EPA OFFICE OF AIR QUALITY PLANNING AND STANDARDS

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SPECIAL POINTS OF INTEREST:

- August 2014 National Ambient Air Monitoring Conference
- QA Reg Changes

INSIDE THIS ISSUE:

National Monitoring Conference	1
QA Regulation Changes	1
Pb Analysis Audits for XRF Method	2
Outlier Investigations	4
Guidance on Max Certification Periods on Gaseous Standards	5
AQS Monitor Type Changes	8
AQS Updates	11
QA Handbook Workgroup Start-up	11
NATTS Update	12
Pb PEP Update	13
SRP and NPAP Update	13
AA-PGVP Update	14
New Years QA Tip	15

National Ambient Air Monitoring Conference Aug 2014

The EPA, in conjunction with the National Association of Clean Air Agencies (NACAA), will be holding the National Ambient Air Monitoroing Conference the week of August 11-14 in Atlanta Georgia.

This conference is not to be confused with the National Air Quality Conference being held in February 2014 in Durham, NC. That conference will focus exclusively on air quality forecasting, mapping and communications

This year the meeting will also include the Air Quality System AQS meeting which will include a full day of AQS training on the data query tool which will replace Oracle Discoverer; advanced data retrievals and an introductory course for ambient air monitoring. There will also be AQS plenary sessions during the conference.

State, Local and Tribal air quality staff involved with operating, planning, or managing air monitoring networks and reporting data to AQS and AIRNOW should think about attending this conference. We also encourage other stakeholders including health researchers, dispersion modelers, data analysts, and air quality policy staff to attend to gain additional perspectives on how air monitoring data are collected and utilized.

The agenda for the conference is currently being developed and should be available for review around March 2014. Once the agenda is approved there will be a call for papers/presentations. Topics will be very similar to the 2009 meeting but will be updated to reflect new monitoring requirements and emerging monitoring technologies. The conference will be held at the Atlanta Marriott Marquis, located in Downtown Atlanta, GA. The hotel conference rate is $133 a night for a single or double room, plus applicable taxes (currently 16% per room per night).

All reservations must be made by Monday, July 21, 2014. After this date, reservations are subject to space and rate availability. To make your reservation, please call the national reservation number at 1-800-228-9290 and reference NAAMC or EPA and the Atlanta Marriott Marquis to receive the group rate. Reservations can also be made online by clicking here. For additional information, go to AMTIC

Ambient Air QA Regulations Undergoing House Cleaning Exercise

During the 2009 Ambient Air Monitoring Conference there was a panel discussion on revisions needed to the Part 58 monitoring regulations including the Appendix A QA regulations. Based on that discussions OAQPS has worked with the EPA Regions to revise the Appendix A QA Regulations. The goal of these revisions was to reduce ambiguity, add changes that have been included to technical guidance documents (like expanding the annual performance evaluation from 5 to 10 audit levels) and find burden reductions that would not affect data quality or our ability to assess data quality. The following is a summary of the highlights of the proposed revisions.

Format Revision

The current regulation has separate sections for automated (continuous) and manual methods. Since some of the particulate matter methods are both continuous and manual and in some cases have different quality control requirements, monitoring organizations found the Appendix A requirements confusing.

Continued on Page 9

UC Davis Technique for Producing Pb-PM_{10} Analysis Audits

Ann M. Dillner and Hardik S. Amin, IMPROVE Group, University of California, Davis

EPA has been looking for a reliable procedure for developing Pb analysis audit filters for the XRF analytical method that can be distributed to the Pb analytical laboratories as a quality control check.

PM_{10}-Pb Teflon filters were produced for audits and FEM testing for the EPA PM_{10}-Pb monitoring program. The IMPROVE group at UC Davis has developed a laboratory aerosol deposition method for making elemental standards used to calibrate the XRF analysis of IMPROVE field samples (Indresand et al., 2012). We used this method as a basis for developing a method to produce PM_{10}-Pb audit and FEM testing filters. The goal of the project was to generate audit and FEM testing filters with Pb mass loadings specified by the monitoring program. In this method, laboratory-generated particulate Pb was collected on Teflon filters using an ambient particulate matter sampler. By mimicking the physical form (particles) and deposition pattern (FRM sampler) of the ambient Pb, and using the same substrate as ambient samples, we minimize potential differences in the XRF response to audit/FEM filters and ambient samples. The Pb mass loading ranges for the audit filters are 1.08 to 3.60 μg/filter for Level 1 and 7.20 to 10.80 μg/filter for Level 2. The Pb mass loading required for the FEM testing filters are 1.08, 3.60 and 9.00 μg/filter which corresponds to 30%, 100% and 250% of NAAQS.

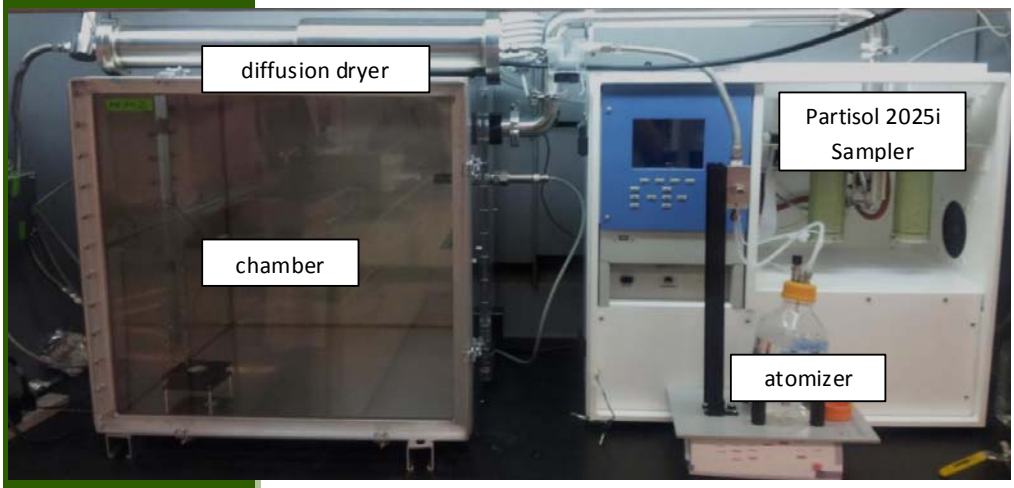


Figure 1. Apparatus for preparing Pb audit and FEM filters.

Experimental Details for Producing Pb Audit and FEM Teflon Filters

The Pb filters are made by aerosolizing a Pb solution, drying the particles, mixing the particles with additional clean, dry air, and collecting the particles on Teflon filter using an FRM sampler. Figure 1 shows the particle generation, mixing and collecting apparatus in our laboratory. The entire apparatus is located inside of a fume hood.

Pb particles are generated by aerosolizing an aqueous solution of lead acetate trihydrate ($Pb(CH_3COO)_2.3H_2O$, 99.999%pure) using an atomizer (TSI model 3076) . A stainless steel diffusion dryer removes water from the particles. The particles are mixed with clean dry air in a stainless steel and plexiglass chamber to increase the air flow rate to match the sampler flow rate. The particles are then collected onto MTL Teflon filters (Minneapolis, MN) using a Thermo Scientific 2025i Partisol sampler (Franklin, MA) operated at the standard flow rate of 16.67 L min^{-1}. Temperature and relative humidity were measured throughout the sample collection process.

