

May 5, 2014

## **Attachment C**

### Correspondence for Data Handling Changes

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From: [Coats.Robert@epamail.epa.gov](mailto:Coats.Robert@epamail.epa.gov) [<mailto:Coats.Robert@epamail.epa.gov>] On Behalf Of [AQS\\_Team@epamail.epa.gov](mailto:AQS_Team@epamail.epa.gov)  
Sent: Tuesday, February 15, 2011 1:41 PM  
To: [AQS\\_Users\\_1@epamail.epa.gov](mailto:AQS_Users_1@epamail.epa.gov); [AQS\\_Users\\_2@epamail.epa.gov](mailto:AQS_Users_2@epamail.epa.gov)  
Subject: Negative Values in AQS and PM 2.5 Collocated Precision Data

Dear AQS Users,

We have recently received several inquiries about handling of small negative values for gaseous parameters (particularly 5-Minute SO<sub>2</sub>).

Previously, the practice had been to replace the negative value with a zero, and to flag the value with the qualifier code '9'. The OAQPS monitoring group has determined that this introduces statistical bias into the computations. Effective immediately, AQS has been updated to accept "small" negative values, and users are requested to report negative values with no substitution and flagging. The limit that has been established for "small" negative values is the negative of the Method Detection Limit (MDL). AQS will reject values more negative than this. Users are advised to replace more negative values with a null data code (e.g. 'DA').

We have also recently received several inquiries about how to configure AQS for Continuous FEM PM 2.5, and a problem report that continuous FEM PM 2.5 data was not displayed on the AAMP255 --- Data Quality Indicator Report. (This is required to allow agencies to certify data from continuous FEM PM 2.5 monitors.) We have deployed a fix to AQS to allow Continuous collocated precision data for PM 2.5 to be displayed on the AMP255 report. The following are the instructions as to how to configure the site and monitor metadata in AQS to properly handle this data.

1. The "Primary Monitor Period", defined via the Maintain Site form in AQS, allows the user to define the monitor that will be used for NAAQS Determinations (i.e. Design Value Calculations). The OAQPS Air Quality Analysis Group (AQAG) requests, but does not require, that the monitor with the most frequent sampling be specified as the primary monitor.  
(i.e. If an FRM and an hourly FEM are both operating at a site, then the AQAG requests that the FEM be designated as the primary.)

2. When the above monitor (either FRM or FEM) is collocated with a QA Audit monitor (to meet 40 CFR Part 58 Appendix A requirements), the above monitor should always also be identified as the primary monitor on the Maintain Monitor form (on the Collocations Tab, by placing a 'Y' in the Primary Sampler column).

3. The QA audit monitor should always be entered on the Maintain Monitor form, Collocations Tab, for the above Primary Monitor. (I.e.

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with 'N' entered in the Primary Sampler column and the primary monitor's id entered in the Monitor ID column).

4. If the primary monitor is a "daily" sampler (i.e. its measurement data has a duration code of '7') then the user has the option of either manually submitting the Precision Data required by Appendix A, or AQS will automatically generate this precision data.

5. If the primary monitor is a continuous sampler (i.e. duration '1') then AQS is not configured to allow the user to submit the Precision Data, but will always automatically compute it.

6. If an hourly duration FEM is not designated as the Primary Monitor at the site, then AQS will also automatically create the precision data for the pairing of this monitor with the QA Audit monitor at the site, and this data will be included in the statistics and completeness percentages computed by the AMP255 (Data Quality Indicator) report.

(Note: This "collocation" does not show up on the Maintain Monitor form Collocations tab, since this FEM is not designated as the Primary Monitor for the site.)

7. If an FEM is a Special Purpose Monitor with a Monitor Type of "NON REGULATORY", its data will be segregated on AMP255 and marked as "App A -- No". (i.e. Its data will not bias other data for the PQA0.)

Thank You,

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