



Alliance to Prevent Legionnaires' Disease

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September 13, 2018

Clerk's Office
Illinois Pollution Control Board
James R. Thompson Center
100 W. Randolph St., Suite 11-500
Chicago IL 60601

RE: Alliance to Prevent Legionnaires' Disease Comments Regarding Docket R18-17

The Alliance to Prevent Legionnaires' Disease (APLD) has reviewed the Illinois Environmental Protection Agency's (IEPA) proposed water treatment regulations and strongly supports the Agency's move to update these rules. Illinois' water safety rules have not been updated since the 1980s and are currently spread out in five different areas of Illinois Pollution Control Board (PCB) rules. This proposal would provide a much-needed, concise framework for ensuring Illinoisans are safe when using water.

In particular, APLD supports the following provisions within the proposed regulations:

Part 604 – Subpart A: General Provisions

604.140 Nitrification Action Plan

APLD agrees with the IEPA's proposal to require community water supplies distributing water without a free chlorine residual to create a nitrification action plan. For those community water supplies which use monochloramine disinfection, following a nitrification action plan will ensure proper monitoring and help to alleviate the risks associated with exceeding the maximum contaminant level for nitrite. These types of preventative measures are essential for limiting the growth of bacteria, including *Legionella*, in conditions with inadequate chlorine residual.

Part 604 – Subpart G: Disinfection

604.725 Residual Chlorine

Due to the ubiquitous nature of *Legionella* bacteria in source water, it can often work its way into municipal water systems where it attaches to the biofilm lining the pipes that carries water into homes and buildings. For this reason, APLD strongly supports the Agency's proposal to increase the minimum free chlorine residual to 0.5 mg/l, including the rationale that "this increase will better control emerging contaminants of concern like *Naegleria fowleri* and *Legionella*."

Almost half of the states within the U.S. currently require a minimum disinfectant residual throughout their water distribution systems above the federal requirement of "detectable", often citing public health as a primary reason for enacting such policies. When Pennsylvania recently raised its disinfectant residual requirement, its Department of Health stated that "maintenance of an adequate disinfectant residual throughout the distribution system plays a key role in controlling the growth of pathogens and biofilms and is a treatment technique that serves as one

of the final barriers to protect public health.” Further “lack of an adequate residual may increase the likelihood that disease-causing organisms such as *E. coli* and *Legionella* are present.” APLD commends the IEPA for proposing a minimum free chlorine residual of 0.5 mg/l.

Part 604 – Subpart M: Storage

604.1300 General Storage Requirements

Water stagnation can often contribute to the proliferation of *Legionella* bacteria and contribute to other unsafe water conditions. APLD supports proposed measures to require water storage structures include water turn over to prevent stagnation.

Part 604 – Subpart N: Distribution

604.1400 General Distribution System Requirements

APLD supports proposed requirements that the community water supply must keep records of the nature and frequency of water main breaks. According to the CDC, 35 percent of all Legionnaires’ disease outbreaks can be attributed to events like changes in water quality and disruptions due to construction or water main breaks. Having this information readily available, especially in the event of waterborne illness, can allow community water systems to more quickly target disinfection to prevent further illness.

604.1415 System Design

APLD also supports proposed requirements for system pressure, sizing of water mains, minimization of dead ends and means for flushing of dead ends within the distribution system. These proposed requirements will allow for better control of water age within distribution systems where water quality tends to suffer.

APLD is a nonprofit public health advocacy group dedicated to reducing the occurrence of Legionnaires’ disease by promoting public research, education, best practices for water management, and advocating for comprehensive policies to combat and investigate this preventable disease. APLD supports policies that have a demonstrable impact on reducing the occurrence of Legionnaires’ disease and other waterborne illnesses and ensuring that the water utilized every day is safe for use and consumption.

Legionella bacteria, which causes Legionnaires’ disease, can be found in source water, including lakes and rivers, that supply the public water systems which provide homes and buildings with the water we drink, use to shower and for various other purposes. According to the CDC, 96% of Legionnaires’ disease cases are sporadic and isolated from larger outbreaks. With about 50% of all household taps testing positive for *Legionella*, per a United States EPA study, these cases can often be traced back to drinking water. In the case of *Legionella* bacteria, it is more effective to properly treat and monitor water in the public distribution system than it is to address these pathogens after they have already entered premise plumbing. For these reasons, APLD believes that the only solutions that will effectively reduce the presence of *Legionella* bacteria in public water systems are ones that address water from source to tap.

In fact, a recent New Jersey Department of Health study on Legionnaires’ disease recommended that “public health investigators should not exclude the community water system from consideration as the disease transmission vector.” With these proposed regulations, APLD

believes that the IEPA is prioritizing the health of Illinois communities by ensuring that the water it delivers is properly monitored and treated and is safe for use and consumption.

The tragic Legionnaires' disease outbreak at the Quincy veterans home and an outbreak in McHenry County this summer have recently drawn new attention on water infrastructure safety in Illinois. APLD recognizes that these proposed regulations have been in the works for nearly six years to ensure and enhance public safety and not just in response to these recent *Legionella* outbreaks. These proposals comprehensively address the safety of water throughout the entire distribution system, which is critical in tackling waterborne pathogens, including *Legionella* bacteria. This proposal would provide guidance for the operation, maintenance and design of water supplies and oversight for how water should be treated and water infrastructure must operate.

Many of the new provisions within IEPA's proposed regulations strongly align with the APLD's commitment to enact source-to-tap solutions to prevent the growth of *Legionella* bacteria and other waterborne pathogens. APLD is grateful for the opportunity to submit comments on this proposal and appreciates the IEPA's commitment to public health and safety.

Any questions for the APLD and the above comments can be directed to me at dcline@preventlegionnaires.org.

Sincerely,

A handwritten signature in cursive script that reads "Daryn S. Cline".

Daryn Cline
Director, Technology and Science
Alliance to Prevent Legionnaires' Disease