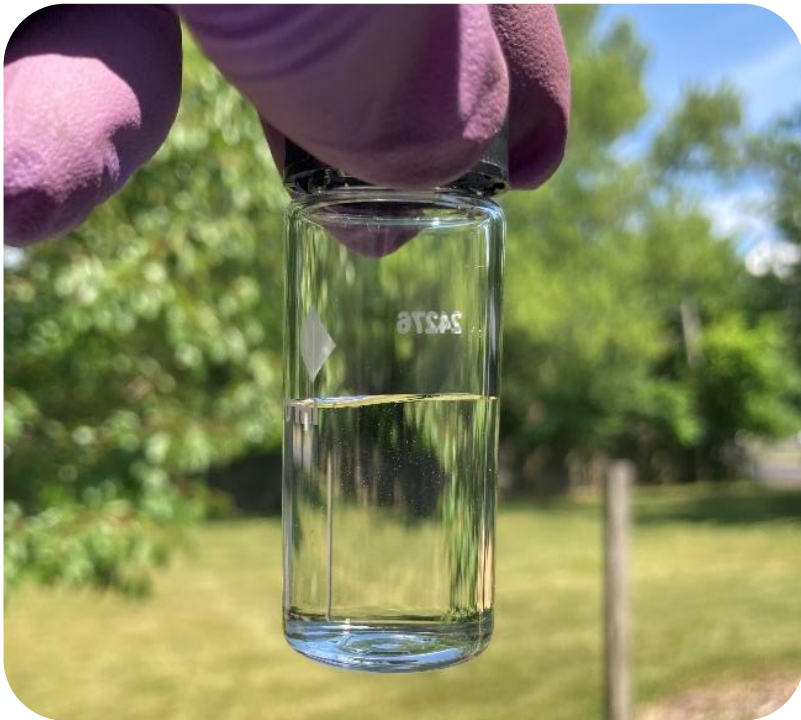


COVID-19: Ensuring Safe Water in Sparsely Occupied Buildings

June 16 2020



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Engineering





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Household Water Quality Study Watch later

News

- [The coronavirus pandemic might make buildings sick, too \(The Conversation\)](#)
- [Coronavirus impact: Experts warn against using water from shut buildings immediately after lockdown \(The New Indian Express\)](#)
- [Water may be unsafe in buildings closed during pandemic \(Weather Channel\)](#)
- [COVID-19: What happens to piping in unused buildings? \(Radio Public\)](#)
- [COVID-19 closures could make water unsafe in offices, schools \(WFYI\)](#)
- [Water contamination risks lurk in plumbing of idled buildings \(Circle of Blue\)](#)

COVID-19 Response

Camp Fire Response

Thank you for visiting. This website is designed to provide information to persons who drink water in buildings, as well as building construction, plumbing, water utility, education, and public health sectors. Together, we are working to understand how to make certain the water you use at home, at work, and at schools is safe. Please contact us if you have any questions at awhelton@purdue.edu.

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Plumbing news
Plumbing explainers
Scientific opinions
Scientific reports

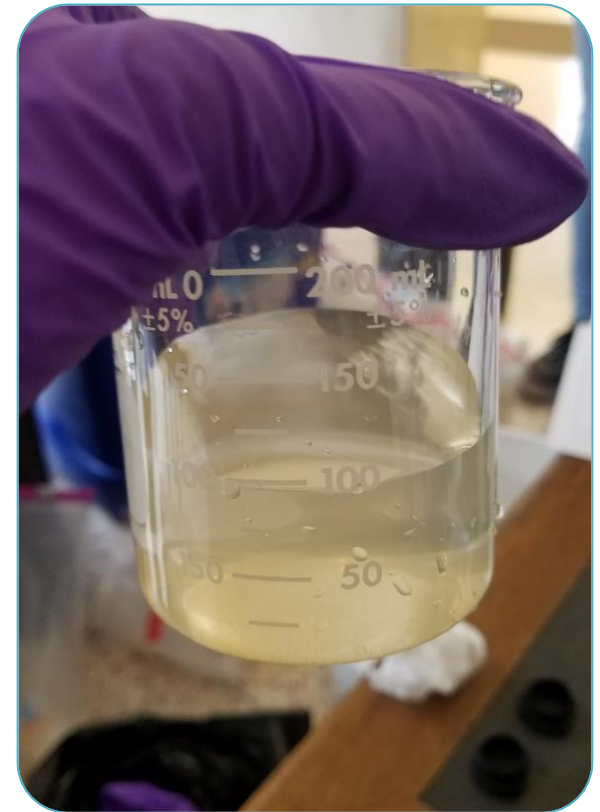
Plumbing education videos
List of projects
Resources ➔ presentations
External plumbing docs

Stagnated water can poses health risks

Copper leaching (can exceed safe limits in just 48 hours sometimes): Nausea, vomiting, gastrointestinal distress

Lead leaching: Developmental issues with children and acute effects

Harmful organisms e.g., *Legionella pneumophila* and other opportunistic pathogens: Many organisms cause respiratory illness, other infections can occur