After collection, each filter sample was analyzed by XRF at UC Davis using a PanAlytical Epsilon 5 energy dispersive XRF instrument. An initial group of Pb filters and blanks were analyzed three times by each of two Epsilon 5 instruments. The rest of loaded and blank filters were analyzed once at UC Davis. The filters were then analyzed by RTI International (Research National Park, NC) using an ARL Quant'X (Thermo Scientific Inc., Franklin, MA) energy dispersive XRF instrument. Each filter was analyzed four times, rotating the filter 45 degrees between each analysis. Additional Pb filters along with blank filters were analyzed by XRF and inductively coupled plasma mass spectrocmetry (ICP-MS) at UC Davis for further confirmation of the Pb loadings. *Continued on page 3*

UC Davis Technique for Producing Pb-PM_{10} Analysis Audits *(continued from Page 2)*

Testing method for producing Pb filters

Twelve filters in the range required for audit filters (6 filters at ~2.2 µg/filter and 6 filters at ~8 µg/filter) and five filters ranging from 1.7 to 9.5 µg/filter were produced to evaluate our ability to produce Pb filters in the mass ranges required. The 12 filters in the audit mass range and blank filters were analyzed six times each by the UC Davis XRF. Figure 2 shows the Pb mass loadings for each of the twelve filters measured by XRF at UC Davis and RTI.

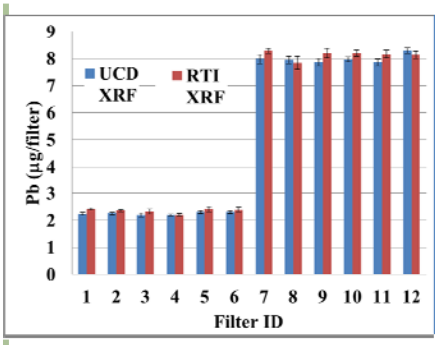


Fig. 2

The mass loading for these filters are within the ranges required for audit filters. The small standard deviations (shown as error bars) of the six measurements at UC Davis and of the four measurements at RTI, which are all about 4% or less, give strong confidence in the mass measurement. Two blank filters analyzed six times at UC Davis were not different from zero (0.023 ± 0.032 µg/filter of Pb and -0.005 ± 0.029 µg/filter of Pb). Five additional filters plus two blanks were analyzed by XRF and ICP-MS. Figure 3 shows very good agreement between the two independent measurements of Pb on the filters over the range of masses. The repeated measurements by two different XRF laboratories and the comparison between XRF and ICP-MS results indicate that our method can produce filters with the low levels of Pb required for audit and FEM testing.

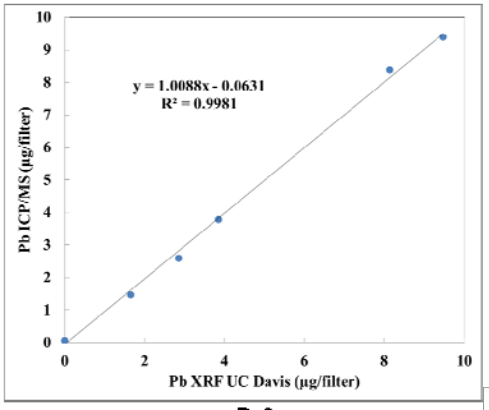


Fig.3

Pb audit and FEM Filters

Ten sets of FEM filters and four sets of audit filters (three filters at low and high level each) were produced. The initial filters made can also be used as audit filters giving a total of 6 sets of audit filters. The ten sets of FEM filters had target masses of 1.08, 3.60 and 9.00 µg/filter. The average masses of the filters produced were 1.5, 3.6 and 9.3 µg/filter. Figure 4 shows the Pb mass loadings measured by XRF at UC Davis and RTI for these thirty filters. There is good agreement between the laboratories of the Pb mass measured. For most of the filters, the two XRF measurements were within 7% of each other (all of the filters at 9.3 µg/filter, 9 of 10 filters at the 3.6 µg/filter level and 7 of 10 of filters at the 1.5 µg/filter level).

Four sets of audit filters were made with the average mass at the lower level of 2.7 µg/filter and mass at the higher level of 7.7 µg/filter. These masses are within the ranges required for audit filters. Figure 4 shows these 24 filters and compares the mass of Pb measured by UC Davis and RTI. There is good agreement between the two laboratories. As with the FEM filters, the two XRF measurements are within 7% of each other for most of the filters (all of the filters at higher mass and 7 of 10 filters at the lower mass). In general, lower mass filters (below 4 µg/filter) show more discrepancy between XRF measurements than the higher masses.

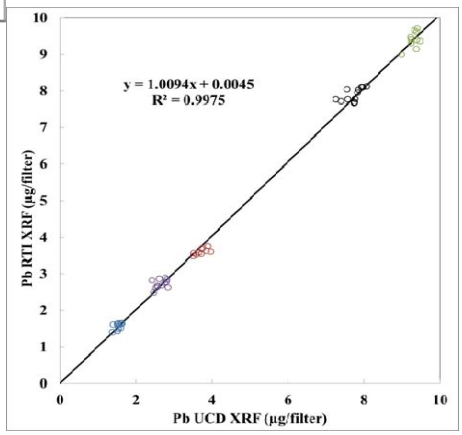


Fig. 4

Summary

We prepared Pb audit and FEM filters at the low mass loadings needed for the EPA Pb monitoring program. The filters were made by collecting aerosolized Pb onto MTL Teflon filters using a FRM sampler to minimize discrepancies between XRF analysis of the audit/FEM filters and ambient samples. The filters were analyzed by XRF at UC Davis and confirmed by XRF at RTI and by ICP-MS.

References

Indresand, H., White, W. H., Trzepla, K., Dillner, A. M., Preparation of sulfur reference materials that reproduce atmospheric particulate matter sample characteristics for XRF calibration, *X-Ray Spectroscopy*, DOI 10.1002/xrs.2456, 2013

Outlier Investigations

By John Haus Maryland Department of the Environment

What data reviewer hasn't found a gross outlier in some measurements that couldn't be explained by an equipment malfunction? You have the lingering feeling that you may have missed something and that the measurement (s) should have been invalidated. Such a situation occurred at the Maryland Dept of the Environment's Essex monitoring site on May 31, 2011 when four 1-hour SO2 measurements (42 – 53ppb) and a 5-min measurement of 154ppb were identified as outliers by the Walsh Test. The 0800, 53ppb value, Figure 1, was the highest 1-hour, SO2 measurement since 2009. No evidence could be found that these outliers were not representative of the data we wanted to measure, so we did not invalidate them.

Fortunately, but years later, we became aware of a paper that helped us understand the cause of these outliers. B. N. Duncan's "Estimated Contribution of Power Plants to Ambient Nitrogen Oxides Measured in Atlanta, Georgia in August 1992" suggested a way to use the ambient ratio of SO2/NOy (or SO2/NOx) to identify plumes from mobile and power plant sources. Mobile source emissions are relatively low in sulfur content but high in NOx while coal burning power plant emissions are high in sulfur content and low in NOx. Hence, measurements whose SO2/NOx ratios are relatively high may be indicative of power plant emissions and ratios that are relatively low may be indicative of mobile source emissions, Figure 2.

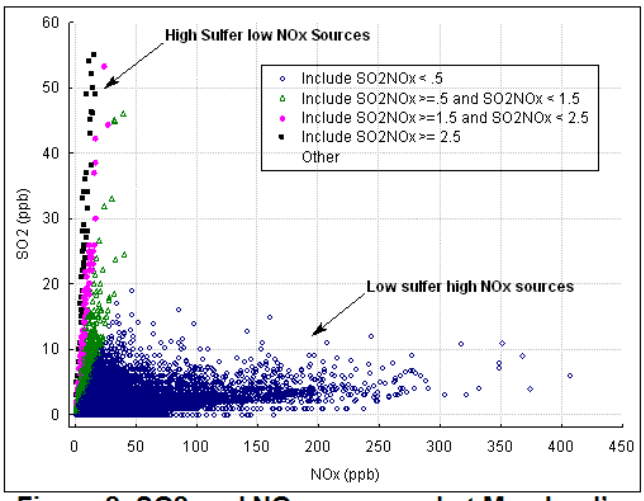


Figure 2. SO2 and NOx measured at Maryland's Essex site during 2010 – 2012

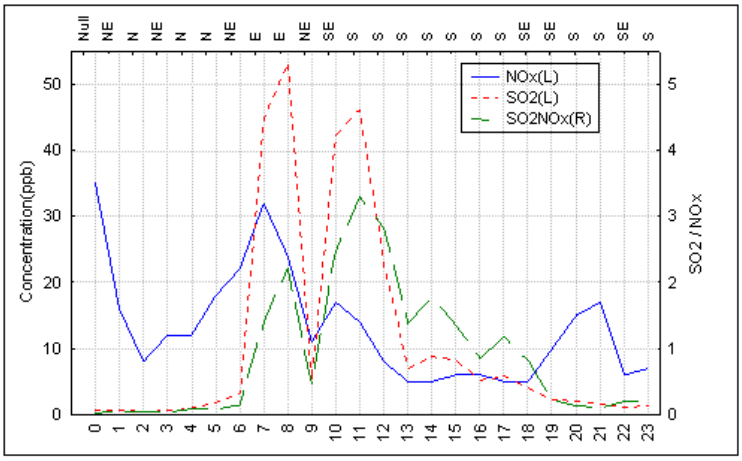


Figure 1 May 31, 2011 5-min and hourly (AQS time) SO2 measurements with hourly wind directions and SO2/NOx ratios measured at the Maryland's Essex site

