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AIR QUALITY

Mr. Eddie Terrill, Director
Air Quality Division
Oklahoma Department of Environmental Quality
707 N. Robinson
Oklahoma City, OK 73101

RE: Oklahoma Department of Environmental Quality ("DEQ")
Draft Regional Haze Implementation Plan Revision
Submittal of Formal Comments

Dear Mr. Terrill:

Western Farmers Electric Cooperative ("WFEC") has conducted an initial review of the DEQ's proposed draft Regional Haze Implementation Plan Revision ("Revision") dated November 13, 2009 regarding visibility impacts to the Wichita Mountains Wilderness Area ("WIMO") (Oklahoma's only Class I area) and the DEQ's proposed path toward achieving compliance with the nationwide program promulgated by the U.S. Environmental Protection Agency ("EPA"). WFEC appreciates the hard work and detailed analysis conducted by the DEQ as evidenced in the Revision. WFEC further appreciates this opportunity to review and comment on the Revision during the initial drafting stages.

Based upon an initial review, WFEC has identified the following issues of concern regarding the Revision (which are discussed below in more detail) which it requests the DEQ address and resolve prior to finalizing the Revision:

1. The DEQ has determined the impact of out-of-state emissions (primarily from the State of Texas) on visibility in the WIMO are significant. Conversely, Texas recently submitted its Regional Haze SIP Revision to EPA and therein indicated emissions originating from Texas do not impact visibility in the WIMO. Therefore, there appears to be a significant disagreement between the findings from each State. How does the DEQ propose to resolve this issue?
2. Notwithstanding the fact that Oklahoma would be unable to meet the Uniform Rate of Progress ("URP") toward meeting the ultimate visibility goal specified by EPA if all point sources of emission within Oklahoma were removed, the Revision places significant emission reduction burdens on Oklahoma sources via BART while sources located in Texas (whose emissions significantly contribute to visibility impairment at the WIMO) appear to escape further control. Did the DEQ advise Texas that additional emission reductions from Texas sources would not be needed to help Oklahoma meet the WIMO reasonable progress goals, and if so, on what basis was such determination made?

A Powerful Friend to:

Alfalfa Electric Cooperative - Altus Air Force Base - Caddo Electric Cooperative - Canadian Valley Electric Cooperative - Choctaw Electric Cooperative - Cimarron Electric Cooperative
Cotton Electric Cooperative - East Central Oklahoma Electric Cooperative - Harmon Electric Association - Kay Electric Cooperative - Kiamichi Electric Cooperative
Kiwash Electric Cooperative - Northfork Electric Cooperative - Northwestern Electric Cooperative - Oklahoma Electric Cooperative - People's Electric Cooperative
Red River Valley Rural Electric Association - Rural Electric Cooperative - Southeastern Electric Cooperative - Southwest Rural Electric Association

As referenced in the Revision, EPA's Regional Haze Rule (40 C.F.R. Part 51, Subpart P) was aimed at achieving national visibility goals by the year 2064 and address the combined effects on visibility from various air emission sources over broad geographical regions. In doing so, EPA identified the key role of pollutant transport (both interstate and internationally) in contributing to regional haze in Class I areas located in the U.S. and therefore designated five (5) regional planning organizations to assist in the interstate coordination and cooperation necessary to effectively address visibility in designated Class I areas.

The Revision currently identifies various air pollutant emissions from other states as well as international transport as having visibility impacts on the WIMO:

Sections A, B, C, D, and E of this chapter discuss in detail modeling methods and protocol used by DEQ in developing the assessment. Results primarily attribute sulfurous aerosol, nitrate aerosol, and elemental carbonaceous particulate to anthropogenic sources; organic carbonaceous particulate, fine soil particulate, and coarse particulate concentrations are attributed to natural and/or area sources. For most pollutants, the majority of visibility-impairing pollutants originate outside of Oklahoma; prevailing winds transport a considerable proportion of visibility impairing aerosols from Texas, and more than one-tenth of visibility impairment at the Wichita Mountains results from international transport.¹ (Emphasis added)

