

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

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

NOTICE OF FILING

PLEASE TAKE NOTICE that I have filed today with the Illinois Pollution Control Board ILLINOIS EPA'S POST HEARING COMMENTS, a copy of which is herewith served upon you.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

By: /s/Rex L. Gradeless
Rex L. Gradeless
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Division of Legal Counsel

Date: December 19, 2017

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ILLINOIS EPA'S POST HEARING COMMENTS

NOW COMES the ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, (“Illinois EPA” or “Agency”) by and through its counsel, and hereby submits its Post Hearing Comments as directed by the Hearing Officer after the second hearing on November 16, 2017, in the above captioned rulemaking.

I. Procedural Background

On August 3, 2017, the Illinois EPA filed its proposal to amend Subtitle F, Public Water Supplies, by adding a new Part 604 and by amending Parts 601, 602, 607 and 611. The Agency’s primary focus was the new proposed Part 604 governing the design, operation and maintenance of community water supplies in Illinois. The Illinois EPA’s proposed amendments to Parts 601, 602, 607 and 611 contained minor changes, largely the result of the proposal for Part 604. On August 17, 2017, the Illinois Pollution Control Board (“Board”) accepted the Illinois EPA’s proposal for hearing.

The first hearing in this matter was held on October 17, 2017, in Springfield, Illinois. The Illinois EPA presented four witnesses who pre-filed testimony: Stephen Johnson, Richard (Rick) P. Cobb, David Cook, and David (Dave) McMillan. Prior to the hearing, the Agency responded to prefiled questions submitted by the City of Springfield’s Office of Public Utilities (d/b/a City Water, Light and Power (“CWLP”)) and the Board. Six public comments (Public Comments #1

through #6) were also submitted and, after the hearing, responded to by the Agency.

The second hearing was held on November 16, 2017, in Springfield, Illinois and via video conference in Chicago, Illinois. Prefiled testimony was filed by Michael D. Curry (“Curry”), Ted Meckes, and Justin DeWitt. Prior to the hearing the Agency responded to prefiled questions from the Board, Curry’s prefiled testimony, Curry’s prefiled questions, and to public comments, #7 and #8. Four additional public comments were filed prior to the hearing, comments #9 through #12, and twelve additional public comments were filed after the hearing, comments #13 through #24.

At the close of hearings in this matter, the Hearing Officer set a December 22, 2017, deadline for post hearing comments, and a January 5, 2018, deadline for any replies.

II. Illinois EPA’s Response to Questions Posed by Richard Marvel

During the November 16, 2017, hearing, Richard Marvel posed the following two questions to the Agency. The Agency agreed to respond during post-hearing comments and does so here:

Marvel Question 1: “Throughout Subpart O Section 604.1500 the agency uses inspection and testing as if they are two different items. Under 601.105, there is no definition of what an inspection is. Can they please provide us what that definition is because right now it’s currently left up to interpretation?”

Agency Response: The Agency does not believe a change from “inspector” to “tester” is appropriate. The Agency intends the term “inspector” to have the same meaning as found in the Illinois Plumbing Code found at 77 Ill. Adm. Code 890. Specifically, the Agency purposely uses the terms “inspection” and “testing” because that is exactly the way they are used and clearly distinguished in the Illinois Plumbing Code (Part 890). *See* 77 Ill. Adm. Code 890.1130, 890.1910, 890.1920, and 890.1930. Illinois EPA does not believe developing additional definitions or

considering changes to the description to be beneficial or protective of public health.

The Illinois Department of Public Health's ("IDPH") regulations use the terms "inspector" and "inspection" but also do not define them. The term "inspector" is not ambiguous, and therefore, under Illinois law, it is given its plain and ordinary meaning. *Better Gov't Ass'n v. Zaruba*, 2014 IL App (2d) 140071 (The drafter's intent will control, and the best indicator of that intent is the language of the regulation, given its plain and ordinary meaning). The term "inspect" is defined in *The American Heritage Dictionary of the English Language, Fifth Edition (2017)* as "to examine carefully and critically," and "inspection" is defined as "official examination or review." The Agency believes these definitions reflect the common meaning and embody the Agency's the intent.

