

BEFORE THE POLLUTION CONTROL BOARD
OF THE STATE OF ILLINOIS

IN THE MATTER OF:)
)
PUBLIC WATER SUPPLIES:)
PROPOSED NEW 35 ILL. ADM.) R18-17
CODE 604 AND AMENDMENTS) (Rulemaking – Water)
TO 35 ILL. ADM. CODE PARTS)
601, 602, 607, AND 611)

NOTICE OF FILING


To: Don Brown, Clerk
Tim Fox, Hearing Officer
Illinois Pollution Control Board
100 West Randolph
Suite 11-500
Chicago, IL 60601

And Attached Service List

Please take notice that on September 21, 2018, I filed electronically with the Office of the Clerk of the Illinois Pollution Control Board the attached **First Notice Comments of the City of Springfield, Office of Public Utilities d/b/a City Water, Light and Power**, a copy of which is attached and served upon you.

Respectfully submitted,

THE CITY OF SPRINGFIELD,
a municipal corporation

By 
One of its Attorneys

Dated: September 21, 2018

Deborah J. Williams
Regulatory Affairs Director
Office of Public Utilities
800 East Monroe
Springfield, Illinois 62757
(217) 789-2116

**BEFORE THE POLLUTION CONTROL BOARD
OF THE STATE OF ILLINOIS**

IN THE MATTER OF:)	
)	
PUBLIC WATER SUPPLIES:)	
PROPOSED NEW 35 ILL. ADM.)	R18-17
CODE 604 AND AMENDMENTS)	(Rulemaking – Water)
TO 35 ILL. ADM. CODE PARTS)	
601, 602, 607, AND 611)	
)	

FIRST NOTICE COMMENTS OF THE CITY OF SPRINGFIELD, OFFICE OF PUBLIC UTILITIES d/b/a CITY WATER, LIGHT AND POWER

Now comes the City of Springfield, Office of Public Utilities, d/b/a City Water, Light and Power (“CWLP”), by and through one of its attorneys and timely files these First Notice Comments in the above-captioned rulemaking proceeding.

Background

The City of Springfield owns and operates the municipal utility referred to as City Water, Light and Power (“CWLP”) and provides water service to a population of nearly 150,000 people in and around Springfield. This includes retail service to Springfield as well as Southern View, Leland Grove and certain unincorporated areas around the city. Wholesale service is provided to the surrounding communities of Grandview, Jerome, Loami, Rochester, Sugar Creek Public Water District, Williamsville-Sherman Water Commission and Round Prairie Water Cooperative. Springfield also serves as a back-up, secondary water supply for the Village of Chatham and the Curran-Gardner Water District.

CWLP is responsible for planning, constructing and maintaining the City's integrated water supply, purification, and distribution system—which includes Lake

Springfield, the Water Purification Plant, three water storage tanks, and approximately 760 miles of water mains. The Water Division's primary mission is to ensure that all utility customers will have a safe and plentiful water supply in both the immediate and long-term future. Toward this end, the Division operates a 24-hour plant where plant operators consistently and continually monitor drinking water quality throughout the water system. Division employees are also actively involved in researching and implementing best management practices for protecting our current supply source.

Through its Water Division Manager, Ted Meckes, CWLP participated in the stakeholder process which assisted in the development of the rulemaking proposal in this matter. Mr. Meckes is also a past chair of the Illinois Section of the American Water Works Association.

On August 3, 2017, the Illinois Environmental Protection Agency ("Agency" or "Illinois EPA") filed a rulemaking proposal with the Pollution Control Board ("Board") that made changes to 35 Ill. Adm. Code Parts 601, 602, 607 and 611 and adds a new Part 604. The Board scheduled hearings for October 17 and November 16, 2017. At the November 16th hearing, Ted Meckes submitted pre-filed testimony highlighting some concerns with proposed Section 604.725. CWLP filed Post-Hearing Comments on December 20, 2017 summarizing the evidence presented in the Record on the issue of increasing the chlorine residual requirement.

