TNI PT Program Executive Committee Meeting Summary

April 21, 2016

1. Roll call and approval of minutes:

Chair, Maria Friedman, called the TNI PT Program Executive Committee (PTPEC) meeting to order on April 21, 2016, at 1:03 pm Eastern by teleconference. Attendance is recorded in Attachment A – there were 8 Executive Committee members present. Associate Members Present: Craig Huff, John Overbey, Jennifer Mullins, and Jennifer Best

Maria confirmed that everyone received the meeting information she sent on April 19, 2016.

A motion was made by Eric to approve the March 24, 2016 minutes as written. The motion was seconded by Patrick.

Discussion:

Andy noted for DW the cyanide is just listed as the analyte cyanide – a free cyanide and not a total. In NPW it is a total cyanide. They should have different codes.

The minutes were unanimously approved.

2. Committee Chair Update

- Maria has not yet received any responses from the NELAP AC or LASEC nothing regarding the SIR or the ARA for removal of 3,3'-Dichlorobenzidine.
- Comments have come in from Dixie and Nicole regarding SOP 4-102 and these will be considered later in the meeting.
- Volume 3 and 4 are still up for vote and can be commented on through May 4, 2016.
- Cyanide from last month:

E-mails were received from Stephen Arpie (Absolute Stds) and Tyler Crouteau (NH ELAP) regarding a possible discrepancy in the SCM FoPT Table. The TNI Analyte Code for Total Cyanide is 1645 and the code for Cyanide is 1635. The DW and NPW FoPT tables list Total Cyanide as 1645, but the SCM FoPT table lists "Cyanide, total" as 1635. It appears that the SCM FoPT Table has an error in either the code or the analyte name. If the analyte is supposed to be "Total Cyanide," then the code

should be changed to 1645. If the analyte is supposed to be "Cyanide," then the code is ok as-is (1635) and the name should be corrected.

After review of the tables and discussion, it was decided to contact the Chemistry FoPT Subcommittee. While it was preliminarily determined that the analyte "Total Cyanide" (with correct code 1645) be used in the SCM FoPT Table, the subcommittee is being asked to inspect all other parts of the SCM FoPT Table that may be potentially affected by this change, and then make a recommendation to the PTPEC.

Andy made the additional comment in Section 1 above during the review of the minutes and is relevant to this discussion. Andy is part of the Chemistry FoPT Subcommittee and will participate in this discussion when the Chemistry FoPT subcommittee meets next.

3. Vinyl Chloride – Footnote 1 in DW FoPT Table

Maria noted that she sent a request to the all of the PT Providers (see Attachment D) and heard back from 5 providers. Absolute and Phenova don't spike them all the time, but do spike where they are required. This means that the Footnote still needs to be looked at. The committee was hoping everyone was spiking every time. By email, Nicole noted that the Footnote needs to be changed and Carl noted that making this change will affect Volume 3 of the Standard. Phenova suggested doing a Tentative Interim Amendment (TIA) to the Standard so that the Footnote can be changed. Another suggestion was to add a statement to the Footnote that Vinyl Chloride has to be added all the time. A final option to make it clear that the percentage passing is only relevant to the regulated analytes.

Maria asked for feedback. Craig thinks the footnote should be changed to state something along the lines that vinyl chloride is an exception to the 60/40 rule and should be spiked all the time.

Michella reviewed the current Footnote and feels the Footnote should explicitly state that vinyl chloride needs to be included every time. The way it is written now it can be interpreted that it can be left out. Vinyl chloride could be marked with a special footnote. Eric agreed the Footnote could be added or a special Footnote could be used. Jennifer Duhon also agreed.

Footnote 1 should only apply to Volatiles. Michella provided the list and requirements in Attachment D. It needs to include 80% and pass 80% of the analytes included.

Eric suggested providing a separate Footnote for the volatile and reference where the requirement comes from.

