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May 17, 2021

The Honorable Michael S. Regan
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Letter sent via email to Regan.Michael@epa.gov

Re: EPA-HQ-OW-2020-0530 Revisions to the Unregulated Contaminant Monitoring Rule for Public Water Systems; Public Meeting

Dear Administrator Regan:

ASHRAE, a not-for-profit technical society with over 125 years of experience in building systems, respectfully requests the U.S. Environmental Protection Agency to consider comments submitted by ASHRAE on EPA's proposed Safe Drinking Water Act rule that would require collection of data on certain substances. ASHRAE's comments focus on *Legionella pneumophila*, as the docket states that EPA is interested in receiving comments regarding this pathogen. We understand the deadline of May 10 for submission of comments has passed, but we respectfully ask for full and fair consideration of ASHRAE's attached technical comments.

Please do not hesitate to contact me if you need any additional information or have your staff contact GovAffairs@ashrae.org for assistance.

Sincerely,

A handwritten signature in black ink that reads "Charles E. Gullledge III, PE". The signature is written in a cursive, flowing style.

Charles E. Gullledge III, P.E., FASHRAE, HBDP, LEED AP
2020-2021 ASHRAE President

Enclosure

TO: Ms. Brenda Bowden
Standards and Risk Management Division (SRMD),
Office of Ground Water and Drinking Water (OGWDW)
Environmental Protection Agency, 26 West Martin Luther King Drive, Cincinnati, Ohio 45268

Regarding: EPA-HQ-OW-2020-0530 *Revisions to the Unregulated Contaminant Monitoring Rule for Public Water Systems; Public Meeting*

Dear Ms. Bowden,

ASHRAE would like to thank the Agency for their continued work in supporting public and environmental health through the development of the 5th UCMR draft. In the docket it states the Agency is interested in receiving comments regarding *Legionella pneumophila*. We are pleased to offer the following comment and supporting information for consideration. Our hope is the Agency will see that this addition can lead to data that can support better health for *all* US citizens and help put a stop to a nearly preventable disease.

Include *Legionella pneumophila* in UCMR5

Legionella pneumophila is the most common and dangerous drinking water pathogen in the U.S. *Legionella pneumophila* harms building occupants when the bacteria commonly found in drinking water is aerosolized and inhaled deeply into the victim's lungs. It is not harmful by ingestion. *Legionella pneumophila* is the causative agent of Legionnaires' disease, a respiratory disease with a high mortality rate that is responsible for most deaths associated with U.S. drinking water outbreaks over the last twenty years. Those fortunate enough to survive often suffer from associated long-term disabilities. It is estimated to affect 70,000 people annually in the U.S. according to the National Academy of Science, Engineering and Medicine (NASSEM) *Legionella report* (2019) which was supported, in part, by the EPA.

Legionella pneumophila risks are heightened now because of the SARS-CoV-2 (COVID 19) pandemic. Because Legionnaires' disease is most dangerous to those with pre-existing respiratory issues, many COVID-19 victims whose respiratory systems have been weakened by COVID-19 are now at risk of suffering secondary infections from bacteria such as *L. pneumophila*. This is expected to have a particularly broad impact within our most vulnerable citizens in underserved communities, who have disproportionately already suffered from COVID-19 and are likely to live where drinking water infrastructure maintenance has been less consistent. In addition, with some buildings being unused for several weeks or months, stagnant water in buildings can cause contaminants *L. pneumophila* to proliferate.

The Agency has included *L. pneumophila* on its contaminant candidates list (CCL) for over 10 years, well before the advent of the pandemic and the Agency specifically requested comment on *L. pneumophila* in its April 2021 public webinars. We now strongly encourage the Agency to add *L. pneumophila* to the final UCMR 5 list of contaminants for data collection.

***Legionella pneumophila* poses a significant and increasing risk to public health**

- *Legionella pneumophila*, the causative agent of Legionnaires' disease, poses a significant health risk with a mortality rates of 10% in the general population and 25% for those who contract it in healthcare setting.
- Annual Legionnaires' disease cases in the U.S. have increased more than 600% since the year 2000 and have done so in every state (CDC Data)
- Because of the COVID-19 pandemic, the public health risk for Legionnaires' disease (a severe respiratory disease) has now increased substantially. The probability of contracting Legionnaires' disease is particularly high for people with chronic lung issues. COVID-19 impacts lung function and may cause permanent lung damage. With more than 32 million Americans having contracted COVID-19, a large new subset of the population is now particularly vulnerable to Legionnaires' disease. In addition, recently reopened buildings that were closed due to the pandemic can present additional risks as a result of stagnant indoor plumbing and cooling systems.
- COVID-19 has disproportionately affected communities of color and essential workers in low-income or otherwise marginalized areas. These are the same communities that have historically suffered from underinvestment in the public and private infrastructure maintenance that is required to ensure safe water and reduce Legionnaires' disease risk.