The Board issued a First Notice Opinion and Order in this matter on July 26, 2018 and the Secretary of State published the proposal in the Illinois Register on August 10, 2018. (42 Ill. Reg. 14474, 14494, 14523, and 14663).

CWLP wants to take the opportunity in these comments to thank the Board and the Agency staff for their hard work and cooperation in updating the regulations that water providers and design engineers must live by. These updates were a long time in the making and will make great strides to improve this industry and clarify the applicable requirements. In our Post-Hearing Comments, we felt there was only one critical issue that needed to be highlighted in which the Agency's proposal was not tracking the best science and the work and cooperation of the stakeholders. The Board's First Notice Opinion spent nearly 11 pages discussing the issue of increasing the chlorine residual requirements, ultimately dismissing the concerns expressed by the commenters and retaining the Agency's original proposal, though the Board did seek additional comments from the Agency on some outstanding technical issues raised in the Post-Hearing Comments with regard to this Section. While CWLP appreciates the Board's detailed analysis of this issue, we would like to clarify some of the findings in the First Notice opinion with regard to proposed Section 604.725.

Supplemental Comments on Section 604.725 Residual Chlorine

The current Illinois regulations establishing minimum chlorine residuals were adopted by the Agency and are found at 35 Ill. Adm. Code 653.604. Section 653.604 requires a minimum free chlorine residual of 0.2 mg/l and a minimum combined (total) chlorine residual concentration of 0.5 mg/l to be "maintained in all active parts of the distribution system at all times." The proposed rule raises the minimum free chlorine residual that must be maintained in all a parts of the distribution system at all times to 0.5 mg/l and the combined chlorine residual to 1.0 mg/l in proposed Section 604.725(a).

CWLP would like to clarify for the Record its position as referenced by the Board page 25 of the Opinion and Order. In relevant part the Board states:

CWLP argued that it could try to ensure technical compliance with IEPA's proposal by moving sampling areas to water distribution mains to "avoid problem areas." CWLP Post-Hrg. Cmts. at 12. CWLP estimates that re-locating its 48 sample sites and 41 alternate sites would cost approximately \$250,000. *Id.* CWLP adds that it "would not know the quality of the water that people are drinking. . . ." *Id.*, citing Tr.2 at 20. This comment does not appear to be consistent with CWLP's testimony that "our main purpose and responsibility is to provide safe drinking water to our customers." Tr.2 at 19. Also, IEPA's proposal does not require or even suggest that a CWS comply by adding or moving sampling locations. The Board does not weigh the possibility of moving sampling location against IEPA's proposal.

CWLP has attempted to provide the Board with the best information it had available regarding the potential unintended costs and consequences of this proposed change to the chlorine residual requirements and to testify that this proposal will not be without economic impact on the regulated community. Whether a water supply complies with this rule change by altering its operational practices, increasing chemical usage or no longer sampling in areas that are out of the control of the utility because they will affect its compliance status, there will be a cost of compliance with this regulation. To comply with Section 27(a) of the Environmental Protection Act the Board needs to quantify that cost and determine that it is economically reasonable for affected sources in order to adopt the proposal. 415 ILCS 5/27(a). In addition, the Administrative Procedure Act requires the Board to give special consideration to the impact of rule changes on small municipalities and whether those can be mitigated. 5 ILCS 100/5-30. That role is particularly significant for the Board in the unusual case like this one, where a proposal is not federally required or supported by a consensus in the

scientific community that it is necessary and will not have larger negative consequences than the one attempting to be addressed.

CWLP wants to reiterate that although water providers may have residual chlorine that well exceeds the proposed 1.0 mg/l combined residual in the distribution water main, private plumbing inside a large building or complex could be below 1.0 mg/l. This cannot be remedied by the water provider. This is a shared responsibility of the water provider and the building owner. CWLP feels strongly that the solution to this concern cannot and should not be addressed by raising the chlorine residual requirements for the distribution system. The only solution to address the concern in a manner that is protective of public health is to modify the Department of Public Health's plumbing code to require these 'problem' facilities to reduce service line size requirements, make changes to water conservation devices and require large complexes to develop water management plans. A water provider cannot correct the problem of maintaining adequate chlorine residual within a large building that does not have sufficient water use. While the Board seems to suggest the answer to this dilemma is that CWLP is not legally responsible for the quality of water in these buildings, they have also suggested in their on page 25 of the First Notice Opinion that a provider would be less than concerned with the safety of its customers if it were to move sampling points to the main.

