Testing Subcommittee Meeting
June 21, 2007
DHSS Environmental Laboratory
Ewing, NJ

Subcommittee Members Present: Steve Jenniss, Barker Hamill, and Jean Matteo

Support Members Present: Bernie Wilk: Office of Quality Assurance; Linda Bonnette, Karen Fell & Kristin Hansen: DEP-Water Supply

1. New Staff

K. Fell introduced Diane Pupa's replacement, Kristin Hansen from the Bureau of Safe Drinking Water.

2. March 7th/June 8th Memo from Testing to Treatment

Copies of the June 8, 2007 (originally dated March 7th) memo from the Testing Subcommittee to the Treatment Subcommittee were provided. The memo had originally been from Steve Jenniss to Paul LaPierre and dated March 7, 2007, but after discussion between Diane Pupa and Steve Jenniss on March 7, it was determined additional changes were necessary. Changes were made but it was not actually sent to Paul LaPierre. As a result, it was decided it would be the least confusing to re-date the memo for June 8 and have it be from Steve Jenniss to Mark Robson.

The memo refers a total of seven chemicals to the Treatment Subcommittee. Four of the chemicals (1,1,2-trichloroethane, vinyl chloride, n-hexane, and formaldehyde) have a change in PQL, while the PQLs are remaining the same for three of the chemicals (chlordane, tetrachloroethylene (PCE), and 1,1,2,2-tetrachloroethane).
Not all members recall having received the December 16, 2005, memo from David Pringle, Chair of the Health Effects Subcommittee, to Mark Robson, Chair of the DWQI, referring a total of nine chemicals from the Health Effects Subcommittee to the Testing Subcommittee. Copies will be provided at the next Testing Subcommittee meeting.

3. Rounding of PQL

K. Fell discussed the recent meeting of the Standards Consistency Group, an internal DEP Committee, regarding rounding. The Standards Consistency Group decided that for health based numbers ending in 5 and below, they would round down, while they would round up for health based numbers ending in 6 and above. For PQLs, the Standards Consistency Group discussed that because of analytical considerations, everything should be rounded up (for example, both 1.2 and 1.6 would round to 2).

After discussion, the Testing Subcommittee decided that any PQL ending in 5 would be rounded up (for example, 1.5 would round to 2). Since most PQLs are generated by multiplying the MDL by 5, they are all going to end in 0 or 5. It was agreed that the Health Effects Subcommittee should address the issue of how to round Health Based numbers ending in 5.

4. Meeting Minutes

The subcommittee reviewed the meeting minutes from the February 15th meeting. J. Matteo mentioned her comments were not included in the version provided. J. Matteo will send her comments to K. Hansen to be incorporated. The minutes will then be reviewed at the next Testing Subcommittee meeting.

It was decided in the future, draft minutes will be sent to everyone as draft and K. Hansen will incorporate everyone's comments. The revised final minutes will be brought to the next meeting for approval.

5. Chemicals - Attachment

An attachment to the agenda containing the status of each chemical in regards to the Testing Subcommittee was provided. The Testing Subcommittee reviewed each chemical.

a. PCBs

K. Fell reported that DEP is moving forward with preparing a QAPP for the PCB Occurrence Study. NJDEP anticipates sampling 10-12 sites.

Bureau of Safe Drinking Water checked and confirmed with the Health Effects Subcommittee that the health based number for PCBs is based on total congeners, not individual congeners.

B. Hamill stated he contacted Jack Dunn of NYSDOH and was informed they have not conducted any work using the new analytical methods for PCBs in drinking water, although it is possible that NYSDEC may have in environmental samples.

B. Wilk discussed the differences between Method 1668A and the Green Bay Method. The Green Bay method was used on the Great Lakes Study/Fox River area at Lake Michigan. Typical methods like 508 and 608 measure mixtures, but the Green Bay method looks at certain congeners.Additionally, the Green Bay Method does not determine any of the 12 World Health Organization (WHO) Toxics. The technology is also different in the two methods, the Green Bay method uses GC/ECD which is traditional PCB technology, while Method 1668A uses GC with high resolution MS. There is also a big difference in cost, which Method 1668A being the more expensive method.