U.S. National Science Foundation RAPID Award 2027049

***Shutdowns and Consequences -
Extreme Plumbing Stagnation and
Recommissioning***

1. State of science review of water stagnation with experts from 7 private and public sector organizations, *[done]*
2. Support to the plumbing and public health sectors on guidance and decisions, *ongoing*
3. Field testing to examine building water safety, *ongoing*
4. Lab testing to examine contaminated systems and devices, *planned*
5. Help transform public awareness, *ongoing*

DOWNLOAD FREE STUDY HERE → <https://doi.org/10.1002/aws2.1186>



Review Article

Open Access

Considerations for Large Building Water Quality after Extended Stagnation

Caitlin R. Proctor , William J. Rhoads , Tim Keane , Maryam Salehi , Kerry Hamilton , Kelsey J. Pieper , David M. Cwiertny , Michele Prévost , Andrew J. Whelton

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Lessons from the Field: Building Water System Interventions

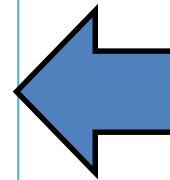


Indiana Health Alert Network Notification – July 10, 2020

Legionellosis Testing: Reminder for Seasonality and Building Reopenings

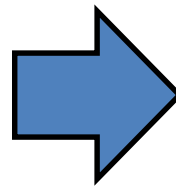
ISDH is alerting healthcare providers to an anticipated seasonal increase in *Legionella* infections combined with a potential increase in cases resulting from building re-openings. ISDH reminds all healthcare providers to test for *Legionella* when evaluating adults with symptoms of pneumonia, even during the COVID-19 pandemic.

Testing should include both urine antigen testing (UAT) and *Legionella* sputum/respiratory culture following these guidelines:



In the US, healthcare providers are being warned

We have already had confirmed illness during the pandemic



- ✓ Staff member died (2019), Legionnaires Disease
- ✓ Staff member sick (June 2020), Legionnaires Disease
- ✓ Found LP in aerators at select locations including janitor sink

Kettering schools taking safety measures after Legionella find in water at Fairmont High

July 10, 2020



Fairmont High School.

f Share

t Share

e Share

By: WHIO Staff
Updated: July 10, 2020 - 11:22 PM

Safety: Exposure to Contaminated Water during Flushing and Heat Exhaustion

Personal Protective Equipment

OSHA and other worker safety agencies recommend respirators (N95) if Legionella is suspected or possible

For respirators, medical clearance and a respiratory protection program is needed

Reduce exposure by applying controls

My personal warnings...

- ♦ Some people are sending workers to flush stagnant water that may have pathogens without any respiratory protection. Bad idea.
- ♦ Some people think “masks” are respirators. They are not.
- ♦ Persons with preexisting conditions should avoid this activity
- ♦ Getting a building flushed is a lot of work. Don’t do too much at once.

Lessons from a School, Indiana USA



3 buildings on campus, built in the 1960s
3 months of low to no water use, little
irrigation use

Characteristics

- Public water supplier service area
chlorine residual range <0.2 to 1.3 mg/L
- Each building has 1 service line, 1 water
heater, no recirc loops
- Copper pipe, kitchen, classroom,
bathroom sinks, toilets, water
fountains; outdoor spigots;
refrigerators, dishwashers, coffeemaker
connected to the building water
system; ***no showers, no cooling towers***

Clean aerators



Address all
outlets

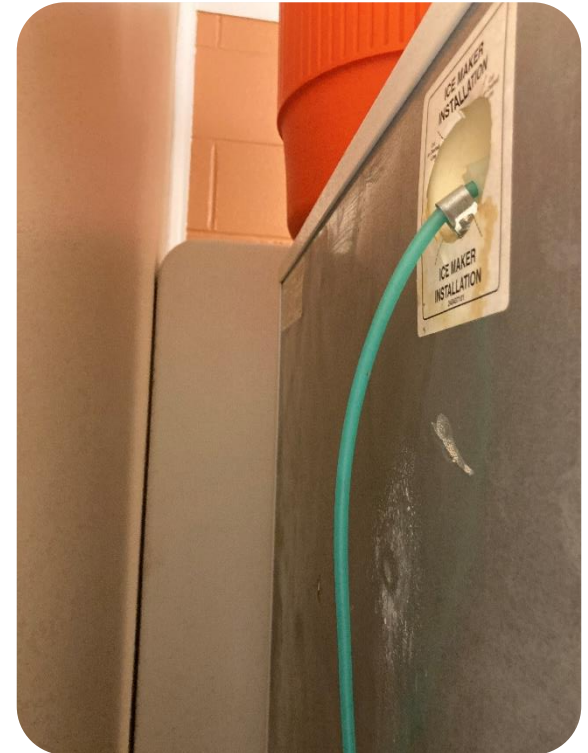


Clean them
well

Deal with water treatment



Tackle high risk
components



Flush appliances

Thank You.

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More Information at
www.PlumbingSafety.org

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Reports Coming Soon from Us in 2020:

A look back at the Camp Fire disaster drinking water contamination
School water copper and legionella contamination investigation
Testing results of our ongoing rapid response water stagnation study