

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

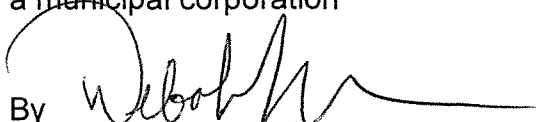
To: Don Brown, Clerk
Tim Fox, Hearing Officer
Illinois Pollution Control Board
100 West Randolph
Suite 11-500
Chicago, IL 60601

And Attached Service List

Please take notice that on November 7, 2017, I filed electronically with the Office of the Clerk of the Illinois Pollution Control Board the attached **Testimony of Ted Meckes, P.E.**, 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: November 7, 2017

Deborah J. Williams
Regulatory Affairs Director
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PRE-FILED TESTIMONY OF TED MECKES

My name is Ted Meckes and I am the Water Division Manager for the City of Springfield, Office of Public Utilities, more commonly referred to as City Water, Light and Power or CWLP. I am also the current past chair of the Illinois Section of the American Water Works Association. I am a licensed professional engineer in the State of Illinois and have been employed in the drinking water industry for 31 years.

Thank you for allowing me to respond to these recommended changes and I want to first of all thank the Illinois EPA drinking water staff for their excellent work and effort in updated these regulations. Water providers for years have had to review numerous documents to determine which rule applied to their activities and these amendments will simplify and help ensure water providers are following the most up to date rules.

As a water provider, public health is our number one concern and we take this very seriously. Water providers understand and recognize that we are responsible for the water quality at each tap. Although I must define responsibility; we are responsible for the water quality leaving the plant and in the water mains, and we are responsible for educating residents, business owners and facility managers how to maintain that water

quality within their private plumbing. Water providers cannot control what type of faucet or the condition of the interior plumbing or the length and size of private plumbing within a complex that contribute to water age. That responsibility resides with the customers; in this case it could be large building or airports.

Though I am appreciative of the effort put forward by the Agency within this document, I do have one remaining concern which I will address in this testimony.

Section 604.725 Residual Chlorine

The current regulations require a free chlorine residual of 0.2 mg/l and a total residual concentration of 0.5 mg/l. The proposed rule raises the free to 0.5 mg/l and the total to 1.0 mg/l. As a combined chlorine system, Springfield does not have issues related to bacteria and attempts to maintain a total chlorine residual leaving our plant near 2.2 - 2.5 mg/l. This concentration does not leave an objectionable odor or taste for our customers. According to the American Water Works Association ("AWWA"), the issue of chlorine odor and taste is the number one complaint amongst U.S. water customers. Most importantly, total chlorine residuals at the levels leaving our plant do an excellent job at killing and/or inactivating bacteria in our system. Even with these levels of greater than 2 mg/l leaving our plant, at times, in the far reaches of our system, due mostly to inadequate water flow within large buildings, we may see total chlorine residuals as low as 0.5 mg/l that are absent of bacteria growth. We fear that requiring us to raise this total chlorine residual to 1.0 mg/l may have unintended consequences such as increased complaints of a chlorine odor or taste or, more critically to public health, the potential to exceed or come close to exceeding the safe levels of trihalomethane compounds (TTHMs). I do not believe that the best scientific evidence

we have available today proves the need to raise the levels of total chlorine residual to 1.0 mg/l as proposed by the Agency.

The issue of inadequate chlorine residual levels is not within our distribution system, but rather the private plumbing. In Springfield, our far end of our system is located at Capitol Airport which was once home to the 183rd fighter wing. Since their departure, the water use at the airport complex has decreased significantly, roughly 35 percent. Being that most of the water distribution system within the Capitol Airport and the military base is privately owned and operated, we have little control over flushing practices. If we were to relocate our sample site to across J. David Jones Parkway from the airport complex, we could easily obtain total chlorine residual samples that routinely meet or exceed the 1.0 mg/l minimum level. But moving the sampling location to improve the results would defeat the purpose of protecting the public health of all the citizens we serve.

