



Annual Air Monitoring Data Certification Webinar - April 19, 2018





Agenda

1. Who, What and Why of Certification
2. The Process of Certification
3. Screen Shots and Questions



Data Certification

- What is Data Certification?
- Who certifies the data?
- Why do we certify our data?
- When do we certify our data?
- How do we certify our data?

Data Certification – What is it?



- Formal statement attesting to ambient data completeness and correctness
- Submitted by submitting agencies to EPA on annual basis
- Process that combines a required action by the submitting agency followed by an EPA review and concurrence



Who certifies the data?

- The State, or where appropriate the Local or Tribal agency, certifies their annual air monitoring data to the Regional Administrator





What Monitoring Data must have Monitoring Agencies Certified on May 1, 2017?

Only data collected by FRM, FEM, and ARM monitors at SLAMS and SPM monitoring stations that meet Appendix A must be certified¹. In practice this refers to monitoring data for CO, NO₂, SO₂ (hourly and 5-minute average data), Ozone, Lead, PM₁₀, PM_{10-2.5}, and PM_{2.5}.



¹ Data certification requirements may also be included in auxiliary agreements such as MOA's between states and operators of industrial networks, for example, SO₂ monitors being installed to comply with the Data Requirements Rule.

Why do you certify your data?



§ 58.15 Annual air monitoring data certification.

(a) The State, or where appropriate local, agency shall submit to the EPA Regional Administrator an annual air monitoring data **certification letter** to certify data collected by FRM, FEM, and ARM monitors at SLAMS and SPM sites that meet criteria in appendix A to this part from January 1 to December 31 of the previous year. ... The annual data certification letter is **due by May 1 of each year.**“

(b) Along with each certification letter, the state shall submit to the Regional Administrator **an annual summary report** of all the ambient air quality data collected by FRM, FEM, and ARM monitors at SLAMS and SPM sites. ...”

(c) Along with each certification letter, the State shall submit to the Regional Administrator **a summary of the precision and accuracy data** for all ambient air quality data collected by FRM, FEM, and ARM monitors at SLAMS and SPM sites. ...”

When do we certify?

- Certification and submittal of annual air monitoring data are due by May 1st of the following year.



MAY 2018						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		



How do we certify?

- Log into AQS and run the AMP600 report
- Ensure the information is complete and correct
- Print out the report
- Have the certifying agency official or delegated official sign where indicated and submit to EPA Regional Administrator for concurrence before May 1, 2018.

Data Certification Information On AMTIC (Ambient Monitoring Technology Information Center)



The AMTIC website for data certification and Validation is located at <https://www3.epa.gov/ttn/amtic/qacert.html>

You are here: [EPA Home](#) » [AMTIC Home](#) » [Quality Assurance](#) » Data Certification/Validation

Data Certification/Validation

- [Ambient Air Monitoring Data Certification Q&A for CY2017 \(PDF\)](#) (4pp, 258k)
- [Data Certification Flag Values \(PDF\)](#) (1 pg, 59k)
- [Additional Guidance Related to the 2017 AMP600 Data Certification Process \(PDF\)](#) (11pp, 1.2 MB)

Data Certification Flags Values



Flag Value	Application
X	Certification is not required by 40 CFR 58.15 and no conditions apply to be the basis for assigning another flag value
U	Uncertified. The certifying agency did not submit a required certification letter and summary reports for this monitor even though the due date has passed, or the state's certification letter specifically did not apply the certification to this monitor.
S	The certifying agency has submitted the certification letter and required summary reports. A value of "S" conveys no Regional assessment regarding data quality per se. This flag will remain until the Region provides an "N" or "Y" concurrence flag.
N	The certifying agency has submitted the certification letter and required summary reports, but the certifying agency and/or EPA has determined that issues regarding the quality of the ambient concentration data cannot be resolved due to data completeness, the lack of performed quality assurance checks or the results of uncertainty statistics shown in the AMP256 report or the certification and quality assurance report.
Y	The certifying agency has submitted a certification letter, and EPA has no unresolved reservations about data quality (after reviewing the letter, the attached summary reports, <u>the</u> amount of quality assurance data submitted to AQS, the quality statistics, and the highest reported concentrations).
M	The monitoring organization has revised data from this monitor since the most recent certification letter received from the state.



