TNI Stationary Source Audit Sample (SSAS) Expert Committee Jan. 11, 2016 Teleconference Minutes

Attendance:

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

Call to Order

Tom Widera began discussions at approximately 1406 EDT. There was no quorum present.

Review of minutes

While no quorum was reached, the minutes for the 12/14/15 meeting were briefly discussed, so voting would take place by e-mail. Approval voting of the 9/21 and 11/16 meeting minutes would likewise take place by e-mail. Reminder that consensus standards expects timely posting of meeting minutes upon approval.

Membership Update

Changes in committee membership status: Michael Klein and Gregg O'Neal have been voted back in to serve as Committee voting members. Mike Schapira stays on as associate member and continues on for M8 sub-committee. If other laboratory representatives are interested in serving on the Committee, Tom is interested in hearing from them. There are 2 vacancies available for lab representatives as Mike Schapira serves in his associate role. Tom is awaiting Maria Friedman's response after e-mailing her to find out if she'd be interested.

There were eight yes votes for Charles Simon to continue as Vice Chair. Chair and Program Administrator positions are available. Motions to nominate and second were made for Tom to stay on as Committee Chair. E-mail voting on the motion will follow.

Old Business Tidy Up

Tom called for a Committee vote to approve Charles Simons' M25 as written. Tom asked Committee members to e-mail their votes to him so he can tally them. Heads-up for TNI Winter Meeting Tulsa Jan. 24-28. SSAS Committee is on the agenda, but there would be no meeting or conference call there. Also, a heads-up for Stationary Source Conference at Point Clear, Alabama for March 20-26.

Re: M8, Mike Schapira asked if there had been enough time for labs to get back to the Committee on this subject. Tom asked Committee whether to send labs another reminder or go forth with data that we have. Tom would check in with Clayton Johnson at Maxxam on this subject.

Method 25 Audit Sample Update (led by Stanley T.)

Stanley reported out on his follow-up with EPA OAQPS on whether they have gotten the M25 write-up and where it might stand in priority. OAQPS has received it but there are other competing priorities right now, namely, M18 and M23. TMs take several years to revise, including technical matters and getting public comment, possibly not reach into M25Z within the next couple of years. Discussions centered on concerns over technical changes in M25Z such as the change in desorption temperature. M25 specified heating the trap to 200 degrees C. OAQPS believes that changing the method to 250 deg C would redefine VOC. While M25Z would be easier to use, but it would not be the same as M25 anymore. As to what can be done to move TM25Z up in priority, it was up to OAQPS management (up the chain from Stef Johnson). One suggestion was to not address the temperature aspect. As Charles pointed out practices to clean equipment well, such as glassware and regulators, this could set up as a best practices for best results document, similarly done for M23. Following this pattern could be a shortcut to put out there. Also, there are questions as to whether M25Z would be a drop-in replacement to M25 or an alternative to it. They entail different issues. In one case, if M25Z would be drop-in replacement for M25, it would not be immediately clear to a person reading a report to determine if M25Z was used or the older M25. Also, if results differed, questions would arise as to whether they would be attributed to artifacts or a better method. If M25Z gets a different number, would the state [with delegated authorities?] allow the use of the alternative. There was an expectation that these issues should be reviewed or resolved at some point later. If OAQPS is open to best practices document, then perhaps if Charles could have put something together already, and have SSAS take the first cut, then have OAQPS to review. As to technical changes on temperature or a drop-in replacement, Stanley said he was convinced by Gregg and Michael that it would not be problematic at the

higher temp, and if that could affect destruction efficiency results, it could turn out to be a wash. Stanley raised the question of what temperature Charles' studies had run at, and would that change acceptance criteria. Gregg wanted to know why 200 deg C was the cut point. It could have been way back when Gary McAlister looked into it. If it should have been desorbed at 200 deg as an important break point, then it is important to know why, such as having to do with the definition of VOCs. Whether there could be possible polymerization at higher temperatures, but there could be no difference. With audit samples, they are cleaner with known organics so that would not be a big deal. Tom pointed out that however, if it could change the reproducibility of method when changing the method condition, then it would be an issue. This is because changing reproducibility of the method affects the standard deviation that Charles had calculated and could have an effect on the limits that SSAS would be proposing for the method. There was a suggestion to get clarification from Charles and Wayne, and if there had been any difference in how the two labs collected and analyzed the samples.

Stanley said he would talk to OAQPS about how 200 deg C was chosen originally and get best practices document feedback from them. Tom said he would send e-mail to Charles asking if sent pilot study data over or kept at SSAS, and anything about temperature differences that he knows.

