Drinking Water Quality Institute
October 21, 2008 Meeting Minutes
NJ Environmental Infrastructure Trust Building
Princeton Pike, Lawrenceville, NJ

Members Present: Perry Cohn, Laura Cummings, Russell Ford, Barker Hamill, Stephen Jenniss, Judith Klotz, Paul La Pierre, Jean Matteo, Leslie McGeorge, David Pringle, Gloria Post, Mark Robson, Carol Storms

Non-members Present: (NJDEP-DWS) Linda Bonnette, Branden Johnson, Sandra Krietzman, Michele Putnam; (NJDEP-Radiation Program) Patricia Gardner, Jennifer Goodman; (USGS) Zoltan Szabo; (McCabe & Associates) Ciara O'Connell

1. Call to Order—M. Robson

Chairman Robson called the meeting to order at 1:12 PM. He introduced Dr. Branden B. Johnson, a new member of the Bureau of Safe Drinking Water Technical Assistance at NJDEP. His responsibilities will include drafting the report of DWQI recommendations on maximum contaminant levels (MCLs), and wrapping up its report on a radon MCL.

2. Minutes—M. Robson

The latest draft of the July 14, 2008 DWQI meeting minutes was reviewed. A motion was made, seconded, and passed unanimously to approve the minutes with editorial corrections.

3. Subcommittee Status

Health Effects—G. Post

G. Post provided an overview of the subcommittee's recommendations on 2,4,6-trichlorophenol (TCP), methyl ethyl ketone, and 1,1,1-trichloroethane. The health-based MCLs recommended for all three contaminants increased because new studies had led to reduced uncertainty about the magnitude of their effects. These contaminants were referred to the Testing Subcommittee.

The Health Effects Subcommittee made a health based MCL recommendation for dacthal and referred the chemical to the Testing Subcommittee. 1,2,3-Trichloropropane is still under review, however it was referred to the Testing Subcommittee so they can begin their review.

Tertiary butyl alcohol has an existing groundwater criterion, but the more recent health effects information needs to be reviewed by the Health Effects Subcommittee to develop a Health-based MCL recommendation..

Dr. Alan Stern of DSRT has completed a draft risk assessment of the recently completed carcinogenicity study of chromium 6 in drinking water by the National Toxicology Program. The risk assessment was done as part of the work of the Risk Assessment Subcommittee of the DEP Chromium Workgroup. The draft risk assessment report has been sent out for peer review. Once the risk assessment is finalized and accepted by the Chromium Workgroup, the Health Effects Subcommittee will use that assessment to consider whether revision is warranted for the health-based MCL for chromium. The DWQI might wish to invite Dr. Alan Stern of the Division of Science, Research and Technology to provide an overview of the risk assessment at a future DWQI meeting.

Testing—S. Jenniss

S. Jenniss noted that the subcommittee had produced a draft report, and hoped to complete the report within the next month. The subcommittee has yet to review 1,2,3-trichloropropane, 2,4,6-trichlorophenol and dacthal. 1,2,3-Trichloropropane will be reviewed first due to its priority in terms of health risks. The Testing Subcommittee was asked to meet a December 15 deadline to complete that review so that it could be included in the rule proposal.

Treatment—P. La Pierre

The subcommittee received the third draft of the Black & Veatch report yesterday, and the subcommittee will be reviewing it over the next month. P. La Pierre hoped to schedule a subcommittee meeting prior to the next DWQI meeting on January 27, 2009, as the subcommittee had not met since the last DWQI meeting.

L. McGeorge requested that results of the treatment review appear on the contaminant status spreadsheet distributed to the Institute. B. Hamill replied that this was the goal of contracting with Black & Veatch, to provide data unequivocally showing that a given treatment for a given contaminant can meet its Practical Quantitation Limit (PQL) or health-based MCL. He added that this might not be feasible for ethylene glycol, which seems impossible to remove. The only alternative he has heard of, being applied in New York State, is to close surface water intakes until the contamination passes (defined technically as an “administrative control” rather than a treatment technique).