The C. P. Crane electric power generating plant is only six miles east of our Essex monitoring site. Two other major SO2 sources were located northeast of the Essex but much farther away, so we didn't think they had a significant influence on the measurements. All the outliers except the one measured at 11:00 had an easterly wind component. Wind speeds were calm during the morning and didn't exceed 5 mph thereafter. SO2/NOx ratios were greater than two during most outlier hours, Fig 1 (ratios greater than 1.5 occurred in less than 1% of the data measured during 2010 – 2012). We thought that that all these facts were consistent with an unusual fumigation of the Essex site by C. P. Crane and became confident that the decision we made about the data's validity was correct. Note that we couldn't find an explanation for the sudden crash in NOx and SO2 concentrations at 9:00, but we know that it wasn't caused by instrumentation.

As a result of this work, data reviewers use wind direction measurements and SO2/NOx ratios when making decisions about the validity of SO2 outliers found in Essex SO2 data.

Guidance On The Maximum Certification Periods for Ambient Air Monitoring Calibration Standards

This guidance is to inform monitoring organizations to be cautious about using the new maximum certification periods for calibration standards described in the document: *EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards.* Based on how monitoring organizations use the standards under laboratory or field conditions, they may not remain viable for the periods described in the Traceability Document and may need to be checked or verified on a more frequent basis.

Background

The recent update to the *EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards* (May 2012) increased the maximum certification periods for some of the calibration standards. This information can be found in Table 2-3 of the Traceability Protocol. Table 2-3 (see page 6) was created to identify the length of time for which similar gas mixtures (e.g., SRMs or similar standards) in properly passivated aluminum cylinders, over specific concentration ranges, have been shown to be stable as documented in the peer review literature or in concentration stability data submitted by NIST and specialty gas producers for review by EPA.

Discussion

Members of the ambient air monitoring community have expressed concerns about some of the increases in the maximum certification periods. Some of the major concerns are described below.

Possible Gas Producer Related Issues:

1. The required conditioning of the inside wall of the aluminum cylinder, in particular for reactive gases. Obviously this can't be checked during the time of purchase.
2. The condition of the threads on the fitting where regulators are attach to the cylinder. Below are photographs of two different protocol gas cylinders from two different gas producers that show some contamination on the external and internal threads that could potentially react with the standard.

Monitoring Agency Issues of Handling and Care:

Gas standards purchased by monitoring organizations can be associated with the following three categories:

1. Purchased and kept in laboratories for testing and remain under ideal conditions for the life of the standard.
2. Transfered to sites for use in somewhat less ideal conditions of temperature, pressure and humidity but generally remain at the site for the life of the standard.
3. Transfered from one site to another for performance evaluation testing or calibrations where they are exposed to additional handling and more variable transport conditions.

As one goes from category one through three, there is more potential for contamination and the time period for which the cylinder might be considered "under certification." Table 2-3 of the Traceability Document was constructed the based on what NIST and vendors stated about the stability of the reactive gasses in properly passivated aluminum cylinders. This might be considered the maximum certification period under ideal conditions. OAQPS is not suggesting that the standards cannot meet the criteria in Table 2-3.

One major source of contamination at the monitoring organization level is implementing the proper procedures for connecting and purging regulators so that gasses present in the regulators do not "back-contaminate" the standards. Attachment 1 (see page 6) provides some guidance that Bob Davis from Airgas provided to EPA.

As indicated in the first footnote "a" of Table 2-3, gas producers may elect to certify gas standards for less than the maximum certification period. OAQPS suggests talking to your standards producers on the certification period they recommend.

Since it is possible that issues can occur during the development and use of the standards, OAQPS suggests that the values in Table 2-3 be used with caution and in consideration to how particular gas standards are used in the monitoring program.

OAQPS recommends that performance evaluation cylinders of reactive gasses be reverified at least every 2 years. In addition it is suggested that cylinders be checked against a standard considered more stable (lab primary standard) more frequently than suggested in Table 2-3. At a minimum, the internal check may provide some insight to the stability and/or accuracy of the concentrations of the standards used in the field that might otherwise not be identified until an independent evaluation (e.g., NPAP) is performed.

Continued on Page 6

Maximum Certification Periods for Ambient Air Monitoring Calibration Standards *(continued from*

TABLE 2-3. Maximum Certification Periods[a] for Calibration Standards in Passivated Aluminum Cylinders

Components	Balance gas	Concentration range	Period (years)
Ammonia	Nitrogen	5 to 50 ppm	1
Carbon dioxide	Air[b]	360 to 420 ppm	8
Carbon dioxide	Nitrogen	5 ppm to 20%	8
Carbon monoxide	Air	40 to 500 ppb	TBD
Carbon monoxide	Air	500 ppb to 10%	8
Carbon monoxide	Nitrogen	1 ppm to 15%	8
Formaldehyde	Nitrogen	0.5 to 10 ppm	1
Hydrogen chloride[c]	Nitrogen	10 to 5000 ppm	2
Hydrogen sulfide	Nitrogen	1 to 1000 ppm	3
Methane	Air	1 to 1000 ppm	8
Methane	Nitrogen	500 ppb to 10%	8
Methanol or ethanol	Nitrogen or Air	75 to 500 ppm	4
Natural gas components[d]	Natural gas	Contact NIST	4
Nitric oxide	O_2-free nitrogen[e]	0.5 to 50 ppm	3
Nitric oxide	O_2-free nitrogen[e]	50 ppm to 1%	8
Nitrous oxide	Air	300 ppb to 5%	8
Oxides of nitrogen[f]	Air	3 ppm to 1%	3
Oxygen	Nitrogen	10 ppm to 25%	8
Propane	Air	0.1 to 500 ppm	8
Propane	Nitrogen	5 ppb to 2%	8
Sulfur dioxide	Nitrogen	1 to 50 ppm	4
Sulfur dioxide	Nitrogen	50 ppm to 1%-	8
Volatile organics	Nitrogen	1 ppb to 1 ppm	4
Zero air material[g]	Air	Not applicable	Unlimited
Multicomponent mixtures	—	—	See text
Mixtures with lower concentrations	—	—	See text

[a] Specialty gas producers may elect to certify candidate standards for less than the maximum certification period. Each producer has discretion in this matter. See text.
[b] "Air" is defined as a mixture of oxygen and nitrogen where the minimum concentration of oxygen is 10 percent and the concentration of nitrogen is greater than 60 percent.
[c] Hydrogen chloride may be contained in passivated aluminum or nickel-coated steel cylinders.
[d] Natural gas components are methane, ethane, propane, n-butane, iso-butane, n-pentane, iso-pentane, helium, nitrogen, and carbon dioxide.
[e] O_2-free nitrogen contains ≤ 100 ppb of oxygen.
[f] NIST defines its total NO_X standards as containing nitrogen dioxide plus contaminant nitric acid.
[g] Concentrations of SO_2, NO_X, and THC are not >0.1 ppm; concentration of CO is not >1 ppm; and concentration of CO_2 is not >400 ppm as per 40 CFR Part 72.2. Zero air material may be