... This modeling attributes visibility impairment at the Wichita Mountains mainly to anthropogenic emissions of sulfurous and nitrate pollutants. Sources in Oklahoma contribute less than one-seventh of visibility impairment at the Wichita Mountains; emissions from Texas alone account for almost twice the impairment as those from all of Oklahoma.² (Emphasis added)

As Table V-8 indicates, sulfurous emissions clearly most importantly impair visibility at the Wichita Mountains. Nitrate particulate matter forms from NOx emissions but occurs predominantly during the winter months; sulfurous aerosol comprises a plurality during the rest of the year. Organic carbonaceous aerosols also contribute significantly to visibility impairment at the Wichita Mountains. Texas sources bear culpability for the largest proportion of visibility impairment. In every category except coarse particulate matter, sources in Texas (and other states) notably contribute more than those within Oklahoma do. Several other states each emit sulfurous aerosols which impair visibility at the Wichita Mountains more than emissions from all Oklahoma sources do.³ (Emphasis added)

Table V-8 shows some contribution from sources in southern Canada, northern México, and especially the boundary conditions outside the CENRAP modeling domain. The boundary conditions include particulate from much of central and all of southern México, including Ciudad México (Distrito Federal), the Mexican Yucatán Peninsula, Mesoamerica, the Caribbean region, Africa, the People's Republic of China, and other Asian and international sources. International transport contributes more than one-tenth of the regional haze on the worst quintile of days at the Wichita Mountains.⁴ (Emphasis added)

¹ See "Regional Haze Implementation Plan Revision", November 13, 2009 Draft ("Revision"), at p. 48.

² Revision at p. 49.

³ Revision at p. 66.

⁴ Revision at pp. 67, 68.

Based on the above and the fact that "... even the elimination of all anthropogenic sources within Oklahoma is not sufficient to comply with uniform rate of progress", the DEQ concluded "any effective strategy for managing visibility impairment at the Wichita Mountains must address outside sources including regional and international transport."^{5,6} However, the Revision is silent as to how such outside sources will be addressed.

Notwithstanding the above, the Revision identifies emissions reductions from Oklahoma sources sufficient to meet the reasonable progress goal for the WIMO set forth in 40 C.F.R. § 51.308(d)(3)(ii), in part, by requiring the installation of Best Available Retrofit Technology ("BART") for any BART-eligible source determined to cause or contribute to visibility impairment at the WIMO. However, the same fails to address the significant visibility impacts on the WIMO caused by sources located outside the State of Oklahoma. Accordingly, the required emission reductions identified in the Revision will come at a significant and unjustified cost to Oklahoma industry. As a result, industry currently located in or seeking to locate in Oklahoma will be placed at a significant economic disadvantage at a time when both the State and national economies are struggling.

The State of Texas previously submitted its Regional Haze SIP Revision to EPA in March 2009. WFEC has obtained and reviewed the same to determine what, if any, emission reductions will be placed on Texas sources whose emissions contribute to visibility impairment in the WIMO. In doing so, WFEC learned Texas had determined that its emissions did not impact the WIMO:

The TCEQ reviewed CENRAP modeling to assess which Class I areas in other states might be impacted by Texas' emissions. Modeling indicated that Texas impacts Breton Wilderness Area in Louisiana, the Great Sand Dunes in Colorado, and several Class I sites in New Mexico. The TCEQ also consulted the adjacent states in which the modeling data indicated no significant impact by Texas, including Arkansas, Missouri, and Oklahoma. ...⁷ (Emphasis added)

Further, it is clear that Texas was aware the WIMO was approximately forty percent (40%) short of meeting the 2018 point on the Uniform Rate of Progress glide path.⁸ More importantly, it appears that Texas consulted with Oklahoma and was advised no additional emission reductions from Texas sources would be needed to help Oklahoma meet the WIMO reasonable progress goals.⁹ Such statement does not appear to reflect

⁵ Revision at pp. 96. See also "Oklahoma's Wichita Mountains Wilderness Area Regional Haze Planning", Oklahoma's WIMO Consultation Plan, which very succinctly states the following at p. 7:

... Thus far, no scenario has resulted in Oklahoma meeting its glide path goal for 2018 through reevaluation of background levels or controlling emissions within state borders. Source Apportionment Modeling used to apportion culpability to individual source categories and geographic regions indicates that removal of the impact of all point sources within Oklahoma would not result in our achieving the 2018 reduction goal.

