

**Assistance Agreement Quarterly Report
for the period of October 1, 2001, to December 31, 2001**

January 3, 2002

Fresno, California, Particulate Matter (PM) Supersite Monitoring Program
EPA Assistance Agreement No. R-82805701-01

WORK PROGRESS AND STATUS

Fourth quarter 2001 activities are summarized based on applicable tasks stated in the Fresno Supersite QAPP.

Task 1 – Equipment Procurement and Installation.

- CARB installed a Met One beta attenuation monitor, Model BAM-1020 (Met One Instruments, Inc., Grants Pass, Oregon) with a BGI PM_{2.5} sharp cut cyclone on November 14, 2001.
- An in-station deionized water system was installed on October 18, 2001.

Task 2 – Network Operations and Data Processing.

- Network operations and data processing have continued through this period.

Task 3 – Laboratory Measurements.

- PM_{2.5} mass and chemistry analyses of filter samples from FRM and chemical speciation samplers collected every sixth day through 7/24/01 have been completed. Samples dated from 7/30/01 to 12/27/01 are in progress and expected to be completed by 3/31/02.

Task 4 – Quality Assurance.

- No field audits were conducted this quarter. The next scheduled audit is planned during the next quarter.
- Continued to assemble standard operating procedures for the field measurements.

Task 5 – Data Validation and Data Analysis.

- Level 0 data validation was completed for continuous gas, particle mass and chemistry, light scattering, light absorption, particle size, and meteorology measurements through 08/31/01.

Task 6 – Management and Reporting.

- The principal investigators visited the Fresno Supersite on November 26–27 and December 19–20, 2001. Matt Gonzi, data analyst at DRI, visited the Fresno Supersite during the weeks of October 15–19 and November 5–9, 2001, to document maintenance procedures, perform independent instrument checks, and meet with the Fresno Unified School District regarding setting up a satellite monitoring site at an elementary school near the Fresno Supersite. DRI and ARB jointly hosted a two-day visit for a group of four visitors from Taiwan EPA on November 7–8, 2001.

PERSONNEL

There have been no changes of key personnel related this study.

EXPENDITURES

Budget expenditures to date are on target, and no revisions to the approved budget are expected to be necessary at this time.

QUALITY ASSURANCE

Standard operating procedures continue to be assembled for the field measurements.

RESULTS

There are no results to report for this period.

PLANNED ACTIVITIES FOR THE FORTHCOMING QUARTER:

During the first quarter of 2002, the principal investigators plan to: 1) continue assembling standard operating procedures, 2) finalize data validation criteria and database structure, and 3) establish a satellite site for community exposure monitoring.

PUBLICATIONS AND PRESENTATIONS:

One manuscript was accepted during this quarter:

- Watson, J.G., and J.C. Chow (2002). Comparison and Evaluation of In-situ and Filter Carbon Measurements at the Fresno Supersite. *J. Geophys. Res.*, accepted for publication on October 17, 2001.

Three presentations was made during this quarter:

- Chow, J.C., J.G. Watson, D.H. Lowenthal, S.V. Hering, K.L. Magliano, and P. Ouchida (2001). Equivalence of Particle Nitrate Measurements at the Fresno Supersite. Presented at the Regional Haze and Global Radiation Balance – Aerosol Measurements and Models: Closure, Reconciliation and Evaluation conference, Bend, OR, 2-5 October 2001. Air & Waste Management Association, Pittsburgh, PA, and American Geophysical Union, Washington, DC.
- Lowenthal, D.H., J.C. Chow, J.G. Watson, M.R. Stolzenburg, N.M. Kreisberg, and S.V. Hering (2001). Particle Size Relationships at the Fresno Supersite. Presented at the Regional Haze and Global Radiation Balance – Aerosol Measurements and Models: Closure, Reconciliation and Evaluation conference, Bend, OR, 2-5 October 2001. Air & Waste Management Association, Pittsburgh, PA, and American Geophysical Union, Washington, DC.
- Watson, J.G., and J.C. Chow (2001). Fresno Supersite Update. Presented at the Supersites Technical Exchange, Research Triangle Park, NC, 13-14 November 2001.

QUARTERLY REPORT SUMMARY:

See attached.