Attachment 1

Guidance on Connect Lines/Regulators to Gas Cylinders

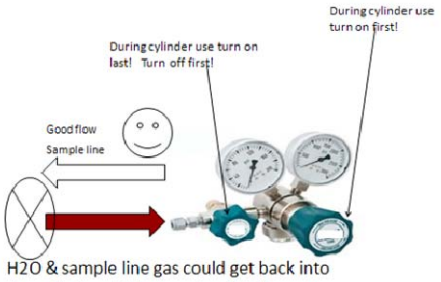
- First, make sure that your cylinder lines and regulator and cylinder all have caps on them to prevent sitting in the elements (moisture, heat, crosswind pollution, etc.) . This will insure that you are starting off with clean lines.
- Next take off the cylinder cap and attach the two stage regulator.
- Hopefully, the lines that are attached are non-permeable (stainless steel) at least for the beginning 10' of sample line.
- At this point it is very important that when attaching the line both valves are in the shut off position.
- Once the sample line is attached you then make sure that when turning on and off the cylinder the pressure is always away from the cylinder. This means turning the valves off in the proper order.
- Also, most companies will insure that they are keeping their lines free by purging the lines with clean nitrogen (sometimes up to 9 times) before they measure things like low NOx. This can make a significant difference.
- "you would not drink through a dirty straw" so make sure that you think that way when you attach your gas lines and operate your regulators.

1) How do you work with low level NOx ppm calibration gases?

1. Make sure that you operate the regulator "on / off" in the correct order!

2. Small ppm of H2O In a regulator will get into the cylinder and ruin it!

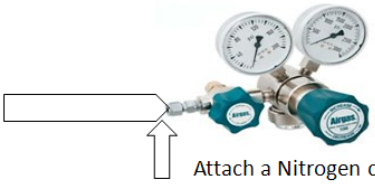
2)Keep pressure going out!



H2O & sample line gas could get back into the cylinder will destroy low NOx!

3) Or...Purge the lines !

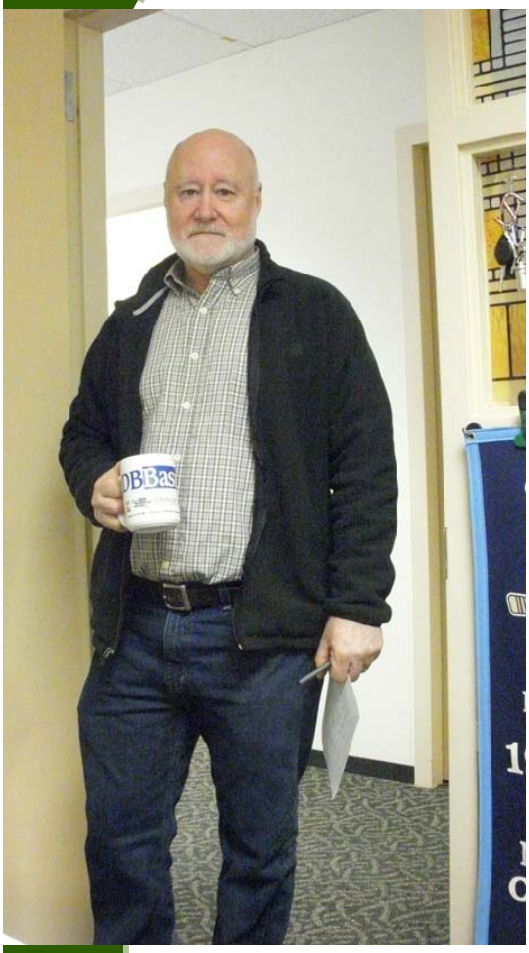
Some larger companies purge low NOx (under 10ppm) up to 9 times!



Attach a Nitrogen cylinder to purge lines!

Keep in mind HCL / Mercury / etc. nitrogen can "dry" the lines!

Bon Voyage Bill Frietsche and Thank's



Often I would start my morning with Bill Frietsche, coffee in hand, (he made the coffee for the Division every morning) trying to decipher an AQS QA question from one of the State, Local or Tribal monitoring organizations. You can see the pained look in Bill's eyes which I also had by the time our conversation ended.

However, his pain was our gain. Bill retired this December and he will be sorely missed by the QA community.

Our morning coffee klatches were very important. Bill was not only interested in getting it right from an AQS standpoint but he really went the extra mile in understanding why we were doing what we were doing. This allowed him to provide better instruction to the AQS user community and improve entry systems and QA reports.

Bill was the lead behind the precision and accuracy workbook and his webinars where a great help to many monitoring organizations understand what QC samples went where. He was the main man to work with me on the new QA Transactions that should be coming on line in 2014.

I knew we were heading in the right direction when Bill would comment that once they were in place it would be so much easier on the monitoring community than the system we have now where we try to fit all our QC in two boxes (P or A).

Our meetings helped me learn a lot about database management and the struggles the AQS Team has with "us", the monitoring community. They have to work with universities that just want raw data, folks that just want summary data that can be used for NAAQS, and QA folks who want QC data to judge quality. The bottom line is they have many clients and have tried to service them all in a professional way. Bill was the consummate professional.

On Bill's last day he pulled up in a U-Haul truck, grabbed the last boxes and headed out for a new home in Colorado Springs. Thanks to him, as well as others on the AQS team, our QA program has been much improved.

Thanks Bill. I bet the coffee tastes better and **your** look of pain is gone! *Mike Papp*

Reminder Reminder Reminder Elimination of RP Transactions for Collocated Data in 2015

Since 2006 (see QA EYE Issue 2 page 5) EPA has been advocating the use of primary monitors and the identification of the CFR required collocated monitor to be identified in the collocations table allowing the collocated data to be submitted as raw data and eliminating the need for monitoring organizations submission of a precision transaction (RP) for this information. Once the new QA transactions are completed (2014), use of the RP transaction for collocated data will be eliminated in December 2014.

In order to implement this reporting procedure, the primary monitor and the collocated monitor must be identified in the "Monitors Collocation Period" using the "MJ" transaction for the primary and collocated monitor. NADG provided a review of use of both methods and discovered that most organizations are using the raw data transaction. HOWEVER out of the 49 monitoring organizations that were using RP transactions almost 50% (23) were also entering the collocated data as raw data, so either they are using both entry methods for the same data, which is not necessary, or they have different entry people entering the data differently.

Contact the AQS helpline for further information and help setting this up.

AQS Monitor Type Changes and Identifying Monitors for NAAQS Exclusion

In 2008 OAQPS disseminated a memo informing monitoring agencies on the use on the "NON-REGULATORY" monitor type code and how it was to be used. Since that time there has been some rethinking on this process which has led to a revision in the coding of monitor types as described below.

In the past, Monitor types have had a variety of meanings, including: Administrative classification of monitor (e.g. SLAMS, Tribal), the associated monitoring network (e.g. NCORE, NATTS, PAMS), and other information such as excluded from Design Value calculations (Non-Regulatory). With this change, Monitor Type will be reserved to only mean administrative classification of monitor. All other information is being moved to other fields.
The following shows the new mapping of this information:

1. Monitor Type: One of the following:

- SLAMS: State or Local air monitoring stations for parameters (pollutants and/or meteorological data) addressed by 40 CFR Part 58.
- TRIBAL: Air monitoring stations operating under the authority of a Federally recognized tribal agency for parameters addressed by 40 CFR Part 58.
- SPECIAL PURPOSE: A monitor that an agency has designated as "Special Purpose" in its annual monitoring network plan for parameters addressed by 40 CFR Part 58.
- INDUSTRIAL: A monitor that is operated by a private industry entity rather than under the control of a State, Local, or Tribal government.
- EPA: A monitor that is operated by EPA or an EPA contractor for parameters addressed by 40 CFR Part 58.
- NON-EPA FEDERAL: A monitor operated by another Federal agency for parameters addressed by 40 CFR Part 58.
- SPM-OTHER: A monitor for a parameter **not** addressed by 40 CFR Part 58.