Eric asked if TIAs are still part of the process. Maria will investigate this. (Addition: Ilona noted that TIAs are no longer used in TNI.)

Andy does not think a TIA is required. There are Federal regulations that are more stringent and they trump the Standard. It should be OK to remind people that these more stringent requirements need to be followed. Others agreed with Andy.

Michella noted that certification officers are taught to look for this during their assessments. This is not something PTPA's review because they just assess against the TNI Standard. They should also be assessing to any Footnotes on the FoPT tables, so adding the footnotes would make this an auditable item.

Maria will:

- Investigate whether TIAs exist anymore.
- Prepare a draft Footnote requiring spiking of vinyl chloride at all times.
- Prepare a draft Footnote that the 80% acceptance criteria applied to Volatiles is only for the regulated analytes.
- 4. SOP 4-102 Rev 2.0 TNI Proficiency Testing Program (PTP) Dispute Resolution Procedure

Maria noted that Dixie, Nicole and she provided comments on the SOP. Nicole and Maria's comments are provided below and Dixie's comments are imbedded in the SOP that was sent to the committee on April 19, 2016 with the meeting information.

Nicole:

- 1) Section 6.4 discusses appeals, not complaints, so I recommend making the change to "Appeals Subcommittee".
- 2) Section 6.6 the intent of the 2nd sentence was for the PTPEC to provide a status update at the 120 day mark if a decision had not yet been reached. So maybe the committee can come up with some better language for this sentence to clarify the intent.

Maria:

- 1) Section 6.4 In the first sentence, replace "Subcommittee" with "Complaints Subcommittee," for clarity.
- 2) Section 6.5.1 Reconsider the newly added last sentence that says on-site evaluation will not be necessary. There may be situations where a follow-up on-site may be necessary. There are no alternate language suggested at this time but need to rethink or re-evaluate this sentence.
- 3) Section 6.6 There should be a deadline when to submit a status update to the appealing party when PTPEC is unable to decide on the appeal within the 120-calendar day allotment. I am unsure whether this was brought up during PTPEC's March meeting but I would like to present this comment now, in case it does not show up in the recorded minutes.

Maria started the review with Dixie's comments.

Section 2: The use of the term "an avenue" here implies that there may be other avenues available for handling the complaint? If that is true, I would leave the "an" here, but if this is proposed to be the only avenue to deal with complaint of this type, I would change the "an" to "the" in this sentence to make it more clear that this is the process that should be used in all cases. The committee agreed with the change.

Maria had everyone look at Section 1.2. She would prefer to replace "Again" with "Note". It makes it sound more formal.

Should we not define Proficiency Test Provider Accreditor? We have defined PTPEC and I would think PTPA needs defined as well? The committee agreed.

Definition for Appeal: "Approvaled" is not a term. Maybe "approved" or actually, I would suggest leaving it out completely. I think, "A request for reconsideration of a PTPA decision made . . ." sounds a little more clear. Or maybe something like "A request for reconsideration made to the PTPEC regarding a decision made by a PTPA."

Also, you've already designated in an earlier area what both PTPEC and PTPA mean so you can use the acronyms instead of spelling them out to make it more consistent. Just my opinion, but it will make this definition shorter and the table more compact. If you notice, "complaint" and "PTPA Approval" use just acronyms in the definition text. The committee agreed.

Andy asked if Dixie's well thought out comments should all go back to the PT SOP Subcommittee. Maria would prefer to give clear direction to the subcommittee.

Complaining Party: The term "complainant" is used in later sections to describe this party. I would suggest to either change the term in the definitions or in the later sections for consistency. See sections 5.3.2, 5.8, 5.9. Maria thinks this definition should be deleted and the text in the SOP can take care of this. Dixie was in agreement. Andy thinks a number of these definitions are not needed – they are obvious. Others agreed.

