

Four Corners Air Quality Task Force
Cumulative Effects Workgroup Conference Call
June 8, 2006

Participants: Kevin Golden, EPA; Mike George, NPS; Doug Blewitt, CO AQCC; Kevin Briggs, CO APCD; Joe Miller, Consultant for Southern Ute, Craig Nicholls, BLM Michael Lazaro, ANL-DOE, J Reeber

The Cumulative Effects workgroup conducted a conference call to discuss a draft workplan for the group. Since the May 9 Farmington meeting, a drafting subgroup led by Kevin Golden developed a draft workplan for review by other members of the group and the AQTF. The goal of the group is to provide a draft workplan for review by the outside community by mid-June and to prepare a final version by mid-July. Since several participants in the call had not yet seen the document, Kevin provided a brief summary:

In general, the workplan provides two levels of analysis, one for evaluating individual control measures and a separate overarching analysis that would consider the cumulative effects of multiple measures. Both analyses would consider effects on acid deposition, visibility, NO₂, O₃, and PM. Other than characterizing emission changes from a specific measure the workplan proposes no analyses to address local scale effects of emissions on mercury deposition given the lack of available predictive tools. PSD increments (particularly Class II increments) are also problematic to assess because they require specialized emissions inventories that are not currently available. However, several of the workgroup members are working with NM ENV which is developing a Four Corners PSD increment analysis independent of the AQTF process.

In evaluating specific mitigation measures the analyses would generally be based on calculating emissions changes associated with each measure and comparing those emission changes to current and projected emissions from other sources and source categories in the Four Corners region. WRAP would be requested to extract from their database a baseline inventory for the four corners area based on an area specified by the workgroup (specific coordinates for the requested area would be provided by the workgroup). It is not anticipated that the inventory extraction from the WRAP data base would be difficult.

In evaluating cumulative effects, two options were proposed. One option would be to conduct model sensitivity tests, using WRAPs regional haze modeling setup (CMAQ), to evaluate the air quality effects of across the board reductions in emissions from source categories or groups of sources in the Four Corners area (such as 20%, 40% and 60% reductions in NO_x). These modeled results would then be used to evaluate the overall effect of cumulative emissions changes/mitigations suggested by the AQTF. The downside of this approach is that the CMAQ modeling was conducted on a 36 km grid and would tend to underestimate air quality changes on a local receptor-specific scale.

The second option for evaluating cumulative effects would be to use the modeling analysis supporting the San Juan Coal Bed Methane EIS. The modeling domain covers

the four corners region and includes cumulative oil and gas emissions sources in NM and CO. Since the modeling files are in the public domain it should be relatively easy to perform the sensitivity tests noted above by rerunning the Calpuff analysis with revised emissions inputs (reflecting selected cumulative emission reduction percentages). A major limitation of this option is that the model that was used has not been verified against the adjacent Class I IMPROVE monitoring data and any bias (over or under estimation of impacts) could significantly affect the conclusions of any mitigation analysis. Additional discussions with BLM to discuss details on how the Calpuff modeling was conducted also need to be made.

The workgroup discussed the pros and cons of each approach. There was general agreement that both approaches to address cumulative impacts had serious drawbacks that probably could not be fully resolved without a significant infusion of time and resources. Since these resources are not likely to become available, the workgroup felt that more discussion with the broader technical and policy groups are needed before a final approach is selected. The workgroup agreed to immediately send out the draft workplan for comment. The workgroup will also seek additional information on the Calpuff modeling conducted on the San Juan CBM EIS. An additional call was scheduled for 10 AM on June 22, 2006 to discuss comments received on the draft and to move toward adopting a final workplan.