B. Hamill mentioned that he had talked yesterday with Black & Veatch managers in hopes of ironing out remaining problems with the report.

B. Hamill also mentioned demonstration projects at Fairlawn Water Department and Merchantville-Pennsauken Water Commission for using carbon to remove Tentatively Identified Compounds. He believed the systems had obtained necessary permits, and that construction and protocol development would take about a year before testing could begin.

The Passaic Valley Water Commission is the sponsoring utility in an AWWARF project on analyzing personal care products and pharmaceuticals in drinking water before and

after treatment, mostly in surface water systems (Aqua and United Water are among participating utilities; Black & Veatch is also involved as well as NJDEP and USGS).

A project funded by environmental settlement funds involves NJDEP, USGS and New Jersey American Water Company analysis of surface waters and treatment plant effects. B. Hamill noted that New Jersey has a very diverse set of treatments being applied to surface waters, so these projects provide valuable information on their effects.

L. Cummings mentioned that Passaic Valley also has collaborations ongoing with the University of Massachusetts and University of Illinois.

4. Preparation for New Jersey Regulation Readoption--S. Krietzman

S. Krietzman reviewed the procedure NJDEP is following on its forthcoming drinking water rule. M. Putnam issued an internal NJDEP memorandum on September 24, 2008 outlining a rule adoption procedure that began with the establishment of six internal work groups on such topics as primary and secondary MCLs, construction, operational and homeland security, and finance and managerial issues. By early November their deliberations will be shared with B. Hamill and M. Putnam, with the outcome being a rule launch memorandum for the Commissioner's approval.

Meetings will be scheduled in December 2008 for informal discussion of elements in the proposed rule with major stakeholders. One all-day meeting has been scheduled already for December 4 at the EcoComplex [location subsequently changed to Thomas Edison College, Trenton, N.J.], covering the safe drinking water rule and the water allocation rule for a half-day each. Invitees will include the DWQI, the Water Utility Authority, the Water Supply Advisory Council, the New Jersey American Water Works Association, and major purveyors. The NJDEP plans to outline major points in the proposed rule, and then seek feedback. Some background information will be sent out before the meeting tp prepare participants. Review of a formal rule itself is not expected at this December meeting. Because B. Hamill has reviewed potential MCLs and other likely components of the proposed rule with purveyors in other meetings over the past several months, he does not expect much to surprise major purveyors.

NJDEP will discuss details on compliance determination and other topics at the DWQI meeting in January 2009, with the goal of having a draft rule completed by February 1, 2009.

Meanwhile, B. Johnson is charged with completing a draft DWQI MCL recommendation report by December 1, 2008, which would be sent to DWQI members by about January 1, 2009 for review (with placeholders for those contaminants which might still be under review by subcommittees). A discussion of this draft report will be on the agenda for the January 27 DWQI meeting, and a revision will be sent to DWQI members by February 20 for discussion and completion at the DWQI meeting in March.

The safe drinking water rule is expected to undergo legal review from mid-March to mid-April 2009, with a deadline of June 30 for obtaining the NJDEP Commissioner's signature. By July 15 it will be forwarded for Administrative Law review, with publication in the New Jersey Register by mid-August.

L. McGeorge asked if the MCL recommendation report would follow the format of past reports. S. Krietzman replied that the report would contain upfront summary material, with the individual committee reports standing alone as appendices. G. Post noted that all of the prior MCL reports are posted on the SDW website.

5. Radon—J. Klotz, R. Ford

M. Robson prefaced discussion of radon by saying that the operations of the Radon Subcommittee, as he observed them from afar, exemplified the interdisciplinary and cooperative way in which DWQI, NJDEP and USGS ought to work, and praised their report.

J. Klotz asked B. Hamill if he had heard any reactions to the proposed MCL from purveyors, due to his 2-3 talks to water industry groups to date. He responded that the water industry had not yet reacted to the proposed MCL. DWQI members suggested that it was due to more interest in how the NJDEP will deal with USEPA's new groundwater rule and TCR rule.