⁶ Revision at p. 48.

⁷ See "Revisions to the State Implementation Plan (SIP) Concerning Regional Haze", Texas Commission on Environmental Quality, February 25, 2009 ("Texas SIP"), at p. 4-2.

⁸ Texas SIP at p. 8-17.

⁹ Texas SIP at p. 11-7 wherein the following is stated:

the magnitude of Texas' emissions and/or their significant impacts on visibility in the WIMO as previously referenced.

Additionally, Texas' Regional Haze SIP Revision contained a detailed BART review and analysis wherein additional controls and their projected improvements (based on an "effectiveness ratio") on visibility in Class I areas were evaluated. Thereafter, due to the poor cost-effectiveness of additional, reasonable point source controls, Texas determined additional controls for regional haze were not appropriate.¹⁰

The TCEQ used the CENRAP modeling to estimate the impact that the control strategy would have on the Class I areas impacted by Texas' emissions. The CENRAP conducted a modeling analysis presuming an aggressive set of additional controls above and beyond CAIR and BART. Texas used the results of this modeling analysis to determine an effectiveness ratio for NO_x and SO₂ reductions. The effectiveness ratio provides an estimate of improvement in visibility for every ton of NO_x and SO₂ reduced. Using these ratios, the TCEQ was able to develop an order-of-magnitude estimate of the likely visibility improvements resulting from the point source control strategy (see Table 10-6: *Estimated Haze Index Improvements for Affected Class I Areas*). ...¹¹

As Tables 10-5 and 10-6: *Estimated Haze Index Improvements for Affected Class I Areas* show, the analysis identified controls costing well over \$300 million, yet the projected benefit of those controls on each Class I is not perceptible. A single (1.0) deciview is the smallest perceptible improvement in visibility. In the TCEQ's Best Available Retrofit Technology (BART) rule, the state considered 0.5 deciviews as the threshold under which a facility was not considered to meaningfully contribute to visibility impairment. A difference improvement of 0.05 deciviews is well within the uncertainty of the modeling techniques and is much lower than perceptible.¹²

At a total estimated cost exceeding \$300 million and no perceptible visibility benefit, Texas has determined that it is not reasonable to implement additional controls at this time. All units in Texas that met the emissions over distance threshold were assessed. (Emphasis added)¹³

Texas thereafter cited to impacts associated with international transport and indicated the URP assumed all reductions needed to meet the same would come from Texas; however, such reductions would require "significant over-control" to compensate for the impacts of international transport.¹⁴

Arkansas, Missouri, and Oklahoma have each included Texas in consultations concerning regional haze impacts on the Class I areas in these states. The TCEQ reviewed CENRAP PSAT modeling to assess how Texas' emissions might affect other states' Class I areas. Pursuant to this review, Texas has written to Arkansas, Missouri, Oklahoma, New Mexico, Louisiana, and Colorado to ask whether emission reductions projected in Texas by 2018 are sufficient to meet Texas' apportionment of the impact reduction needed to meet the reasonable progress goal for each Class I area in each state. Texas has completed its consultation with Louisiana, Arkansas, Missouri, Oklahoma, and Colorado, and none of these states has asked Texas for further emission reductions to help the state meet its reasonable progress goals for its Class I area(s). ... (Emphasis added)

¹⁰ Texas SIP at p. 10-12.

¹¹ Texas SIP at p. 10-5.

¹² Texas SIP at p. 10-6.

¹³ Texas SIP at p. 10-8.

¹⁴ Texas SIP at p. 10-12.

Regarding the WIMO, the same factual circumstances can be applied. Emission reductions identified in the Revision should not require "significant over-control" of Oklahoma sources to compensate for visibility impacts at the WIMO caused by out-of-state sources. To do so preclude national consistency and/or uniformity in the application and determination of regional haze and could potentially violate the concept of fundamental fairness.

Following further review and analysis of the Revision, WFEC will, as necessary, submit additional comments to identify any additional issues which it identifies regarding the Revision. Again, WFEC appreciates the opportunity to review and comment on the Revision.

Sincerely,