I reviewed the sampling data at the airport which encompasses over 380 total samples over the last 10 years, with an average chlorine residual of 1.2 mg/l, a minimum of 0.3 mg/l and maximum of 2.2 mg/l. This sampling location has had one positive coliform sample result in the last ten years and in that sample the chlorine residual was 0.8 mg/l. If we did notice a residual below 0.5 mg/l we sampled to ensure the safety of the water as well as flushed within the airport complex to raise the chlorine residual. In response to questions submitted for the first hearing, the Agency referenced a USEPA Monthly Small System webinar on Residual Disinfection. This webinar discussed a graph that showed a very small percentage increase of positive total coliform positive samples from residual levels >1.0 mg/l to 0.5-1.0 mg/l less than 0.01% difference.

Electronic Filing: Received, Clerk's Office 11/7/2017

To maintain a higher level of chlorine in these larger buildings and facilities we will have to increase our chlorine residual at the plant, which will: increase cost, exponentially increase chlorine taste and odor issues, and most importantly increase disinfection by-products concentrations throughout the distribution system. These negative consequences of the proposal would be for the supposed benefit of ensuring that a facility with an internal plumbing issue has adequate chlorine residual. Until facilities such as large complexes or buildings such as the airport and the IEPA Headquarters in Springfield develop a Water Quality Management Plan, water providers should not arbitrarily raise chlorine residuals to address facilities that do not have adequate flow within their private plumbing system. Until there is science that both demonstrates a public health benefit from increasing total chlorine residual levels from 0.5 mg/l to 1.0 mg/l and determines that these benefits would not also result in increasing the levels of cancer causing chemicals in the water supply, the Board should decline to adopt the Agency's proposal.

As a provider of wholesale water to other neighboring communities and water districts, we question if those satellite systems experience low chlorine residuals in their system would the water producer be required to raise their chlorine levels or would the individual community be required to install a rechlorination system? A chlorine/ammonia feed system that could accurately feed the correct amounts of chlorine and ammonia would be very difficult to operate and very expensive to install and maintain. If the water provider was required to raise chlorine levels so that purchasing supplies meet this requirement, this would place a burden on the water provider to maintain chlorine residuals without the ability to maintain the wholesale supplies distribution system.

As presented in Exhibits 1 and 2 at the first hearing, many states have lower free and total residuals while a handful of States have higher minimum requirements. We feel the consequences far outweigh the perceived need and, in fact, we believe the success of our system proves there is no need. Springfield has had no confirmed cases of any type of bacterial infections within our community. CWLP's giardia and virus log inactivation worksheets which are submitted to IEPA monthly far exceed the removal requirements set forth by EPA. Mr. McMillian testified that the basis of this proposal is public health, which should always be the first concern of the Agency and the community water supply, but as I have testified here, CWLP has not seen any public health issues at the current total residual chlorine concentration of 0.5 mg/l. I believe the State should adopt drinking water standards based on scientific data, and there is no scientific data proving a 0.5 mg/l total chlorine concentration is inadequate.

Conclusion

Thank you for the opportunity to express our concerns with 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. I will be happy to answer any questions the Board may have on my testimony.

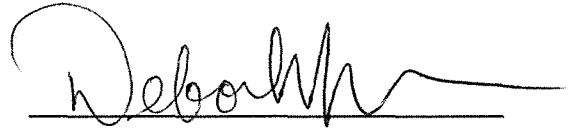
Respectfully Submitted



Ted Meckes, P.E.

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 **PRE-FILED TESTIMONY OF TED MECKES, P.E.**, by First Class Mail, postage prepaid, on November 7, 2017, from Springfield, Illinois unless indicated otherwise on the Service List.

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

This filing is submitted electronically and served on recycled paper as defined in Subpart B of the Procedural Rules

SERVICE LIST R18-17

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