L. McGeorge asked if radon would be part of the December stakeholder meetings, and M. Putnam replied that she plans to include radon in the current SDWA regulations stakeholder meetings. However, the timing of the radon rule proposal awaits upper management review, and may be affected by workload constraints.

R. Ford briefly noted the Radon Subcommittee's recommendation of a MCL of 800 pCi/L, given that a majority of DWQI members had been on the subcommittee. He noted several of the issues with which the group had grappled, such as whether to include inhalation as well as ingestion risks, how to deal with a natural contaminant for which the one-in-one-million risk criterion for carcinogens under the New Jersey Safe Drinking Water Act had not been designed, the cost per life saved (including accounting for treatment costs at different flow levels), and whether radon levels at the point of entry were correlated with levels in the distribution system.

J. Klotz noted that a lot of work had gone into the development and writing of the report, and singled out several people for praise.

R. Ford noted that the Subcommittee had lengthy discussions about the choice between MCLs of 800 and 1000 pCi/L, but kept coming back to the former as preferable. Asked by D. Pringle for the factors in that choice, J. Klotz noted that Table 6 was very convincing about the relative efficiencies of the two levels in terms of the tradeoff between lives saved and costs per life saved. More generally, the subcommittee agreed that the 300 pCi/L MCL considered by USEPA in its 1999 rule proposal was not feasible,

and USEPA's Alternative MCL (for the proposed Multimedia Mitigation Program) of 4000 pCi/L presented too high a risk.

General discussion included explanation of why the 800 pCi/L MCL had been selected, whether a recommendation on phasing-in the MCL for small systems was needed (B. Hamill explained the rule process and 3-year monitoring schedule would mean small systems would not have to meet the MCL until 2013 at earliest, thus making a phase-in statement unnecessary), whether cost estimates included 20 years of maintenance costs (yes), the proposed delay in considering how to address radon in private wells, and enhancing the indoor air program description and strength. The DWQI also agreed to make this a DWQI MCL recommendation report to the NJDEP Commissioner.

J. Klotz moved, and R. Ford seconded, a motion to adopt the recommendations and report, subject to any further revisions based on comments sent to B. Johnson by November 3. The vote was 12 ayes, zero nays, and one abstention by D. Pringle. He endorsed the recommendations themselves, but said he was abstaining due to a long-standing disagreement with NJDEP about how to regulate natural contaminants, which he feels should not have costs taken into account in the setting of MCLs.

6. Perchlorate—P. Cohn, G. Post

P. Cohn noted that in spring 2008, U.S. Food and Drug Administration scientists published an article on the dietary intake from food of perchlorate in various age groups, from infants to adults.

Recently the USEPA issued a preliminary regulatory determination suggesting a Reference Dose of 0.7 ug/kg/day in adults, which translates into a drinking water MCL equivalent of 24 ug/L given an adult RSC of 40% from food. USEPA's proposed health reference level of 15 ug/L would affect about a million people, and thus USEPA said it would not regulate perchlorate in drinking water.

USEPA's health reference level (HRL—non-regulatory equivalent of a USEPA MCLG or NJ health-based MCL) is three times New Jersey's health-based MCL, and ignores the agency's own pharmacokinetic modeling output which shows that bottle-fed infants, for example, would be receiving five times their reference dose at USEPA's HRL, with breast-fed infants receiving a bit less.

G. Post concluded that for a variety of reasons, including that infancy is a critical period for neuroligical development, the federal HRL is not sufficiently protective of infants. If USEPA had set the HRL at 5 ug/L, a level which is protective of infants, about 5-7 million people would have been exposed at that level, and regulation would have been much more likely.

As for New Jersey's proposed perchlorate rule, B. Hamill noted that it was being returned to the Division of Water Supply for adjustment (e.g., another impact analysis required by the legislature since the rule was submitted to the Office of Legal Affairs). This would

allow the new information on dietary exposure and on USEPA actions to be included in the rule summary.

7. Next Meeting

Chairman Robson reminded DWQI members that the next scheduled meeting was January 27, 2009. He suggested that a backup date be arranged, in case of weather problems.

8. Adjournment

Chairman Robson adjourned the meeting at 3:25 PM.