



September 8, 2008

Arizona

Arizona Electric Power
Cooperative
Arizona Public Service
Company
Salt River Project
Tucson Electric Power
Co.

California

Los Angeles Dept. of
Water & Power
Southern California
Edison

Colorado

Colorado Springs
Utilities
Xcel Energy
Platte River Power
Authority
Tri-State Generation &
Transmission Co.

Idaho

Idaho Power Company

Nevada

Nevada Power Co./
Sierra Pacific Power
Co.

New Mexico

Public Service
Company of New
Mexico
Xcel Energy
Tri-State Generation &
Transmission Co.

North Dakota

Basin Electric Power

Oregon

Pacificorp

Utah

Pacificorp/Utah Power
& Light

Wyoming

Basin Electric
Pacificorp
Xcel Energy
Tri-State Generation &
Transition

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Tucson, AZ 85712

Mr. John Bunyak
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National Park Service
P.O. Box 25287
Denver, Colorado 80225

Comments Submitted by E-Mail to: john_bunyak@nps.gov

Subject: Federal Land Managers' Air Quality Related Values Work Group (FLAG) Phase I Report -- Proposed Revision

Mr. John Bunyak:

WEST Associates (Western Energy Supply and Transmission Associates) submits this letter to provide comments and recommendations regarding the Department of Interior's (DOI) proposed revision to its FLAG Phase I Report Guidelines ("FLAG 2008"), announced in the Federal Register (FR Vol. 73, No. 131 / Tuesday, July 8, 2008).

WEST Associates is comprised of 16 investor and publicly-owned electric utilities serving the rapidly growing 11 Western states and North Dakota. In recent years, WEST Associates ("WEST") has worked with other stakeholders to advocate development of environmental laws and regulations that are based on sound science and achieve state and national environmental goals in a rational and cost effective manner. WEST Associates' members own and operate coal and gas-fired electric generating facilities and plan and develop new electric generating facilities to satisfy rapidly growing demand in the western United States.

WEST Associates Comments:

WEST Associates concurs with the authors of the draft revised FLAG 2008 that both the state permitting authorities and permit applicants of proposed power plant projects in the West have gained substantial knowledge and experience with implementing the original FLAG 2000 Guidelines to assess Air Quality Related Values ("AQRVs") when permitting new power plant projects under PSD/NSR regulations.

Furthermore, WEST agrees that the FLAG Guidelines need to be updated to include improvements and enhancements that reflect new regulations and EPA air quality modeling guidelines that have been adopted since 2000, particularly regarding the use

of EPA's CALPUFF visibility impacts assessment modeling tool used recently as part of the BART Assessment process for BART-eligible power plants under EPA's Regional Haze regulations.

WEST has long held the view that environmental regulatory requirements should be simplified, that redundancies should be avoided and that regulatory certainty be provided to the process of permitting and operating power plants by WEST's member companies in the Western states. In that regard, WEST believes that much of the proposed revisions to assessment of AQRVs during PSD/NSR permitting, as presented in the proposed revised FLAG 2008, are significant steps forward.

WEST is providing comments and recommendations on several issues remaining in the proposed FLAG 2008, which need improvement or revision. Our comments below first offer several general observations followed by more technical, detailed comments and recommendations.

General Comments

- Based on WEST members' experience completing recent BART Assessments, generally, WEST supports the following proposed revisions in FLAG 2008, based on the 2005 EPA BART Guidelines, with further recommendations as described below.
 - To simplify the level of pre-assessment before submitting PSD/NSR permit applications, WEST supports the proposed use of "Q/D ≤ 10" (emissions divided by distance) to screen out from unnecessary review those projects with fewer emissions that are located greater distances from a Class I area.
 - WEST supports the proposed criteria utilizing monthly average relative humidity adjustment factors to minimize effects of extremely high relative humidity conditions (meteorological obstruction), such as fog and precipitation events, when perceptible anthropogenic regional haze cannot be discerned from naturally occurring visibility-impairing weather elements. Our experience with CALPUFF indicates that regional haze predictions are significantly dependent on humidity's contribution to increased light scattering efficiency of sulfate and nitrate particles. This results in inaccurate CALPUFF predictions of visibility impacts due to the inclusion of periods of natural meteorological obstruction or during nighttime periods when relative humidity tends to be higher.
 - WEST notes that the FLAG 2000 significance threshold for project-related regional haze impacts was too low. The threshold was a singular 10% change in extinction (about 1 deciview), which is generally not observable. WEST believes that a threshold of approximately 20% change better represents actual perceptible degradation in light extinction under optimal color conditions and

distances. WEST recommends that the proposed FLAG 2008 clarify the threshold criteria for determining significant impacts, even though FLAG 2008 states the proposed criteria sets a level of impact to which FLMs "... will definitely **not** object to, or declare an adverse impact for, a proposed new source."¹

