

**TNI Chemistry FoPT Subcommittee  
Meeting Summary  
January 19, 2010**

1. Roll call and Meeting Minutes:

Co-Chair Carl Kircher called the Chemistry FoPT Subcommittee to order on January 19, 2010, at 12:07pm EST. Attendance is recorded in Attachment A.

The minutes from the January 12<sup>th</sup> meeting were reviewed for approval. Steve motioned to accept the minutes and Eric seconded the motion. The motion was unanimously approved and these minutes will be posted to the TNI website.

There were 9 people on call today. Some have to leave the call around 1pmEST to attend the PT Expert Committee call.

2. PT Acceptance Limits

**NPW Analytes**

**Low Level Nitroaromatic and Nitroamines**

There are 5 of the 14 that don't meet our criteria for number of data points. Jeff doesn't have any problem moving them all over at the current experimental table limits except for Tetryl (methyl-2,4,6-trinitrophenylnitramine). Most look OK at +/- 40%, so +/- 45% looks fine. The failure rate is 3-6% for the 13 analytes. Tetryl has a failure rate of 14% with 8 studies. The problem is specified in the method – it decomposes rapidly in water.

Carl asked about recommended concentration ranges. Jeff looked to the labs for input. Eric noted that his lab's reporting limit goes down to 0.5 ug/L – as does Amy's. Eric's lab uses a solid phase prep method. Carl has seen sep funnel, continuous liquid-liquid and solid phase. It would be tough to keep the Tetryl with the continuous liquid-liquid. Carl suggested 2-20 ug/L for concentration for these analytes.

Chuck asked about the regression equations. The recoveries are all biased negative, so there is potential to have more failures at the low end than on the high end with fixed limits. Steve noted that a lot of this work is for DoD. There are some co-elution issues.

A motion was made by Eric to move the thirteen analytes (listed in the table below) at a concentration range of 2-20 ug/L and with acceptance limits of +/- 45% (as

currently listed in the experimental table). The motion did not include Tetryl. The motion was seconded by Jeff. The vote to accept the motion was unanimous.

For Tetryl, a motion was made by Chuck to use the newly derived regression equation with the coefficients presented in the table distributed by Jeff on 1/11/10 and with a caveat that the upper limit is never less than 120% of the made to value.

Discussion: Carl asked if this PT is needed if there are problems with this analyte? Chuck commented that he does not see Tetryl disappear when it is in their PT studies and that DoD has a need for this analyte. Steve commented on the stability of the material and commented that in the future PT Providers should be allowed to set their own range and scoring criteria. Provider specific criteria.

Carl commented that he could see fixed limits for this analyte of +/- 60%. Steve agreed with this limit. There was additional support from the subcommittee for this direction. The subcommittee members representing labs agreed that 2-20 ug/L would work for a concentration range.

A new motion was made by Steve for a concentration range of 2 - 20 ug/L with fixed acceptance limits of +/- 60% for Tetryl. The motion was seconded by Jim and the motion passed unanimously.

## **Organophosphorous Pesticides (OPPs)**

### Azinphos-methyl (Guthion)

The analyte does not meet the criteria for “n” or standard deviation squared. The older regression is wider. The present concentration range is 3.6 – 13.8 ug/L. Jeff suggested 4-40 ug/L. Amy commented that her RL is 6 ug/L. Stacie’s lab calibrates 4- 50 ug/L. They rarely get hits in real world samples. Stability is an issue with the OPPs.

Carl commented that the proposed regression equations seemed like the best option for limits. When looking at fixed, it looked like 45 – 135%. He also thought a concentration of 5 – 50 ug/L would work well. At 5 ug/L, the PTRL would be 1.3 ug/L. A lab’s MDL is 2 ug/L. Jeff commented that if you use the regression for all the OPPs and the bottom of the concentration range was 10 ug/L, you would be looking at PTRLs between 3.5 and 5 ug/L. If the concentration range were raised to 100 ug/L, the theoretical acceptance limits would be 40 – 118%. Jeff would prefer to not make the labs do a dilution, so he would recommend 10 – 50 ug/L. The issue with using this limit is that with the proposed regression equations labs would never fail the PT unless there was a serious issue.

After further conversation, the group felt the OPPs could be reviewed as a group instead of analyte by analyte.