Note: After the change, a monitor will only be allowed to have a single monitor type on any specific day.

2. Network Affiliation: The associated monitoring network. A monitor will be allowed to be affiliated with any number of networks at the same time.

3. NAAQS_Exclusion: Replaces "NON-REGULATORY" monitor type. This data element is used to request that a monitor be excluded from Design Value calculations. Note: After this change (Nov. 23, 2013), all requests for NAAQS Exclusion must be approved by the corresponding Regional Office before the data will be excluded from Design Value calculations; all Non-Regulatory types present before the change are automatically marked as approved.

4. QA Collocation: AQS has never looked at the "QA COLLOCATED" monitor type for handling collocated data. With this change, transactions with the "QA Collocated" Monitor Type will be rejected with an error. QA Collocation should be indicated via the MONITOR COLLOCATION fields (via either the MJ batch transaction or the COLLOCATION tab on the Maintain Monitor form.). See the article on page 7 that is related to this collocated monitor issue.

Transition Plan- Monitor Type Transition

The existing monitor metadata were moved from the MONITOR_TYPE_ASSIGNMENTS table to the new database tables on Saturday, Dec 7,2013. AQS will accept changes to the new metadata elements via the new batch transactions and forms.

It is understood, however, that many agencies that submit data have processes in place for creating or maintaining this metadata via the old batch transaction formats, and that it will take time to modify these processes to use the new transactions. In order to support this transition, AQS will continue to accept this information on the MC – Monitor Type transaction, but will transparently apply the changes (Inserts, Updates, or Deletes) to the new database tables; this transition support will remain in place until November 30, 2014.

Note: After Dec 7, 2013, the Maintain Monitor form will only show this metadata on the new tabs. For example: If a monitor previously had a monitor type assignment of PAMS, this will now show up in Maintain Monitor on the "Network Affiliations" tab, but not on the Monitor Type tab.

Monitor Methods

As was described in the June 28, 2013 AQS User Notice a new Monitor Metadata element has been created for Monitor Method. This new element identifies the Method Code (for the monitor's Method of Collection and Analysis) for a specified period of time. A conversion script has already been run to create the Monitor Method metadata for all active AQS monitors.

While creating the new monitor metadata, it was observed that a small subset of the monitors (~1%) have Raw Data that has a different method code each day. It is expected that this issue was caused for Particulate Matter monitors where every-day sampling (Required Collection Frequency of '1') is achieved by submitting the measurements from multiple samplers to a single AQS "monitor" – parameter and POC at the site. EPA Guidance now directs that each sampler be submitted to a separate AQS POC. For the monitors where a different method has been observed for each day, the AQS Federal team will work with the submitting agency to create new monitors (parameter and POC) for each distinct method code at the original monitor, and to move the Raw Data with that method to the new monitor.

Note: NADG can only do this for those cases where the data pattern indicates that there are multiple samplers with different methods being used to achieve every-day sampling. In cases where there are separate samplers of the same method being used to achieve the desired frequency under one POC, AQS will be unable to detect and resolve these cases; therefore, agencies are expected to partition the two samplers into different POCs.

Proposed Regulation Changes for Appendix A (continued from page 1)

Note: The revisions described in this issue are proposed. They are currently under development and will undergo review and public comment before final approval.

EPA proposes to reformat the document by pollutant rather than method type. The four gaseous pollutants (CO, NO2, SO2 and O3) will be in one section since the quality control requirements are the same, and separate sections will be provided for PM10, PM2.5 and Pb.

Removing PSD from Appendix A

In 2006 the PSD QA requirements which were previously in App B were added to App A. The PSD requirements, in most cases, mimicked Appendix A in structure but because monitoring is often only one year, some of the frequencies of implementation of the PSD QC requirements are higher than the Appendix A SLAMS requirements. The combined regulations have caused some confusion and EPA proposes that the PSD requirements be moved back to Appendix B. This also provides more flexibility for revision if changes in PSD requirements are needed.

Removing $PM_{10-2.5}$ QA Requirements

Appendix A has traditionally been used to describe the quality assurance requirements of the criteria pollutants used in making NAAQS attainment decisions. While the Part 58 Ambient Air Monitoring regulation require monitoring for the Chemical Speciation Network (CSN) and the Photochemical Assessment Monitoring Stations (PAMS), the quality assurance requirements are found in technical assistance documents and not in Appendix A. In 2006, EPA proposed a $PM_{10-2.5}$ standard along with requisite QA requirements in App A. While a $PM_{10-2.5}$ standard was not promulgated, $PM_{10-2.5}$ monitoring was required to be performed at NCore sites. Appendix A included some $PM_{10-2.5}$ quality control requirements which were implemented at NCore sites and therefore did not reflect requirements at the PQAO level which is the emphasis of Appendix A. EPA is proposing to eliminate the $PM_{10-2.5}$ requirements in Appendix A to reduce burden. Similar to the CSN and PAMS networks, EPA will develop QA guidance for the $PM_{10-2.5}$ network which will afford more flexibility for change/revision.

Removing the QA Requirement for Pb Monitoring at non-source NCore sites

Similar to the rationale for eliminating the $PM_{10-2.5}$ QA requirements from Appendix A, EPA proposes that the Pb QA requirements for non-source NCore sites also be eliminated. The Appendix A requirements focus on PQAOs and for any criteria pollutant monitored, some level of QA at the PQAO level is necessary to provide estimates of precision and bias. There will be a number of NCore non-source Pb monitoring sites that will be the only Pb site for a particular PQAO. This would cause higher frequencies of QA collocation and Performance Evaluations than would normally be required for NAAQS related Pb monitoring. Similar to the NATTS and PAMS programs, EPA will develop QA guidance for the Pb NCore network which will afford more flexibility for change /revision.

QMP and QAPP Submission and Approval Reporting to AQS

Since 2007, EPA has been tracking the submission and approval of QMPs and QAPPs by polling the EPA Regions each year and updating a spreadsheet. This is both time consuming on the part of monitoring organization, the EPA Regions and OAQPS. EPA is currently revising its quality assurance information in the Air Quality System (AQS) database and has developed transactions for the reporting of QMPs and QAPPs. EPA proposes that QMP and QAPP submission dates be reported by monitoring organizations and that QMP and QAPP approval dates be reported by EPA or the monitoring organization. This will allow for timely and accurate reporting of this information.

Participation in AA-PGVP

Since 2009, EPA has had a separate ICR requiring that monitoring organizations complete an annual survey of the producers that supply their gas standards (for calibrations and quality control) in order to be able to select standards from these producers for verification. EPA proposes to add this ICR requirement to Appendix A. In addition EPA proposes to add language that monitoring organizations participate, at the request of EPA, in the AA-PGVP by sending a gas standard to one of the verification laboratories every 5 years. Since many monitoring organization volunteer to send in cylinders, monitoring organizations may not be obligated to comply with this requirement but EPA may request a cylinder from a monitoring organization minimally every 5 years.

Continued on Page 10

Proposed Regulation Changes for Appendix A (continued from page 9)

I- Point QC Checks

With the lowering of NAAQS standards, the development of more sensitive monitoring instruments with lower detection limits, technical improvements in calibrators, and lower ambient air concentrations in general, EPA proposes to lower the audit concentrations of the 1-point QC checks to 0.005 and 0.08 parts per million (ppm) for SO_2, NO_2, and O_3, (currently 0.01 to 0.1 ppm) and between 0.5 and 5 ppm for CO monitors (currently 1 and 10 ppm) in order to better reflect the precision and bias of the routine ambient air data. Since the audit concentrations are selected using the mean or median routine concentration data (guidance on this is provided in the QA Handbook), EPA added some clarification to the language to require monitoring organizations to select either the highest or lowest concentration in the ranges identified if their mean or median routine concentrations are above or below the range. There is no additional burden to this requirement since the frequency is the same and the audit concentrations are not so low as to make them unachievable.