- WEST believes that the proposed FLAG 2008 guidance provides a significant improvement by adopting criteria that sets a 98th percentile value to screen out approximately seven days of haze-related visibility impairment per year, which attempts to eliminate unreasonable periods of meteorological obstruction from the analysis. Not only was the FLAG 2000 threshold too low, it was only applied to the highest modeled daily visibility impact (the maximum modeled value). The result has been that outlier days (e.g., periods of meteorological impairment) were not excluded, causing an unnecessarily stringent visibility impact assessment.
- WEST concurs with the proposed FLAG 2008 revision to determining natural background extinction levels, based on annual average natural conditions, using EPA data from the Regional Haze Rule development and the new IMPROVE equation. The FLAG 2000 natural background extinction levels were overly stringent because they omitted important components of natural background such as naturally occurring sea salt and the variability of Rayleigh scattering as a function of altitude.
- WEST supports the addition of Deposition Analysis/Concern Thresholds for nitrogen and sulfur deposition, as provided in the FLAG 2008 proposal.

Specific Comments and Recommendations

1. Q/D Screening Method

The FLAG 2008 proposed Q/D screening approach is a sum of emissions (Q, in tons/yr) of SO₂ + NO_x + PM₁₀ + H₂SO₄, divided by the distance (D, in km) to a Class I area. However, H₂SO₄ is already included in total PM₁₀ estimates. Simply, the total emissions in Q should not double count H₂SO₄ emissions.

In addition to using the Q/D screening procedure for assessing AQRVs, WEST believes such a screening procedure could be applied to the requirement to model PSD increment consumption. Further, for acidic deposition, WEST recommends use of only SO₂ emissions for Q involving sulfur deposition and only NO_x emissions for nitrogen deposition for AQRV screening.

2. Background Extinction & Definition of Background Visibility

¹ FLAG Phase I Report – Proposed Revision, pg. 106.

The FLAG 2008 discusses both annual average and 20% best days' background as alternatives for determining extinction levels. For consistency and to avoid unnecessary analyses, WEST recommends use of only the annual average background extinction level, especially for modeling impacts on Class I areas in multiple states.

In implementing the Regional Haze Rule, many states and Regional Planning Organizations (e.g., RPOs such as WRAP) are discussing and considering refinements to the definition of natural background as tabulated by EPA (2003). WEST believes use of sodium rather than chloride ion measurements can be more effectively used for estimating natural sea salt concentrations. Furthermore, definitions of natural conditions need further discussion and improvement for windblown dust and wildfires. WEST believes that in the western U.S., these components are likely underestimated in the determination of natural background conditions. Many western states have found that after modeling for control of anthropogenic sources of emissions (mostly SO₂ and NO_x), the remaining non-anthropogenic contributions to regional haze are difficult to mitigate because they are unpredictable and uncontrollable. WEST is concerned that under natural conditions, the occurrence of wildfires may be significantly more prevalent than has been represented in the estimates of natural conditions. Regional haze planning needs to better account for what is cost effectively achievable by reducing anthropogenic visibility-impacting emissions.

3. Background Ammonia Concentrations

WEST recommends use of actual regional monitoring of background ammonia concentrations, rather than EPA's IWAQM Phase 2 guidance, for site-specific background ammonia. FLAG 2008 should recommend FLMs' use of monitored ammonia data and should recommend how state-monitoring programs should provide site-specific data for use in CALPUFF modeling.

4. Modeling Domain Limits and Notification Requirements

A central theme of the proposed FLAG 2008 is to promote the experience gained from use of CALPUFF modeling under the BART Guidelines. For consistency the FLAG 2008 should recommend that no Class I area located greater than 300 km from a proposed project be considered for modeling or notification requirements.