Guidance on the Data Certification Process for Calendar Year 2017 Data

Certifying Agencies vs. PQAOs

It is recommended that wherever technically feasible, PQAOs be set up as “Certifying Agencies”. Certifying agencies do not necessarily equate to PQAOs and yet a number of summary parameters use data aggregated at the PQAQ level, for example:

- NPAP Data (valid audits and NPAP bias)
- Collocation Data (PM10, Pb and PM2.5 completeness and CV)
- PEP Data (PM2.5 and Pb completeness and bias)
- Pb Analysis Audit Data (completeness, bias)

The data in the list above are aggregated and assessed at the PQAQ level. Monitoring organizations that are part of a larger PQAQ but decide to certify the sites/data within their “certifying agency” will see the same results for the parameters listed above as other monitoring organizations within the PQAQ. Therefore, AQS recommended flags for these parameters will be consistently attributed to every monitoring organization within the PQAQ. For example, if there are three distinct monitoring organizations within a PQAQ and organization #1 has 4 PM10 sites, organization #2 has 3 PM10 sites, and organization #3 has 7 PM10 sites, the collocation summary for each organization (if each organization decides to certify their own data) will identify a total of 14 sites requiring 2 collocated monitors for the PQAQ ($14 \times 0.15 = 2.1$). Like the AMP256 QA Data Quality Indicator Report, the AMP600 will then determine the percent complete and the precision estimate for the PQAQ.

Criteria that Generate Green (Acceptable) Warning (Yellow) and “N” Qualifiers (Red)



Assessment	Current CFR Requirement or Guidance	Green (Acceptable)	Yellow (Warning)	Red (Recommend N Flag)	Comments
Technical Systems Audit	PQAO every 3 years	TSA within 3 years	TSA within 4 years	TSA > 5 years	Not a monitoring Org responsibility. Will be reported on summary page not by pollutant
Gaseous Criteria Pollutants					
Routine Data Completeness	75%	≥80%	79-70%	<70%	Based on CFR criteria for data use 100* Number of hourly obs/number of hours in monitor sample period ¹
QAPP Approval	Approval date within 5 years of current date	Approval date within 5 years of current date	Approval date between 5-10 years	Not approved and/or approval date greater than 10 years	Could be sole reason for “N” flag if QAPP not approved.
1-Point QC Completeness	75%	≥75%	65-75%	<65%	Based on 26, 1-point QC for a year. Calculated based on the number of days the monitor operated.
1-Point QC Precision	<7.1% O ₃ , <10.1% CO, SO ₂ <15.1% NO ₂	≤7.1% O ₃ , <10.1% CO, SO ₂ <15.1% NO ₂	8-20% O ₃ 11-25% CO, SO ₂ 16-25% NO ₂	> 20% O ₃ > 25% others	Based on all valid 1-point QC checks in AQS for the year. Value should reflect AMP256 value
1-Point QC Bias	≤±7% O ₃ , <±10.1% CO, SO ₂ <±15.1% NO ₂	≤ ±7% O ₃ , <±10.1% CO, SO ₂ <±15.1% NO ₂	± 8-20% O ₃ ±11-25% CO, SO ₂ ±16-25% NO ₂	> ±20% O ₃ > ±25% others	Based on all valid 1-point QC checks in AQS. Value should reflect AMP256 value
Annual PE Completeness	1 PE/year 3 audit levels	1 PE/year 3 audit levels	1 PE/year 2 audit levels	No PE or 1 audit level	Will not count more than one actual value in an audit level. For example, two audits in one level count as 1 audit level.
Annual PE Bias O ₃ , SO ₂ , NO ₂ , CO	< ±1.5 ppb / < ±15.1% ≤ ±0.03 ppm / ± 15%	≤ ±1.5 ppb / ±15% ≤ ±0.03 ppm / ± 15%	± ± 1.6-3.0 ppb / ± 16-25% ≤ ± 0.04-0.06 ppm / ± 16-25%	> ±3.0 ppb / ± 25% > ±0.06 ppm / ± 25%	Average PD of all PE values for the monitor
NPAP Audit Completeness -PQAO	20% of sites in PQAO	20% of sites in PQAO	10-19% of sites in PQAO	<10% of sites in PQAO	Not a monitoring Org responsibility. Will be marked as “Y”
NPAP Bias	< ±10.1% O ₃ < ±15.1% others	< ±10.1% O ₃ < ±15.1% others	± 10.1-20% O ₃ ±15.1-25% others	> ±20% O ₃ > ±25% others	median PD for all values at a site and median PD for PQAO level estimate
NPAP Audit Completeness -Site	4 levels	4 levels	2-3 levels	≤1 level	Not a monitoring Org responsibility
Outliers					Not implemented in 2018