Azinphos-methyl, Diazinon, Malathion, ethyl Parathion, Disulfoton

A motion was made by Eric for a concentration range of 10 - 50 ug/L with the newly derived regression equation with the coefficients presented in the table distributed by Jeff on 1/11/10 for Azinphos-methyl, Diazinon, Malathion, ethyl Parathion, and Disulfoton. The motion was seconded by Stacie and the motion passed unanimously.

Three members had to leave for the PT Expert Committee call – Dan Tholan, Amy and Eric left.

There are three OPPs that are being proposed for addition to the NWP FoPT tables and there was a request to look at the O&G and TPH discussed in the previous meeting. The subcommittee decided to start with the Petroleum Hydrocarbons.

**Petroleum Hydrocarbons**

n-Hexane Extractable Material (O&G) and Non-polar Extractable Material (TPH)

There is lots of data. 22% of the data points were dropped out with the n-Hexane procedure and 26% were dropped out for the non-polar Extractable Material (TPH). This is not very different from other analytes that have been looked at. Chuck commented that the proposed regression equations are tighter than what the current ones are for the O&G. This is opposite of what he expected – the older method worked better. Carl also commented that he sees lots of variance in the methods used. Jeff noted that there were 103 studies with a failure rate just under 8%. Chuck talked about an ASTM method that works well with O&G, but it is not approved.

Jeff noted that he would not have a problem leaving the old limits, but he would like to use the new names. There are also footnotes that need to be considered - they are in the solid and chemical waste table. The concentration range seen is 20 -170 mg/L. Carl asked if the group would consider going down to 10 mg/L or raising the upper limit to 200 mg/L. The subcommittee agreed with the change to the upper limit.

A motion was made by Chuck that the WP Oil and Grease and the WP TPH nomenclature on the current table be modified to be identical to the nomenclature that can be found in the solid and chemical waste table. The concentration range for both analytes will be 20 - 200 mg/L with the previous derived regression equation with the coefficients presented in the table approved 7/1/2007 and with footnote 12 and 13 from the solid and chemical waste table. The motion was seconded by Jeff and the motion passed unanimously.

## Organophosphorous Pesticides

### Methyl Parathion, Chlorpyrifos and Ethion

Jeff commented that he would be OK to add these similarly to the other OPPs discussed above. They look similar.

A motion was made by Steve for a concentration range of 10 - 50 ug/L with the newly derived regression equation with the coefficients presented in the table distributed by Jeff on 1/11/10 for Methyl Parathion, Chlorpyrifos and Ethion. The motion was seconded by Jeff and the motion passed unanimously.

This completes all the data submitted to date.

Jeff is concerned about adding Pentachlorophenol as a herbicide. This is something that should be looked at in the future. He will pull the data together and it will be considered on the next call. He will also take a look for any other new analytes (dual purpose analytes) and include this data for the next call too. It will take 2 -3 weeks to be ready for the review of Solid and Chemical Waste table. He will also get started on the NPW FoPT table and will include the volatile and extractables headers. The subcommittee should have this table by the 2/9 meeting for comment.

### Summary – NPW FoPT Table

Analyte	FoPT Category	Concentration Range	Acceptance Limits
4-Amino-2,6-dinitrotoluene	Low Level Nitroaromatic and Nitroamines	2 – 20 ug/L	+/- 45% fixed limit
2-Amino-4,6-dinitrotoluene	Low Level Nitroaromatic and Nitroamines	2 – 20 ug/L	+/- 45% fixed limit
1,3-Dinitrobenzene	Low Level Nitroaromatic and Nitroamines	2 – 20 ug/L	+/- 45% fixed limit
2,4-Dinitrotoluene	Low Level Nitroaromatic and Nitroamines	2 – 20 ug/L	+/- 45% fixed limit
2,6-Dinitrotoluene	Low Level Nitroaromatic and Nitroamines	2 – 20 ug/L	+/- 45% fixed limit
HMX (Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine)	Low Level Nitroaromatic and Nitroamines	2 – 20 ug/L	+/- 45% fixed limit
Nitrobenzene	Low Level Nitroaromatic and Nitroamines	2 – 20 ug/L	+/- 45% fixed limit
2-Nitrotoluene	Low Level	2 – 20 ug/L	+/- 45% fixed