Annual Performance Evaluation

The minimum requirement for the annual performance evaluation (PE) for the primary monitor at a site is one per year and although EPA continues to suggest evaluations in all 4 quarters it does not suggest any re-auditing of any monitors that have already received a PE.

EPA proposes to expand the audit levels from five to ten and remove the requirement to audit three consecutive levels. The current regulation also requires that the three audit levels should bracket 80% of the ambient air concentrations measured by the analyzer. This current language has caused some confusion and monitoring organizations have requested the use an audit point to establish monitor accuracy around the NAAQS values. EPA is proposing to revise the language so that two of the audit levels selected should represent 10-80 percent of routine ambient concentrations measured by the monitor or in the PQAOs network of monitors. The third point should be at the NAAQS or above the highest 3-year routine concentration, whichever is greater.

Flow rate verifications

EPA proposes to require flow rate verifications be reported to AQS. The requirement to perform the flow rate verification is currently a requirement but the reporting to AQS has only been a requirement for PM_{10} continuous instruments. This is the only quality control requirement in Appendix A that is not required for reporting for all pollutants and has been a cause of confusion. Regions have mentioned that some of there monitoring organizations have been entering this data and is felt that the reporting would not be overly burdensome and will provide consistence in the regulation.

National Performance Audit Program (NPAP) Description

Appendix A never had a description of the NPAP requirements. Since 2007, EPA distributes a memo to all monitoring organizations in order to determine whether the monitoring organization plans to self implement the NPAP program or utilize the federally implemented program. In order to make this decision, the NPAP adequacy and independence requirements are described in the memo. EPA proposes to include these same requirements in Appendix A in a separate section for NPAP. In addition, the memo currently states that 20% of the sites would be audited and therefore all sites would be audited in a 5-year period. Since there is a possibility that monitoring organizations may want some higher priority sites audited more frequently, EPA is proposing to revise the language to require all sites to be audited within a six year period.

Removing Validation Checks

A check was developed in Appendix A to perform an evaluation of the 1 point QC checks and the annual performance evaluations. The section suggests that 95% of all the annual performance evaluation percent differences at all audit levels should fall within the 95% probability interval developed using the 1-point QC checks. The problem with this check is that PQAOs with very good repeatability on the one point QC check data had a hard time meeting this requirement since the probability interval became very tight. EPA proposes to eliminate this statistic from the regulation since acceptance criteria for the 1-point QC checks and the Annual PE are already identified in guidance.

A similar statistic was developed to compare the flow rate audit data and flow rate verification data. EPA is proposing to remove this check as well.

Removing TSP Cutoff Value and Reducing Pb Cutoff Value

The cutoff value is the concentration below which collocated data or performance evaluation data is not evaluated due to its measurement uncertainty at this low concentration. Since TSP is no longer a NAAQS standard, EPA proposes to eliminate the TSP cutoff value.

The new Pb method by ICP-MS, promulgated in 2013 in 40 CFR Part 50 Appendix G, showed that the MDLs were below 0.0002 $\mu g/m^3$ which is well below the EPA requirement of five percent of the current Pb NAAQS or 0.0075 $\mu g/m^3$. EPA proposes to lower the Pb cutoff to 0.002 $\mu g/m^3$ which will provide much more data to be accepted and used.

NOTE

The revisions described in this Issue are proposed. They are currently in development and will undergo review and public comment before final approval.

The AQS User's Guide Has Been Updated

The Users Guide has been updated and is on the AQS website AQS manuals and guides page at the top. The revised document is up-to-date on the topics it covers.

It consolidates information that had been released as separate tutorials and release notes.

The guide is available only in HTML (the reason for this is explained in the guide itself) and not PDF. If you feel you need a paper copy, it should print reasonably well.

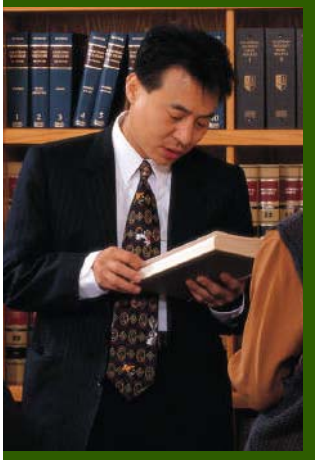
We plan further updates that will expand the content but wanted to release a new version that covers all a new user should need to know as soon as we could.

Please let us know if you find a problem or have a suggestion by contacting Robert Coats at: coats.robert @epa.gov

AQS QA User Notes on the Web

For those that may not be aware, the AQS Team posts many QA related materials up on their website. Many of the recent memos at this site, such as the new QA Transactions, the monitor meta data transactions described on page 8, as well as the technical discussions related to last years data certification process can be found at this site.

It's often difficult for EPA to make sure it's reaching out to the right people since technical staff in some small organization wear many hats while in other organizations individuals may be more specialized. The OAQPS QA Team and the National Air Data Group try to keep abreast of QA communication as much as we can, but there are times when information falls through the cracks. In the future, we'll try to keep this website up to date so put a shortcut to it on your monitor and check it every once in awhile.



2013 QA Handbook Workgroup to Start a Semi-Annual Review

Rather than go through a major review activity every 5 years, OAQPS will be assembling a QA Revision Workgroup that will meet every 6 six months to discuss what changes/edits might be needed to the QA Handbook. In this scenario we will keep a running list of needed revisions on AMTIC. If at the end of each year there are certain revisions deemed critical, we will revise the Handbook section and reissue a revised version. OAQPS will also keep a list of section revision dates in order for monitoring personnel to keep their document up-to-date by just printing the section needed.

The Handbook Revision Workgroup is identified in Section 2.3.2 of the Handbook and will initially be made up of QA personnel on the QA Strategy Workgroup. The first meeting will be scheduled around March 2014. If you are interested in participating in this activity please email Mike Papp at: papp.michael@epa.gov.

Authors Contributing to the QA EYE– Have You Got Anything to Say?

We appreciate all those authors contributing to this issue. They include:

Ann Dillner and Hardik Amin For the article on their work developing the Pb XRF Analysis audits (page 2)

John Haus for his article on outlier assessment (page 4)

Greg Noah for his update on the Pb-PEP on Page 13

Mark Shanis for his update on the SRP and NPAP programs on Page 13.

Solomon Ricks for his update on the Ambient Air Protocol Gas Program on page 14.

Robert Coats for the AQS information on page 8

We are always looking for interesting articles for the QA EYE. Please take a few moments out of a day to write up something you feel would help the QA community .

National Air Toxics Trends Sites QA Update

The NATTS team of Dave Shelow and Greg Noah have been working together to get a handle on the program and determine its future direction. A few things to highlight in this years activity include:

PT Program

We successfully completed PT programs in all four quarters this year and it appears that more and more laboratories are getting acceptable results. An example of a number PTs are shown below. Each column represents a NATTS lab. Over the years we are seeing more and more green and less and less red. Through a TSA this December the lab discovered an issue that should turn one of the red columns below to green.

Technical systems audits -

Battelle is the current OAQPS QA contractor and has completed 3 field and lab audits this year. As is the case with most audits, we found the labs doing most things well but there were areas that were found in need for improvement. We find this process very beneficial since it not only helps improve the field and lab technical activities of the audited entity but also informs EPA on the innovative techniques that are being implemented at the sites that can be incorporated into the next NATTS Technical Assistance Document (TAD).

NATTS Conference Calls

Dave Shelow has scheduled one-on-one calls with every NATTS monitoring agency. These calls, started in early December, are an information sharing activity that intended review

- NATTS data assessment results for this site
- PT results over the years
- TSA summaries of field and lab audits
- Needs (training, equipment, etc.) for site and lab

Next Steps

The major endeavor for Dave and Greg is to roll up their sleeves and get to work on the TAD. This will not occur in vacuum but we will be using all the information we've gleaned from the various program assessments to help us move in a direction that makes technical and economical sense while achieving the goals of the program with the appropriate level of data quality. A while back Workgroups were established to work on the TAD and at present they have not made significant progress. Based on our DQO work last summer and the acknowledgement that trends is still the primary objective, we now understand what data quality can be achieved and we can work over this next year to revise the QA section of the NATTS TAD.

