During Planning Period I [b] (deciviews)	Difference between Current and Natural Visibility Conditions [c] (deciviews)
Most Impaired Days	6.97	5.7	7.48
Clearest Days	3.46	3.22	3.55

[a] Difference between baseline (2000-2004) average conditions and 2016-2020 average conditions
[b] *See* proposed SIP at II-4, footnote 14
[c] Difference between 2016-2020 average conditions and natural conditions

Proposed SIP Table II-3, *Updated to Include 2020 Data*
Baseline (2000-2004), Current (2016-2020), and Natural Visibility Conditions for the Twenty Percent Most Impaired Days and Twenty Percent Clearest Days at Upper Buffalo [a]

Metric	Baseline Visibility Conditions [b] (deciviews)	Current Visibility Conditions [c] (deciviews)	Natural Visibility Conditions (deciviews)
Most Impaired Days	24.21	16.94	9.41
Clearest Days	11.71	8.25	4.18

[a] *See* proposed SIP at II-18, footnote 36
[b] *See* proposed SIP at II-4, footnote 37
[c] 2016-2020 average

Proposed SIP Table II-4, *Updated to Include 2020 Data*
Progress Toward Natural Visibility Conditions at Upper Buffalo

Metric	Progress to Date [a] (deciviews)	Progress During Planning Period I [b] (deciviews)	Difference between Current and Natural Visibility Conditions [c] (deciviews)
Most Impaired Days	7.27	6.26	7.53
Clearest Days	3.46	3.51	4.07

[a] Difference between baseline (2000-2004) average conditions and 2016-2020 average conditions
[b] *See* proposed SIP at II-4, footnote 40
[c] Difference between 2016-2020 average conditions and natural conditions

Attachment 3. Plots of Class I Area Visibility Observations

Figure 2. Year-by-Year (2000 – 2020) Observations of Visibility Conditions at Caney Creek on the 20 Percent Most Impaired Days and the 20 Clearest Days

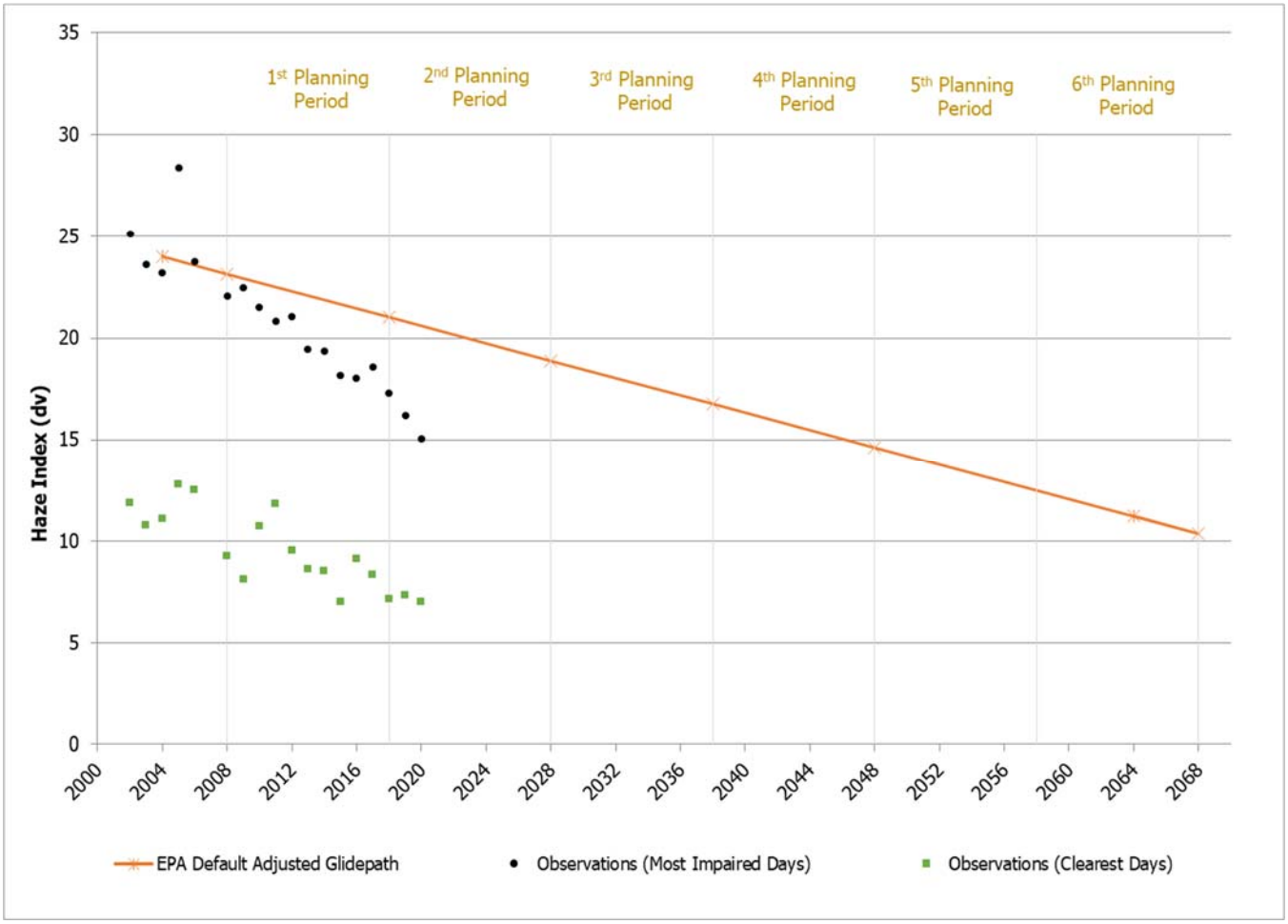


Figure 3. Year-by-Year (2000 – 2020) Observations of Visibility Conditions at Upper Buffalo on the 20 Percent Most Impaired Days and the 20 Clearest Days