Chemistry FoPT Subcommittee
Meeting Summary

November 2, 2023

1. Roll call, approval of minutes and overview:

   Chair, Amy DeMarco, called the Chemistry FoPT meeting to order at 1pm Eastern on November 2, 2023. There were nine (9) members present (X):

Stephen Arpie - Absent		Svetlana Izosimova	X
Kathryn Chang -Absent		Susan Jackson	X
Audrey Cornell	X	Carl Kircher	X
Tom Dziedzic -Absent		Patrick Selig - Absent	
Rachel Ellis	X	Amy DeMarco	X
Chuck Faulk	X	Aaron Bindel	X
Matt Graves - Absent			
Craig Huff	X	Ilona Taunton – Program Administrator	X

   Guests: None.

   There were no changes to the agenda.

   The minutes for May, July and September were presented for review.

   A motion was made by Craig to approve the May 5, 2023 minutes as written. The motion was seconded by Svetlana and unanimously approved.

   A motion was made by Craig to approve the July 6, 2023 minutes as written. The motion was seconded by Audrey and unanimously approved.

   A motion was made by Craig to approve the September 7, 2023 minutes as written. The motion was seconded by Susan and unanimously approved.

2. ARA for DW PFAS Limits

   Amy summarized all the work done to prepare the DRAFT DW PFAS FoPT limits.

   There are 29 analytes as written in LAMS – Table in Attachment A.

   Amy completed the Change log in the FoPT table – just stated that the 29 analytes were added with the date.

Amy asked for any final Discussion: None.

A motion was made by Susan to approve the FoPT table in Attachment A. The motion was seconded by Craig.

Discussion:
- Craig asked about the order of the analytes in the table. It is the same order as that in the ARA.

Vote: For (9). Against (0) Abstain (0).

The motion passed.

When Amy sends the table to PTPEC she will also include the two recommendations discussed in the July and September meetings:

It is suggested that the following design criteria be added to the information that is provided to laboratories:

- Design Criteria for PFAS Analytes – The starting materials are the metrologically traceable conjugate base salt forms for the analytes, with the Assigned Values stoichiometrically calculated to the corresponding acid forms for each PFAS analyte (linear form).

- When analytes consist of a mixture of both linear and branched isomers, laboratories should report the ”summed or total” concentration of the linear and branched isomers as a single result.

Amy will provide the table and the recommendation to the PTPEC for their discussion and decision.

Ilona will check in with William to make sure the minutes are posted by the next PTPEC meeting so they can be used for discussion. Amy will prepare a summary for presentation at the PTPEC meeting.

3. New Business

None

4. Action Items

9/7/23:
- Review DRAFT Chemistry FoPT Table - Done

- Send Matt Sica's email for consideration - Done
- Audrey to review EPA and TNI analyte codes - Done

10/5/23:
- Review LAMS - Done
- Send plots to support 40% to Dan.

11/2/23:
- Prepare information for PTPEC review and send to Committee.
    - FoPT table
    - Recommendations

5. Next Meeting

The next meeting will be a teleconference on December 7, 2023 at 1pm Eastern.

The meeting was adjourned at 1:53pm Eastern.

TNI PT for Accreditation
Fields of Proficiency Testing with PTRLs
Drinking Water
Effective: TBD