The committee agreed that the subcommittee should be careful not to repeat the definition of an acronym multiple times. Maria feels it is OK to duplicate in the definitions section. The subcommittee should also review which definitions are really needed.

Definition of Dispute: Instead of "complaint or appeal" wouldn't it be better to use the term "decision" instead? Remove the word and use "decision".

Definition – TNI Proficiency Testing Program: I would suggest the term "TNI Proficiency Testing (PT) Program:" here as it is listed that way in the previous definition for PTPA Approval. Just for consistency sake. Agreed.

Definition of PTPEC - Use "the TNI" here instead of "a national" because there are other national PT programs and this committee does not administer those programs (ie. AIHA, NVLAP, etc.). It is not the only national PT program. It needs to be limited to TNI. There is agreement.

Section 5.2: If the complaint is sent to the PTPEC using email and a "read receipt" is requested by the sender, does this count as acknowledgement of receipt by the PTPEC Chair and should we include a subsection here that addresses that email receipts may be requested by the sender? The text will remain as is. Andy pointed out that a read receipt does not necessarily mean that the email was read.

Section 5.4: This is redundant with section 5.5 that is stated more clearly. I would suggest removing section 5.4 completely and just leaving section 5.5 to state the Complaint Subcommittee actions and responsibilities. Section 5.4 seems a little of order. Needs to be reordered.

Maria will summarize the needed changes and send it back to the committee for further review and discussion at the next meeting. The goal will be to complete the review at the next meeting and send it back to the SOP Subcommittee.

5. Subcommittee Report

WETT FoPT Subcommittee

John Overbey: He looked at the action item. He noticed that there is an error in a footnote on the table - NEOC data can never be greater than 100%. Maria asked that John send her an email summarizing the issues.

FoPT Format Subcommittee

Craig needs to consolidate all the changes and then it will be reviewed one last time by the subcommittee before sending it to the PTPEC. The subcommittee expects to get this to the PTPEC before the May meeting.

SOP Subcommittee

There was no one present from the committee to give a report.

Chemistry FoPT Subcommittee

The committee is not currently meeting. Ilona will work with Carl to set-up a subcommittee meeting to work on the more recent issues that have surfaced during the PTPEC meetings.

Microbiology FoPT Subcommittee

The committee still plans to meet with the PT Providers and then send out the request for data that they have prepared. Ilona will send a Doodle Poll out to pick a meeting date.

6. Action Items

The action items were reviewed and notes and updates can be found in Attachment B.

7. New Business

- None.

8. Next Meeting

The next PTPEC teleconference will be May 19, 2016.

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

Maria adjourned the meeting at 2:27pm Eastern. (Motion: Andy, Second: Dixie Unanimously approved.)

Attachment A

Participants TNI

Proficiency Testing Program Executive Committee

Members	Affiliation	Contact Information
Maria Friedman (2014)	N/A	949-307-0949
` ,		qamfriedman@gmail.com
Present		
Ilona Taunton,	TNI	828-712-9242
Program Administrator		tauntoni@msn.com
Absent – Recorded for Minutes		
Eric Smith (2010)	ALS Environmental	904-394-4415
		eric.smith@alsglobal.com
Present		
Justin Brown (2011)	Environmental Monitoring	847-875-2271
	and Technologies, Inc.	jbrown@emt.com
Absent		
Susan Butts (2012)	South Carolina DHEC	(803)896-0978
Alternat		buttsse@dhec.sc.gov
Absent	NIV Ctata DOLL	(540) 470 0000
Nicole Cairns (2012)	NY State DOH	(518) 473-0323
Absort		nicole.cairns@health.ny.gov
Absent	Dec 2Com to Inc	423-337-3121
Joe Pardue (2011)	Pro2Serve, Inc.	
Present		joe_pardue@charter.net
Dr. Andy Valkenburg (2011)	Energy Laboratories, Inc.	406-869-6254
Dr. Andy Valkenburg_(2011)	Energy Laboratories, inc.	avalkenburg@energylab.com
Present		avaikeriburg@eriergyiab.com
Jennifer Duhon (2019)	Millipore Sigma	307-3897218
definiter button (2013)	Willipore Olgina	jennifer.duhon@sial.com
Present		Jernmer.darieri@sidi.com
Matt Sica	ANAB, ANSI-ASQ National	msica@anab.org
man olda	Accreditation Board	<u>iniciou (guinabiorg</u>
Absent		
Dixie Marlin (2015)	Marlin Quality	513-309-3593
2010)	Management, LLC	marlinquality@gmail.com
Present – Joined 2pm		
Gil Dichter (2015)	IDEXX Water	207-556-4687
GII DICITIEI (2013)	IDEAN WATER	gil-dichter@idexx.com
Absort		gii-dionterwidexx.com
Absent	Kontucky DED	502 240 4040
Patrick Garrity (2019)	Kentucky DEP	502-319-4040
_		patrick.garrity@ky.gov
Present	LIGERA	
Michella Karapondo (2019)	USEPA	513-569-7141
Durant		karapondo.michella@epa.gov
Present		

