



United States
Department of
Agriculture

Forest
Service

Pacific
Northwest
Region

333 SW First Avenue (97204)
PO Box 3623
Portland, OR 97208-3623
503-808-2468

File Code: 2580-2

Date: January 29, 2009

Mr. Brian Finneran
Oregon DEQ Regional Haze Coordinator
DEQ Air Quality Division
811 SW Sixth Avenue
Portland, OR 97204-1390

Dear Mr. Finneran:

On November 12, 2008, the State of Oregon submitted a draft implementation plan describing your proposal to improve air quality regional haze impacts at mandatory Class I areas in the Region. We appreciate the opportunity to work closely with the State through the initial evaluation, development, and, now, subsequent review of this plan. Cooperative efforts such as these ensure that, together, we will continue to make progress toward the Clean Air Act's goal of natural visibility conditions at our Class I wilderness areas and parks.

The Forest Service has received and conducted a substantive review of the proposed Regional Haze Rule implementation plan. The Forest Service's participation in the State of Oregon's administrative process does not waive any legal defenses or sovereignty rights it may have under the laws of the United States, including the Clean Air Act and its implementing regulations.

As outlined in a letter to Oregon Department of Environmental Quality (ODEQ) dated December 1, 2006, our review focused on several basic content areas. The content areas reflect priorities for the Federal Land Management agencies, and we have attached comments to this letter associated with these priorities. We also understand that ODEQ is soliciting comments to PGE's proposed rule amendments. Since these amendments are not currently part of the proposed rule, we are submitting comments on this issue under separate letter head. We look forward to your response required by 40 CFR 51.308(i)(3). For further information, please contact Rick Graw at (503) 808-2918 or Scott Copeland at (307) 332-9737.

Again, we appreciate the opportunity to work closely with the State of Oregon's Department of Environmental Quality. The Forest Service compliments you on your hard work and dedication to significant improvement in our nation's air quality values and visibility.

Sincerely,

/s/ Mary Wagner

MARY WAGNER
Regional Forester

Enclosure



Attachment

Comments on the November 2008 draft of the Oregon Regional Haze SIP

The Forest Service recognizes the complexities in assessing visibility in Oregon's Class I areas, due in part to the State's diverse topography and source emission categories. Overall, ODEQ provided a comprehensive assessment of visibility impairment in Class I areas. This was extremely helpful in assessing the adequacy of the Reasonable Progress Goals and Long Term Strategy. We offer the following comments and/or request clarification of the following issues.

Source Apportionment

We suggest ODEQ to include a discussion of the contribution of secondary organic aerosols from biogenic emissions as natural sources of haze. A review of the WRAP TSS organic aerosol modeling results verifies that indeed secondary emissions from biogenic sources contribute a large fraction of the organic carbon observed during the summer months in the Wilderness areas (e.g. Mt. Hood Wilderness area). This is consistent with the finding of the Columbia River Gorge Visibility Study in which biogenic emissions were found to be a major contributor to summer-time haze. Secondary biogenic emissions can contribute significantly to the organic carbon portion of haze, especially during the summer months. Given the high impact of organic carbon to regional haze during the summer months, the lack of including this source category may artificially lead one to attribute the contribution to another source category. Please evaluate and revise this section accordingly.

Best Available Retrofit Technology (BART) Evaluation

The proposed Best Available Retrofit Technology (BART) limit for NO_x is 0.23 lb/mmbtu based upon a 12-month rolling average. As in the case with NAAQS and PSD increments, we would like to see consistency in the averaging time of the permit limit and regional haze. Although regional haze is an instantaneous phenomenon, it is treated as a 24-hour average phenomenon throughout the BART process and New Source Review (NSR). The BART guidelines recommend a 30-day rolling average for utility boilers subject to the presumptive limits. As such, we would like to see at least an equivalent 30-day rolling average for NO_x limits from this unit.

Comments on Reasonable Further Progress Goals:

As none of the Class I areas in Oregon are expected to meet the Uniform Rate of Progress (URP) goals by 2018, Oregon is proposing to establish Reasonable Progress Goals (RPGs) that provide for a slower rate of improvement in visibility, at least through 2018. While a state may establish reasonable progress goals that provide for a slower rate of improvement than the rate that would be needed to attain natural conditions by 2064, the State must, (1) demonstrate that URP goals are not reasonable, and (2) provide an assessment of the number of years it would take to attain natural conditions at the rate of progress selected by the State as reasonable.