Blue = New Analyte Magenta = Changes

Matrix	EPA Analyte Code	TNI Analyte Code	CAS Number	Analyte[2]	Conc Range	Acceptance Criteria[3,4,5,6] a b c d	TNI PTRL[7]
				PFAS	ng/L		ng/L
Drinking Water	2813	9490	763051-92-9	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	10 to 200	±40% fixed acceptance limit	6
Drinking Water	2822	6948	39108-34-4	1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	10 to 200	±40% fixed acceptance limit	6
Drinking Water	2821	6946	757124-72-4	1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	10 to 200	±40% fixed acceptance limit	6
Drinking Water	2820	6947	27619-97-2	1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	10 to 200	±40% fixed acceptance limit	6
Drinking Water	2815	6951	919005-14-4	4,8-Dioxa-3H-perfluorononanoic acid (DONA)	10 to 200	±40% fixed acceptance limit	6
Drinking Water	2814	6952	756426-58-1	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	10 to 200	±40% fixed acceptance limit	6
Drinking Water	2816	9460	13252-13-6	Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	10 to 200	±40% fixed acceptance limit	6
Drinking Water	2817	4846	2991-50-6	N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	10 to 200	±40% fixed acceptance limit	6
Drinking Water	2818	4847	2355-31-9	N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	10 to 200	±40% fixed acceptance limit	6
Drinking Water	2827	6956	151772-58-6	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	10 to 200	±40% fixed acceptance limit	6
Drinking Water	2826	6957	113507-82-7	Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)	10 to 200	±40% fixed acceptance limit	6
Drinking Water	2823	6965	377-73-1	Perfluoro-3-methoxypropanoic acid (PFMPA)	10 to 200	±40% fixed acceptance limit	6
Drinking Water	2825	6966	863090-89-5	Perfluoro-4-methoxybutanoic acid (PFMBA)	10 to 200	±40% fixed acceptance limit	6
Drinking Water	2801	6918	375-73-5	Perfluorobutane sulfonic acid (PFBS)	10 to 200	±40% fixed acceptance limit	6
Drinking Water	2819	6915	375-22-4	Perfluorobutanoic acid (PFBA)	10 to 200	±40% fixed acceptance limit	6
Drinking Water	2807	6905	335-76-2	Perfluorodecanoic acid (PFDA)	10 to 200	±40% fixed acceptance limit	6
Drinking Water	2808	6903	307-55-1	Perfluorododecanoic acid (PFDOA)	10 to 200	±40% fixed acceptance limit	6
Drinking Water	2829	9470	375-92-8	Perfluoroheptane sulfonic acid (PFHpS)	10 to 200	±40% fixed acceptance limit	6
Drinking Water	2802	6908	375-85-9	Perfluoroheptanoic acid (PFHpA)	10 to 200	±40% fixed acceptance limit	6
Drinking Water	2803	6927	355-46-4	Perfluorohexane sulfonic acid (PFHxS)	10 to 200	±40% fixed acceptance limit	6
Drinking Water	2809	6913	307-24-4	Perfluorohexanoic acid (PFHxA)	10 to 200	±40% fixed acceptance limit	6
Drinking Water	2804	6906	375-95-1	Perfluorononanoic acid (PFNA)	10 to 200	±40% fixed acceptance limit	6
Drinking Water	2805	6931	1763-23-1	Perfluorooctane sulfonic acid (PFOS)	10 to 200	±40% fixed acceptance limit	6
Drinking Water	2806	6912	335-67-1	Perfluorooctanoic acid (PFOA)	10 to 200	±40% fixed acceptance limit	6
Drinking Water	2828	6934	2706-91-4	Perfluoropentane sulfonic acid (PFPeS)	10 to 200	±40% fixed acceptance limit	6
Drinking Water	2824	6914	2706-90-3	Perfluoropentanoic acid (PFPeA)	10 to 200	±40% fixed acceptance limit	6
Drinking Water	2810	6902	376-06-7	Perfluorotetradecanoic acid (PFTDA)	10 to 200	±40% fixed acceptance limit	6
Drinking Water	2811	9563	72629-94-8	Perfluorotridecanoic acid (PFTrDA)	10 to 200	±40% fixed acceptance limit	6
Drinking Water	2812	6904	2058-94-8	Perfluoroundecanoic acid (PFUnDA)	10 to 200	±40% fixed acceptance limit	6

1) All analytes regulated under the US EPA's Safe Drinking Water Act must be spiked at non-zero assigned values, except when not required for evaluation in a supplemental PT study and when specified in the footnotes below.

TNI PT for Accreditation
Fields of Proficiency Testing with PTRLs
Drinking Water
Effective: TBD

Blue = New Analyte Magenta = Changes

Matrix	EPA Analyte Code	TNI Analyte Code	CAS Number	Analyte[2]	Conc Range	Acceptance Criteria[3,4,5,6] a	b	c	d	TNI PTRL[7]

2) One sample in every study, containing one Aroclor, selected at random from among the Aroclors listed (1016, 1221, 1232, 1242, 1248, 1254 or 1260) for the analysis of PCBs as decachlorobiphenyl.

3) The acceptance criteria found in 40 CFR Part 141 are incorporated herein by reference. Acceptance criteria for FoPTs not included in 40 CFR Part 141 are presented in this table.
Acceptance limits are set at the Mean ± 2 SD.
Where the a, b, c and d factors are presented, Mean = a*T + b; SD = c*T + d where T is the assigned value.
Where only the c and d factors are presented, Mean = Robust Study Mean; SD = c*X + d where X is the Robust Study Mean.
Where no factors are presented (Study Mean ±3SD), Mean = Robust Study Mean, SD = Robust Study Standard Deviation.
Robust Study Mean and Standard Deviation are generated using statistical analysis of study data set. (ie. Bi-weight, Grubbs, Dixon, etc.)
Quantitative Microbiology acceptance criteria (e.g., HPC) are based on the robust participant Mean and SD determined from each respective PT study, after outlier removal.

4) If the lower acceptance limit generated using the criteria contained in this table is less than (<) 10% of the assigned value, the lower acceptance limits are set at 10% of the assigned value, with the exception of Microbiology analytes.

