

# RESTORING WATER QUALITY IN BUILDINGS FOR REOPENING

## BUILDING WATER CHECKLIST

Building and business closures for weeks or months reduce water usage, potentially leading to stagnant water inside building plumbing. This water can become unsafe to drink or otherwise use for personal or commercial purposes. EPA recommends that building owners, building managers, and businesses take steps to flush the building's plumbing before reopening.

*Flushing involves opening taps and letting the water run to remove water that has been standing in the interior pipes and/or outlets. The flushing time can vary by the plumbing configuration and type of outlet being cleared.*

### 1 BEFORE FLUSHING BUILDINGS

- Contact your water utility about local water quality and to coordinate maintenance activities.
- Check information from your local public health department for any local requirements for reopening.
- Follow appropriate regulations and policies for worker safety and health.

### 2 STEPS FOR FLUSHING BUILDINGS

- Review how water moves through your building, from the street to each point of use.
- Inspect the plumbing.
- Maintain any water treatment systems (e.g., filters, water-softeners) following manufacturer's instructions.
- Ensure the hot water system is operating as specified.
- Flush the service line that runs from the water main to the building.
- Flush the cold water lines.
- Drain and clean water storage facilities and hot water heaters.
- Flush the hot water lines.
- Flush, clean, and maintain devices connected to the plumbing system following manufacturer's instructions.

*Consider checking water quality parameters to verify that fresh water is being flushed through the entire plumbing system.*

### 3 OTHER ACTIONS TO CONSIDER

- Notify your building occupants of the status of the water systems and the flushing program.
- Limit access to or use of the water as an appropriate cautionary phase.
- Determine if proactive disinfection/heat treatment is necessary.
- [Develop a water management program.](#)

For more information, please visit:

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## COOLING TOWER CHECKLIST

**System Start-Up.** Prior to returning a system in wet standby or dry shutdown to service, the manufacturer's recommendations and instructions for inspection and cleaning should be followed. If filtration or separators are present, the manufacturer's recommendations and instructions should be followed.

### 4 STEPS BEFORE COOLING TOWER START UP

Inspect the cooling tower and/or cooling tower system, and clean all accessible solid debris from the cooling tower basin, sump, and any remote storage tanks that may be used.

Operate the water circulating pumps, and adjust valves to bring all parts of the system on-line, including all piping, heat exchangers, and filtration equipment.

Confirm that the appropriate levels of biocides and corrosion inhibitors have been added to the system.

Consult a water treatment professional as required.

Maintain the maximum biocide residual before operating the cooling system fans.

If the circulating water system contains multiple pumps, chillers, or heat exchangers, they should be rotated systematically to ensure that all parts of the system are flushed.

### 5 AQUATIC VENUE CONSIDERATIONS

The reopening of aquatic venues like hot tubs and swimming pools should meet the requirements of the local public health jurisdictions. Review those requirements and reach out to the health department having jurisdiction for further clarification.

## RESOURCES

[ASHRAE 188 -2018, Legionellosis: Risk Management for Building Water Systems](#) (available for purchase)

[ASHRAE 12-2020, Managing the Risk of Legionellosis Associated with Building Water Systems](#) (available for purchase)

[2018 Model Aquatic Health Code](#)

[Michigan Department of Environment, Great Lakes, and Energy - Building Premise Plumbing Flushing Guidance](#)

For more information, please visit: