

**TNI Chemistry FoPT Subcommittee  
Meeting Summary  
March 23, 2010**

1. Roll call and Meeting Minutes:

Co-Chair Carl Kircher called the Chemistry FoPT Subcommittee to order on March 23, 2010, at 12:12pm EST. Attendance is recorded in Attachment A. There were 6 members present on the call today. Lance Boynton also joined the call.

The minutes from the March 16, 2009 meeting were reviewed. Stephen made a motion to approve the minutes and Jim seconded this motion. The motion was unanimously approved. The minutes will be forwarded to the TNI webmaster for posting.

Jeff will be providing some additional information for the March 9<sup>th</sup> minutes.

2. FoPT Table Updates

Carl reported to the Subcommittee that the PT Board has approved the DW FoPT Table that was submitted. This Table is now before the NELAP Board for approval.

Carl also reported to the Subcommittee that the NPW FoPT Table has been submitted to the PT Board. However, the PT Board did not have time during the March 18 teleconference to take up this particular agenda item.

3. SOP #4-001 – Revision 3: Calculation of Acceptance Limits for Chemical, Radiochemical, and Microbiological Components of Proficiency Tests

Stephen Arpie discussed the e-mail he submitted today (Attachment B.) He did not submit an alternate procedure for setting acceptance limits but reviewed the current SOP concerning the use of segmented acceptance limits. His question was "how do we move from A to B" (section numbers in Section 3.0 of our SOP). Section A of the SOP is for removing obvious outliers. Section B refers to setting  $a=1$  and  $b=0$  and Participant Mean (PM) is used to set acceptance limits (versus AV (Assigned Value)).

The subcommittee went through the concerns expressed in the e-mail. Carl and Jeff were able to share the original thoughts that were incorporated into the SOP.

Lance shared the following thoughts:

- He reviewed the graphs submitted for the soil samples. Since the true gravimetric values were not present, the percent recovery could not be determined. It was difficult to verify the graphs validity. Jeff said he will provide the gravimetric values in any future updates, but that he could not re-do what had already been done.
- Carl raised an issue involving multi-level pass ranges. He commented that labs reporting values close to the inflection point could be treated unfairly. Lance commented that this practice has been performed by the EPA for unregulated volatiles in drinking water for over 20 years. If this was truly a concern for the committee, then why did they agree to recently pass the Drinking Water FoPT tables that allowed for this condition?

There were no conclusions reached through the discussion. Carl asked that Stephen consider today's discussion and provide any alternative recommendations to the limits and concentration ranges that have thus far been approved by the subcommittee for the SCW FoPT table. He asked that he support the recommendations in writing. Carl asked that this be sent to the entire subcommittee so that they have adequate time to review the information prior to the next conference call.

### 3. SCW FoPT Table

The subcommittee began looking at additional experimental analytes, but Stephen asked to be given more time to review the analytes before he could vote.

### 4. New Items

- None.

### 5. Action Items

- Action items were reviewed. Any changes were made directly to the table.

### 6. Next Meeting

The next meeting of the Chemistry FoPT Subcommittee will be March 30, 2010, at 12PM EST.

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

The meeting ended at 1:35 pm EST. (Motion – Stacie, Second- Jim. Unanimously approved.)

**Attachment A**

**Participants  
TNI  
Chemistry FoPT Subcommittee**

<b>Members</b>	<b>Affiliation</b>	<b>Contact Information</b>
Carl Kircher, Co-Chair <b>Present</b>	Florida DOH	904-791-1574 <a href="mailto:carl_kircher@doh.state.fl.us">carl_kircher@doh.state.fl.us</a>
Brian Boling, Co-Chair <b>Absent</b>	Oregon DEQ	<a href="mailto:Boling.Brian@deq.state.or.us">Boling.Brian@deq.state.or.us</a>
Amy Doupe <b>Absent</b>	Lancaster Laboratories, Inc.	717-656-2300 x1812 <a href="mailto:aldoupe@lancasterlabs.com">aldoupe@lancasterlabs.com</a>
Jeff Lowry <b>Present</b>	ERA	303-431-8454 <a href="mailto:jlowry@eraqc.com">jlowry@eraqc.com</a>
Chuck Wibby <b>Absent</b>	Wibby Environmental	303-940 -0033 <a href="mailto:cwibby@wibby.com">cwibby@wibby.com</a>
Eric Smith <b>Absent</b>	TestAmerica	615-726-0177 x1238 <a href="mailto:eric.smith@testamericainc.com">eric.smith@testamericainc.com</a>
Dan Tholen <b>Absent</b>	A2LA	231-929-1721 <a href="mailto:Tholen.dan@gmail.com">Tholen.dan@gmail.com</a>
Stephen Arpie <b>Present</b>	Absolute Standards, Inc.	203-281-2917 <a href="mailto:stephenarpie@mac.com">stephenarpie@mac.com</a>
Dan Dickinson <b>Present</b>	New York, DOH	518-485-5570 <a href="mailto:dmd15@health.state.ny.us">dmd15@health.state.ny.us</a>
Stacey Fry <b>Present</b>	E.S. BABCOCK & Sons, Inc.	951-653-3351 x238 <a href="mailto:sfry@babcocklabs.com">sfry@babcocklabs.com</a>
Jim <b>Present</b>		860-947-2121 <a href="mailto:mousejr@nu.com">mousejr@nu.com</a>
Ilona Taunton, Program Administrator <b>Present</b>	TNI	828-712-9242 <a href="mailto:tauntoni@msn.com">tauntoni@msn.com</a>

## Attachment B

FOPT Subcommittee Members:

My task was to derive some modifications to the SOP that would make our procedure compatible with Annex B. of ISO 17043. As we all agree, ISO 17043 lists Assigned Values (AV) as the choice with the least uncertainty and Participant Means (PM) with the greatest uncertainty. My concern over the past two phone meetings mirrors the relevant sections of ISO 17043 of which the PT Providers are accredited.

