Tate, Michele #2735

From: DavidAKatz [davidakatz@aol.com]
Sent: Monday, January 19, 2009 12:27 PM
To: EP, RegComments
Cc: david.katz@phila.gov
Subject: Comments to proposed regs for LT2ESWTR and DDBP

Attached please find the City of Philadelphia's comments to the Department's proposed rulemaking regarding the Long Term Enhanced Surface Water Treatment Rule (LT2ESWTR) and Disinfectants and Disinfection Byproducts Rule (DDBR).

Both rules were published for comment in the Pennsylvania Bulletin, Volume 38, No. 51, on December 20, 2008.

Thank you for your time and attention.

Sincerely,

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January 16, 2009

Environmental Quality Board
P.O. Box 8477
Harrisburg, PA 17105-8477

To Whom It May Concern:

The Philadelphia Water Department (PWD) is pleased to respond to the request for public comments on the proposed rulemaking cited in the Pennsylvania Bulletin, Volume 38, No. 51 published December 20, 2008. As an interested stakeholder PWD welcomes the opportunity to provide our comments and concerns regarding the Long-Term Enhanced Surface Water Treatment Rule; (Safe Drinking Water) and the Safe Drinking Water (Stage 2 Disinfectants and Disinfection Byproducts Rule).

Please refer to the attached documents for written comments. PWD looks forward to working with PADEP in their primacy role for rulemaking and compliance.

Sincerely,

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Comments from the Philadelphia Water Department
to Pennsylvania's Environmental Quality Board on the proposed rulemaking for the LT2 ESWTR (Long-Term 2 Enhanced Surface Water Treatment Rule) from the Pennsylvania Bulletin, vol. 38, no. 51, dated December 20, 2008

Comments dated January 16, 2009

The following two statements are referenced by page number.

"The higher the *Cryptosporidium* oocyst concentration of the source water, the higher the bin classification" (page 7035 under D. Background and Purpose)

"Beginning January 1, 2002, public water suppliers serving 10,000 or more people shall provide at least 99% removal of *Cryptosporidium* oocysts" (page 7042 under 109.202, (1))

If Pennsylvania's Department of Environmental Protection wishes to develop clearer and concise wording to help direct the better application of the LT2, then everywhere "*Cryptosporidium* oocysts" occurs it should read "viable and human-infective *Cryptosporidium* oocysts." This language would be a much more accurate statement as to what is being controlled by the LT2. It is known today that watersheds contain non-viable as well as non-human infective oocysts and these are not the intent for LT2 control. For example, if a **watershed control program** found sources of oocysts that were non-human infective and was able to reduce the influx of human-infective oocysts, then that would be an effective control. The control of non-human infective oocysts would provide no true health benefit. Microbial source tracking and *Cryptosporidium* genotyping are techniques being used to enhance watershed controls and their uses are advancing quickly. PCR technology is widely available today for water utility laboratories. This regulation should encourage the further development of such tools by leaving open their application to demonstrate effective source controls. The recommended adjustment in wording above would facilitate this purpose.

On page 7037, 109.1202 refers to the continuing use of *E. coli* to determine vulnerability to *Cryptosporidium* oocysts. Again under page 7044, 109.1202 the direction is given to larger systems to monitor for *Cryptosporidium* oocysts, turbidity and *E. coli*.

A paper presented (and found in the proceedings) at the recent AWWA Water Quality Technology Conference by E. Nieminski et al., (Is Monitoring for E. coli a Good Surrogate for *Cryptosporidium* occurrence in water?) found from analyzing actual data, as would be collected under the LT2, that there was a poor correlation between *E. coli* and *Cryptosporidium* oocysts. The authors state that, "The analyses indicate that elevated concentration of *E. coli* would not be indicative of the presence of *Cryptosporidium* in surface water." Both turbidity and *E. coli* were found to be poor surrogates. Note that the authors include utility staff, *Cryptosporidium* experts and Utah State representatives which eliminates the potential for bias.

While we recognize the difficulty with small systems monitoring for *Cryptosporidium* oocysts, we also recognize the need to be up-to-date, and technically and scientifically sound and accurate in the published regulations. The EPA's hope that there would be a correlation has not been shown in recent studies.

The definition of "plant intake" on page 7041 under 109.1 Definitions needs more review. The definition limits "intake" to the "head of a conduit." PWD has one intake on the Delaware River that is not the head of a conduit. The definition could be modified to "head of a conduit entering a water treatment or the location where a source water enters a physical structure that is part of a treatment plant".

The definition for "Significant Deficiency" on page 7042 under 109.1 Definitions also needs more review. The definition states, "A defect in design, operation or maintenance, or a failure or malfunction of the

Comments Regarding Watershed Control Program Toolbox Credit

The Philadelphia Water Department (PWD) has developed, conducted, and improved a source water protection program for over a decade which targets cryptosporidium control as well as the control of other sources of potential contamination to our watersheds. This program has resulted in the reduction of microbiological contaminants entering our source waters, dramatically increased public awareness about source water protection, improved the use of best management practices in all source watersheds, fostered continuing partnerships with water, wastewater, and industry in the watershed, led to detection of watershed contamination problems, established and maintains an early warning system for the Schuykill and Delaware Rivers, and fosters research to identify, track, understand, and mitigate microbiological contamination within our watersheds.

The Philadelphia Water Department recommends the Pennsylvania Department of Environmental Protection give water suppliers primary credit for the Watershed Control Program toolbox item instead of the additional credit proposed. PWD's recommendation is consistent with the scientific basis of the Long Term 2 Enhanced Surface Water Treatment Rule (LT2), the basis of PADEP's Source Water Protection Program, and the multiple barrier concept in water treatment and supply.

The LT2 is based on endemic risk (1 in 10,000 average annual risk of infection) and not epidemic risk. The existing ESWTR addressed epidemic risk in the filtration requirements. The binning process of the LT2 is set up to determine the log removal requirements based on an average *Cryptosporidium* concentration over time. Although this average concentration includes episodic conditions, spills, accidents, and wet weather events in the risk estimate, the intent of the LT2 is to address endemic risk. All of PADEP's arguments against primary credit are based on epidemic concerns which are not the basis of the LT2ESWTR.

As stated by the PADEP's staff and the Source Water Protection Program, a source water protection program results in heightened awareness, better communication, and quicker response to upstream events and spills as well as long term planning for the reduction of baseline risk. Unfortunately, the PADEP'S proposed rule takes away the incentive that water utilities need to gain support for Watershed Control Programs. This decision could have a long term impact. Water utilities who are not implementing a program have no incentive to implement one and are at greater risk of both endemic and epidemic conditions. Water utilities that have a program have incentive to downsize or eliminate it.

Removing incentives for watershed control programs places these programs at risk. PWD has been, through its watershed control program, pursuing reductions in source water contamination regionally and has been investing in microbial source tracking and cryptosporidium genotyping. PWD has been promoting best management practices such as riparian buffers and has developed a watershed-wide network focused on reducing sources of pathogens. It is well recognized within the drinking water community that these efforts will produce long term reductions in both average and peak occurrences of waterborne pathogens.

Therefore, PWD suggests that the PADEP reconsider its proposed rule on the basis that primary credit for a Watershed Control Program is supported by good engineering and scientific principles, existing long term PADEP programs, and industry practices to reduce endemic *Cryptosporidium* illness and risk.