**Large Building Water System Start-Up Guidelines**

**For Utilities**

These guidelines can be used to promote safe drinking water quality if the water system in the building or complex (system) has not been used for an extended period of time.

Refreshing the water throughout the system is very important when a large building, complex or group of buildings (system) have not been used or have only had limited water usage for an extended period of time.

Water system should be prepared to answer questions from hotels, schools, childcare facilities, offices and public buildings as an example.

To assist you with assuring that the water in the system is refreshed and safe for occupancy again, we have developed a list of suggestions for water systems to use as appropriate. As these procedures will differ for each customer, we have kept the suggestions somewhat general.

**Several days prior to returning to use:**

1. If applicable, ensure booster/lift pumps are properly primed prior to operation (for some multistory buildings).
2. Empty and refill water heater tanks, in accordance with manufacturer instructions, to get rid of any accumulated debris from sacrificial anode rods and ensure stagnant water is replaced with fresh water.
3. Fill lines throughout system to remove air pockets using potable water from the public supply system.
	1. This can be achieved by opening faucets or taps at the furthest parts of the complex or the upper floors of multistory buildings.
	2. Flushing toilets throughout the system will help pull larger amounts of water through the pipes.
	3. Open both hot and cold taps to assure the water that has circulated through the water heating system and that is in any holding tanks is also refreshed.
4. Flush until water runs clear to remove debris and any stagnant water (color and odor).
5. At furthest point of system, check for chlorine residual.
	1. Flush until the disinfectant level is above 0.2 mg/ L for chlorinated systems, or 0.6 mg/L for chloraminated systems.
6. For multilevel buildings, check the disinfection residuals at upper floors and at the outside of the buildings.
7. Once an appropriate disinfection residual is measured at representative taps, turn the water off and let the system remain overnight if possible.
8. The next day, repeat the flushing procedure throughout the building or complex. Observe the level of discoloration, debris or odor that flushes from the taps. If there is a noticeable level of debris, color or odor, repeat the process
9. Once the water consistently runs clear and has a measurable disinfection level as stated in step C, collect bacteriological samples at representative points to assure the water is safe to drink.
	1. Samples should be taken from upper floors in multistory buildings, in each building and/or at the furthest points of the distribution pipes.