5) If the lower acceptance limit generated using the criteria contained in this table is greater than (>) 90% of the assigned value, the lower acceptance limits are set at 90% of the assigned value, with the exception of Microbiology analytes.

6) If the upper acceptance limit generated using the criteria contained in this table is less than (<) 110% of the assigned value, the upper acceptance limits are set at 110% of the assigned value, with the exception of Microbiology analytes.

7) TNI Proficiency Testing Reporting Limit (PTRL) is a statistically derived value that represents the lowest acceptable concentration for an analyte in a proficiency test sample, if the analyte is spiked into the proficiency test sample.

TNI PTRLs are also used by PT Providers to set the assigned value for unspiked analytes. For all analytes with an assigned value equal to <PTRL, the PT Provider must verify that the PT sample does not contain the analyte at a concentration greater than or equal to one-half (1/2) of the PTRL.

Refer to the "TNI V1M1 2016 Standard Update Guidance on Proficiency Testing Reporting Limit (PTRL)", GUID-3-114-Rev0, October 15, 2018 for further information.

TNI PT for Accreditation
Fields of Proficiency Testing with PTRLs
Drinking Water
Effective: TBD

Blue = New Analyte Magenta = Changes

Matrix	EPA Analyte Code	TNI Analyte Code	CAS Number	Analyte[2]	Conc Range	Acceptance Criteria[3,4,5,6] a	b	c	d	TNI PTRL[7]

8) The ten-sample set which is provided to the participant laboratories shall contain bacteria that produces the following results when analyzed:
Positive results for total coliforms, fecal coliforms and E.coli.
Positive results for total coliforms and negative results for fecal coliforms and E.coli.
Negative results for total coliforms, fecal coliforms and E.coli.
These limits are for Presence-Absence only.

9) The ten-sample set shall be assigned lot numbers and randomly composed of samples as follows:

Two to four samples containing an aerogenic strain of Escherichia which will ensure positive results for total coliforms, fecal coliforms and E.coli.when analyzed by any of the USEPA approved methods.

Two to four samples containing an aerogenic strain of Enterobacter species and/or other microorganism which will ensure positive results for total coliforms and negative result for fecal coliforms and E.coli. when analyzed by any of the USEPA approved methods.

One to two samples containing Pseudomonas species and/or other microorganism which will ensure negative results for total coliforms, fecal coliforms and E.coli. when analyzed by any of the USEPA approved methods.

One to two samples which do not contain any microorganism which ensure negative results for total coliforms, fecal coliforms and E.coli. when analyzed by any of the USEPA approved methods.

10) Laboratories analyzing qualitative sample sets for more than one method in a particular study shall obtain a unique ten-sample set for each method reported as specified in Footnote 9.

11) These limits are for quantitative methods using membrane filtration (MF) or pour-plate (PP) techniques.

12) These limits are for quantitative methods using most probable number (MPN) techniques.

13) The following recommended sample designs, which were used in past USEPA studies, should be used as model designs because other designs may not give equivalent statistics. PT study providers may vary their sample designs from those shown. The specifics within each sample are within the discretion of the PT study Provider.

Blue = New Analyte Magenta = Changes

Matrix	EPA Analyte Code	TNI Analyte Code	CAS Number	Analyte[2]	Conc Range	Acceptance Criteria[3,4,5,6] a	b	c	d	TNI PTRL[7]

a) Design criteria for Mercury – 1:1 (mole:mole as Hg) Mercuric Oxide and Methyl Mercuric Chloride.

b) Design criteria for Cyanide (all forms) – uncomplexed, e.g., Potassium Cyanide.

c) Design criterion for Turbidity – Formazin is the source for Turbidity.

d) Design criteria for Chlorinated Acid Herbicides – should be supplied in the acid form of the target herbicide.

e) Design criteria for 2,4-D – should be at least half the butyl ester with the remainder in the acid form.

f) Design criteria for Diquat – Starting material is Diquat Dibromide Monohydrate as required in the method. All assigned values and reported values should be as Diquat.

g) Design criteria for Endothall – Starting material is Endothall Monohydrate as required in the method. All assigned values and reported values should be as Endothall.

h) Design criteria for Decachlorobiphenyl – The source of the Decachlorobiphenyl is one of the following Aroclors: 1016, 1221, 1232, 1242, 1248, 1254, 1260. The assigned value of the Decachlorobiphenyl is to be calculated by the provider from the concentration of the Aroclor used to prepare the sample according to Table 1 of the USEPA Method 508A.

i) Design criteria for Corrosivity (Langlier Index) – The assigned value is to be calculated based on the solution ionic strength as calculated from Total Filterable Residue.

14) Volatile Organic Compounds must contain all three Xylene isomers. The concentration range of o-Xylene and m&p-Xylene is 1-25 µg/L each.