Check guidance annually for changes



Step 1: Review your monitor information

1. Review the Certifying Agency role assignments:
 - a) Run the AQS Monitor Description Report (AMP390)
 - Will show all Agency Roles for each monitor.
 - b) Compare against Monitoring Network Plan
2. Each monitor to be certified must have the certifying agency set.
3. Use AQS (Batch MD transaction or Maintain Monitor) to correct any discrepancies.



Step 2: Run AMP600 Report

1. Conduct and complete ambient air quality monitoring and QA as per 40 CFR Part 58 and submit all relevant data to AQS.
2. Run the Data Certification Report (AMP600) for your Certifying Agency.
 - a) This will calculate a recommended certification flag for each monitor-year based on Part 58 criteria and display the results for all monitors and PQAOs associated with the Certifying Agency.
3. Run the AMP450NC – The AMP600 report is not yet configured to handle PM coarse data or 5-minute SO₂ data that is reported under a separate POC. Certifying agencies should submit an AMP450NC report to reference these data until the AMP600 modifications are complete.





Requesting a Data Certification Report

Action Help Session Admin Audit Retrieval Maintain Critical Rev Certification Batch Correct Main Menu

Standard Report Criteria Selection (National Air Data Group)

Criteria Set | Data Selection | Sort Order | Report Options | Retrieve Reports

Criteria Set [] Desc []

Owner [STUART] [GRAY] Type [PRIVATE]

Report Code [] Report Name []

Reports

Find [%]

Rep_Report_Code	Report_Name
AMP410	AIR QUALITY INDEX REPORT
AMP410S	AIR QUALITY SUMMARY REPORT
AMP395	AUDIT HISTORY REPORT
AMP600	CERTIFICATION EVALUATION AND CONCL
AMP355	COMBINED SITE SAMPLE VALUES
G74	CR RAW DATA
AMP435	DAILY SUMMARY REPORT
AMP430	DATA COMPLETENESS REPORT
AMP480	DESIGN VALUE REPORT
AMP504	EXTRACT QA DATA
AMP501	EXTRACT RAW DATA
AMP503	EXTRACT SAMPLE BLANK DATA
AMP500	EXTRACT SITE/MONITOR DATA
AMP230	FREQUENCY DISTRIBUTION REPORT
AMP440	MAXIMUM VALUES REPORT
AMP390	MONITOR DESCRIPTION REPORT
AMP220D	MONITOR NETWORK REPORT

Find OK Cancel



Request Criteria

Action Help Session Admin Audit Retrieval Maintain Critical Rev Certification Batch Correct Main Menu

Standard Report Criteria Selection (National Air Data Group) AMP600

Criteria Set | Data Selection | Sort Order | Report Options | Retrieve Reports

Monitor / Geographic Criteria

State Code	County Code	Site Id
37	183	0014

Protocol Criteria

Pollutant Type	Parameter Code
CRITERIA	

Date Criteria

Start Date	End Date
YYYY	YYYY
2017	2017

Agency Role: CERTIFYING

Agency

Generate Report

AMP600 Summary Report Before Certifying Agency Certification



Data Evaluation and Concurrence Report Summary

Jul. 22, 2014

Certification Year: 2012

Certifying Agency (CA):

Pollutants in Report:

