

**Assistance Agreement Quarterly Report
for the period of April 1, 2001, to June 30, 2001**

July 3, 2001

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

WORK PROGRESS AND STATUS

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

Task 1 – Equipment Procurement and Installation.

- An additional scanning mobility particle sizer, TSI Model 3936N25 - which includes TSI Model 3025-A-S CPC & TSI Model 3085 NANO DMA (TSI Incorporated, St. Paul, MN), was procured on 04/23/01 and is in the process of being cleaned and calibrated. The unit should be installed this fall to provide particle size measurement as low as 3 nm in diameter.
- A Continuous Speciation Monitor for Gases and Particles (Andersen Instruments, Smyra, GA) was installed during the week of June 10, 2001.
- An R&P 8400S Ambient Sulfate Monitor (Rupprecht & Patashnick Co., Inc. Albany, NY) was installed on June 13, 2001.

Task 2 – Network Operations and Data Processing. Instrumentation for the Environmental Technology Verification (ETV) program was removed. USEPA and Battelle instrument testing included collocated PM_{2.5} mass, carbon, nitrate, PAH, light scattering, light absorption, and particle size measurements.

Task 3 – Laboratory Measurements.

- Laboratory analysis of PM_{2.5} filter mass, carbon, and nitrate from the USEPA and Battelle ETV program was completed and submitted to Battelle on 05/14/01.
- PM_{2.5} mass and chemistry analyses of filter samples from FRM and chemical speciation samplers collected every sixth day through 05/31/01 are in progress. Anticipated completion date is 07/31/01.

Task 4 – Quality Assurance.

- No field audits were conducted this period. The next scheduled audit is to begin 07/10/01.

- Continued to assemble standard operating procedures for the field measurements.
- USEPA's comments on the draft Quality Assurance Project Plan (QAPP) were received on 05/25/01 and 06/20/01. Revision of the QAPP were made and the document submitted to the EPA on 06/21/01.

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 05/31/01.

Task 6 – Management and Reporting. The principal investigators visited the Fresno Supersite from 05/21/01 to 05/24/01. They visited the research center for Fresno Asthmatic Children's Environment Study (FACES) at Berkeley, CA, on 05/23/01 and conducted a site survey in the area. Matt Gonzi, data analyst at DRI, visited the Fresno Supersite during the weeks of 05/01-04/01 and 06/11-14/01 to document daily maintenance procedures and to perform independent monthly checks of particle sizing instruments.

PERSONNEL

There have been no changes of key personnel related this study. Matt Gonzi, a data analyst, was recruited on 01/22/01 and started to coordinate on field operations and finalize standard operating procedures.

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. Revisions to the Quality Assurance Project Plan (QAPP) were completed and the revised QAPP was submitted to the EPA on 06/21/01.

RESULTS

There are no results to report for this period.

PLANNED ACTIVITIES FOR THE FORTHCOMING QUARTER:

During the third quarter of 2001, the principal investigators plan to: 1) continue assembling standard operating procedures, and 2) finalize data validation criteria and database structure.

PUBLICATIONS AND PRESENTATIONS:

The following manuscript was accepted during this quarter:

Watson, J.G.; and Chow, J.C. (2001). A wintertime PM_{2.5} episode at the Fresno, CA, supersite. *Atmos. Environ.*, accepted.

QUARTERLY REPORT SUMMARY:

See attached.