Third Quarter 2013 VOC PT Results for NATTS Laboratories

Percent Recovery															
Acrolein	89.7%	NR	NR	104.1%	181.9%	100.8%	95.3%	95.4%	115.2%	131.5%	84.6%	111.8%	94.5%	83.9%	91.8%
Benzene	106.8%	167.9%	92.3%	99.3%	105.9%	103.9%	97.3%	75.9%	105.9%	110.5%	105.9%	98.5%	101.9%	72.8%	101.9%
1,3-Butadiene	125.8%	201.3%	116.6%	138.2%	114.0%	126.1%	122.7%	114.0%	126.1%	124.2%	99.4%	116.9%	115.2%	45.1%	114.0%
Carbon Tetrachloride	94.2%	144.1%	100.1%	102.2%	93.5%	109.0%	93.9%	89.2%	91.5%	112.5%	114.9%	99.7%	103.2%	58.0%	126.6%
Chloroform	102.4%	163.1%	109.2%	106.9%	102.5%	106.7%	102.9%	95.5%	117.1%	108.1%	106.7%	106.1%	114.0%	68.2%	112.9%
1,2-Dibromoethane	89.7%	155.6%	79.7%	88.2%	68.4%	99.2%	85.0%	75.3%	82.1%	87.4%	85.5%	87.3%	91.5%	64.8%	80.4%
1,3-Dichloropropene - cis	85.6%	125.4%	83.1%	71.2%	72.9%	74.6%	83.4%	66.6%	81.4%	80.7%	83.1%	NR	83.1%	70.2%	83.1%
1,3-Dichloropropene - trans	90.0%	94.9%	93.7%	75.1%	79.7%	81.4%	86.3%	78.0%	93.2%	93.4%	98.3%	NR	91.5%	75.4%	84.7%
1,2-Dichloropropane	102.4%	143.1%	95.7%	105.9%	98.0%	109.8%	99.0%	78.6%	96.1%	118.8%	94.1%	NR	102.9%	65.5%	105.9%
1,2-Dichloroethane	105.5%	193.6%	106.0%	118.5%	108.5%	125.5%	97.9%	87.4%	108.5%	113.4%	106.4%	106.6%	106.4%	51.3%	108.5%
Dichloromethane	114.3%	200.7%	100.6%	113.0%	120.4%	142.7%	102.6%	127.1%	127.1%	124.9%	109.3%	119.5%	111.5%	87.4%	165.0%
1,1,2,2-Tetrachloroethane	98.1%	186.4%	84.8%	104.0%	74.9%	96.9%	89.2%	100.2%	100.5%	124.3%	106.0%	NR	92.3%	84.1%	87.7%
Tetrachloroethylene	97.3%	152.1%	87.5%	102.3%	78.0%	106.5%	89.6%	76.1%	87.5%	86.2%	87.5%	104.8%	96.0%	65.6%	89.4%
Trichloroethylene	101.7%	180.2%	91.7%	104.9%	100.3%	143.4%	98.1%	79.5%	94.2%	108.1%	102.4%	105.2%	96.3%	76.4%	102.4%
Vinyl chloride	98.8%	219.4%	99.3%	121.5%	99.1%	118.1%	106.7%	107.6%	97.0%	117.9%	94.9%	110.4%	102.3%	50.6%	101.2%

Third Quarter 2013 Carbonyl PT Results for NATTS Laboratories

Percent of Actual																
Acetaldehyde	105%	108%	102%	106%	109%	103%	96%	109%	112%	104%	98%	107%	101%	180%	102%	104%
Benzaldehyde	NR	NR	104%	108%	104%	NR	NR	NR	158%	100%	96%	93%	NR	NR	98%	108%
Formaldehyde	106%	109%	109%	112%	116%	106%	105%	118%	114%	103%	97%	97%	107%	176%	107%	104%
Propionaldehyde	NR	98%	111%	111%	113%	104%	99%	NR	123%	88%	93%	93%	NR	NR	106%	97%

Second Quarter 2013 Metals PT Results for NATTS Laboratories

Percent of Target															
Antimony	93.6%	NR	NR	NR	160.1%	50.1%	72.9%	NR	NR	NR	103.7%	77.7%	NR	82.1%	87.4%
Arsenic	77.2%	NR	92.9%	96.9%	82.6%	88.6%	77.2%	93.3%	95.8%	104.1%	96.9%	84.0%	99.0%	97.0%	101.9%
Beryllium	119.1%	NR	94.8%	102.1%	123.1%	98.1%	95.8%	98.4%	104.1%	100.8%	87.1%	90.8%	97.8%	98.0%	105.8%
Cadmium	87.3%	NR	92.4%	95.2%	101.8%	99.0%	91.4%	96.2%	97.8%	102.2%	89.5%	327.0%	97.8%	101.4%	98.7%
Cobalt	NR	NR	NR	NR	115.5%	100.1%	99.8%	91.8%	NR	NR	90.0%	97.2%	97.2%	102.4%	94.7%
Lead	100.8%	NR	95.3%	96.6%	79.5%	118.3%	93.5%	105.2%	101.6%	103.1%	99.0%	100.3%	96.4%	100.1%	94.6%
Manganese	111.1%	NR	87.4%	90.5%	96.4%	100.7%	103.6%	87.1%	94.6%	92.3%	90.0%	89.7%	86.5%	93.8%	87.7%
Nickel	106.4%	NR	87.6%	104.7%	24.3%	107.4%	93.8%	84.1%	97.7%	102.2%	101.2%	86.9%	89.3%	98.8%	103.3%
Selenium	NR	NR	NR	NR	253.5%	76.0%	71.3%	NR	NR	NR	60.0%	75.7%	63.0%	84.4%	77.3%

Pb-PEP Progress – A Wild Kingdom...

By Greg Noah

Anyone remember those old "Mutual of Omaha's Wild Kingdom" TV shows where Marlin Perkins and Jim Fowler would take you around the globe for a wildlife adventure? In one particular episode, Marlin Perkins was calmly giving his spiel about Mutual of Omaha, and Jim was in the background literally getting drowned wrestling an anaconda in a river. Well, as the lead for the Pb-PEP, I feel sort of like Jim from time to time. I have found that Pb-PEP has lots of parts (high volume, low volume, NCore, etc…) flailing around, intertwined trying their best to beat me into submission. I'm happy to report that I'm starting to get control of the program, and we are making some progress! Here's a quick summary of where we are

Pb-PEP QAPP and SOP Revisions

As the program grew and changed early in the implementation stages, some of the changes meant that the QAPP would need to be revised. This revision has been one of my priorities, and we've made good progress. Thus far, Dennis Crumpler and I have completed 15 revised sections of the QAPP, and I have emailed 10 sections out to the PEP workgroup for review. I haven't heard back from many of you. Please help me out and give those sections some attention. It would make great reading on the way to grandma's house!

XRF Analysis at Desert Research Institute

In the beginning of the program, our plan had ORD at RTP conducting XRF analyses of the 46.2mm Teflon filters used in collecting the low volume Pb-PEP samples. After further consideration, we changed to a contract laboratory selecting Desert Research Institute in Reno, NV to perform the analysis. All of the PM10 Pb-PEP filters have been submitted to DRI and we should have results next month. As soon as we get them, our contractor should be moving those results into AQS. I am working on an SOP revision to direct all of our auditors on the new protocol.

Pb-PEP Shipping Labels

For all of the state, local, and tribal contacts that conduct and collect the Pb-PEP collocated filters, I am working on getting those shipping labels prepped to go out to you this week. My goal is to have those in your hands by the end of December or the first week of January 2014.