<u>Parameter Name</u>	<u>Code</u>	<u>Monitors Evaluated</u>	<u>Monitors Recommended for Concurrence by AQS</u>	<u>Monitors NOT Recommended for Concurrence by AQS</u>
Carbon monoxide	42101	3	3	0
Nitrogen dioxide (NO2)	42602	2	2	0
Ozone	44201	16	14	2
PM10 Total 0-10um STP	81102	8	7	1
PM2.5 - Local Conditions	88101	12	9	3
Sulfur dioxide	42401	4	4	0

PQAOs in Report:

<u>PQAO Name</u>	<u>PQAO Code</u>	<u>TSA Date</u>
<input type="text"/>		09/27/12

Summary of 'N' flags for all pollutants:

<u>PQAO</u>	<u>Parameter Code</u>	<u>AQS Site-ID</u>	<u>POC</u>	<u>AQS Recommended Flag</u>	<u>Cert. Agency Recommended Flag</u>	<u>Reason for AQS Recommendation</u>
<input type="text"/>	44201	-019-1100	1	N		Annual Performance Evaluation Audit Missing or 1 Level.
<input type="text"/>	44201	-029-0032	1	N		Annual Performance Evaluation Audit Missing or 1 Level.
<input type="text"/>	88101	-011-0016	2	N		Annual Summary completeness < 70%.
<input type="text"/>	88101	-003-0014	1	N		Annual Summary completeness < 70%.
<input type="text"/>	88101	-009-0103	1	N		PQAO-Level Collocation criteria not met.
<input type="text"/>	81102	-003-0014	1	N		Flow Rate Audit completeness < 65%.

Signature of Monitoring Organization Representative: _____

AMP600- Ozone Before Certification



Certifying Year: 2012
 Certifying Agency Code: [Redacted]
 Parameter: Ozone (44201) (ppm)

PQAO Name: [Redacted]

QAPP Approval Date: 06/23/2009

NPAP Audit Summary: Number of Valid Audits: 7
 NPAP Bias: 1.21951
 Criteria Met: Y

AQS Site ID	POC Monitor Type	Routine Data						One Point Quality Check			Annual PE		NPAP		QAPP Appr.	Concur. Flag		
		Mean	Min	Max	Exceed. Count	Outlier Count	Perc. Comp.	Precision	Bias	Complete	Bias	Complete	Bias	PQAO Level Criteria		Aqs Rec Flag	CA Rec Flag	Epa Concur
001-0014	2 SPM	0.042	0.016	0.085	0	0	93	2.95	+/-2.39	100	- 3.54	100		Y	Y	Y		
003-1100	1 TRIBAL	0.038	0.014	0.059	0	0	91	1.87	+/-1.36	100	- 0.43	100		Y	Y	Y		
005-2003	1 SLAMS	0.046	0.014	0.094	0	0	99	1.52	+3.35	100	0.90	100	0.00	Y	Y	Y		
009-0102	1 SLAMS	0.047	0.024	0.080	0	0	98	2.64	+/-1.99	100	- 3.74	100	1.01	Y	Y	Y		
009-0103	1 SLAMS	0.044	0.017	0.078	0	0	95	1.43	-2.56	100	- 1.35	100	1.22	Y	Y	Y		
011-2005	1 SLAMS	0.042	0.014	0.082	0	0	99	1.40	+/-1.28	100	- 2.02	100		Y	Y	Y		
013-0004	2 SLAMS	0.043	0.021	0.087	0	0	96	4.69	+/-3.63	100	0.41	100		Y	Y	Y		
017-3001	1 SPM	0.038	0.010	0.081	0	0	99	0.93	+/-1.13	100	- 1.41	100		Y	Y	Y		
019-1100	1 TRIBAL	0.040	0.019	0.071	0	0	89	1.53	+/-1.04	100		0	3.70	Y	Y	N		
019-4008	1 SLAMS	0.041	0.018	0.069	0	0	99	2.27	+/-1.96	100	0.67	100		Y	Y	Y		
023-0006	1 SPM	0.043	0.014	0.108	0	0	99	8.98	+/-5.88	100	0.07	100	1.00	Y	Y	Y		
029-0019	1 SPM	0.040	0.021	0.075	0	0	98	3.91	+/-3.60	100	0.72	100		Y	Y	Y		
029-0032	1 TRIBAL	0.038	0.011	0.062	0	0	99	1.27	+/-1.46	100		0		Y	Y	N		
031-0038	1 SPM	0.044	0.011	0.094	0	0	99	1.89	+3.68	100	3.43	100		Y	Y	Y		
031-0040	1 SPM	0.044	0.017	0.088	0	0	98	1.13	+2.30	100	2.61	100		Y	Y	Y		
031-2002	1 SLAMS	0.047	0.016	0.096	0	0	99	1.59	+/-1.82	100	0.30	100	1.89	Y	Y	Y		

