



Air Resources Board



Matthew Rodriguez
Secretary for
Environmental Protection

Mary D. Nichols, Chairman
1001 I Street • P.O. Box 2815
Sacramento, California 95812 • www.arb.ca.gov

Edmund G. Brown Jr.
Governor

TECHNICAL BULLETIN 401-1

PM2.5 Speciation Program SASS and URG Samplers January 2016

Issue

The Monitoring and Laboratory Division's (MLD) PM2.5 Speciation Program (i.e. SASS and URG-3000N Carbon) has been designed to mimic U.S. Environmental Protection Agency's (U.S. EPA) Chemical Speciation Network (CSN) as much as practical to allow data comparability between the two programs. U.S. EPA recently implemented changes to its CSN and is in the process of formally recognizing those changes in its quality assurance documentation (quality assurance project plans, standard operating procedures (SOP), etc.). This technical bulletin is to identify corresponding changes to MLD's PM2.5 Speciation Program. These changes will become effective January 1, 2016, and will need to be incorporated into the appropriate field and laboratory SOPs.

Program/Procedural Changes

Sample Retrieval Time

Current Procedure: Per Air Quality Surveillance Branch (AQSB) SOP 401, sample canisters need to be removed within 48 hours after sampling. If the 48-hour retrieval time cannot be met due to logistical reasons (e.g. weekends/holidays/etc.), then an alternative sampling day is identified per the annual, Northern Laboratory Branch (NLB)-issued PM2.5 Speciation Sampling Schedule. Typically, the alternative sampling day is the previous U.S. EPA scheduled 1-in-3 day frequency sample date.

New Procedure: If the 48-hour retrieval time cannot be met, the field operator has two options:

- 1) Retrieve the sample on the next available business day. For informational purposes, the sample will be flagged in NLB's laboratory information management system for not meeting the 48-hour retrieval time. However, this flag will not carry over to U.S. EPA's Air Quality System database, or
- 2) Perform a make-up sample run per the guidance given below.

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website: <http://www.arb.ca.gov>.

California Environmental Protection Agency

Further questions regarding retrieval times and whether or not to perform a make-up run should be directed to the appropriate air monitoring supervisor.

Make-up Guidelines

Current Procedure: AQSB SOP 401 does not address performing make-up sample runs when the regularly scheduled sample was missed or invalidated (or when the 48-hour retrieval time cannot be met).

New Procedure: It is the decision of air monitoring field staff and their management on whether or not to perform a make-up run. If it is determined that a make-up run will occur, then the following make-up criteria need to be followed:

- 1) A sample make-up must be performed after the regularly scheduled sample run, preferably before the next required sampling day. The make-up sample should also occur within the same sampling month as the missed sample run.
- 2) If one or more channels and/or the carbon sample is invalidated, then all SASS (i.e. canisters) channels and carbon samples must be made up.

Blank Frequency Update

Current procedure: The frequency for SASS (i.e. canisters) and carbon Field Blanks (FB) is 10 percent of samples per year. Back-up Blanks (BU), which are for carbon only, have a frequency of 30 percent of samples per year.

New Procedure: MLD will decrease the frequency of FBs to once per quarter. BUs for carbon will no longer be performed.

Shipping Samples to NLB

Current Procedure: AQSB SOP 401 states to ship the canisters within 96 hours after *sampling*.

New Procedure: Although it is encouraged to ship the canisters to NLB as soon as possible, canisters may now be shipped to NLB up to 96 hours after *sample retrieval*. In addition, canisters will continue to be shipped under cold conditions because it is important the samples are received in the laboratory under 4°C. If the samples will be temporarily stored, it is important to continue to store the samples in a refrigerator (or freezer if a refrigerator is not available).

Implementation

The changes described above become effective January 1, 2016. Questions regarding this technical bulletin should be first directed to your immediate supervisor.

Contacts: Matt Quok
 (916) 445-2555
 matt.quok@arb.ca.gov

 Samantha Scola
 (916) 322-0220
 samantha.scola@arb.ca.gov