It was agreed to use Method 1668A for the PCB Occurrence Study.

b. Formaldehyde

L. Bonnette provided additional information regarding formaldehyde analytical methods and results. L. Bonnette discussed the differences between EPA Methods 6252B, 556.1, and 556. The Bureau of Safe Drinking Water spoke to EPA and was informed that 6252B had some problems. Method 556.1 is also

available, but only a few laboratories conduct fast chromatography; therefore, most labs use Method 556.

The Bureau of Safe Drinking Water also reviewed old ICR data in which three New Jersey systems participated. Samples were taken in three locations, EPA Method 6252B was used, and it was difficult to get a clean blank. Occurrence data reveals that formaldehyde is found in systems that are using ozone treatment.

After discussion, the subcommittee decided to use EPA Method 556, which has been published but not approved. (A method is not approved until a MCL is established and the chemical is regulated.) Likewise, OQA does not certify any labs for EPA Method 556 since formaldehyde is not regulated.

L. Bonnette will contact Underwriters Lab for their data, and will contact Montgomery Watson to see if they use Method 556.

The Testing Subcommittee's supporting document must be prepared.

c. n-Hexane

This compound was referred to the Treatment Subcommittee in the June 8, 2007, memo from Steve Jenniss to Mark Robson, because it is clear the PQL will be lower than the Health Based number, but there are still a few issues to resolve. Previously, DHSS had run this compound using Method 524.2 using one of their instruments to obtain an MDL. It was agreed Kristin Hansen would contact Julian Trexler to see if DHSS could run n-hexane on their second GC/MS instrument for comparison.

DHSS is not certified for EPA 502.2 so they cannot determine if EPA 502.2 is an acceptable method for n-hexane. It was agreed that we would contact some of the labs that do a significant amount of analysis using EPA 502.2 for the Private Well Testing Act or the Safe Drinking Water Act, to discuss how much of an impact it would have on their business if we eliminated 502.2 as a method for volatiles after 2009 (when the MCL for n-hexane and other chemicals is expected to be finalized). If the labs think it will be an impact, we will ask if they would consider running the method for n-hexane to help the Testing Subcommittee determine if Method 502.2 is an acceptable method.

We can start writing the Testing Subcommittee Report for this document now.

d. Chlordane

Chlordane was referred to the Treatment Subcommittee in the memo dated June 8, 2007. There is no change to the PQL. The Testing Subcommittee's supporting document must be prepared. Julian Trexler's data will be used to justify the 0.5 ppb PQL.

e. Vinyl chloride, 1,1,2-Trichloroethane, Tetrachloroethylene (PCE), and 1,1,2,2-Tetrachlorethane

These chemicals were referred to the Treatment Subcommittee via the June 8th memo from Steve Jenniss to Mark Robson. The Testing Subcommittee's Report can now be written for each of these chemicals.

f. Carbon Tetrachloride

It was previously decided by the Testing Subcommittee that they MDL for this compound is 0.3 ppb and the PQL would be 1.5 ppb. Based on today's earlier discussion about rounding, it was affirmed that the recommended PQL will be 2 ppb. The Testing Subcommittee's supporting document must be prepared.

g. 1,2-Dichloroethane (1,2-DCA)

It was previously decided by the Testing Subcommittee that they MDL for this compound is 0.3 ppb and the PQL would be 1.5 ppb. Based on today's earlier discussion about rounding, it was affirmed that the recommended PQL will be 2 ppb.The Testing Subcommittee's supporting document must be prepared.

h. Benzene

Benzene was referred from Health Effects Subcommittee to Testing Subcommittee in a memo dated June 8, 2007. The new health based number for benzene is 0.1 ppb. The Testing Subcommittee previously decided the MDL for benzene is 0.12; therefore the PQL would be 0.6 ppb.