No values



Step 3: Data Certification

1. Review the certification report. For 'N' recommendations:
 1. Has any ambient monitoring data not yet been submitted?
 2. Has any QA/QC data (QA transactions) not been submitted?
 3. Should any ambient monitoring data be invalidated and removed from AQS based on QA/QC results?
2. Make corrections to AQS data as needed.
3. Rerun certification report and verify results are final.
4. Use the AQS certification form to accept or override the AQS recommended value.

Note: Additional detail about QA statistical values can be obtained by running the QA Data Quality Indicator Report (AMP256)

Certification Form for Certifying Agency



Classification Parameter

Certifications

Year	AQS Monitor ID	AQS Recommended Flag	Monitoring Agency Request	EPA Evaluation Value	Monitoring Agency Comment
2012	001-0014-44201-2	Y	Y		
2012	005-0029-44201-1	Y	Y		
2012	005-2003-44201-1	Y	Y		
2012	009-0102-44201-1	Y	Y		
2012	009-0103-44201-1	Y	Y		
2012	011-2005-44201-1	Y	Y		
2012	013-0004-44201-2	Y	Y		
2012	017-3001-44201-1	Y	Y		
2012	013-0004-44201-2	Y	Y		
2012	017-3001-44201-1	Y	Y		
2012	019-4008-44201-1	Y	Y		
2012	031-0038-44201-1	Y	Y		
2012	031-0040-44201-1	Y	Y		
2012	031-2002-44201-1	Y	Y		
2012	029-0032-44201-1	N	Y		
2012	019-1100-44201-1	N	Y		
2012	003-1100-44201-1	Y	Y		



If certifying this data, the Region will not concur without a Certifying Agency comment

AMP600 Summary

After Certifying Agency Certification



Data Evaluation and Concurrence Report Summary

Jul. 22, 2014

Certification Year: 2012
 Certifying Agency (CA):

Pollutants in Report:

<u>Parameter Name</u>	<u>Code</u>	<u>Monitors Evaluated</u>	<u>Monitors Recommended for Concurrence by AQS</u>	<u>Monitors NOT Recommended for Concurrence by AQS</u>
Carbon monoxide	42101	3	3	0
Nitrogen dioxide (NO2)	42602	2	2	0
Ozone	44201	16	14	2
PM10 Total 0-10um STP	81102	8	7	1
PM2.5 - Local Conditions	88101	12	9	3
Sulfur dioxide	42401	4	4	0

PQAOs in Report:

<u>PQAO Name</u>	<u>PQAO Code</u>	<u>TSA Date</u>
<input type="text"/>		09/27/12

Summary of 'N' flags for all pollutants:

<u>PQAO</u>	<u>Parameter Code</u>	<u>AQS Site-ID</u>	<u>POC</u>	<u>AQS Recommended Flag</u>	<u>Cert. Agency Recommended Flag</u>	<u>Reason for AQS Recommendation</u>
<input type="text"/>	44201	-019-1100	1	N	★ ★	Annual Performance Evaluation Audit Missing or 1 Level.
<input type="text"/>	44201	-029-0032	1	N		Annual Performance Evaluation Audit Missing or 1 Level.
<input type="text"/>	88101	-011-0016	2	N	Y	Annual Summary completeness < 70%.
<input type="text"/>	88101	-003-0014	1	N	Y	Annual Summary completeness < 70%.
<input type="text"/>	88101	-009-0103	1	N	Y	PQAO-Level Collocation criteria not met.
<input type="text"/>	81102	-003-0014	1	N	Y	Flow Rate Audit completeness < 65%.

