

**TNI Chemistry FoPT Subcommittee  
Meeting Summary  
July 1, 2014**

1. Roll call and Meeting Minutes:

Chair Carl Kircher called the meeting of the Chemistry FoPT Subcommittee to order on July 1, 2014 at 12:07 ET. Attendance is recorded in Attachment A. There were 8 members on the call.

2. Process for Evaluating SCM Data for Limit Updates

The existing process is to approve study mean and coefficients of c and d which are linear regression coefficients of the standard deviation relative to the study mean. In addition, some of the trace metals like Arsenic and Lead could actually meet the SOP criteria to improve the limits beyond the study mean to something based on the made to assigned value like the DW and NPW FoPTs where abcd coefficients can be posted based on the linear regressions of mean verses assigned values or standard deviations verses assigned value.

Carl asked if the subcommittee would like to use only study mean and cd coefficients? Would the committee like to upgrade them if that is appropriate to assigned value and abcd coefficients? Carl reissued all PDF reports to include study mean and cd coefficients.

Jeff suggested continuing on with the study mean and cd coefficients until a time when the subcommittee has a matrix definition and all PT Providers use it.

Dan commented that for the matrix NY used, the abcd coefficient analysis done recently with some elements seems to work fine, but recognizing Jeff's comments and the history, he feels Jeff's suggestion is a good one and would support it.

Stephen suggested starting the "National Dirt Bank" to build consistency between PT Providers. This would give one matrix. Logistics would obviously have to be worked out. This was suggested half jokingly, but it would be one way to address the issues being discussed. Andy can't see something like this working.

Andy asked if it is possible to say that materials that are spiked onto a solid matrix that does not contain any natural amounts of the material use assigned value and abcd coefficients and for material where there is a native amount of the material in the matrix, study mean and cd coefficients would be used. Jeff disagreed with this. There is no data to support this and it would be irrelevant to things like BNA. Volatile organics are not an issue.

The matrix is actually somewhat defined in the Standard (6.2.2 – Volume 3). Stephen noted that they prefer to use a matrix that has more sand. The PT Providers do determine the background values of analytes in the matrices they use.

Carl asked again if the group was ready to make a decision on future process. Jeff and Joe still feel only study mean and cd coefficient should be considered. Volatiles don't need to be redone, but the metals already reviewed need to be reassessed.

Carl polled the subcommittee to ask if the committee would like to move forward using only the study mean and cd coefficient. Assigned value and abcd coefficients will not be considered moving forward in the evaluations for the SCM FoPT table update.

Joe M. – Yes

Jeff – Yes

Stephen – Yes

Dan – Yes

Stacey – Yes

Joe P. – Yes

Andy - Yes

There is unanimous support to move forward using study mean and cd coefficients.

### 3. SCM Analyte Considerations

Carl asked the committee to pull up the files he sent by email 1½ weeks ago with the additional study mean and cd coefficient data.

#### Arsenic – Re-Evaluation

From 5-6 Meeting:

*The study concentration was 52 – 319 mg/Kg. There is lots of data for this analyte and the regression equation is based on the assigned value rather than the study mean that is on the current table. It did pass the SOP criteria. The PDF is dated 4-30-14. Andy asked if the limits are being tightened. Dan commented that around 170 mg/Kg the new limits would be a little tighter using the new regression equations. Carl's calculations show that it is slightly tighter at the upper 2/3 of the concentration range, but it is statistically insignificant.*

Re-Evaluation:

It did meet fixed limit criteria at 27.9%. It does look like a fixed limit is possible based on the graphs. A study mean +/- 30% would be possible.

A quick look to see if fixed limit criteria is reasonable: You can take 5% of the low concentration of the study mean and if this number is greater than the d coefficient it would be reasonable to consider a fixed limit. In this case this would be less than 2 which is much less than the d coefficient.

Andy's limits are +/- 30% in his lab.

A motion was made by Jeff to leave a concentration limit of 40-400 mg/Kg for Arsenic on the SCM FoPT accreditation table using a fixed limit of mean +/- 30% based on the data presented in the PDF dated 6-18-14. The motion was seconded by Andy and the motion passed unanimously.