AQS Upload of Pb-PEP Data

In 2013, I submitted Pb-PEP data to AQS in support of the Pb-PEP program. In the future, we have tasked our support contractor to handle this task. The contractor is climbing the learning curve and I hope within the next couple months we will have a system where we can submit to AQS on a monthly basis. Our goal will be to have all Pb-PEP data loaded and into AQS within one month of sample collection.

Progress on the SRP and NPAP Program

By Mark Shanis

The following provides a brief description of the progress on the SRP and NPAP Programs.

SRP Certifications-

- Region 5 and 8 have recently been completed
- Region 1 and 2 SRPs were shipped to RTP in December for certification.
- Region 7 SRP will be implemented in January.

SRP Standard Operating Procedures

Extensive SRP SOP edits from OAQPS are currently addressed by Scott Moore (ORD).

NPAP

The 2013 Regional Audit Workbooks received so far are either in AQS or the Regions are fixing errors that are not allowing reporting to AQS. In order to alleviate these problems for the future, the monitoring staff are working with the AQS staff to develop a new, much easier, and error-preventing approach for entering NPAP TTP Audit data into AQS. This approach will also incorporate the current NPAP TTP EXCEL workbook functions into the same new AQS transaction generating application. At several stages of development and testing, webinars will be provided to acquaint our Regional and agency personnel with what is being developed, status, and relevant consequences for involved parties.

Ambient Air Protocol Gas Program Update

By Solomon Ricks

As we enter 2014, the EPA continues to take steps to foster greater participating in the Ambient Air Protocol Gas Verification Program (AA-PGVP). In order to determine the specialty gas producers used by monitoring organizations, AAMG encourages these agencies' participation in the web-based survey found at https://www.sdas.battelle.org/AirQA. Due to a change in contractor support in 2013 (Battelle was awarded the contract to provide QA support for AAMG), when the final numbers come out, we expect to see a decrease in the number of responses received in 2013 in comparison to the responses in 2011 and 2012. But we anticipate greater levels of response for 2014.

Also, EPA has arranged for assistance when it comes to the shipment of cylinders to the laboratories located in Regions 2 and 7. One of the primary concerns expressed by the various monitoring agencies was the expense of shipping cylinders back and forth to the region laboratories. With the third party arrangement established between EPA and UPS, this should alleviate those concerns, thereby allowing for greater participation in the program. Instructions have been provided to the monitoring agencies for them to obtain access to EPA's UPS shipping account.

AAMG also has an agreement in place with a cylinder tracking company, InfoTrac. InfoTrac will provide 24-hour tracking of cylinders as they are shipped from the monitoring agency's location to the region laboratory, and back.

With the additions anticipated for 2014, we expect to see greater participation with both the web-based survey and cylinder verifications.

We continue to be grateful to those organizations that participated in 2013's survey, and we hope that more will consider participating in 2014.

Ambient Air Monitoring Station in Budapest

News Years Tip "NIP It in the Bud Andy"!

Over the last few years there have been a number of NAAQS related decisions that had to be postponed based on data quality issues. Some of these issues have been identified through technical systems audits by either EPA Regional staff or through internal state technical systems audits. A few of the findings include lack of QA documentation, like quality assurance project plans (QAPPs) and lack of control in laboratories based on review of quality control data like field and lab blanks.

No one likes to be on the receiving end of news that data collected over a number of years cannot be used due to data quality issues. With resources strained at state and federal levels, possibilities arise for quality assurance activities to slip. At the same time, many organizations on one side of the NAAQS issue or the other have become much more savvy about QA regulation requirements and are looking for mechanisms to eliminate the use of good data and/or use data that is of suspect quality. A few tips are offered for the new year:

Get your QA documentation in order- Update your QAPPs and SOPs including the use of good document control so your technical staff know what document is the most up-to-date. Remember, both QMP and QAPPs will start being reported to AQS. QAPP information can already be found on the AQS QAPP Page so make sure it's up-to-date.

Follow all the requirements in 40 CFR Part 58 App A.– Review the requirements and make sure they are incorporated into your approved QAPP. It's great if you have internal reports to review the data more real-time. If not, the sooner you get the QC data into AQS the sooner you can run the appropriate AMP reports to review this information. Although we had some glitches with the AMP600 during certification, we have gotten the majority of the bugs worked out . We have gotten some great feedback on the reports usefulness in discovering data quality issues so use them often and well before certification time.

Use the regulatory methods but generate SOPs that you will follow– The methods in 40 CFR Part 50 should be followed for the most part. Some of the methods that have not been updated for years may have technical memorandum that allow for improvements, so look at both the regulations and guidance. If you have concerns with differences between a regulation and a guidance memo, talk to your EPA Region. A letter from EPA documenting the use of EPA technical guidance should suffice. In any case, revise your SOPs to conform to regulations and guidance but once that is done, do what's in the SOPs. Too often we have an audit finding that the organization has an SOP but it's not followed. Also, review the guidance methods that have been developed. As an example, the $PM_{2.5}$ method (Method 2.12) has quite a bit of good information related to the controls in the weighing lab. Recent TSAs have shown monitoring organization labs lacking some of these controls that are putting data quality in jeopardy. Auditors are looking for these controls, so if you are not using them and do not have an alternative, your SOPS may need to explain why your organization does not feel the controls are necessary.

Perform Internal TSAs– Get ahead of the game. Monitoring organizations should have some level of independent auditing activity. Plan an audit somewhere in-between the Regional EPA audits to ensure what's in the QAPP and SOPs are being performed. If these documents do not conform to regulation/guidance developed by EPA, determine why it's different and whether it will be acceptable to EPA when they perform an audit.

So… the tip is "Nip it in the Bud" this year. If there are data quality issues with some of your information, it's better to know about it before EPA attempts to use it in NAAQS decisions, and even if the data will not be used in a NAAQS decisions, getting our quality systems in conformance with our regulations and guidance will help in the defensibility of your data.

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The Office of Air Quality Planning and Standards is dedicated to developing a quality system to ensure that the Nation's ambient air data is of appropriate quality for informed decision making. We realize that it is only through the efforts of our EPA partners and the monitoring organizations that this data quality goal will be met. This newsletter is intended to provide up-to-date communications on changes or improvements to our quality system. Please pass a copy of this along to your peers and e–mail us with any issues you'd like discussed.

Mike Papp

Important People and Websites

Since 1998, the OAQPS QA Team has been working with the Office of Radiation and Indoor Air in Montgomery and Las Vegas and ORD in order to accomplish it's QA mission. The following personnel are listed by the major programs they implement. Since all are EPA employees, their e-mail address is: last name.first name@ epa.gov.

The **EPA Regions** are the primary contacts for the monitoring organizations and should always be informed of QA issues.

Program	Person		Affiliation
STN/IMPROVE Lab Performance Evaluations	Eric	Bozwell	ORIA- Montgomery
Tribal Air Monitoring	Emilio	Braganza	ORIA-LV
Statistics, DQOs, DQA, precision and bias	Rhonda	Thompson	OAQPS
Speciation Trends Network QA Lead	Dennis	Crumpler	OAQPS
OAQPS QA Manager	Joe	Elkins	OAQPS
Standard Reference Photometer Lead	Scott	Moore	ORD-APPCD
Speciation Trends Network/IMPROVE Field Audits	Jeff	Lantz	ORIA -LV
National Air Toxics Trend Sites QA Lead	Dennis	Mikel	OAQPS
Criteria Pollutant QA Lead	Mike	Papp	OAQPS
NPAP Lead	Mark	Shanis	OAQPS
PM2.5 and Pb PEP Lead	Dennis	Crumpler	OAQPS
STN/IMPROVE Lab PE/TSA/Special Studies	Jewell	Smiley	ORIA-Montgomery
STN/IMPROVE Lab PE/TSA/Special Studies	Steve	Taylor	ORIA-Montgomery

Websites

Website	URL	Description
EPA Quality Staff	EPA Quality System	Overall EPA QA policy and guidance
AMTIC	http://www.epa.gov/ttn/amtic/	Ambient air monitoring and QA
AMTIC QA Page	http://www.epa.gov/ttn/amtic/quality.html	Direct access to QA programs