Signature of Monitoring Organization Representative: _____

AMP600



After Certifying Agency Certification

Certifying Year: 2012
 Certifying Agency Code: [Redacted]
 Parameter: Ozone (44201) (ppm)

PQAO Name: [Redacted]

QAPP Approval Date: 06/23/2009

NPAP Audit Summary:

Number of Valid Audits	NPAP Bias	Criteria Met
7	1.21951	Y

AQS Site ID	POC Monitor Type	Routine Data						One Point Quality Check			Annual PE		NPAP		QAPP Appr.	Concur. Flag		
		Mean	Min	Max	Exceed. Count	Outlier Count	Perc. Comp.	Precision	Bias	Complete	Bias	Complete	Bias	PQAO Level Criteria		Aqs Rec Flag	CA Rec Flag	Epa Concur
001-0014	2 SPM	0.042	0.016	0.085	0	0	93	2.95	+/-2.39	100	- 3.54	100		Y	Y	Y	Y	
003-1100	1 TRIBAL	0.038	0.014	0.059	0	0	91	1.87	+/-1.36	100	- 0.43	100		Y	Y	Y	Y	
005-2003	1 SLAMS	0.046	0.014	0.094	0	0	99	1.52	+3.35	100	0.90	100	0.00	Y	Y	Y	Y	
009-0102	1 SLAMS	0.047	0.024	0.080	0	0	98	2.64	+/-1.99	100	- 3.74	100	1.01	Y	Y	Y	Y	
009-0103	1 SLAMS	0.044	0.017	0.078	0	0	95	1.43	-2.56	100	- 1.35	100	1.22	Y	Y	Y	Y	
011-2005	1 SLAMS	0.042	0.014	0.082	0	0	99	1.40	+/-1.28	100	- 2.02	100		Y	Y	Y	Y	
013-0004	2 SLAMS	0.043	0.021	0.087	0	0	96	4.69	+/-3.63	100	0.41	100		Y	Y	Y	Y	
017-3001	1 SPM	0.038	0.010	0.081	0	0	99	0.93	+/-1.13	100	- 1.41	100		Y	Y	Y	Y	
019-1100	1 TRIBAL	0.040	0.019	0.071	0	0	89	1.53	+/-1.04	100		0	3.70	Y	Y	N	★	
019-4008	1 SLAMS	0.041	0.018	0.069	0	0	99	2.27	+/-1.96	100	0.67	100		Y	Y	Y	Y	
023-0006	1 SPM	0.043	0.014	0.108	0	0	99	8.98	+/-5.88	100	0.07	100	1.00	Y	Y	Y	Y	
029-0019	1 SPM	0.040	0.021	0.075	0	0	98	3.91	+/-3.60	100	0.72	100		Y	Y	Y	Y	
029-0032	1 TRIBAL	0.038	0.011	0.062	0	0	99	1.27	+/-1.46	100		0		Y	Y	N	★	
031-0038	1 SPM	0.044	0.011	0.094	0	0	99	1.89	+3.68	100	3.43	100		Y	Y	Y	Y	
031-0040	1 SPM	0.044	0.017	0.088	0	0	98	1.13	+2.30	100	2.61	100		Y	Y	Y	Y	
031-2002	1 SLAMS	0.047	0.016	0.096	0	0	99	1.59	+/-1.82	100	0.30	100	1.89	Y	Y	Y	Y	

