**Testing Subcommittee Meeting**
**November 28th, 2006**
**DHSS Environmental Laboratory**
**Ewing, NJ**

Final

**Subcommittee Members Present:** Steve Jenniss, Barker Hamill, Jean Matteo
**Subcommittee Members Absent:** Ann Marie Fournier

**Support Members Present:** Bernie Wilk: Office of Quality Assurance, Julian Trexler: DHSS; Lee Lippincott DEP-DSRT, Linda Bonnette & Diane Pupa: DEP-Water Supply

Opening Remarks
Steve opened meeting and asked members to review the minutes from the prior meeting on September 13th, 2006. Three minor revisions were suggested. The members voted and approved the minutes with the proposed revisions. BSDW agreed to make the revisions to the minutes as soon as possible.

## Agenda Items:

Formaldehyde
The formaldehyde data from EPA's ICR database was discussed (samples collections were from 1997-1998) . Basically, the NJ data looks similar to the national data regarding formaldehyde concentrations. The maximum concentration was 30 ppb nationally and 28 ppb in NJ. The average concentration in NJ was 14.4 ppb. The DWQI-Health Based MCL for Formaldehyde is 100 ppb.

There were three NJ systems represented and all were treated by ozonation but it was unclear if these samples were raw, contact or finished samples. BSDW will try to determine the sample locations from the ICR database. The method used in the ICR database was SM6252B, not EPA Method 556.1 as originally thought at the last meeting. L. Lippincott was asked to compare & contrast both methods for next Testing Subcommittee meeting since no one on the subcommittee was very familiar with these methods. It was also agreed that the subcommittee needed more QA/QC information about SM6252B (such as recovery data, calibration curves, any special instrumentation needs, any method modification, etc.) from Pat Fair of EPA's-Ohio Lab since EPA used this method for formaldehyde analyses under the ICR. However, B. Wilk did confirm that no labs in NJ were certified by OQA for either of these two methods. It was agreed that if the DWQI recommended regulating formaldehyde, commercial labs would have to be granted time to obtain certification in either of these method(s). Subcommittee members believed that neither method (EPA 556.1 & SM6252B) was a federally approved drinking water method, and therefore, justification was needed if DEP plans to refer to them when regulating formaldehyde.

Since NJ formaldehyde concentrations are comparable to the national average, and there is not much drinking water occurrence data, only NJDEP-Site Remediation data, it should be the responsibility of the Full DWQI to decide if NJ should regulate formaldehyde in drinking water at all. Formaldehyde, however, is a named chemical in the list of A-280 chemicals legislated by the NJSDWA so the answer will likely be yes.

Since there is only data from three (3) NJ systems in the ICR database, BSDW is going to poll a few systems that installed ozonation after the ICR (E'town, NJ Water Supply Authority, Delran) to see if they can obtain more formaldehyde NJ data.

n-Hexane

It was agreed that the review of n-Hexane is relatively complete and that the Testing Subcommittee is recommending regulating n-Hexane since it can be calibrated relatively easily in EPA Method 524.2. The question was brought up at the last meeting as to whether n-Hexane, as a regulated VOC, would have to adhere to the requirement of a 0.5 ppb or less method detection limit (MDL) as required by the NJ Safe Drinking Water Regulations. BSDW polled several labs that run n-Hexane as a 524.2 target compound. They obtained a range of 0.1 -0.2 ppb as their method detection limit, therefore, it would be applicable to use the 0.5 ppb MDL as with all other VOCs.

Also discussed was that if n-Hexane is regulated in NJ, it would also be added to the Private Well Testing Act (PWTA) list of chemicals. If n-Hexane is regulated with an MDL of 0.5ppb, then only Method 524.2 can be used to analyze it, not Method 502.2. and there were concerns about putting labs out of business. However, since the drinking water labs that do the largest volume of drinking water analyses are certified for Method 524.2 , putting labs out of business isn't a valid issue. It may be an issue for only one lab that does PWTA analyses via 502.2 only.

B. Wilk will poll labs that perform 502.2 anyway to see how low they can see n-Hexane.

PCBs

A list of potential ground water & surface water systems (11 total) was provided and discussed. Systems were chosen based on proximity to known contaminated sites (KCS) with PCB contamination in SWAP areas, and historical SDW knowledge. BSDW is close to contracting a lab, sampling should begin in Dec., and the project completed by the end of January 2007.