***L. pneumophila* is substantially likely to be found in public water systems at a "frequency and level of concern" and there is a "meaningful opportunity for health risk reduction through national drinking water regulation" of this pathogen**

L. pneumophila occurs in drinking water and has been linked to cases and outbreaks (data available).

- The Centers for Disease Control and Prevention (CDC), World Health Organization (WHO), and National Academies of Sciences, Engineering, and Medicine (NASEM) all state that *Legionella pneumophila* is the number one waterborne disease-causing contaminant in drinking water.
- However, although *L. pneumophila* is a naturally occurring waterborne pathogen, Legionnaires' disease is preventable through better water management; up to 90% of the time, according to the US CDC. CDC materials specifically highlight the quality of incoming drinking water as a risk to be understood and managed. (CDC *Vital Signs*, 2017). The CDC has produced Toolkit materials around the Legionnaires Disease issue, that promote building water management plans based on ASHRAE Standard 188 (2018) - Legionellosis: Risk Management for Building Water Systems. Standard 188 indicates that the bacteria is known to enter the building water system in the water supplied at the entry point. Understanding and potentially reducing or eliminating the bacteria from the entering water is a necessary goal for the EPA.
- The 2020 [NASEM report on Legionella](#), commissioned by the EPA, CDC and VA and the Sloan Foundation from the National Academies of Science, Engineering & Medicine concluded the Safe Water Drinking Act "*is not protective of the end user with respect to Legionella contamination*" A key recommendation from the report includes the assessment of drinking water "*...validate treatment performance by routine monitoring.*"
- The Agency has established an understanding of the risk *L. pneumophila* poses to public health as described in both the current docket materials and past EPA publications including: Legionella Health Advisories in [March 1987](#), [March 2001](#), the [Legionella: Drinking Water Fact Sheet of 2000](#) and the EPA literature review of [Technologies for Legionella Control in Premise Plumbing Systems](#).

UCMR 5 is an appropriate and viable vehicle to generate the data needed when considering any policy change recommendations

- *L. pneumophila* has been on the [Contaminant Candidate Lists](#) 3 and 4 but the Agency has not yet moved this pathogen to data collection under a UCMR.
- The FY2020 National Defense Authorization Act ([NDAA](#)) in Sec 7311 instructed EPA to not count PFAS compounds toward the limit of 30 contaminants to be proposed in UCMR5, explicitly leaving room for other contaminants of known and documented hazard to public health, such as *L. pneumophila*.
- On January, 20 2021, President Biden issued an Executive Order on [Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis](#). This EO affirms a commitment to making science-based, data-driven policy decisions. Data on *L. pneumophila* occurrence is essential to inform any potential policy changes through the upcoming 6-Year Review process. Specifically, attempting to address *L. pneumophila* risk through disinfectant minimums without meaningful data to understand the scope of the problem or support the effectiveness of this approach puts both distribution systems and public health in jeopardy.
- Leveraging the well-established UCMR process during UCRM 5 would reduce the need and added expense for future *L. pneumophila* data collection events to support 6-Year Review, reducing costs and reducing further delays to urgent water quality policy discussions.
- The 6-Year Review and UCMR processes are not in sync with regard to timing. This timing mismatch will be an on-going impediment to making policy decisions grounded in science unless the Agency considers alternatives to the traditional UCMR calendar. It is feasible for the required data collection for *L. pneumophila* to occur in the earlier of the three UCMR data collection years (2023) so these findings can inform the 6-Year Review process, a draft of which is due later in 2024.
- Validated methods are readily available for accredited laboratories to use in testing water samples for *L. pneumophila*.

ASHRAE applauds the Agency for the deep and substantial work to generate the 5th UCMR and for its longstanding efforts to protect both our environment and public health. We know EPA is prioritizing addressing environmental justice issues and inequity, particularly as they relate to ensuring all Americans are supplied water that is safe for human use and with minimal risk from harmful contaminants. Yet, we have already seen years of delay in establishing better policies that could have prevented untold Legionnaires' disease cases and deaths. We thank you for your commitment to the Agency's mission and for thoughtfully considering our comments at this time.