AMP600

After EPA Regional Concurrence



Certifying Year		2012						
Certifying Agency Code		[Redacted]						
Parameter		Ozone (44201)						
PQAO Name		[Redacted]						
QAPP Approval Date		06/23/2009						
NPAP Audit Summary:		Number of Valid Audits: 7						
AQS Site ID	POC Monitor Type	Routine Data			Ex Co	Aqs Rec Flag	CA Rec Flag	Epa Concur
		Mean	Min	Max				
001-0014	2 SPM	0.042	0.016	0.085		Y	Y	Y
003-1100	1 TRIBAL	0.038	0.014	0.059		Y	Y	Y
005-2003	1 SLAMS	0.046	0.014	0.094		Y	Y	Y
009-0102	1 SLAMS	0.047	0.024	0.080		Y	Y	Y
009-0103	1 SLAMS	0.044	0.017	0.078		N	★	N
011-2005	1 SLAMS	0.042	0.014	0.082		Y	Y	Y
013-0004	2 SLAMS	0.043	0.021	0.087		Y	Y	Y
017-3001	1 SPM	0.038	0.010	0.081		Y	Y	Y
019-1100	1 TRIBAL	0.040	0.019	0.071		Y	Y	Y
019-4008	1 SLAMS	0.041	0.018	0.069		N	★	N
023-0006	1 SPM	0.043	0.014	0.108		N	★	N
029-0019	1 SPM	0.040	0.021	0.075		Y	Y	Y
029-0032	1 TRIBAL	0.038	0.011	0.062		Y	Y	Y
031-0038	1 SPM	0.044	0.011	0.094		Y	Y	Y
031-0040	1 SPM	0.044	0.017	0.088		Y	Y	Y
031-2002	1 SLAMS	0.047	0.016	0.096		Y	Y	Y

[Redacted]

[Redacted]

Annual PE		NPAP		Concur. Flag			
Bias	Complete	Bias	PQAO Level Criteria	QAPP Appr.	Aqs Rec Flag	CA Rec Flag	Epa Concur
- 3.54	100		Y	Y	Y	Y	Y
- 0.43	100		Y	Y	Y	Y	Y
0.90	100	0.00	Y	Y	Y	Y	Y
- 3.74	100	1.01	Y	Y	Y	Y	Y
- 1.35	100	1.22	Y	Y	Y	Y	Y
- 2.02	100		Y	Y	Y	Y	Y
0.41	100		Y	Y	Y	Y	Y
- 1.41	100		Y	Y	Y	Y	Y
	0	3.70	Y	Y	N	★	N
0.67	100		Y	Y	Y	Y	Y
0.07	100	1.00	Y	Y	Y	Y	Y
0.72	100		Y	Y	Y	Y	Y
	0		Y	Y	N	★	N
3.43	100		Y	Y	Y	Y	Y
2.61	100		Y	Y	Y	Y	Y
0.30	100	1.89	Y	Y	Y	Y	Y

AMP600

After EPA Regional Concurrence



Monitors Summaries

AQS Site ID	POC	Monitor Type	Routine Data (ug/m3)						Flow Rate Verification		Flow Rate Audit		QAPP Appr.	Collocation Concurrence Flag		
			Mean	Min	Max	Exceed. Count	Outlier Count	% Complete	Bias	% Complete	Bias	% Complete		AQS Rec Flag	CA Rec Flag	EPA Rec Concur
003-1011	2	SLAMS	16.62	.0	491.0	0	0	97	+0.19	75	-0.22	100	Y	Y	Y	M

Parameter: PM10 Total 0-10um STP (81102) INTERMITTENT

PQAO Name: [Redacted]

Quality Assurance Project Plan Approval Date: 10/15/2011

Collocation Summary

# Sites	# Sites Req	# Sites Collocated	% Collocated	CV Est	CV UB	Criteria Met?
5	1	1	100	8.87	10.93	Y

Data changed after certification

Monitors Summaries

AQS Site ID	POC	Monitor Type	Routine Data (ug/m3)						Flow Rate Audit		Collocation			Concurrence Flag			
			Mean	Min	Max	Exceed. Count	Outlier Count	% Complete	Bias	% Complete	CV	% Complete	PQAO Crit. Met	QAPP Appr.	AQS Rec Flag	CA Rec Flag	EPA Rec Concur
001-0011	2	SLAMS	15.25	2.0	54.0	0	0	96	+0.66	100			Y	Y	Y	Y	Y
005-0015	2	SPM	21.32	8.0	60.0	0	0	86	+0.36	100	10.93	86	Y	Y	Y	Y	Y
005-0015	3	SPM	19.96	8.0	62.0	0	0	93	+0.78	100			Y	Y	Y	Y	Y
009-0103	2	SPM	6.15	2.0	19.0	0	0	95	-1.20	100			Y	Y	Y	Y	Y
011-0016	2	SLAMS	13.84	2.0	61.0	0	0	91	-0.93	100			Y	Y	Y	Y	Y
019-0002	3	SLAMS	17.66	2.0	89.0	0	0	96	+0.03	100			Y	Y	Y	Y	Y
003-0014	1	SLAMS	19.22	2.0	80.0	0	0	91	+/-	0			Y	Y	N	Y	N