Marvel Question 2: "On submitted questions four and six, we'd like to combine those two because they're within the same context. So a little background on question four. We proposed a solution of putting in some type of mandate that cross-connection control device test reports be submitted to a CWS within a period of ten days. In question six, we offered the terminology to put any deficient backflow being that it's failed, installed incorrectly to at least have it repaired within a 30-day time set. Currently right now under current regulations of Title 35 as well as the proposed rules and IDPH plumbing program rules, there are no requirements for a deficient backflow to be repaired, put back into service to eliminate that potential cross-connection. We're wondering if the agency who said that they believe that the level of detail should be left up to individual ordinances and not within the state rulemaking process -- we're wondering if they would be willing to maybe remove out the timeframe of days, but put something in there like within a timely manner to help the CWS's have rules to refer back to -- to have the deficient backflows actually fixed and repaired?"

Agency Response: Again, the position of the Agency is that this level of specificity is better addressed at the local level and the use of terms like “within a timely manner” would need to be defined. Further, the Agency has viewed many local ordinances over the past twenty years and all have general provisions set forth to deal with high risk service connections. For example, municipal ordinances often contain verbiage as the following:

SECTION 5. That the Superintendent of the Water of the _____ is hereby authorized and directed to discontinue, after reasonable notice to the occupant thereof, the water service to any property wherein any connection in violation of the provisions of this ordinance is known to exist, and to take such other precautionary measures as he may deem necessary to eliminate any danger of contamination of the public water supply distribution mains. Water service to such property shall not be restored until such conditions have been eliminated or corrected in compliance with the provisions of this ordinance, and until a reconnection fee of _____ is paid to the _____. Immediate disconnection with verbal notice can be effected when the Superintendent of Water is assured that imminent danger of harmful contamination of the public water supply system exists. Such action shall be followed by written notification of the cause of disconnection. Immediate disconnection without notice to any party can be effected to prevent actual or anticipated contamination or pollution of the public water supply, provided that, in the reasonable opinion of the Superintendent of Water or the Illinois Environmental Protection Agency, such action is required to prevent actual or potential contamination or pollution of the public water supply. Neither the Public Water Supply, the Superintendent of Water, or its agents or assigns shall be liable to any customer for any injury, damages or lost revenues which may result from termination of said customer's water supply in accordance with the terms of this ordinance, whether or not said termination was with or without notice.

III. Illinois EPA’s Response to the Free and Total Chlorine Residual Issue

The Agency’s current residual chlorine requirement is found in Section 653.604, and this Section requires a minimum free chlorine residual of 0.2 mg/l or a minimum combined residual of 0.5 mg/l be maintained in all active parts of the distribution system. In proposed Section 604.725, the Agency proposes to increase the minimum free chlorine residual to 0.5 mg/l and the minimum combined residual to 1.0 mg/l.

The increased residual chlorine will provide necessary protection for public health. The increase will better control emerging contaminants of concern like naegleria fowleri and legionella.

Proposed subsection (b) requires a community water supply to test the water on the distribution system at representative locations to make sure the residual chlorine requirement is being met. Proposed subsection (c) prohibits mixing water sources with free chlorine and combined chlorine residuals. When these waters mix, the chlorine residual can fluctuate, causing the residual to drop below the required levels. This can ultimately lead to water quality issues and customer complaints.

Public comment #9 (City of Batavia); #10 (City of Decatur); #11 (Village of North Aurora); #12 (William Soucie); #13 (Village of East Dundee), #14 (Village of Romeoville), #15 (City of Crest Hill), #16 (repeat of #15), #17 (Otter Lake Water Commission), #18 (City of Lockport), #19 (repeat of #18), #20 (Village of Montgomery), #22 (Village of South Elgin) and CWLP's prefiled testimony are essentially identical concerning the chlorine residual level within proposed Section 604.725. These public commenters account for approximately 3.1% of the State's population,¹ and the commenters generally raise the following two issues: 1) the potential for increased flushing and/or chemical costs associated with the new standard and 2) whether there's sufficient technical justification for raising the free and total chlorine residual standards.

1) Potential for increased flushing and/or chemical costs:

The public benefit, conceded by all commenters, outweighs the potential flushing and/or chemical costs when compared the potential public health costs of not increasing the State chlorine residual standards. As stated in Exhibit B of Illinois EPA's Responses to Prefiled Question, filed October 12, 2017, the Agency believes that raising the minimum chlorine residual will not have a negative impact on community water supplies because approximately 80% of samples submitted

¹ Assumptions: City of Batavia (26,391); City of Decatur (72,706), Village of North Aurora (17,426), Village of East Dundee (3182); Village of Romeoville (39,706); City of Crest Hill (21,169); Otter Lake Water Commission (3,393); City of Lockport (25,231); Village of Montgomery (19,523), Village of South Elgin (22,433) and CWLP (150,000) equals total (401,160/ 12,800,000 = .03134)

by community water supplies meet the proposed total chlorine residual and 90% meet the proposed minimum chlorine residual. For the sample locations at community waters supplies not meeting the proposed chlorine residual, increasing chemical addition is not the solution to meeting the proposed standards. Instead, as described in “Fundamentals and Control for Nitrification in Chloraminated Drinking Water Distribution Systems,” Manual of Water Supply Practices M56, (submitted to the Board) improved distribution system best management practices should be employed. These practices are not limited to flushing, but also include distribution system configuration (aka looping), enhanced treatment control, reservoir mixing, and reservoir inlet/outlet configuration.