5. Class I Areas Straddling or Within 50 km from a Proposed Source

For Class I areas that straddle a distance of 50 km, or are close to 50 km from a proposed source, the applicant should be able to use CALPUFF for assessing visibility impacts at all receptors without having to conduct a model evaluation study to get CALPUFF approved for such.

6. Visible Plume Analyses

FLAG 2000 discusses the need for a plume blight analysis for Class I area receptors within 50 km. For FLAG 2008, WEST recommends that for receptors involving distances slightly less than 50 km over which CALPUFF is already being used for long-

range transport, the CALPUFF visibility assessment should be based on regional haze rather than plume blight modeling.

In situations where a plume blight analysis is clearly needed, WEST recommends the following changes to FLAG 2008.

- A plume contrast threshold value of 0.05 and the color difference index threshold value (ΔE) of 2.0 should be used for Level 1, 2 and 3 analysis levels (i.e., including PLUVUE-II).
- Only proposed project emission increases assessed for long-range transport modeling (consistent with other PSD modeling analyses) should be used in the plume blight analyses.
- For PLUVUE-II analyses (Level 3), refinements that account for effects of the angle of the subtended plume are valid issues and should be allowed for use as appropriate.

7. AQRV Analyses Required for Non-mandatory PSD Class I Areas

FLAG 2008 should clarify what AQRV analyses, if any, apply to non-mandatory Class I areas such as Indian reservations that have been re-designated as federal Class I areas in Tribal areas (since the 1977 CAA Amendments). WEST believes that the federal visibility rule is only applicable to mandatory federal Class I Areas, and this should be clarified in FLAG 2008.

8. Emission Levels Used for Modeling Net Changes to Projects

Page 36 of the draft FLAG 2008 report states:

“Applicants should calculate the 24-hour average net emission increase for each pollutant from modified facilities as the maximum allowable 24-hour average minus the actual hourly rate averaged over the past two years (annual emissions over past two years/hours of operation over last two years).”

Furthermore, a footnote states:

“Note that this is different from the emission change calculation used for short-term increment, which is calculated as the maximum allowable 24-hour average minus the highest occurrence over the past two years.”

WEST strongly disagrees with this intended policy of using different calculation methods for modeling net emissions increases for PSD increment consumption versus AQRVs and requiring multiple modeling analyses for AQRVs and PSD increment consumption.

9. Project Impacts on Ozone

Figure O-1 of FLAG 2008 reflects an improvement over FLAG 2000 because it uses a screening threshold of $Q/D \leq 10$ to determine if a PSD source needs to be evaluated for ozone impacts. Until air quality studies indicate otherwise, WEST believes that only NO_x should be included in calculating Q because most ozone areas are "NO_x limited."

Figure O-1 also requires the FLM to determine whether ozone levels are problematic based on observed ozone effects on vegetation in their area (e.g., oxidant necrosis or growth loss in conjunction with monitored ozone levels). WEST recommends that FLAG 2008 clarify that a project proponent would not need to conduct ozone monitoring in or around Class I areas apart from PSD pre-construction monitoring requirements, until there is a more scientific basis established for requiring such monitoring when projects are not required to supply emission offsets and no pre-existing adverse levels of ozone exist.

10. Project Impacts on Deposition

The FLAG 2008 report discusses wet and dry deposition of sulfur and nitrogen compounds emitted from PSD sources. FLM actions, as illustrated in Figure D-1 of the report, begin with an initial determination as to whether Q/D exceeds 10. PM₁₀ should be excluded from the calculation of "Q" for acidic deposition analyses since PM₁₀, as a species, does not contribute to acidic deposition. Only SO₂ and H₂SO₄ emissions should be included in "Q" for sulfur deposition; only NO_x emissions should be included in "Q" for nitrogen deposition. In making a comparison of estimated deposition with impact thresholds, most FLMs will likely use Deposition Analysis Thresholds. For this purpose, WEST recommends that for determining significant levels of deposition, only the incremental impact of the proposed project, minus the offsets applied toward the project, should be considered.

Conclusion:

Thank you for the opportunity to comment. WEST Associates is happy to answer questions or provide further information with respect to these comments on the DOI's proposed FLAG 2008 Guidelines.

Please contact David Steele at 510-321-1111, or at davidss@simginc.com

Sincerely,

A handwritten signature in black ink, appearing to read "K. Wantajja". The signature is fluid and cursive, with the first letter of the first name being a large, stylized "K".

Kevin Wantajja, President
WEST Associates Board of Directors