



**Robert Poole**

Director, Northwest Regulatory Affairs

February 16, 2021

Sent online via WA Dept. of Ecology Comment Portal

Phil Gent

Washington Department of Ecology

Subject: Regional Haze Revisions to State Implementation Plan

Dear Mr. Gent,

The Western States Petroleum Association (WSPA) appreciates the continued opportunity to provide input on WA Dept. of Ecology's (Ecology) Regional Haze revisions to the State Implementation Plan. WSPA is a trade association that proudly represents companies that explore for, produce, refine, transport and market petroleum, petroleum products, natural gas, and other energy supplies in Washington and four other western states.

WSPA's comments submitted during this informal opportunity are broken into the general comments in this cover letter and additional, more specific, comments contained in the accompanying attachment which focuses on information presented by Ecology in the Regional Haze State Implementation Plan (SIP Revision – Second 10-Year Plan, Draft Chapter 11—Four-Factor Analysis (FFA) (dated January 11, 2021) WSPA's comments in the attachment entail both general and refinery specific information. What follows here are general comments for consideration.

- **Transparency of the Four-Factor Analysis Process**

Each WSPA company submitted a FFA in April 2020 after significant effort to review the feasibility and costs associated with installing NOx control equipment at the refineries. Ecology provided no feedback or request for additional details, even after follow-up from WSPA and individual companies. Ecology now has developed and published their own analysis (including own cost estimates) without any review/comments from industry. Ecology notes that they could not "reconcile" cost differences between certain company analysis and their own. Ecology also noted that "limited supporting information" was provided for the WSPA company cost estimates. However, WSPA companies were not contacted or given an opportunity to provide additional details or justify our analyses. Given the potential impact of this rule upon the refining industry in Washington, WSPA requests that Ecology conduct a more transparent process and provide the

WSPA companies an opportunity to justify and provide more details to support the company developed 4-Factor/RACT determinations.

- **Regulatory Mechanism Flexibility:**

Ecology's preliminary 4-Factor Analysis approach potentially relies on a future RACT rulemaking for the refinery source category. WSPA encourages the agency to provide flexibility to consider facility-specific regulatory mechanisms to satisfy the 2018-2028 Regional Haze planning obligation and allow refineries to approach the agency with customized Regional Haze proposals. Source-specific RACT determinations are authorized under RCW 70.94.154(3). WSPA contends that facilities operated by its members have sufficient differences in their potential regional haze impacts to justify a source-specific RACT determination, if that is the enforcement mechanism that Ecology decides to use for Regional Haze emission reductions.

We submit there are facility-specific considerations and opportunities (within the 4-Factor or RACT decision criteria) that could minimize cost impacts yet achieve the amount of emission reductions needed to meet Washington's reasonable progress goal. These considerations and opportunities could include differing production technologies and emission controls, capital investment cycles, and the results of more detailed evaluations of emission impacts on regional haze in the Class I areas.

To accommodate unique facility features, WSPA encourages Ecology to not foreclose options for voluntary emission reductions captured in an Agreed Order, considerations of shifting timelines for accomplishing any reductions, or even acknowledging an off-ramp for any source with minimal impact on Regional Haze.

- **Site Specific Cost Estimates:**

Use of site-specific cost estimates included in the refinery 4-Factor Analyses submitted by WSPA members provides more accurate and complete project information compared to the generic information contained in the EPA Control Cost Manual. Site-specific cost estimates also address inappropriate applicability issues. An example of this involves the SCR cost estimation section of the EPA manual which was created to be applicable to the electric utility generating sector, and as such is not scalable to the heaters and boilers present at most WA refineries.

WSPA companies hired separate 3rd party companies to develop cost estimates considering these site-specific challenges. These cost estimates ranged from obtaining unit-specific cost estimates from vendors; scaling costs from actual retrofit costs at different refinery of from a different emission unit the same refinery; and using EPA's Control Cost Manual with a retrofit multiplier and site-specific costs for labor and utilities. These separately developed cost estimates were in general agreement and better reflect the true cost of installing this equipment. WSPA considers the cost estimates development by Ecology to greatly underestimate the actual cost of installing the controls.

- **Technical Feasibility:**

WSPA suggests the technical feasibility of control equipment installation cannot be fully determined until more detailed engineering has been completed. For some refineries, the addition of SCR would require plot space that is simply not available, or unreasonable equipment retrofit challenges. A more detailed review of these issues would demonstrate the technical infeasibility of SCR addition.

- **SCR as RACT:**

WSPA is unconvinced that Ecology's determination that SCR qualifies as RACT can be justified. The agency 4-Factor Analysis takes no account of the full project cost a refinery would incur in installing and operating/maintaining this emission control technology. We respectfully challenge Ecology to find an analogous determination anywhere in the United States outside of California (which is in severe nonattainment for ozone – not the situation in Washington) where the installation of SCR has been determined to be RACT.

- **Economic Analyses Factor:**

WSPA requests that Ecology use the traditional 7% interest rate for control cost-effectiveness calculations. Historical cost analyses done by members have all been based on a 7% interest rate. Use of a 7% interest rate for annualizing capital costs provides more comparability and consistency with previous cost analyses both in Washington and across the country. Additionally, the 7% interest rate would comport with the 2016 federal Regional Haze guidance, which says that states should use “**OMB-approved** discount rates to annualize costs.” [emphasis added] The relevant Office of Management and Budget (OMB) guidance<sup>1</sup> concludes that the appropriate discount rate for cost-effectiveness calculation is 7%. The 3.25% interest rate that Ecology used in its Draft 4-Factor Analysis does not reflect the reality of actual borrowing costs for WSPA members, and therefore results in annualized control estimates that are significantly too low.

- **Information Exclusion:**

The refineries provided 4-Factor Analyses that responded to Ecology's November 2019 information request. That request excluded emission units that had been retrofitted after 2005. For that reason, two FCCUs were not addressed in the refineries' 4-Factor Analyses. WSPA requests that either Ecology's 4-Factor Analysis be based on the same universe of sources that was specified in the information request, or that Ecology amend its request to allow refiners to

---

<sup>1</sup> U.S Office of Management and Budget, Circular A-94: Guidelines and Discount Rates for Benefit Cost Analysis of Federal Programs, October 29, 1992.

provide site-specific information. If the latter option is selected, the facilities that operate these FCCUs are best suited to prepare the evaluations by using their site-specific knowledge.

As stated above, the enclosed attachment focuses on information presented by Ecology in the draft 4-Factor chapter and entail both general and refinery specific information.

Given the timing of the Second 10-year Plan SIP revision and the issues noted above, we believe it is appropriate for Ecology to remove specific representations and conclusions from the RH FFA chapter and address the topic more generally

Thank you for considering our comments as Ecology moves forward with revisions to the Regional Haze components of the State Implementation Plan. We appreciate the opportunity to continue to provide input on this very important issue. If you have any immediate questions, please contact me via e-mail at [bpooole@wspa.org](mailto:bpooole@wspa.org) or by phone at (805) 833-9760.

Sincerely,



Enclosure: Comments on WA Dept. of Ecology's Draft 4-Factor Analysis Chapter

cc: Philip Gent:  
[Philip.Gent@ecy.wa.gov](mailto:Philip.Gent@ecy.wa.gov)

Colleen Stinson  
[CSti461@ecy.wa.gov](mailto:CSti461@ecy.wa.gov)