

Questions and Answers on Ambient Air Monitoring Data Certification for CY2013 Data

1. I understand that the data certification process was changed in the spring of 2013. Please explain the changes:

OAQPS worked with the EPA regional offices to redesign the process for greater efficiency, improved utility within the quality assurance framework, and to achieve greater transparency between data submitters, reviewers, and stakeholders. A new data certification report (AMP600) was developed to support the types of data reviews necessary for monitoring agencies to make informed and objective decisions about whether data are of sufficient quality to certify. The same report provides a simplified way of recommending appropriate certification flags for monitors and then electronically passing the information to regional office contacts for review and application of the appropriate certification concurrence flag. Additional information on the new process was provided during AQS webinars held in 2013 (see question 12).

2. What does it mean for a monitoring agency to certify its data?

Certification signals that the monitoring agency has loaded all of its data for the year and has completed the monitoring agency's normal validation process. The responsible official certifies that (i) the ambient concentration data and the quality assurance data are completely submitted to AQS, and that (ii) the ambient data are accurate to the best of his or her knowledge taking into consideration the quality assurance findings. The first part means that all of the ambient data and all of the quality assurance data that were collected, and that have completed and passed the monitoring agency's data validation process have been submitted to AQS. The second part means that the official has considered the results of periodic quality control checks and any other relevant performance assessments.

3. What types of monitoring organizations must certify their data?

State and local government monitoring organizations must certify their data. A state official should certify all data submitted for affected monitors in that state, except where responsibility for compliance with 40 CFR Part 58 requirements has been delegated to a local monitoring agency. Note that even if multiple monitoring organizations are considered to be with a single Primary Quality Assurance Organization, the certification may come from the state level, or from each local agency which has delegated responsibilities for compliance with 40 CFR Part 58.

A Tribe must certify its data if the Tribe is monitoring for regulatory purposes. A Tribe may also be specifically required to certify its data under terms of a grant from EPA. Tribes should consult with the appropriate Regional office on questions regarding regulatory monitoring and the certification process.

4. What monitoring data must monitoring agencies certify by May 1, 2014?

All data from SLAMS monitoring stations must be certified including:

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- Federal reference method (FRM) or Federal equivalent method (FEM) monitors for CO, NO₂, SO₂ (hourly and 5-minute average data), ozone, lead, PM₁₀, PM_{10-2.5}, and PM_{2.5}
- Other required continuous PM_{2.5} monitors
- Filter-based PM_{2.5} speciation monitors - (total mass and speciated components)
- Additional NCore station precursor gas monitors for NO/NO_x/NO_y
- PAMS data (ozone, NO/NO_x/NO₂, VOC, carbonyl, NH₃, and HNO₃ if collected)

Data from special purpose monitors (SPMs) must also be certified, if the SPM is a FRM, FEM, or ARM monitor, and meets the QA requirements of 40 CFR 58 appendix A. Unless the Regional Administrator has approved an alternative to the QA requirements of appendix A, an SPM using an FRM or FEM method is required to meet the requirements of appendix A, so it should be presumed to do so and data from it should be certified.

Monitoring agencies are not required or expected to certify data from CASTNET program samplers located within their boundaries unless those monitors are being operated to meet CFR requirements. In most other cases, CASTNET data will be certified by the responsible Federal agency (e.g., National Park Service or EPA Office of Atmospheric Programs) and subsequently reviewed by OAQPS.

5. What documents need to be provided by May 1, 2014?

- A data certification letter sent to the applicable EPA Regional Administrator, signed by the senior air pollution monitoring person from the monitoring agency or his or her designee. The letter must include the specific statements given in the response to Question 2 above. The letter must be clear regarding what combinations of site, monitor, pollutant, and POC are the subject of the certification statement.
- AQS report(s): AMP600 data certification report and the AMP450NC Quick Look summary report (if necessary) for non-criteria pollutants and 5-minute SO₂.

It is recommended that the “select criteria” utilized for the AMP450NC report be “ALL”, and any special purpose monitors that the agency wants to be excluded from the certification be so cited in the cover letter.

Certifying agencies must use the revised process for CY2013 data. Some flexibility was provided last year because the AMP600 report was deployed soon before the data certification deadline. This is not the case for this year and ample time has been available for staff to become familiar with the new procedures.

6. Who will be responsible for reviewing submitted certification packages?

Required documents should be sent to the EPA Regional Administrator to the attention

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of the primary AQS contacts noted at the end of this document. As part of the revised process that is beginning now, regional staff will be reviewing all submitted materials, including the signed letter, AMP600 report with AQS recommended and monitoring agency requested certification flags¹, any pertinent monitoring agency comments, and the AMP450NC report if needed. Based on those submitted documents, the regional staff will be responsible for setting the AQS certification concurrence flag for appropriate monitors, a task formerly handled by OAQPS prior to 2013. The only exception, as noted above, is for CASTNET or NPS monitors that are certified by the responsible Federal Agency. Those AQS flags will typically be set by OAQPS.