2) Technical justification:

The Agency’s cumulative body of experience in keeping community drinking water free of bacterial contamination supports the proposed increase to free and total disinfectant residuals. Further, testimony supplied by the IDPH substantiates Illinois EPA’s position.

The IDPH, through the prefiled testimony of Justin DeWitt, has commented that there are approximately 300 annual cases of Legionellosis in Illinois. IDPH indicated that in 2015, Illinois experienced its largest outbreak of Legionnaires disease at the Illinois Veterans Home in Quincy, Illinois. Twelve deaths and fifty illnesses were attributed to this two-year outbreak. IDPH has commented that Illinois EPA’s proposed levels of chlorine residual are anticipated to influence the associated cases of illness in Illinois. Through testing, IDPH has found that no residual chlorine, free or combined, was found at outbreak sites. Therefore, any increase that can be made would move towards improving the quality of water and plumbing systems in buildings.

Published studies, manuals and reports provide additional support for the Agency’s proposal. Specifically, on page 59 of the M56 Manual, the American Water Works Association

recommends that community water supplies should “maintain goal of 2-3 mg/l of combined chlorine in finished water.” Further, the U.S. EPA Office of Research and Development (“ORD”) and Office of Water (“OW”) have presented information to states that indicates concentrations above 0.5 mg/l significantly reduce the number of samples that are positive for total coliform bacteria. (See webinar presentation found at: <https://www.youtube.com/watch?v=nd0pFsiKL30>.)

Finally, the Agency believes the final paragraph of a November 10, 2017, Centers for Disease Control and Prevention publication entitled “Surveillance for Waterborne Disease Outbreaks Associated with Drinking Water – United States, 2013-2014” exemplifies why the Agency has proposed an increase to the disinfectant residuals at community water supplies in Illinois:

Public health surveillance is necessary to detect waterborne disease and outbreaks, and to continue to monitor health trends associated with drinking water exposure. Despite resource constraints, 19 states reported drinking water–associated outbreaks for 2013–2014 compared with 14 for the previous reporting period (4). In this reporting cycle, more reported outbreaks and cases were caused by parasites and chemicals than by non-Legionella bacteria, and more cases were reported from community systems than from individual systems. **Most of the outbreaks and illnesses reported in this period were in community systems, which serve larger numbers of persons; outbreaks in these systems can sicken entire communities.** Although individual, private water systems likely serve fewer persons than community systems, they can still result in relatively large numbers of illnesses. One outbreak reported during 2013–2014 in an individual system led to 100 estimated illnesses associated with a wedding. The public health challenges highlighted here underscore the need for rapid detection, identification of the cause, and response when drinking water is contaminated by infectious pathogens, chemicals, or toxins to prevent and control waterborne illness and outbreaks. **(emphasis added)** (https://www.cdc.gov/mmwr/volumes/66/wr/mm6644a3.htm?s_cid=mm6644a3_w)

IV. Conclusion

The Agency appreciates the Board’s attention to the highly important matter of Illinois drinking water regulations for community water systems. Part 604 is the culmination of the much-needed consolidation and modernization of Illinois’ regulations. Wherefore, the Illinois EPA respectfully submits these comments, and requests the Board to proceed expeditiously to First

Notice as proposed by the Agency.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

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Assistant Counsel
Division of Legal Counsel

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CERTIFICATE OF SERVICE

Rex L. Gradeless, Assistant Counsel for the Illinois EPA, herein certifies that he has served a copy of the foregoing NOTICE OF FILING, and ILLINOIS EPA'S POST HEARING COMMENTS, upon persons listed on the Service List, by placing a true copy in an envelope duly addressed bearing proper first class postage in the United States mail at Springfield, Illinois on December 19, 2017, or by sending an email from my email account (Rex.Gradeless@Illinois.Gov) to the email addresses designated below with the following attached as a 11 page PDF document in an e-mail transmission on or before 5:00 pm on December 19, 2017.

By: /s/Rex L. Gradeless

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