Public Services and Procurement Canada (PSPC)

Building Water Systems Minimum Requirements – (COVID-19)

April 6, 2020

In response to COVID-19, many client departments have reduced the number of employees who are present in the office. The resulting reduced building occupancy may increase risks associated with water systems and the use of the potable water system for the remaining employees. Health Canada guidance at this time is that it is highly unlikely that drinking water is a route of transmission for COVID-19 (the disease) or SARS-CoV-2 (the virus).

As fewer people use the building water systems, there is increased potential for water stagnation. Stagnant water conditions increase the risk for bacterial growth including *Legionella*. In potable water systems, stagnant water conditions can cause a loss of disinfectant residual and increase risks for the presence of lead.

The following requirements have been established by Technical Services Service Line and the Property Facility Management Service Line part of PSPC Real Property Services in consultation with Health Canada to address risks to building water systems. These requirements, which apply to PSPC crown-owned buildings will be reviewed and updated as required. For leases, it is required to have a discussion with the landlord to ensure that similar measures are being implemented prior to re-occupancy of leased spaces.

Communications Requirements

Note that in order for PSPC to successfully complete the required actions and testing to meet the minimum requirements prior to re-occupancy and to assist clients in their employer role; it is important that client departments provide sufficient advance notice of their intention to re-occupy a space that they have vacated. The amount of advance notice required will depend on a variety of factors (eg. regional capacity, localized demand, remoteness of buildings). Communication is key to the success of re-occupancy, it is therefore important that clients be informed ahead of time of the planned actions and testing. It is equally important that the client departments be informed of actions completed and of the testing results.

Minimum Requirements for Potable (Cold) Water Systems and Building Hot Water System for PSPC buildings with reduced occupancy and PSPC buildings with no occupancy for a period of more than one (1) week

Hot water Temperature:

Ensure that storage temperatures are maintained and that stagnant water conditions are avoided in accordance with the PSPC building's *Legionella* Bacteria Control Management Program (LBCMP).

Flushing:

During periods of reduced occupancy, it is required that a flush of **at least thirty (30) minutes** be conducted **at least every three (3) days** from the point(s) of consumption (eg. a kitchen faucet) furthest from the water entry on the top floor of the building (or the longest run furthest from the water entry for single story sites). The flushing is to be completed for each of the hot and cold water risers or main distribution pipes in the building. In addition, all fixtures such as kitchen faucets (hot and cold), drinking fountains, washroom faucets (hot and cold), showers (hot and cold) and eyewash stations need to be flushed for **two (2) minutes on a weekly basis**. Remove aerators before flushing and rinse them before reinstalling.

It is important to maintain a log of the flushing that is completed. As such, please use the following template to track flushing activities. This template is to be kept at the building level and available upon request.

Signage:

It is recommended that the following notice be installed at each point of consumption in the building (eg. at each drinking fountain and kitchen faucets):

"PSPC has implemented additional flushing during this period of reduced occupancy to ensure the continued safety of the potable water system in the building.

How you can help:

- Let the water run for two (2) minutes before consuming it.
- When washing your hands (min twenty (20) sec), let the water run to help with flushing the system."

Return to full occupancy

For buildings with reduced occupancy

The reduced occupancy of certain spaces may last for several weeks. Prior to employees occupying areas that have been unoccupied, a thorough progressive flushing of all fixtures such as kitchen faucets (hot and cold), drinking fountains, washroom faucets (hot and cold), showers (hot and cold) and eye wash stations in the unoccupied areas is required:

- Remove aerators before flushing. Clean and reinstall aerators after flushing. Replace any filters after flushing.
- Flush the hot and cold outlet(s) furthest away from the building water entry for **at least thirty (30) minutes** (i.e. at the top of the water risers or end of the main distribution pipes). Test for disinfectant residual at the tap with the longest residence time (point of consumption farthest from the water entry) to ensure fresh water is present throughout your system.
- Flush all water fixtures (hot and cold) and equipment that is directly connected to the building water system, such as coffee machines, water coolers and ice machines, floor by floor, for **five (5) minutes** each starting at the water fixture closest to the water entry.
- It is important to open outlets slowly to avoid splashing and the creation of aerosols. Appropriate Personal Protective Equipment (PPE) should be worn. Consult your employer for requirements.

For buildings with no occupancy for a period more than one (1) week

Prior to the full occupancy of a building that has been unoccupied for at least one (1) week, a thorough progressive flushing of all fixtures such as kitchen faucets (hot and cold), drinking fountains, washroom faucets (hot and cold), showers (hot and cold) and eye wash stations is required:

- Remove aerators before flushing. Clean and disinfect before reinstalling aerators after flushing. Replace any filters after flushing.
- Flush the hot and cold outlet(s) farthest away from the building water entry for **at least thirty (30) minutes** (i.e. at the top of the water risers or end of the main distribution pipes). Test for disinfectant residual at the tap with the longest residence time (point of consumption farthest from the water entry) to ensure fresh water is present throughout your system.
- Flush all water fixtures (hot and cold) and equipment that is directly connected to the building water system, such as coffee machines, water coolers and ice machines, floor by floor, for **five (5) minutes** each starting at the water fixture closest to the water entry.
- It is important to open outlets slowly to avoid splashing and the creation of aerosols. Appropriate PPE should be worn. Consult your employer for requirements.
- Sample for microbiological parameters at the point of entry and at the point of consumption (cold water) furthest from the water entry (longest residence time).
- Provide an alternative source of drinking water until sampling results demonstrate that the drinking water quality meets the Guidelines for Canadian Drinking Water Quality.

Note that microbiological analyses take twenty-four (24) to forty-eight (48) hours to get results. Try to schedule flushing and testing before the building reopens to avoid having to provide an alternate

source of drinking water if the results do not meet the Guidelines for Canadian Drinking Water Quality.

In the event of a positive microbiological result, action(s) will have to be taken and alternate sources of drinking water will have to be provided to employees.

Additional Water System Considerations

Trap Seals: Trap seals may not be maintained if water system use has been reduced. Ensure that trap seals are maintained to keep sewer gases from entering the building. Pour water into floor drains and flushing each sanitary fixture (i.e. toilet, urinal) **once a week** to maintain trap seals.

If regular maintenance activities are reduced, drain building water systems that are not being used (eg. landscape irrigation, water reuse, decorative water features) to avoid stagnant water conditions. Ensure that the requirements of the building's LBCMP are followed. Follow start-up procedures, manufacturer recommendations and requirements of LBCMP when re-starting systems.

Key Contacts

Please consult with your regional technical center of expertise for support implementing these requirements.

Technical enquiries related to this document should be directed to Senior Director Environment, Health and Safety, Technical Services Service Line, Real Property Services.

Facility Management enquiries related to this document should be directed to Senior Director Property and Facility Management Services Directorate, Property Facility Management Service Line, Real Property Services.