Attachment B

Action Items – TNI PT Executive Committee

	Action Items – TN	I I I LACCULIV	1	Actual
	A ation Itams	W/h o	Expected	
105	Action Item	Who	Completion	Completion
185	Send updated DW table with	Stacie	4/1/12	Stacie
	Footnote 15 to NELAP AC for	3.6 ·		submitted this.
	approval.	Maria		Need to
				confirm
				approval.
				Action: Look
				to see if this
				got done.
				8/20/15: Maria
				will follow-up.
214	Update Tin, Total Xylene and Total	Carl	Next Meeting	In Progress
	Cyanide on FoPT tables and submit	Stacie		Ilona will look
	for approval.			for this stuff.
				8/20/15: Maria
				thinks Cyanide
				is done, but
				need to find
				status on
				Xylene and
				Tin.
				11/19/15: Ilona
				reviewed
				minutes and
				provided notes
				to Carl and
				Maria.
233	Review complaint process.	Maria	5/14/14	In Progress
		Ilona		
249	Meet with PTPAs to discuss issues	Maria	11/13/14	In progress.
	surrounding receiving data for FoPT			
	Limit Updates and complaints.			11/19/15: A
	Determine if issue exists and			group met to
	whether subcommittee is needed to			review this
	address this issue.			today.
257	Email to SOP Subcommittee	Maria	12/12/14	Maria prepared
	regarding clarification on how limit			it, but is
	updates due to issues should be			waiting for a
	addressed.			chair for this
				subcommittee.
264	Update Complaint SOP to reflect	TBD	TBD	Waiting for

	Action Item	Who	Expected Completion	Actual Completion
	Standard requirement that PTPA be contacted.			input - #233.
271	Provide list of replicates and volumes from WET Subcommittee to PT Providers.	Maria	3/19/15	It gives them information about the methods that PT Provider's don't have. 8/20: Jeff asked that this be distributed to the PT Providers. Maria will take care of this.
295	Moved from Backburner: PTPA Evaluation Checklist needs to be updated prior to next round of evaluations. (Orginally discussed 8/6/13)	Gil	August 2016	In Progress (Likely complete by 8/2016)
305	Send response to EDB/DBCP ARA submitter to request more information.	Maria	1/25/16	3/24/16: Shawn contacted Jeff. Maria will check again with Jeff.)
310	Coordinate the update of the SCM FoPT table with Carl and send to NELAP AC for approval.	Maria	3/24/16	3/24: Working through Cyanide issue first.
311	Contact Lem Walker about new ARA to remove an analyte.	Maria	3/24/16	3/24/16: Waiting for response from NELAP AC.
312	Review new language in DMR QA and determine if there is any impact on the FoPT table. Does it need to be updated?	John Overbey	3/24/16	Maria needs an email from John to review issues he noted during meeting.
313	Contact PT Providers to find out if they add Vinyl Chloride to all their	Maria	5/1/16	Complete

