



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

FEB 22 2002

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

MEMORANDUM

SUBJECT: Extension of Filter Retrieval Time Period for $PM_{2.5}$ Samples

FROM: J. David Mobley, Acting Director
Emissions, Monitoring, and Analysis Division (C-104-02)

TO: Deputy Director, Office of Ecosystem Protection, Region I
Director, Environmental Planning and Protection Division, Region II
Director, Air Protection Division, Region III
Director, Air, Pesticides, and Toxics Management Division, Region IV
Director, Air and Radiation Division, Region V
Director, Multimedia Planning and Permitting Division, Region VI
Director, Air, RCRA and Toxics Division, Region VII
Director, Air and Radiation Program, Region VIII
Director, Air Division, Region IX
Director, Office of Air, Region X
Director, Office of Environmental Measurement and Evaluation, Region I
Director, Environmental Services and Assessment Division, Region II
Director, Environmental Services Division, Regions III and VII
Director, Science & Ecosystems Support Division, Region IV
Director, Resource Management Division, Region V
Assistant Regional Administrator, Management Division, Region VI
Assistant Regional Administrator, Office of Technical and Management
Services, Region VIII
Assistant Regional Administrator, Office of Policy and Management, Region IX
Director, Office of Environmental Assessment, Region X

This memorandum formally transmits information on a national user modification allowing an extension of the $PM_{2.5}$ filter retrieval period from 96 hours to 177 hours (7 days 9 hours). The EPA can approve user modifications of federal reference or equivalent methods that would result in easier operation of these instruments.

40 CFR Part 50 Appendix L Section 10.10 states:

“Within 96 hours of the end of the sample period, the filter, while still contained in the filter cassette, shall be carefully removed from the sampler following the procedure provided in the sampler operation or instruction manual and the quality assurance program, and placed in a protective container.”

During the first year of PM_{2.5} monitoring, the State, local, and Tribal monitoring agencies identified the requirement to collect samples within 96 hours of the end of the sample period as burdensome with an undetermined amount of value for ensuring the quality of the data. A workgroup of stakeholders agreed to conduct a study designed to determine whether filters recovered 7 days after the end of the sample period meet the precision and bias data quality objectives (DQO's) of the PM_{2.5} FRM measurement system. The DQO's for the PM_{2.5} Network are 10 percent precision (measured as a coefficient of variation) and \pm 10 percent bias (measured relative to the Performance Evaluation Program).

The study was conducted in six locations around the Nation to provide spatial representation. Precision and bias data from all study sites met the DQO's leading to the conclusion that extending the filter retrieval period did not significantly affect data quality. A report on this study was sent to the National Exposure Research Laboratory (NERL) for review and is presently on AMTIC <http://www.epa.gov/ttn/amtic/pmqaainf.html>. The NERL has agreed with the study's finding and has issued a generic user modification (Attachment 1) to allow for the filter retrieval time to be extended to 177 hours.

Please distribute this information to your State, local, and Tribal organizations which allows for the extension of the filter recovery period to 177 hours.

In addition, monitoring organizations may have invalidated samples or placed null code values on data that were not collected within the original 96-hour period. Please inform these organizations that they have the opportunity to add these data to the AIRS system if they collected the sample within 177 hours and had maintained the other filter integrity quality control requirements.

Attachment

cc: Joe Arello, Region 7
David Arnold, Region 3
John Bachmann, OAQPS/IO
Jerry Blancato, NERL/HEASD
Lee Byrd, OAQPS/EMAD
Ed Carreras, Region 4
Fred Dimmick, OAQPS/EMAD

John Filippelli, Region 2
Gary Foley, NERL/IO
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Joe Paisie, OAQPS/AQSSD
Mike Papp, OAQPS/EMAD
Rich Scheffe, OAQPS/EMAD
John Seitz, OAQPS/OD
Callie Videtich, Region 8
Lydia Wegman, OAQPS/AQSSD
Jim Yarbrough, Region 6

Attachment 1



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NATIONAL EXPOSURE RESEARCH LABORATORY
Research Triangle Park, NC 27711

Office of
Research and Development

MEMORANDUM

DATE: February 19, 2002

SUBJ: Filter Retrieval Time Extension

FROM: Elizabeth T. Hunike
AMMB/NERL (MD046) *Elizabeth T. Hunike*

TO: Mike Papp
OAQPS

NERL concurs that extending the time limit for filter retrieval will not significantly degrade the average precision and bias of the $PM_{2.5}$ data obtained by FRM samplers nor will it compromise the data quality objectives of the network. Therefore, extending the filter retrieval time limit from 96 hours to a 177 hour limit is hereby authorized as a generic user modification (under section 2.8 of Appendix C to 40 CFR Part 58) to the requirements as specified in paragraph 10.10 of Appendix L to 40 CFR Part 50, until such time as the latter specification may be formally changed to a 177 hour limit.