TNI Stationary Source Audit Sample (SSAS) Expert Committee Teleconference on March 16, 2015 - 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	Present
Michael Klein New Jersey DEP (State Government)	Committee member	Present
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
Michael Schapira Enthalpy (Laboratory)	Committee member	Present
Jim Serne TRC Environmental Corp (Stationary Source Tester)	Committee member	Absent
Katie Strickland Element One, Inc. (Laboratory)	Committee member	Present
Stanley Tong EPA Region 9 (Federal Government)	Committee member	Absent
Maria Friedman – Test America (Laboratory)	Associate Member	Absent
Andrew Chew EPA Region 9 (Federal Government)	Guest	Present
Ron Mitchum – DAT Labs (Laboratory)	Guest	Present
Wayne Stollings – Triangle Environmental Services	Guest	Present
Ed MacKinnon – TRC Environmental Corp (Tester)	Guest	Present
Bill Hirt – ANAB-ACLASS (accreditor)	Guest	Present
Roy Owens – Owens Corning	Guest	Present

Tom Widera called this meeting to order at 14:07 HRS ET. There was a quorum present.

Due to logistics issues, the meeting from 2/5/15 at TNI was not recorded, therefore, there were no minutes to review.

Elections for Chair and Vice-Chair of the SSAS expert committee are required annually.

For Chair, Mike Hayes nominated Tom Widera and this was seconded by Charles Simon. The nomination was approved by the membership. Tom will continue as committee chair.

For Vice-Chair, Tom nominated Charles Simon and this was seconded by Paul Meeter. The nomination was approved by the membership. Charles will continue as vice-chair

Michael Klein indicated that he has not received any information regarding his replacement. The application process will be reviewed with TNI to ensure that any potential new members will get their application information.

Stan Tong sent an email indicating that there was language omitted from V1M1, section 11.2.1I in the latest revision. Maria indicated that since this was just a clerical error, no TIA would be required and that William can just add this information to the current revision.

Mike Schapira provided an update to the Method 8 issues that his sub-committee is investigating. Method 8 is currently experiencing a 20-25% failure rate. It is suspected that some alternate methods may be being used. The failure rate is much higher than expected and higher than other audit samples. A form has been generated to email to labs that have participated in Method 8 SSAS audits. Mike is waiting on information from William for labs who have received Method 8 audit samples. Once this information is received, the letter will be sent to the labs. The sub-committee will then compile the data, which will include pass/fail rates and method of testing.

Tom added that he will reach out to ERA customers who participate in the sulfuric acid mist PT samples for ERA's Air PT program to gather additional information to provide to the sub-committee.

Ron Mitchum provided some feedback regarding his experience with M8 audit samples. Ron indicated that some of the issues may be due to analysis using barium-thorium titration at the lower concentrations. Improper blank subtraction could be a cause of error on the low end. Ron also feels that some issues could be due to the mechanics of the titration and procedural issues. He indicated that you cannot take the blank subtraction lightly. As for IC, you should get good values unless the column has been compromised or there are interferences in the sample. Ron says they have failed some M8 samples but have always found the reasons why.

Paul asked Ron if temperature affects titration results. Ron indicated that in reality no, but with small windows of acceptance in the test, then temperature can affect the test. For the Barium-Thorium titration, the biggest affect is to perform the test in the proper lighting. Sunlight works the best. Fluorescent lighting affects the visual for the color change.

Ron indicated that for IC, interferences in the sample that will cause resolution problems are an issue. Tom indicated that both ERA and Sigma manufacture the Method 8 sample using sulfuric acid and there are no interferences in the sample. Both providers verify their samples using IC and do not have issues with the testing. Tom indicated that in his experience with IC, problems are due to dirty columns and a rise in back pressure causing tailing peaks.

Ron added that there are a number of ways to run sulfate and there is a worry whether the auto analyzers available for sulfate can properly run the M8 audit sample.

Mike S. mentioned that part of what we are looking into is method bias and if the issues are on the low end of the concentration range. There are lots of requests for lower and lower concentrations and we can't just expand the range and keep the same limits.

