

TNI Stationary Source Audit Sample (SSAS) Expert Committee Sept. 21, 2015 Teleconference Minutes

Attendance:

Tom Widera – Chair ERA (Provider)	Committee member	Present
Charles Simon – Vice Chair VOC Reporting, Inc. (Laboratory)	Committee member	Present
Mike Hayes Linde (Provider)	Committee member	Absent
Paul Meeter, Weston Solutions (Stationary Source Tester)	Committee member	Absent
Bob O’Brien Sigma-Aldrich (Provider)	Committee member	Absent
Michael Schapira Enthalpy (Laboratory)	Committee member	Present
Katie Strickland Element One, Inc. (Laboratory)	Committee member	Present
Ed MacKinnon – TRC Environmental Corp (Stationary Source Tester)	Committee member	Present
Danny Wong New Jersey DEP (State Government)	Committee member	Present
Andrew Chew EPA (Federal Government)	Committee member	Absent
Maria Friedman – Test America (Laboratory)	Associate member	Absent
Michael Klein New Jersey DEP (State Government)	Associate member	Present
Gregg O’Neal North Carolina DAQ (State Government)	Associate member	Present
Jim Serne TRC Environmental Corp (Stationary Source Tester)	Associate member	Absent
Stanley Tong EPA Region 9 (Federal Government)	Associate member	Absent
Nishant Bhatambrekar GE Power and Water (Stationary Source Tester)	Guest	Present
Tom Maza Michigan Dept of Environmental Quality (State Government)	Guest	Present
Lauren Smith (A2LA - Provider Accreditor)	(for Rob Knacke)	Present
Katie Shonk AQS	Guest	Absent

Call to Order

Tom Widera began discussions at approximately 1410 EDT. There was not a quorum present.

Review of minutes

Without a quorum, the minutes were briefly discussed, but voting would be handled by e-mail.

Charter Review

Edits have been added, but Tom Widera requested further input before submitting to the CSC and TNI. No input was provided, so he said he would get it submitted.

Method 8

Mike Schapira provided a summary of Method 8 investigation thus far.

On 9/3/15, I sent 19 e-mails to labs performing Method 8 for H₂SO₄. We have received 6 responses thus far, which covers less than half the samples. Copies of all responses have been sent to each subcommittee member. There were some comments of interest in the e-mail responses. One lab prepared the audit at higher concentrations to improve the color. One lab prepared them all at 1/10th volume for reduced disposal costs. Matrix comments - samples collected in IPA - Sigma has labs use DI water, ERA says to use 0.1N H₂SO₄. My lab noted (Enthalpy) that hydrogen peroxide comes with sulfate as a contaminant. Mike S. also asked about the need to provide concentrated audit samples that the labs would have to dilute to a liter, when uL of prepared sample is all that is needed for these analyses if by IC (as I write minutes - note that titrations do require more volume, though a liter is certainly overkill - Mike S.).

Katie asked about the Sigma audits - none of her's were on the list (or the big spreadsheet). Tom was not clear about why some were missing - perhaps something in William's original search parameter was off to cause their non-inclusion.

Tom commented on the sample matrix, since it had been questioned. They started providing Air PT samples in 2007. They got copies of methods and used their lab experience to adapt their liquid and soil procedures to air samples. They try to make challenging samples that test labs, but avoid 'dangerous goods' matrices that require special shipping (and their associated costs).

They can't really provide the audits in IPA - because then they would have to be full volume samples (which would again be a significant increase on the shipping costs). Diluting in DI (as Sigma has us do) may be easier. Certainly labs have clean water, and there is less cost in using that than the other diluent solutions. Charles suggested shipping the diluent with the audit samples, which Tom noted would drive up delivery costs. Charles disagreed based on the fact that many shippers now have a standardized price for several different box sizes (regardless of weight) - at least as long as non-hazardous (so water might work, but IPA would not - but labs have water and would not need it shipped). With respect to Mike S.'s question about why the audits are prepared so concentrated, the samples are far more stable at higher concentrations, so a Provider preparation will have a longer shelf life (a year, rather than perhaps 2 months), allowing them to be made less often and keep costs down. But in the end trying to matrix match is perhaps more important than originally realized. Mike S. also noted that matrix matching is always iffy due to the variation in samples as received (for example volumes ranging from 30 mL to a full liter). Michael Klein noted there had been a

typo in the original method - should be 250 mL for the H₂SO₄ fraction and 1000 mL for the SO₂, but it had been reversed in the original write-up. Mike noted that the field personnel are supposed to be diluting to a specific volume that makes the rest of the calculations work properly. If they are not they have to correct calculations later. Tom's other concern is if they change the directions to say dilute to volume in IPA is that going to impact the laboratory? Katie noted that they do the sample as directed and then do a 2-fold dilution in IPA before analysis.

Tom also noted that he has been compiling the lab responses that have been forwarded to him as a subcommittee member, but that he does not yet have enough points to draw any conclusions. Mike S. also noted it was almost 3 weeks since the initial e-mails sent, and then a reminder e-mail will be sent to try and elicit more responses. Charles also commented on the statistical approaches that would be taken with the results once we had more, and the assorted variables that we know of to investigate.

Method 25 Audit Sample Discussion

Tom did not have much to add to prior Method 25 discussions as those he answers to have not had time to respond to inquiries on the topic and noted that Charles may indeed be asked to investigate with vendors and other based on his earlier offers.

Mercury on Filter

Tom Widera spent time on the data from William Daystrom and sent everyone data breakdowns in three concentration ranges. Data were weighted and single points were removed. Grand mean was 98.6% and standard deviation was 9.3%. Two Standard deviations gives +/-20%, three standard deviations gives +/-25%. So the concentration range currently being used seems to work well and is accurate. This means he can provide it to Ray Merrill and Candace Sorrell and request that mercury on filters get added back to the list. Again, he asks for any additional input, especially from real statisticians. Charles suggested the numbers looked good as is and OAQPS should be contacted and asked for it to be added as is. No one else had actual comments to interject.

Tom Maza asked how the mercury on filter samples would be used - separately or with the other compounds (metals). Tom Widera replied that mercury would be handled separately due to instability if the mercury is pre-spiked, and noted that RTC and ERA do handle it the same way.

Adjournment

Tom Widera made a motion that we adjourn the meeting. The motion was seconded by Mike S. All agreed. Tom will let us know by e-mail about the next meeting date. The meeting was adjourned at approximately 1450 hours EDT.