	Action Item	Who	Expected Completion	Actual Completion
PT	Ts.			
314	 Prepare a draft Footnote requiring spiking of vinyl chloride at all times. Prepare a draft Footnote that the 80% acceptance criteria applied to Volatiles is only for the regulated analytes. 	Maria	5/18/16	
4-	ummarize changes needed to SOP -102 and distribute to the ommittee before the next meeting.	Maria	5/18/16	

Attachment C

Backburner / Reminders – TNI PT Executive Committee

	Dackburner / Reminders – 1111 1 Executive Committee				
	Item	Meeting	Comments		
		Reference			
7	Add the Field PT Subcommittee to the limit	3/4/10	In Progress		
	update SOP during its next update.				
	-				
11	Evaluate how labs are accredited for	5-19-11			
	analytes that co-elute.				
13	Charter needs to be updated in November.	Ongoing			
	1	2016			
16	Moved back to Backburner (originally	2/20/14			
	discussed 2/20/14):				
	When new limits are established for the				
	FoPTs, what is considered to be a				
	statistically significant change to the old				
	rates? At what point is it appropriate to				
	question new limits? This lends to the TSS				
	discussion a few months ago.				
	discussion a few months ago.				
	Patrick commented that it would make sense				
	to look at changes to pass/fail rates 6				
	months after new limits are effective. This				
	possible addition to procedures should be				
	evaluated when updating the limit				
	acceptance SOP.				
17	Digayaga magaihla mmagadymal ahama 4- 1		Need to look at PT		
17	Discuss possible procedural changes to how				
	limits are updated. Maria talk to SOP		database implications.		
	Subcommittee.				

Attachment D. Vinyl Chloride - Note to PT Providers and Information from Michella

Dear PT Provider,

The PTPEC is working on an update to the DW FoPT. One of the issues that we in PTPEC still need to resolve is in regard to the spiking requirements for Vinyl Chloride as expressed in Footnote 1 of the DW FoPT Table. The PTPEC would like to make sure that the requirements set forth in the DW FoPT Table match regulatory requirements, and so I would like to request your input whether Vinyl Chloride is always spiked, spiked at certain frequency, or spiked at random frequency in your DW PT offerings. Below are some info that I presented to the PTPEC and background on previous discussions. Please respond on or before noon (Eastern time) on Thursday, 4-21-2016:

a) Footnote 1 in DW FoPT Table

Key facts surrounding Footnote 1 in the DW FoPT Table and Vinyl Chloride:

- 1) There are 20 regulated VOCs (excluding Vinyl Chloride) defined in the CFR.
- 2) 40CFR 141.24(17)(f)(i)(B) requires that Drinking Water labs pass at least 80% of the regulated VOCs (excluding Vinyl Chloride) in a PT sample.
- 3) Vinyl Chloride must pass 100% of the time (independent of the other 20 VOCs).
- 4) DW FoPT Footnote 1 specifies, among other things, that PT samples to be scored for 10-20 analytes must include at least 10 of the analytes or 80% of the total, whichever number is greater.
- 5) The requirements in Footnote 1 are also in the TNI Standard, both the 2009 version (V3 sec. 5.5.3.3) and the pending 2016 version (V3 sec. 6.3.3).

The main issue with Footnote 1 and vinyl chloride comes down to this:

1) Must vinyl chloride always be spiked in PT samples where it is reported, and if so, does Footnote 1 need to be changed? 40CFR 141.24(17)(f)(ii)(B) requires that labs achieve PT results for vinyl chloride that are "within +/- 40% of the actual amount" in the PT sample. EPA's past interpretation has been that this meant that vinyl chloride had to be spiked. As currently written, Footnote 1 states that PT samples to be scored for a certain number of analytes do not need to be spiked for all of those analytes – and no exception (for vinyl chloride) is mentioned. If vinyl chloride *must* be spiked in the PT sample, there is the question of whether Footnote 1 should be changed to mention that, or perhaps a new footnote should be added for that purpose. Also keep in mind that Footnote 1 currently mirrors a requirement in V3 of the TNI Standard, and so changes to

Footnote 1 could be a source of confusion if the footnote is changed in a way that appears to contradict the Standard.

