

WRAP Dust Emissions Joint Forum Conference Call
August 23, 2005

Notes courtesy of Lee Gribovicz

Participants:

Lee Gribovicz	Ken Hamilton	Barbra Trost	Bruce Friedl
Duane Ono	Mel Joseph	Yun Ling	Jerry Mansell
Chat Cowherd	Earl Withycombe	Lee Alter	Susan Hardy
John Bosch	Tom Moore	Tina Hurese (?)	Roger Isom
Julia Lester	Tom Pace	Ilias Kavouras	

Agenda Items included:

- a.. Fine Fraction Draft Report (Chat Cowherd, MRI)
- b.. Dust Definition (Julia Lester, Environ)
- c.. Causes of Dust (Vic Etyemezian, DRI)
- d.. Windblown Dust Inventory (Gerry Mansell, Environ)
- e.. Set Date for Dust Forum Meeting - New Mexico, Oct-Nov?
- f.. New Project Proposals - Opportunity for potential bidders to leave? (Lee Alter)

★ PM_{2.5} Fine Fraction Analysis ★

Midwest Research Institute was awarded a contract to investigate the High Volume Sampler PM monitoring method which was suspected of having a "bounce" problem such that higher PM_{2.5} concentrations were measured than were actually present. Thus it was anticipated that the initial Reference Method work showed a larger fine fraction of dust being included with the original AP-42 emission factors than actually exists. A Draft Report on the project was released August 17th and this date Chat Cowherd reviewed that report for call participants.

Dr. Cowherd noted that the first phase of the project was to look at the bias of the high-volume cyclone impactor, and he explained that MRI was able to show a significant over-prediction as compared against the Reference Method Partisol (RMP) collectors. The report shows that the cyclone impactor recorded results around double the RMP collectors.

The second phase of the project used only RMP collectors and tested seven different western materials (including Wyoming Powder River Basin dust from the Thunder Basin Mine). The project conclusions suggested that the PM₁₀/PM_{2.5} ratio should more realistically be around 0.1 for most typical fugitive dust sources. The current AP-42 ratio for PM_{2.5} is around 0.25 for paved roads, and it ranges from 0.2 to 0.4 for other fugitive sources. There was discussion that the paved road factors could be approximately halved as well, based on the first phase cyclone impactor bias results. John Bosch of EPA was on the phone, and he acknowledged that this study can be the basis for an AP-42 revision.

Lee Gribovicz suggested that the report needed an "Executive Summary" with the conclusions brought up front. And there was discussion on how to proceed with "next steps". Gerry Mansell noted that he could adjust the ratio in the windblown dust model easy enough, but it was decided that the contractors and WRAP technical staff would hold another call later in the afternoon to more thoroughly explore the options.

★ Dust Natural/Anthropogenic Definition ★

Environ was awarded this project in late February for \$65K, and Julia Lester was on the phone this date to report on Environ's plans for the project. She explained that they decided that one of the case study they would work with is the Salt Creek Wilderness in New Mexico, and they are also looking at southern Arizona, perhaps the Saguaro Wilderness.

★ Causes of Dust Analysis ★

Ilias Kavouras went through a presentation on the results of the DRI work this date. DRI has worked to identify local, regional and international (Asian) sources of dust impact in the WRAP region.

★ DEJF Projects: Windblown Dust Model ★

The Emissions Modeling is complete with Phase II upgrades to the windblown dust inventory and Environ is going to revise their report, with the final draft targeted for September '05.

★ Next Meeting ★

The Next meeting will be on November 15th and 16 in Tempe Arizona and will coincide with the Attributes of Haze on the 16th and 17th.

★ New Projects ★

Lee Alter explained that the DEJF has \$145K in uncommitted funds. Some of the funding has been earmarked with various projects (New Mexico, Dust Handbook, Enhancements to Causes of Dust, Windblown Dust), but all the funds may not be needed. Lee wanted to start Forum Members begin thinking about options, and he suggested one possible project to Summarize all the dust emissions on a State by State and Category by Category basis.

There was discussion of possible updates to Land Use data, and using a CALPUFF model to investigate better techniques for dust modeling.

★ Next Call ★

The DEJF calls are typically held on the fourth Tuesday of each month, but the next call would conflict with the Montana Emission Forum meeting. It was proposed that with the extra Tuesday in August, that the call should be held a week earlier than normal, thus falling on September 20th at 11:00 AM, Mountain Time.