Submitter Comment: Flow Rate Audit Completeness 75% according to AMP250 EPA Comment:

Comment required if Cert Agency changes AQS Recommended Flag

Certification Form



Query Criteria

Year Agency County Code
State CBSA Code

Classification Parameter

Certifications

Year	AQS Monitor ID	AQS Recommended Flag	Monitoring Agency Request	EPA Evaluation Value	Monitoring Agency Comment
2012	001-0011-81102-2	Y	Y	Y	
2012	003-0014-81102-1	N	Y	N	Flow Rate Audit Completeness 75% according to AMP2
2012	003-1011-81102-2	Y	Y	M	
2012	005-0015-81102-2	Y	Y	Y	
2012	005-0015-81102-3	Y	Y	Y	
2012	009-0103-81102-2	Y	Y	Y	
2012	011-0016-81102-2	Y	Y	Y	
2012	019-0002-81102-3	Y	Y	Y	

Since the only value that shows up in AQS is the EPA concurrence flag, any change in data by the Monitoring Organization after regional concurrence will show up as “M” for modified

How the AMP600 Works Found On AMTIC Website



PQAO Level Flags

For Collocation and PEP, AQS Recommended flags are generated **at the PQAO level** and then “transferred” back to each site

PEP PQAO Criteria based on Bias estimate, not completeness

Certification Report for Particulate Matter

Certifying Year: 2012

Certifying Agency: [Redacted]

Parameter: PM2.5 - Local Conditions (88101)

PQAO Name: [Redacted]

Quality Assurance Project Plan Approval Date:

Collocation Summary

Method	# Sites	# Sites Req	# Sites Collocated	% Collocated	CV Est	CV UB	Criteria Met?
145	4	1	1	100	10.87	12.07	Y

PEP Summary

# Methods	# Audited Methods	# PEP Required	# PEP Submitted	% Complete	Bias	Criteria Met?
1	1	5	2	40	+5.41	Y

Monitors Summaries

AQS Site ID	POC Method	Monitor Type	Routine Data (ug/m3)						Flow Rate Audit		Collocation		PEP	Certification				
			Mean	Min	Max	Exceed. Count	Outlier Count	% Complete	Bias	% Complete	CV	% Complete	PQAO Crit. Met	PQAO Crit. Met	QAPP Appr.	AQS Rec Value	Req Value	EPA Value
[Redacted]	1	145	SLAMS	6.72	.8	16.7	0	87	+1.22	100			Y	Y	Y	Y		
	1	145	SLAMS	4.55	.6	18.1	0	93	+0.53	100			Y	Y	Y	Y		
	1	145	SLAMS	6.73	.4	19.9	0	92	+1.22	100	12.07	100	Y	Y	Y	Y		
	2	145	SLAMS	6.95	.8	17.7	0	90	+1.07	100			Y	Y	Y	Y		
	1	145	SLAMS	8.93	1.8	33.0	0	92	+0.75	100			Y	Y	Y	Y		

See “additional Information Related to AMP600 Certification Process” at <http://www.epa.gov/ttnamti1/qacert.html>

Certification Process: Thoughts and Steps Forward



- Use the process often
 - Don't wait till May to run the report
 - It can run on a partial year based on the date the report is run. This may not be perfect but can help.
- Internal QC is critical
 - By the time we get to the certification deadline (May 1st) it may be too late to make needed changes. (i.e., If an agency did not perform the required number of audits during the year, they can't go back and run them after the fact)





Questions