After careful review, the PT Subcommittee's procedure: SOP 4-0021-R3, has most of what is needed to handle the technical aspects of creating acceptance criteria for the Soil PT's but its application needs to be re-focused. It is important to note that in Section 3.0 (pg. 6) states "If higher-order regressions, segmented regressions, or other models are used, then acceptance criteria based on correlation coefficients and statistical outlier removals based on standard errors of the estimate may not be applicable". Thus, we need to apply the use of segmented evaluations to accomplish the use of Assigned Values. In the simplest form, fixed limits with one range can be used, but fixed limits with 2 or more ranges is likely given the convergence, divergence and large formulation ranges. See Section A. on page 6.

Further, this approach requires that the tables supplied must have 2 additional fields of data present: the Assigned Value, and the Percent Recovery of AV a.k.a MR. These are two meteorological absolutes that need to show in tabular form and graphically plotted for direct comparison to our existing charts as in section A. This will produce a proficiency evaluation scheme that is transparent and reflect a direct evaluation of the laboratories. In the interest of quickly moving the experimental FoPT's to the Accreditation table, no changes to soils that already have an Assigned Value (AV) and a, b, c, d, cofactors is asked. It is recommended that the committee focus on the segmented procedure in section A for the soil analytes that are producing a Participant Mean (PM) with c, d cofactors from Section B.

The existing footnotes on the FoPT's concerning lower and upper acceptance limits will apply as necessary. (for example 4 - lower acceptance must be  $>10\%AV$ ).

In practice, the SOP Section A requires:

1. The PDF's will show two additional columns of data: Assigned Value (AV) and resulting Percent Recovery AV for each line item of the table.
2. A graphical representation of Percent Recovery to (AV) Y-Axis vs. Assigned Value X-Axis.
3. From the graph, visually inspect for logical segmentation and break into fixed limit ranges.
4. Calculate the Percent Recovery AV for the widest part of that segment. This will equal the fixed value. This can be visually determined.
5. Repeat process for each segment.
6. Add additional columns to the FOPT tables. AV, Fixed Limits Low Segment 1, Fixed Limits High Segment 1, and soon on as needed for segmentation.
7. The PT provider is to use their AV and the FOPT fixed limit(s) for evaluation.

Keep in mind, that it has already been established the  $N>20$  followed by Robust outlier removal conflicts with PM with C, D cofactor evaluations. It is not recommended that we create more evaluations that will have the same problem.

I trust that Tuesday's call will be highly debated. In the end, transparency, fairness and meteorological should win out.

Stephen

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Absolute Standards, Inc.  
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## Attachment C

### Action Items – Chemistry FoPT Subcommittee

	<b>Action Item</b>	<b>Who</b>	<b>Expected Completion</b>	<b>Actual Completion</b>
13.	Prepare letter to ABs to find out their needs on analytes that may be under consideration for deletion. <i>(3/24/09 – It was determined that these tables are used by more than just ABs. This needs to be reconsidered.)</i>	TBD	TBD	
22.	Prepare for upcoming meetings by reviewing evaluation files that Jeff will send every 2 weeks.	All	Ongoing	
46	Re-evaluate experimental volatile halocarbons for fixed limits when the rest of the volatile halocarbons are evaluated for an NPW table update.	All	On-going	
54	Forward Final cover letter and NPW FoPT Table to PT Board for approval.	Carl	3/16/10	Complete
55	Forward current copy of the limit SOP to subcommittee members.	Ilona Eric	3/17/10	Complete
56	Propose alternative procedure for determining limits and looking at uncertainty. Send out to subcommittee before next meeting.	Stephen	3/21/10	Complete
57	Review March 9 <sup>th</sup> minutes and provide additional information requested in red.	Jeff All	3/30/10	
58	Review limits and concentrations for experimental analytes that have been updated by the subcommittee on the SCW FoPT table. Provide any recommended changes. Support reasons for the changes in writing to the subcommittee.	Stephen	3/26/10	

**Attachment D**

**Backburner / Reminders – Chemistry FoPT Subcommittee**

	<b>Item</b>	<b>Meeting Reference</b>	<b>Comments</b>
1	Review summary data to see if it supports a change in the acceptance criteria for DW analytes (For example, VOA, 30% instead of 20%). If data is supportive, Jeff Lowry will approach ELAB.	10-30-08	<p>3/10/09 - Jeff has approached ELAB. They would be happy to put it in a work group – and pass it along with a letter to EPA. We need to provide them with the data.</p> <p>2/23/10: Jeff will forward the VOA data. Jeff noted that the data supports the tighter limits. He will provide the information to ELAB and they will decide whether to approach EPA.</p>
3	Consider changing the lower limit for Vanadium on WP to 50 ug/L.	6-30-09	
4	Consider nomenclature differences between the analyte codes and the FoPT tables.	2-23-10	
5			