The Testing Subcommittee discussed whether or not to round 0.6 ppb to 1 ppb or keep it as 0.6 ppb. After discussion, it was agreed we would recommend a PQL of 0.6 ppb because it is one significant figure.

The Testing Subcommittee's supporting document must be prepared.

i. Methylene chloride

The Health Effects Subcommittee is still reviewing this chemical; therefore, the Testing Subcommittee will not review this chemical at this time.

j. Ethylene glycol

The Health Effects Subcommittee is still reviewing this chemical and has not yet referred it to the Testing Subcommittee. B. Wilk conducted a preliminary review of available methods. Method 8015 is sometimes used with Direct Aqueous Injection, but the detection limit is in the parts per million range. B. Hamill will contact NYSDOH and L. Bonnette will contact ExxonMobil to see if they have a suggested method.

k. 2,4,6-Trichlorophenol

This chemical became a 2b compound in the early 1990s, but an MCL was not recommended by the DWQI because of analytical considerations. We understand the Health Effects Subcommittee has not started working on this chemical, nor has

the Testing Subcommittee. There is not a lot of occurrence data for this chemical. K. Fell will reach out to the Health Effects Subcommittee to see if there is sufficient information to spend the time to work on this compound now.

l. Methyl Ethyl Ketone (2-butanone) MEK
Not yet referred from Health Effects Subcommittee to Testing Subcommittee.

The Testing Subcommittee now has to draft a supporting document for the contaminants it referred to Treatment and where indicated above. Supporting documents will also have to be drafted for those chemicals in which the PQL is not changing but the health based number has changed. These chemicals are 1,3 Dichlorobenzene, 1,4 Dichlorobenzene, 1,1 Dichloroethylene, 1,1 Dichloroethane, and 1,2,4 Trichlorobenzene. Lee Lippincott and L. Bonnette will be responsible for the development of the documents. J. Matteo recommended developing a standard format so that the supporting documents do not differ from one contaminant to the other. DEP will set up an internal meeting to address this.

6. Occurrence Data
There was discussion of where occurrence data is usually documented in the DWQI's recommendations to the Department. It was agreed the occurrence data usually ends up in the Testing Subcommittee's Report because the Testing Subcommittee reviews the data as part of making a recommendation.

7. Treatment Subcommittee Reports
An assessment of the current treatment technologies available for the chemicals being referred by the Testing Subcommittee will need to be performed. The NJDEP would like to contract consulting services for the treatment expertise. The Treatment Subcommittee has agreed. The Treatment Subcommittee would like to include chemicals that have not yet been referred to Treatment by Testing but will be as part of this round of reviews.

K. Hansen will draft a list of chemicals that will need to be reviewed by the Treatment Subcommittee/consulting services. The list will be circulated to the Testing Subcommittee for approval prior to sending it to the Treatment Subcommittee.

8. Next meeting: August 16, 2007 9:00AM -12:00 DHSS Ewing Lab

Action Items:
- Copy and provide copies of December 2005 memo to Testing Subcommittee
- K. Hansen contact Julian Trexler to determine if DHSS was to incorporate n-Hexane onto second GC/MS to acquire additional information on instrument variability.
- L. Bonnette contact laboratories regarding EPA502.2 for n-Hexane
- Internally discuss the assignment and development of the Testing Subcommittee supporting document for the following chemicals:
  Formaldehyde
  1,1,2-TCE

PCE
1,1,2,2-Tetrachloroethane
Chlordane
Vinyl Chloride
Benzene
Carbon Tetrachloride
1,2-Dichloroethane

- K. Hansen incorporate J. Matteo's comments into the 2/15/07 meeting minutes
- K. Hansen will develop a list of chemicals referred to (and soon will be referred) Treatment Subcommittee
- Contact New York and ExxonMobil regarding ethylene glycol analysis

Meeting Minutes prepared by:
Kristin Hansen (7/3/07)
Revised by:
K. Fell and L. Bonnette (8/2007)
Jean Matteo (8/21/07)