While Oregon has provided a four-factor analysis for non-BART source categories, and the costs of implementing some of these controls appear to the Forest Service to be reasonable, Oregon has concluded that it is not reasonable to require controls for these source categories at this time. Please clarify that (1) several of these source categories have costs that are within the range of what is considered reasonable under the BART or BACT programs, and (2) clarify why Oregon is not pursuing reducing emissions from these sources now.

Additionally, please provide an assessment of the number of years it would take to attain natural conditions at the rate of progress selected by the State as reasonable.

Comments on the Long Term Strategy:

Fire:

Given the potentially large impact of wildfire on haze, such events have the potential to have a significantly larger impact on the magnitude of the average of the 20% worst case days, more so than any other emission source. The Forest Service would like Oregon to recognize, in its regional haze SIP, the potential benefits of an implementing fuels reduction programs, including prescribed burning, as a strategy for reducing haze from wildfires. Such language is already contained in Section 629-048-0020 of the Oregon Smoke Management plan (Necessity of Prescribed Burning), including a description of the likely differences in air pollution effects of wildfires as compared with prescribed burning.

The Forest Service agrees that prescribed burning may contribute to haze in federal Class I areas and further evaluation is needed. However, the methodology proposed to evaluate the contribution of prescribed forestry burning to haze has some inherent biases and uncertainties that may result in artificial attribution to this source. The Forest Service would like to work with ODEQ in formulating an appropriate evaluation technique, interpreting the results, and identifying of any potential additional control techniques to mitigate such effects.

Non-BART Source Evaluation:

The Forest Service would like to participate in the development of the guidance for the evaluation of non-BART sources to reduce regional haze. We are further concerned about how sources which have demonstrated that impacts from their emission unit are less than the 0.5 dv threshold, based upon actual, not permitted emission levels. These sources may still have the potential to contribute to regional haze (above the 0.5 dv) threshold if their actual emissions increase above values used in the BART exemption modeling.

Furthermore, we would like to see the State evaluate the cumulative source impacts from a grouping of sources, such as those that occur in the lower Columbia River in Northwest Oregon and Southwest Washington that together may cause haze in Class I areas. Such an approach is commonly used in the Eastern US and seems logical to apply here as well.

Area Sources of Organic Carbon:

Organic carbon is identified as the largest contributing aerosol species to the 20% worst-case days in the Class I areas of the Oregon Cascades. In the Mt. Hood Wilderness, and to a lesser extent in the Mt. Jefferson, Mt. Washington, and Three Sisters Wilderness areas, organic carbon is identified as the largest contributing source to organic carbon. However, there is no mention of how the State intends to address this source category as part of its Long-Term

Strategy. Please add a discussion of area sources of organic carbon to the Long-Term Strategy for these wilderness areas.

Crustal Material (Coarse Particulate Matter and Fine Soil)

We would like Oregon to address crustal material as part of its Long-Term Strategy for Class I areas in Eastern Oregon, as these are more affected by this pollutant than the Oregon's other Class I areas. Examination of alpine lake sediment cores from the western interior United States have revealed a five-fold increase in dust deposition since the early twentieth century, coinciding with expansion of livestock grazing¹. Eastern Oregon has well known wind blown dust episodes which are at times implicated using the Wind Blown Dust Episode Analysis tool available through the WRAP TSS. We encourage ODEQ to use this tool and consider windblown dust not only as a natural source but also an anthropogenic source which may increase with land use disturbance in considering options to reduce dust emissions in the future. Please discuss this pollutant and potential control strategies as part of Oregon's Long-Term Strategy.

Sulfates:

Sulfates from area source have been implicated as significant sources of haze causing pollutants in the Mt. Hood Wilderness, which are not expected to meet the 2018 URP. While ODEQ did address stationary SO₂ fuel combustion sources the analysis a more thorough analysis is warranted considering the impact on this Class I wilderness area. In addition to fuel switching and post-combustion controls, which ODEQ has somewhat addressed, other options to reduce emissions from this source category may include working with pollution prevention and conservation experts to evaluate the full suite of options and make recommendations for future sustainability. We encourage Oregon to consider sustainability and energy conservation as part of its Long-Term Strategy for all pollutants, including sulfates.

- The Forest Service routinely requests that SIPs include language linking the Regional Haze Program with the Prevention of Significant Deterioration program. We note that the PSD program can be an effective tool to prevent degradation of "Best Days", and that new sources should be consistent with or accounted for in RH SIP revisions.

¹ Neff, J.C, et al. Increasing Eolian Dust Deposition in the Western United States Linked to Human Activity. Nature Geoscience. Vol. 1, March 2008. www.nature.com/naturegeoscience.