If the current 0.5 mg/l combined residual is increased to 1.0 mg/l, problems that exist today will remain unless some action is taken. Where action is needed now, it will still be needed after the proposal. However, the proposal will require action to be taken where none is needed now. There is no evidence that if a water provider is meeting 0.5

mg/l combined chlorine residual everywhere in their system that there are any issues or danger to public health. As testified by Department of Public Health witness Justin DeWitt, only where chlorine levels have become undetectable have disease outbreaks been found. This scientific reality is the basis for the federal requirement. A water distribution system could have a 1.5 mg/l combined residual in the distribution system and stay at 0.5 mg/l or above within these large complexes, but to achieve a 1.0 mg/l in these large complexes, water providers will have to feed more chlorine or relocate sample sites. Merely flushing the distribution system will do nothing to improve the water quality in a large complex, nor will any of the other compliance options suggested by the Agency. The solution is for property owners to develop water management plans in an attempt to reduce water age resulting in increased chlorine residual which is similar to the water provider flushing their water distribution system when the provider has a problem of low chlorine in the distribution system. Although CWLP recognizes it is beyond the Board's authority to mandate this, from a policy perspective, this should be the first step taken by regulators, rather than arbitrarily raising the residual on distribution systems.

This proposal would leave water providers with two options that are within their control: 1) raise the chlorine level leaving the plant and experience an increase in chemical cost, taste and odor complaints and disinfection byproducts or 2) relocate a sample site, which would defeat the water provider's goal and potentially endanger public health where problems go undetected. To suggest that raising the chlorine residual will not require more chlorine to be added or substantial increase in taste and odor complaints and increase disinfection byproducts is not accurate. Raising the

chlorine residual so those large complexes with inadequate flow have a residual of 1.0 mg/l total chlorine will significantly increase the chlorine residual for other customers.

The Agency has identified best management practices that public water supplies could utilize in lieu of additional chemical addition or moving sampling points. These included “[p]roperly balancing chemical addition, the looping of water mains, mixers in storage tanks, automatic hydrant flushing, and other means to keep water fresh” and “[p]roper distribution system management including configuration, enhanced treatment control, reservoir mixing, and reservoir inlet/outlet configuration.” First Notice Opinion at 17, 24. While “keeping water fresh” is everyone’s agreed goal, this proposal would change the definition of how freshness is measured. To keep water fresh enough to maintain a higher chlorine residual level comes with a cost. The Board concluded that:

IEPA indicates that these involve manageable costs. The record does not contradict this position. Balanced against the public health benefits expected to result, the Board concludes that IEPA’s proposed minimum chlorine residual is economically reasonable.

First Notice Opinion at 24. CWLP believes the record does contradict the conclusory statement by the Agency that the costs are “manageable”. Many of the practices identified only come at reasonable costs when designing new water mains and equipment. To install looping water mains and storage tank mixers where none exist now would certainly have a cost that was not contemplated by the term ‘manageable’. While the Board should have great deference in how to interpret the Record, it would be unreasonable to ignore the evidence presented both that chemical addition will be required and that there will be a cost whether compliance is achieved through chemical addition or another way. It also conflicts with the weight of evidence in the Record for

the Board to balance these unquantified costs against a public health “benefit” that is “expected to result” when there is no science to support the conclusion that an increase in the residual requirement for total chlorine is necessary to prevent disease outbreaks or other negative consequences. The evidence in the Record demonstrates that outbreaks and disease would be prevented if the current standard is maintained consistently in all distribution systems and associated plumbing.

On page 25 of the First Notice Opinion, the Board recognizes that costs could be significant for a facility that purchases water that complies with the current or even the proposed requirement if it needed to install additional disinfection to be sure the new requirement will be met throughout its system. These costs would be borne by the smallest municipalities least able to absorb them and must be taken into account by the Board in concluding the proposal is economically reasonable.