A side issue that has come up before involves unregulated analytes. Unregulated analytes are often included in the same PT sample with regulated analytes, but those unregulated analytes do not "count" when calculating whether a lab has passed at least 80% in a PT sample (remember, 40CFR (in bullet 1 above) refers explicitly to "80% of the regulated VOCs"). I am not certain why this is an issue. The 40CFR requirement refers to passing rates, while Footnote 1 refers to percentages of analytes that are included (spiked).

What the DW FoPT Table Says

For reference: this is Footnote 1 in the DW FoPT Table:

1) For volatile and pesticide standards, providers must include a minimum number of analytes using the criteria described below:

PT samples that are to be scored for one to ten analytes must include all of these analytes.

PT sample that are to be scored for ten to twenty analytes must include at least ten of these analytes or 80% of the total, whichever number is greater.

PT sample that are to be scored for more than twenty analytes must include at least sixteen of these analytes or 60% ot the total, whichever number is greater. If the calculated percentage of the total number of analytes in the PT sample is a fraction, the fraction shall be rounded up to the next whole number.

What the PTPEC Minutes Say

Most of the information on the pending issue with the DW FoPT Table is found in the 11-20-2014 minutes. Rather than try to summarize, here is what the minutes say:

Footnote 1:

Michella noted that if you have 1-10 analytes you cannot assign a "0" value, but if you have 20 or more you can. Andy added that many PTs contain numerous unregulated analytes because states require them. There are both regulated and unregulated analytes in PTs. The unregulated do not count towards the numbers (1-10 or more than 20).

Ron reminded everyone that all the regulated volatiles must be reported for the PT – even those with "0" value.

Michelle noted that there is a requirement that you must run a PT for Vinyl Chloride, so this analyte can never be left out. It has to have a non-zero value. She also prefers the use of "should" instead of "shall", but this language needs to stay as written because it is from the standard.

Carl noted that perhaps Volume 3 of the standard can be changed to require spiking of everything and not give the option of percentages. Maria noted that not all PT providers spike everything.

Nicole asked if the footnote needs to be written more clearly to note that there are regulated and unregulated analytes and how the footnote applies to regulated analytes. Carl was concerned that this could not be done without causing confusion. It might also cause changes in which analytes are in each PT. This may cause the need for more PTs which increases costs for labs and PT providers.

If the EPA Criteria Document is OK with non-spiked analytes outside of Vinyl Chloride, maybe that should be noted. Leave it as it has been, but note Vinyl Chloride cannot have a "0" value.

The requirement for Vinyl Chloride to not be "0" is in the regulations and not in the EPA Criteria Document. It states the lab must achieve quantitative results within +/- 40% of the amount in the sample. EPA considers this statement to mean it has to be present.

Michella offered to have an EPA attorney look at this and confirm this interpretation.

Michella noted that the wording in Footnote 1 is fine.

The committee decided to hold on a final decision about Footnote 1 until Michella gets feedback from the attorney.

Thank you.

RESPONSES:

Dan Dickinson: The NYSDOH PT Program always spikes Vinyl Chloride.

Stephen Arpie: VC, like any analyte, can be part of a Qualitative / Quantitative challenge. In the case of a Qualitative challenge, the 60% rule figures into the total number of analytes presented positive assigned values.

As far as I am aware this is still the rule.