Analyte	FoPT Category	Concentration Range	Acceptance Limits
	Nitroaromatic and Nitroamines		limit
3-Nitrotoluene	Low Level Nitroaromatic and Nitroamines	2 – 20 ug/L	+/- 45% fixed limit
4-Nitrotoluene	Low Level Nitroaromatic and Nitroamines	2 – 20 ug/L	+/- 45% fixed limit
RDX (hexahydro-1,3,5-trinitro-1,3,5-triazine)	Low Level Nitroaromatic and Nitroamines	2 – 20 ug/L	+/- 45% fixed limit
Tetryl (methyl-2,4,6-trinitrophenylnitramine)	Low Level Nitroaromatic and Nitroamines	2 – 20 ug/L	+/- 60% fixed limit
1,3,5-Trinitrobenzene	Low Level Nitroaromatic and Nitroamines	2 – 20 ug/L	+/- 45% fixed limit
2,4,6-Trinitrotoluene	Low Level Nitroaromatic and Nitroamines	2 – 20 ug/L	+/- 45 % fixed limit
Azinphos-methyl (Guthion)	Organophosphorous Pesticides	10 – 50 ug/L	Newly derived regression equation with the coefficients presented in the table distributed by Jeff on 1/11/10
Diazinon	Organophosphorous Pesticides	10 – 50 ug/L	Newly derived regression equation with the coefficients presented in the table distributed by Jeff on 1/11/10
Malathion	Organophosphorous Pesticides	10 – 50 ug/L	Newly derived regression equation with the coefficients presented in the table distributed by Jeff on 1/11/10

Analyte	FoPT Category	Concentration Range	Acceptance Limits
Parathion, ethyl	Organophosphorous Pesticides	10 – 50 ug/L	Newly derived regression equation with the coefficients presented in the table distributed by Jeff on 1/11/10
Disulfoton	Organophosphorous Pesticides	10 – 50 ug/L	Newly derived regression equation with the coefficients presented in the table distributed by Jeff on 1/11/10
n-Hexane Extractable Material (O&G)	Petroleum Hydrocarbons	20 – 200 mg/L	Previous regression equation as noted in the tables approved July 1, 2007. Include footnotes 12 and 13 from Solid and Chemical Waste table.
non-Polar Extractable Material (TPH)	Petroleum Hydrocarbons	20 – 200 mg/L	Previous regression equation as noted in the tables approved July 1, 2007. Include footnotes 12 and 13 from Solid and Chemical Waste table.
Methyl Parathion	Organophosphorous Pesticides	10 – 50 ug/L	Newly derived regression equation with the

Analyte	FoPT Category	Concentration Range	Acceptance Limits
			coefficients presented in the table distributed by Jeff on 1/11/10
Chlorpyrifos	Organophosphorous Pesticides	10 – 50 ug/L	Newly derived regression equation with the coefficients presented in the table distributed by Jeff on 1/11/10
Ethion	Organophosphorous Pesticides	10 – 50 ug/L	Newly derived regression equation with the coefficients presented in the table distributed by Jeff on 1/11/10

### 3. New Items

- Steve asked what people do if the subcommittee makes limits that are too tight. They would need to present the issue to the PT Board.
- DW FoPT table has been forwarded to the PT Board.

### 4. Next Meeting

The next meeting of the Chemistry FoPT Subcommittee will be February 2, 2010, at 12PM EST.

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

The meeting ended at 1:27 pm EST. (Motion - Jeff, Second- Jim. Unanimously approved.)





## Attachment A

### Participants TNI Chemistry FoPT Subcommittee

Members	Affiliation	Contact Information
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>Present</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>Present</b>	Wibby Environmental	303-940 -0033 <a href="mailto:cwibby@wibby.com">cwibby@wibby.com</a>
Eric Smith <b>Present</b>	TestAmerica	615-726-0177 x1238 <a href="mailto:eric.smith@testamericainc.com">eric.smith@testamericainc.com</a>
Dan Tholen <b>Present</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>Absent</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**

**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	
43	Prepare cover letter to go to PT Board with recommendation of the DW FoPT Table. Include discussion on Chloramben.	Carl	1/4/10	Complete
44	Prepare DRAFT presentation for PT Caucus and distribute to subcommittee for comment.	Carl	1/19/09	Deleted
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	
47	Prepare NPW FoPT Table with updates.	Jeff	2/8/10	
48	Take a look for new analytes (dual purpose analytes) and Pentachlorophenol. Include this data for the next call.	Jeff	2/2/10	

**Attachment C**

**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	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.
3	Consider changing the lower limit for Vanadium on WP to 50 ug/L.	6-30-09	
4			
5			