An issue arose about the format of the actual PCB results that the lab would generate, namely, the lab will take specific congeners and assign approximated concentrations to about only seven congeners, while the HBMCL was based on Total PCBs and not congener specific. BSDW will confirm if there are any concerns of the Health Effects Subcommittee about this issue.

The same issue about not being a federally approved method came up for method 1668A since it hasn't been promulgated yet by EPA. However, 3 reasons were discussed why NJDEP could defend this method during regulation: a) it's a widely used method by EPA for a variety of media (water, fish, tissue, etc.) b) the Delaware Rive Basin Commission (DRBC) routinely uses this method, and c) OQA has a justification letter from the EPA stating that method 1668A is the appropriate method to use for PCB analysis.

Chlordane:

The current MCL is 0.5 ppb and the median MDL is 0.2 ppb. If the existing MDL is not multiplied by a safety factor of 5, which will be discussed at the next DWQI meeting, the existing MCL could be lowered, but it would still not meet the proposed HBMCL of 0.013 ppb. This analyte is still under review.

Carbon Tetrachloride

Carbon Tetrachloride has a health based number of 0.39 ppb and the MCL is currently 2 ppb. BSDW confirmed that only 4 systems would be affected if the MCL was lowered from 2ppb to 1ppb. This analyte is still under review.

Benzene, Vinyl Chloride, 1,1,2,2-Tetrachloroethane and 1,1,2-Trichloroethane

BSDW staff polled the larger NJ certified drinking water labs and obtained a list of average & median MDL's for the following four compounds: Benzene, Vinyl Chloride, 1,1,2,2-Tetrachloroethane and 1,1,2-Trichloroethane. During the review of the median MDL for benzene (0.12), the subcommittee discovered that there may be new questions about how to apply the policy of rounding significant figures when establishing new PQLs and/or MCLs. Example: median MDL (0.12) x factor of 5 = PQL (0.60) A possible new HBMCL for benzene is 0.6 ppb. Questions arose on how the subcommittee should handle numbers with decimals? Should the subcommittee keep the same policy of rounding up?

The NJOQA recommends that certified labs achieve a MDL of 0.5 ppb. The labs currently running these analyses are achieving MDL's below this level. All of the proposed HBMCL's are below the recommended MDL of 0.5 ppb. If the existing MDL's are not multiplied by a safety factor 5 (to be discussed at the next DWQI meeting) some of the proposed HBMCL's may be achievable by current technology. In reviewing other chemicals on the A-280 list these same questions about applying the (safety) factor of 5 also apply to 1,2,DCA (median MDL 0.3 ppb) and Tetrachloroethlyene (median MDL 0.2 ppb).

For example, the new PQL for carbon tetrachloride would be 1.5 ppb (median MDL 0.3 x factor of 5 = 1.5) The subcommittee asked, should the 1.5 ppb be rounded to 2 ppb and keep the MCL at it's current level of 2 ppb? Or should the new MCL be lowered to 1.5 based on the analytical capabilities? Can you have an MCL with decimals?
The issue of "Significant Figures" will need to be reviewed at the next DWQI Meeting because this could also effect the decisions of the Testing Subcommittee. (These analytes are still under review.)

The subcommittee decided to bring these two issues to the Full DWQI meeting scheduled for December 1st, 2006 and ask for guidance.

**NOTE:** It was later decided by BSDW that the rounding issue should be referred to DEP's Standards Consistency Committee for their input so that DEP remains consistent when setting any type of standard (e.g. soil standard, water standard, clean up criteria, etc.)

Next meeting: TBD Update: Next Mtg 2/1/07 9:30AM -12:00 DHSS Ewing Lab

Action Items:
BSDW:

- poll systems that ozonate & obtain formaldehyde data (analysis, MDL, etc)
- review A280 legislation regarding occurrence & justification to regulate a chemical
- review ICR db & determine sample locations for NJ data
- make revisions to Testing Subcommittee Chemical Review Chart
- contact P. Fair-EPA for QA/QC data on ICR formaldehyde; Update: Conf Call 12/19/06

DSRT:

- L. Lippincott to compare & contrast EPA Method 556.1 and SM6252B for formaldehyde

OQA:

- B. Wilk to poll labs that perform 502.2 to determine how low they can see n-Hexane

Meeting Minutes prepared by:
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(11/28/06)
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