Information Sent by Michella:

- § 141.24 Organic chemicals, sampling and analytical requirements.
- (a)–(d) [Reserved] (e) Analyses for the contaminants in this section shall be conducted using the methods listed in the following table, or the alternative methods listed in appendix A to subpart C of this part, or their equivalent as determined by EPA.

. . .

(f) Beginning with the initial compliance period, analysis of the contaminants listed in §141.61(a) (1) through (21) for the purpose of determining compliance with the maximum contaminant level shall be conducted as follows:

. . .

- (17) Analysis under this section shall only be conducted by laboratories that are certified by EPA or the State according to the following conditions (laboratories may conduct sample analysis under provisional certification until January 1, 1996): (i) To receive certification to conduct analyses for the contaminants in §141.61(a) (2) through (21) the laboratory must: (A) Analyze Performance Evaluation (PE) samples provided by EPA, the State, or by a third party (with the approval of the State or EPA) at least once a year by each method for which the laboratory desires certification. (B) Achieve the quantitative acceptance limits under paragraphs (f)(17)(i)(C) and (D) of this section for at least 80 percent of the regulated organic contaminants included in the PE sample. (C) Achieve quantitative results on the analyses performed under paragraph (f)(17)(i)(A) of this section that are within $\pm 20\%$ of the actual amount of the substances in the Performance Evaluation sample when the actual amount is greater than or equal to 0.010 mg/l. (D) Achieve quantitative results on the analyses performed under paragraph (f)(17)(i)(A) of this section that are within ± 40 percent of the actual amount of the substances in the Performance Evaluation sample when the actual amount is less than 0.010 mg/l. (E) Achieve a method detection limit of 0.0005 mg/l, according to the procedures in appendix B of part 136. (ii) To receive certification to conduct analyses for vinyl chloride, the laboratory must: (A) Analyze Performance Evaluation (PE) samples provided by EPA, the State, or by a third party (with the approval of the State or EPA) at least once a year by each method for which the laboratory desires certification. (B) Achieve quantitative results on the analyses performed under paragraph (f)(17)(ii)(A) of this section that are within ± 40 percent of the actual amount of vinyl chloride in the Performance Evaluation sample. (C) Achieve a method detection limit of 0.0005 mg/l, according to the procedures in appendix B of part 136. (D) Obtain certification for the contaminants listed in §141.61(a)(2) through (21).
- § 141.61 Maximum contaminant levels for organic contaminants.

(a) The following maximum contaminant levels for organic contaminants apply to community and non-transient, non-community water systems.

with non transferry non terminality with systems.			
CAS No.	Contaminant	MCL (mg/l)	
(1) 75–01–4	Vinyl chloride	0 .002	
(2) 71–43–2	Benzene	0 .005	
(3) 56–23–5	Carbon tetrachloride	0 .005	
(4) 107–06–2	1,2-Dichloroethane	0 .005	
(5) 79–01–6	Trichloroethylene	0 .005	
(6) 106–46–7	para-Dichlorobenzene	0 .075	
(7) 75–35–4	1,1-Dichloroethylene	0 .007	

(8) 71–55–6	1,1,1-Trichloroethane	0.2
(9) 156–59–2	cis-1,2-Dichloroethylene	0 .07
(10) 78–87–5	1,2-Dichloropropane	0 .005
(11) 100–41–4	Ethylbenzene	0.7
(12) 108–90–7	Monochlorobenzene	0.1
(13) 95–50–1	o-Dichlorobenzene	0.6
(14) 100–42–5	Styrene	0.1
(15) 127–18–4	Tetrachloroethylene	0 .005
(16) 108–88–3	Toluene	1
(17) 156–60–5	trans-1,2-Dichloroethylene	0.1
(18) 1330–20–7	Xylenes (total)	10
(19) 75–09–2	Dichloromethane	0 .005
(20) 120–82–1	1,2,4-Trichloro- benzene	.07
(21) 79–00–5	1,1,2-Trichloro- ethane	.005