Illinois EPA has referenced a single document as a basis for increasing the combined chlorine requirement – the American Water Works Association publication (M-56 Fundamentals and Control of Nitrification in Chloraminated Drinking Water Distribution Systems). According to Illinois EPA’s November 1, 2017 filing with the Board, a single hard copy of this document was made available to the Board, but a copy is not included in the online docket. The discussion provided by the Board states that document recommends that community water supplies “maintain a goal of 2 to 3 mg/L combined chlorine in finished water.” First Notice Opinion at 23. It is difficult to respond to a document that wasn’t provided to the parties, but it appears this single source cited to support the combined chlorine requirement does not support a change to the residual requirement throughout the system, but addresses best practices for finished water

leaving the plant. CWLP agrees that this is a good goal and as our testimony showed we follow it, but that does not provide support for an appropriate level of chlorine residual to be maintained in all parts of the system at all times.

CWLP presented hearing exhibits and post-hearing comments documenting the minimum chlorine residual requirements across the country. These Exhibits demonstrate that if the Board were to adopt the proposed changes, Illinois would join Louisiana as the only State with a free chlorine residual requirement of 0.5 mg/l or higher and would join five states (Iowa, Oklahoma, Kansas, North Carolina and Ohio) with a total chlorine minimum residual of 1.0 mg/l or higher. While U.S. EPA simply requires community water supplies to maintain detectable levels of chlorine in their distribution systems. The Board responded to this comment by stating that “equivalent or more stringent requirements in these six other states indicate that the proposed requirements can be attained through existing practices.” First Notice Opinion at 18. There is no evidence in the Record to lead the Board to the conclusion that because a tiny minority of other States have taken this approach that it is working. In making such a conclusion with no information from the other States on how their requirements are enforced and whether their disinfection by-product levels are increasing, the Board is taking the risk that Illinois may find in the future that it has joined those States in seeing higher levels of disinfection by-products and the resulting consequences for its citizens.

With regard to disinfection by-products, the Board opinion states “The record does not connect the level of these chlorine residuals to increased violation of the disinfection by-products standard.” First Notice Opinion at 19. This statement by the Board is factually correct, but misleading. The Record makes clear in the U.S. EPA

Webinar cited by the Agency, that there have been no studies and there is no scientific information to present to confirm that increasing chlorine residual requirements will not adversely affect the levels of disinfection byproducts. Before Illinois moves forward with a new requirement that has not be recommended by U.S. EPA, there should be some evidence prevented that it is safe and will not result in harm to its citizens by unnecessarily exposing them to cancer-causing chemicals.

Mr. Meckes' summary of the issue in his expert testimony from the Board hearing is worth repeating here:

A combination of these facts, waters disinfected prior to first use, pipelines remain pressurized and any detectable amount of chlorine assures water was, indeed, properly treated. This demonstrates that a residual of 0.5 or even a 1.0 total residual is irrelevant. The federal regulation that chlorine residual is detectable provides an adequate public health protection. Increasing chlorine residual will increase disinfection bi-products. The formation of disinfection by-products is simple math. The more disinfectant, the more disinfection by-products and there is a cost with this change: Increased flushing costs, increased chemical cost due to raising chlorine feed as well as installing water samplers.

November 17, 2017 hearing transcript at pp.16-17.

The evidence in the Record is insufficient for the Board to conclude that increasing the minimum combined chlorine residual from 0.5 mg/l to 1.0 mg/l is economically reasonable for all affected community water supplies. This is particularly true if the limited cost information presented is balanced against the lack of scientific evidence of public health or environmental improvements that would result from adoption of this proposal. In addition to rejecting comments against the proposed change, the Board also rejected commenters who asked for a delayed effective date and a separate study or sub-docket for this proposal. CWLP encourages the Board to

again give serious consideration to severing the changes to this Section from the remainder of the proposal or providing a delayed effective date to allow time for adequate scientific analysis of the need for this proposed change and the possible negative consequences that may result.