#### Cadmium – Re-Evaluation

From 6/3/14 Meeting:

*The study concentration was 44-294 mg/Kg. SOP criteria was passed and it passed criteria for fixed limits at 23.4%. The PDF is dated 4-30-14. The current concentration range is 40 – 400 mg/Kg. Carl does not recommend using fixed limits. Andy commented good laboratory performance on this analyte too.*

Re-Evaluation:

The new PDF is dated 6/18/14. This analyte may be more difficult to recommend as a fixed limit when the graph is examined.

It passes the quick check criteria mentioned above. Andy commented that his lab runs this at +/- 30%. Stacey's lab is 71-121%.

Jeff commented on the last page of the PDF and looked at the first study and it showed 68-132%. The rest are tighter.

The subcommittee reviewed impact on TCLP. Andy wanted to be sure the concentration limits being used are relevant. Most of the concentration limits originally came from EPA.

Andy has a reporting limit for Cadmium of 1 mg/Kg.

A motion was made by Dan to leave a concentration limit of 40-400 mg/Kg for Cadmium on the SCM FoPT accreditation table using a fixed limit of study mean +/- 25% based on the data presented in the PDF dated 6-18-14. The motion was seconded by Jeff.

Discussion:

Andy would prefer to see +/- 30%. Carl noted that LCS is typically 80-120% and the MS/MSD is 75-125% in the methods.

Vote: 7 – For 1 – Against (Andy) 0 – Abstain. The motion passed.

Jeff asked if the metals could be grouped as on the periodic table to speed up the review process and allow for a more thorough review.

#### 4. Action Items

See action item table in attachments.

5. New Business

- None.

6. Next Meeting

The next meeting of the Chemistry FoPT Subcommittee has been scheduled for July 15, 2014.

Action Items are included in Attachment B and Attachment C includes a listing of reminders.

The call was ended at 1:12 pm EST. Motion – Joe P. Second - Andy Unanimously approved.

## Attachment A

### Participants TNI Chemistry FoPT Subcommittee

<b>Members</b>	<b>Affiliation</b>	<b>Contact Information</b>
Carl Kircher, Chair <b>Present</b>	Florida DOH	<a href="mailto:carl_kircher@doh.state.fl.us">carl_kircher@doh.state.fl.us</a>
Joe Morotti <b>Present</b>	Sigma-Aldrich RTC	Joe.morotti@sial.com
Melanie Ollila <b>Absent</b>	Pace Analytical Services, Inc.	MOllila@pacelabs.com
Jeff Lowry <b>Present</b>	Phenova	JeffL@phenova.com
Stephen Arpie <b>Present</b>	Absolute Standards, Inc.	<a href="mailto:stephenarpie@mac.com">stephenarpie@mac.com</a>
Dan Dickinson <b>Present</b>	New York, DOH	<a href="mailto:dmd15@health.state.ny.us">dmd15@health.state.ny.us</a>
Stacey Fry <b>Present</b>	E.S. BABCOCK & Sons, Inc.	<a href="mailto:sfry@babcocklabs.com">sfry@babcocklabs.com</a>
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Dr. Andy Valkenburg <b>Present</b>	Energy Laboratories, Inc.	<a href="mailto:avalkenburg@energylab.com">avalkenburg@energylab.com</a> 406-869-6254
Ilona Taunton, Program Administrator <b>Present</b>	TNI	<a href="mailto:Ilona.taunton@nelac-institute.org">Ilona.taunton@nelac-institute.org</a> 828-712-9242

**Attachment B**

**Action Items – Chemistry FoPT Subcommittee**

	<b>Action Item</b>	<b>Who</b>	<b>Expected Completion</b>	<b>Actual Completion</b>
102	Data work-up when it comes in for analyte additions.	Carl	tbd	In Progress
111	Receive info on Class 1 Ozone Exemption from Joe M. and forward to Michella.	Carl	6/16/14	
112	Send copies of plots with cd coefficients.	Carl	6/30/14	Complete

**Attachment C**

**Backburner / Reminders – Chemistry FoPT Subcommittee**

	<b>Item</b>	<b>Meeting Reference</b>	<b>Comments</b>
4	Consider nomenclature differences between the analyte codes and the FoPT tables.	2-23-10	
10			