7. When will the AQS concurrence flags start appearing?

EPA regional staff will commence the review process after the May 1 deadline, following the review of certification package submittals to assure completeness and adherence to CFR requirements. There is no explicit deadline for the insertion of AQS flags but we expect the process to move much faster and be handled in a more comprehensive manner than previous years due to the implementation of the revised process and the increased assistance available from the regions. As with previous years, the flag is displayed on both the AMP450 Quick Look summary report and AMP450NC reports.

8. Can the revised process be used for data prior to 2013?

Yes. The AMP600 report can be used to review and request certification flags for prior years of data, if needed.

9. How does data certification affect how ambient air monitoring data are used by EPA and others?

EPA presumes that before the May 1 deadline, monitoring agencies may still be reviewing and validating their data, making the data subject to change. After the deadline has passed, EPA may move ahead and use both certified and uncertified data to propose and make designations or findings of attainment. OAQPS usually advises outside data users to be cautious about using data before the certification deadline has passed. EPA typically does not use AQS data in broadly distributed publications until the deadline for certification has passed.

10. Why is a monitor's certification flag reset if a monitoring agency modifies the data for that monitor after EPA first sets the flag? How can a monitoring agency get a "Y" value restored?

Under the revised process, AQS will automatically reset the certification flag to "M" if any deletion, revision, or addition of concentration data causes a change in the value of a summary statistic. AQS is programmed to reset the data certification flag because the

¹ The evaluation criteria utilized in the AMP 600 report are available at:
<http://www.epa.gov/ttn/airs/airsaqs/training/Data%20Cert%20Acceptance%20Criteria.pdf>

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data within AQS are no longer what was originally submitted and certified. The monitoring agency should repeat the normal procedure of submitting a signed certification letter, including submission of a new AMP600 or AMP450NC. This will allow the Regional Office to repeat their review and reset the certification flag to an appropriate value, thus informing all data users that the monitoring organization considers the new data set to be accurate and complete.

11. Selected data certification questions and answers from previous years:

(a) What about data with split responsibilities, such as for some PM_{2.5} speciation monitoring in which an EPA contractor does the laboratory work and gives the monitoring agency a period to review and make changes before the contractor enters the data into AQS?

Most monitoring agencies send PM_{2.5} speciation filters to Research Triangle Institute (RTI) under an EPA-managed contract. OAQPS is aware that some monitoring organizations have in the past chosen not to certify data from PM_{2.5} speciation monitors for which chemical analysis is performed by RTI because RTI is not under direct contract and supervision by the monitoring organizations. However, the monitoring regulations require the senior air pollution control officer of the state or local agency which operates a monitor (i.e., the agency which manages the monitoring station, changes filters, and does flow checks and maintenance on the monitor) to certify all the data from that monitor, with no exception based on where chemical analyses were performed. This certification must indicate that the ambient data are accurate to the best of his or her knowledge. The certifying official may add additional explicit text if he or she wishes to document what parts of the field versus laboratory operations were performed by his or her agency. OAQPS encourages every monitoring agency using the RTI laboratory service to actively review data provided by RTI prior to it being uploaded into AQS. More information on the data validation process for the RTI laboratory analysis is available at <http://www.epa.gov/ttn/amtic/files/ambient/pm25/spec/05datval.pdf> .

(b) What about situations when PM sampler flow rates are checked by the monitoring agency's own QA program but ambient PM concentration data are all submitted to AQS by an EPA contractor?

The monitoring agency should review their flow checks and audits to determine if certain data should be invalidated or otherwise flagged for data users prior to certification. Two options are then available: (1) Changes to the data can be sent to the organization that submits your routine monitoring data to AQS (Note for most of the Chemical Speciation Network, this is RTI; a few agencies submit their own data.), or (2) The PQAO for the monitor in question could submit raw data updates such as null codes or QA qualifiers. This capability was added several years ago so that monitoring agencies would not need to get EPA's contractor to make data changes.

12. How can I learn more about the new AMP600 report and the revised data

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certification process?

A wealth of information is available on the AQS training page:

<http://www.epa.gov/ttn/airs/airsaqs/training/>

Previous webinars specific to the new process are also available on this page, for example: <http://www.epa.gov/ttn/airs/airsaqs/training/AQSwebinarApril2013.wmv>

Detailed explanation of the meaning of each certification flag:

<https://aqs.epa.gov/aqsweb/codes/data/CertificationFlags.html>

Other questions or requests for assistance should be directed to Mike Papp (papp.michael@epa.gov) and Robert Coats (coats.robert@epa.gov).

13. Who are the designated EPA Regional Office points of contact for the revised data certification process?

Data Certification Points of Contact List - Apr 2014		
Region	Primary POC	Secondary
1	Mary Jane Cuzzupe	Robert Judge
2	Henry Feingersh	Mazeeda Khan
3	Pauline De Vose	Kia Hence
4	Darren Palmer	Daniel Garver
5	Jesse McGrath	Marta Fuoco
6	Trisha Curran	Kara Allen
7	James Regehr	Leland Grooms
8	Richard Payton	Joshua Rickard
9	Fletcher Clover	Gwen Yoshimura
10	Chris Hall	Jan Noel