Section 602.310 Projects Requiring Disinfection

In the First Notice proposal, subsection (d) of Section 602.310 has been repealed but CWLP was not able to locate a discussion of the intent behind this change in the Record. CWLP supports the allowance of the presence absence method for bacteriological testing, but wants to be sure the changes made to this Section are clear and as intended. CWLP would like to clarify whether it was the Agency's intent to require that all water main projects must take two samples at least 24 hours apart for each project. Also, was it the Agency's intent to eliminate the option to use the membrane filtration technique with a single sample? Any additional clarity that can be provided on the intent of this proposal and the reasoning would be appreciated.

Section 604.900 - General Stabilization Requirements

In Section 604.900(c)(3)(A), the proposal incorporates a method for Calcium Carbonate Precipitation Potential (CCPP) as Method 2330C. In subsection (d)(1) of this Section, what appears to be the same CCPP method is referred to as Method 2330B. CWLP is not sure if there is a typographical error in subsection (c)(3)(A) or if these are truly two different Methods. We were unable to find a specific incorporation of either Method in Part 611 to determine if this is correct or what was intended.

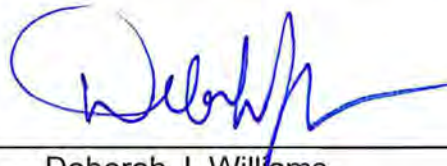
It was also not entirely clear to CWLP why this Section contains the same language for testing for water containing phosphates in subsection (c)(3)(B) and (d)(2). If it is possible to clarify the difference between the two in a subsequent Board opinion that might prove helpful to community water supplies.

Conclusion

The City of Springfield, Office of Public Utilities appreciates this opportunity to provide additional comments and express our concerns with one Section of what overall is an excellent proposal to modernize, clarify and streamline the drinking water regulations for the community water supplies in the State of Illinois.

Respectfully submitted,

The City of Springfield, Office of Public Utilities



By

Deborah J. Williams
Regulatory Affairs Director

Deborah J. Williams
Regulatory Affairs Director
City of Springfield, Office of Public Utilities
800 East Monroe, 4th Floor
Springfield, Illinois 62701

(217) 789-2116

CERTIFICATE OF SERVICE

The undersigned, Deborah J. Williams, an attorney, certifies that I have served upon the individuals named on the attached Service List a true and correct copy of the **NOTICE OF FILING** and **FIRST NOTICE COMEMNTS OF THE CITY OF SPRINGFIELD, OFFICE OF PUBLIC UTILITIES d/b/a/ CITY WATER, LIGHT AND POWER**, from the email address deborah.williams@cwlp.com of this 15 page document before 5:00 p.m. on September 21, 2018 to the email address provided on the attached Service List.



A handwritten signature in blue ink, appearing to read "Deborah J. Williams", is written over a solid horizontal black line.

SERVICE LIST R18-17

Tim Fox
Illinois Pollution Control Board
James R. Thompson Center
100 W. Randolph
Suite 11-500
Chicago, Illinois 60601
tim.fox@illinois.gov

Joanne M. Olson
Rex Gradeless
Division of Legal Counsel
Illinois Environmental Protection Agency
1021 N. Grand Ave. East
P.O. Box 19276
Springfield, Illinois 62794-9276
joanne.olson@illinois.gov
rex.gradeless@illinois.gov

Kathryn A. Pamenter
Environmental Enforcement/Asbestos
Office of the Illinois Attorney General
69 West Washington, St.
Suite 1800
Chicago, IL 60602
kpamenter@atg.state.il.us

Eric Lohrenz
Virginia Yang
Illinois Department of Natural
Resources
One Natural Resources Way
Springfield, IL 62702-1271
Eric.lohrenz@illinois.gov
Virginia.yang@illinois.gov

Janet Kuefler
Cynthia Meyer
USEPA Region 5
77 West Jackson Blvd.
Chicago IL 60601
Meyer.cynthia@epa.gov

Katy Khayyat
DCEO Small Business Office
500 E. Monroe Street
Springfield, Illinois 62701
Katy.khayyat@illinois.gov