

City of CREST HILL

Illinois

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STATE OF ILLINOIS  
Pollution Control Board

Raymond R. Soliman  
Mayor

1610 PLAINFIELD ROAD, CREST HILL, ILLINOIS 60403 PHONE 815-741-5100

November 16, 2017

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Vicki Hackney  
Clerk

Glen Conklin  
Treasurer

John T. Therriault, Clerk  
Tim Fox, Hearing Officer  
Illinois Pollution Control Board  
100 West Randolph  
Suite 11-500  
Chicago, IL 60601

Ward 1  
Scott Dyke  
John Vershay

**Re: In the Matter Of Public Water Supplies: Proposed New 35 ILL. ADM. Code 604  
Amendments To 35 ILL. ADM. Code Parts 601, 602, 607, and 611  
R18-17 (Rulemaking – Water)**

Ward 2  
Claudia Gazal  
Barbara Sklare

Dear Mr. Therriault and Fox:

Ward 3  
Tina Oberlin  
Marco Coladipietro

On behalf of the **City of Crest Hill, IL.**, I am submitting this letter to express our **City's** objection to the minimum proposed free chlorine residual level defined within Section 604.725 of the above referenced rulemaking process. The language currently defined within the proposed Section 604.725, a) states:

Ward 4  
Nate Albert  
Tom Inman

*A minimum free chlorine residual of 0.5 mg/l or a minimum combined residual of 1.0 mg/l shall be maintained in all active parts of the distribution system at all times.*

Heather M. McGuire  
City Administrator

As currently proposed, the proposal will increase the minimum free chlorine residual from 0.2 mg/l to 0.5 mg/l – a 150% increase. We question whether there is sufficient technical justification to require such a large increase, and whether the costs for the new regulation have been fully considered. We question whether the ripple effects of the proposed higher minimum disinfection residual have been fully considered, as well. We offer the following comments and questions to support our concern.

Our Water Works System is currently operated in a manner to achieve compliance with the current Title 35 disinfection regulations, including compliance with the current minimum free chlorine residual level defined within the regulation. We have found the existing minimum free chlorine residual currently defined provides a sufficient level of public health protection. While it is easy to state a higher chlorine residual would provide a higher level of public health protection, we question whether it is necessary.

In prior testimony in the subject rulemaking proceedings by the Illinois Environmental Protection Agency (IEPA) the agency has suggested "the basis for the change from 0.2 mg/l to 0.5 mg/l (free chlorine residual) revolves around limitations in instrumentation..." The IEPA also states, "The detection limit for most test equipment utilized by water supply operational staff and Illinois EPA staff do not reliably report concentrations of 0.2 mg/l." While we understand there are test methods whose reporting limits are challenged at 0.2 mg/l, there are reasonably priced test methods (less than \$500) that can reliably report the chlorine residual at 0.2 mg/l. In lieu of making all utilities achieve a higher minimum chlorine residual throughout their systems, because of some presumably smaller utilities' challenges with test methods, wouldn't it make more economical sense to focus on defining a minimum test method for chlorine residual measurement? If it is deemed a less definitive test method

will be allowed, then perhaps those systems should be subject to the higher minimum chlorine residual.

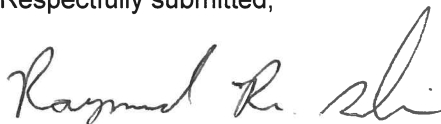
In prior testimony, the IEPA has listed minimum distribution system residuals within 23 states, including Illinois. Of the 22 states not including Illinois, only one (1) state, Louisiana, has a free chlorine residual as high as 0.5 mg/l. Only two (2) of the 22 states, Delaware and Iowa, have a minimum required free chlorine residual between 0.2 mg/l – 0.5 mg/l. The remaining 19 states listed, plus the 27 other states the IEPA did not list, have a minimum free chlorine residual requirement of 0.2 mg/l or less. What are the differences in Illinois Water Works Systems that would require the minimum chlorine residual requirements to be within such a small minority of states? Is it possible the factor of safety built into the proposed Illinois regulation is too high and causes an unnecessary economic and operational burden?

We often target meeting regulations with a factor of safety built in. In order to achieve the higher minimum chlorine residual level, along with an appropriate factor of safety, we will have to increase our chlorine dose at each of our water treatment plants. We will need to inject sufficient chlorine at the points of entry into the system such that the residual will be maintained at the far reaches of the system. At the higher dose rate, those connected to the water system right next to the points of entry will receive water with a much higher chlorine residual. The higher dosage rates will undoubtedly increase the levels of disinfection by-products. The perceived public health improvement of increasing the residual could be totally cancelled out by an increase in Trihalomethanes (THMs) and Haloacetic acids (HAAs). In fact, the finished water quality could switch to a public health risk if the disinfection by-products become too elevated.

Another issue with the high dosage rates that will be required at the entry points to the system is the increase in chlorine taste and odors within the water. One of the most common complaints we receive is "the water tastes like chlorine". With an increase in the minimum residual requirement, we undoubtedly will receive more complaints and we will get more people questioning the quality of our water. We do not believe the ripple effect of the increased minimum residual requirement is technically justified, and therefore do not believe the IPCB should approve a regulation that causes undue scrutiny of the quality of our water.

In closing, we respectfully request the IPCB maintain the existing minimum disinfection residuals as defined within the existing regulations. We believe the existing levels are consistent with a vast majority of other states, and we believe they provide a sufficient level of public health protection. While we understand increasing the levels will provide a higher factor of safety, we believe the higher factor of safety is unwarranted, economically burdensome and will cause unnecessary scrutiny as to the quality of our water.

Respectfully submitted,



**Raymond R. Soliman, Mayor**  
**City of Crest Hill**  
**1610 Plainfield Rd.**  
**Crest Hill, IL. 60430**