Discussion on Lowering Concentration Ranges

Tom reiterated that this topic was a desired milestone into investigating the SSAS Concentrations table. With many audits requested at low end, we should start moving forward. Tom checked in with the finance staff at ERA to see if he can send out samples to get a pilot study started, and was waiting to hear back. Tom was also waiting to hear back from Bob O'Brien if Sigma would provide them too. While they would carry concentration ranges that might not get sold easily, if it is a high priority to go forward, and if SSAS wants to do it, then Tom would get the information out and get it started at ERA. Tom asked Committee for ideas to start across the board or certain concentrations for the methods which had been frequently asked at lower ends. Examples included hydrogen halide, HCl, and metals in impinger solutions. While almost exclusively at the lower end, and while not for ERA to do everything, Tom suggested to start with these two, and possibly expand as time progresses. TM 29, 26, 26A. Question on whether to have TM13A and B to piggy back, it is probable. M13 is fluoride, but not much requests. They have been heavily toward M26 and M26A halide. Tom suggested to not start with M8 since SSAS is still looking into it. Stanley said William Daystrom sent listing of custom audit samples ordered (last year?). Stanley estimated about one M12, about 15 M13B, 8-10 M26A, more than 100 M29 of different metals. Not sure if individual metals, but mostly silver, zinc, and nickel. Also, there were about 3-4 M6 and 3 M8. As to custom samples outside of approved range, ERA had not taken custom order beyond those ranges. Anything outside range could not be evaluated. While there are no other statistics, over 50% ordered were for M26 and M29 audits, on the lower 25% range.

Comment was made on whether M13B was in the same matrix as M26 audits. Range and analytical procedures were significantly different. Katie stated that she tallied for her lab, at M26 vs. M13B, over 228 M26 hydrogen halide but only about 50 for M13B hydrogen fluoride. She suggested to start with 2 audits with halides and metals, and for metals impingers to start, and later with filters if successful. This way, data could be collected in a short amount of time.

Continuing last month's discussion on how low to go, the Committee needed an initial plan on proper lower ranges, and thoughts on the manufacture of few batches to sequentially go down. Tom asked for suggestions on the right process to get to a low range. Gregg suggested to talk to labs, and find out where they typically see hits and the range they are measuring. Where sample concentrations are reasonably spaced in that lower range, they could make a sample and prep an aliquot. Tom pointed out that however, there would be problems introduced when re-prepping and having the lab perform multiple dilutions. He advised against a lab sampling multiple times. While it is not a tremendous burden to produce a batch, it is advisable to use the same batch, not multiple dilutions. This would avoid adding uncertainty to multiple

batches. Finally, a label should identify field dilutions with the pilot study, so as to not confuse with what the audit sample lab would receive. Tom suggested to work on reporting logistics in light of this.

As to reaching appropriate diluted levels, a lab could calibrate for 1 microgram per mL, which means dropping audit concentration from 5 to 1, which is still within calibration range. Accuracy should be close. Tom mentioned that Charles threw out 2 times, 10 times, 4-5 times dropping from the sample range. Options included observed values in the field by the tester and what permit limits had. Most information would come from field samples that labs see. Low end above non-detect for 26A would be expected. Katie stated that their low standard is 0.1 ppm for reporting limit. Gregg commented that was above detection limit. Michael Klein commented for 10 times detection limit for metals. It was important to note that detection limits do not provide practical data. Mike Schapira said labs' detection limits are 10th of low standard because they cannot rerun minimum detection limit studies to get exact value, so curve range was used, and to check low standard and get tenth of it. Below that would be unrealistic. 0.1 is minimum detection limit, from 5 in low end to 1 (per M26), down to his limit. Katie has a tenth of that. Minimum detection limit is 0.012, while high standard is 10. Mike Schapira has 30 as high standard.

In majority of labs using low standard, if target is 0.1, and low standard is 1, then they would have to alter the method. Tom said he would get in touch with labs and to get calibration ranges for these two methods, and find consistencies to use as a starting point. Subcommittee showed ranges of data points that were below acceptance range, and were cut off because data turned sour. Labs could expect to receive information that a sample would measure below its typical sample range. Katie suggested making a check box available to allow a lab to indicate whether a sample result would fall outside its calibration range for that lab. Finally, Tom thought helpful information could come out of finding common ground where the lower range of the calibration falls for the labs. Tom said this topic would pick up again for February call and get the ball rolling.

Adjournment

Tom would send out meeting minutes for approval voting. The meeting was adjourned at approximately 1509 hours EDT.