Tom asked Katie, as a lab, for her feedback on this issue. Katie indicated that with the lower levels, the end point change is hard to see. She also indicated that the front end samples are in IPA but that the audit samples are not. This is causing a difference in the color change noticed between the field samples and the audit samples. She agrees with Ron about the blank subtraction issues. Her lab is not seeing issues on the IC.

So the plan going forward is to get the participant information from William. Once this information is received, the email to labs will be finalized and sent to the committee to proof. The spreadsheet for information will then be sent to the labs. Once information is received then we can continue discussion based on the results.

Charles updated the committee on gaseous audit samples. There was an original mandate to have those samples that exist as gases at ambient temperature also have audit samples provided in the gaseous format. There are only a few that fit that description. Initially the audit program went forward without them because they were difficult to do and we needed to get the program started with what we had. The providers are not set up to manufacture these types of samples.

The discussion continued to determine how we can allow a third party vendor produce the samples using their current certification and not need further certification for the audit program. How can we allow the providers to become a warehouse for the samples and work the back end, tracking and processing the data for the testing?

CEMS methods do not require audit samples because they have bias gases. If gas suppliers can provide these samples for CEMS why can't they provide audit samples as well and why can't the providers just administer the data end?

Initially, we started with Method 25 gas samples because it has the biggest need and we have history. A pilot study was done. These samples also fit the EPA criteria as they are gaseous at room temperature and they do not have technical problems.

Tom indicated that ERA does have the capability to run the samples as ERA provides PT samples for TO-14 and TO-15 currently, but that we have to test the samples in house that we receive from our supplier.

Charles indicated that it would not be costly to setup for testing for M25. It should not cost more than about $30K to setup. He asked if this was a reasonable cost for ERA to incur. Tom responded that ERA does have the capability to test but that the original research to provide M25 samples was abandoned because of the perceived accreditation of our supplier and that there was not a second accredited provider. The current question is how we can do this without having complete control of the process.

Charles asked the question, if the capability is there what are the show stoppers?

Michael Klein indicated that it needs two providers.

Charles added, let's assume that Sigma will follow if ERA gets into this. What is the most difficult part of going forward?

Tom said it would be making sure it is acceptable to our accrediting body. One of the biggest hoops to jump though is process control. We would need to audit our supplier.

Charles added that the third party can write their own SOPs, we could formalize, and then go spend a half day to audit the third party. We could then determine how often to re-audit. From Tom, the audit process would take more than half a day, but can be done. Accrediting a third party could be cost prohibitive.

Tom asked Bill Hirt from Aclass for his opinion, from an accrediting body viewpoint, about letting gas suppliers provide these samples without the need for verification from the providers. Currently in the PT program, the providers must analyze the samples from an outside supplier in our laboratory prior to releasing for the PT studies. Bill indicated that it sounds plausible to do providing we have two suppliers available, the suppliers have appropriate SOPs, and they can verify the samples. Nothing can be guaranteed until testing has been done and accepted by an accrediting body. Bill indicated that the third party would not need to be accredited. They would just need to prove 17025 compliance for their records and practices.

Charles added that we could then have 6 months of no fault implementation and then do an evaluation. There will be some unforeseen issues, but we could evaluate them as they appear.

Charles said that if there was buy-in from both accrediting bodies and the two providers, he could provide us with some quotes for samples.

Tom will look into ERA capability, since it has been a few years since ERA has investigated this. Charles will provide Tom with ranges, species, and pressures. It was then determined that this information is already listed in the SSAS tables.

Paul brought up that Charles had developed a M25Z a while back. He inquired where are we with that? Charles indicated that it needs to be revisited by the committee through the leadership of OAQPS. Paul asked if the audit samples would contain tracer gases.

Charles indicated that the samples would contain 100-1000 ppm of methane as a tracer gas and 2-8% carbon dioxide as an interferent. The quantitative gases would be ethane, MEK, and propane at a minimum of 50 ppm each with initial acceptance limits of 35%, to be refined as test results come in.

Tom will try to setup a conference call with the 4 bodies to see if we can come to an agreement on how to administer these samples. Charles and Wayne would be willing to do some analysis before presenting these samples to EPA.

Tom motioned to convene the meeting. This was seconded by Paul and approved by the committee. The meeting was convened at 15:20 HRS ET.