Don't let backflow preventers back you into emergency repairs

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Under the Safe Drinking Water Act (SDWA), instituted in 1974 and enforced by the Environmental Protection Agency (EPA), national health-based standards for drinking water have been set to protect our domestic water supply from naturally occurring and man-made contaminants. Over the years local states, municipalities and city departments have started to work together to insure our national water supply is safe by implementing programs such as the Cross Connection Control Programs and Back Flow Prevention Outreach Programs to make sure these standards are met.

Over the past few years the NYC Department of Environmental Protection (DEP), whose job is to manage the City's water supply, monitor and prevent contamination before it occurs by ensuring New York City Businesses comply with its laws, has started to enforce Part 5 Section 5-1.31 of the State Sanitary Code and Title 15, Chapter 20 of the Rules of the City of New York with the Cross Connection Control Program. The program mandates certain New York City buildings and business to install and operate approved backflow prevention devices, known as backflow preventers, which prevent contamination to our water supply.

The backflow preventer must be attached to all sources of water supply in large residential dwellings with water treated boilers as well as premises with multiple lines, roof tanks, elevated storage lines, large boilers or chemically treated boilers, ground water wells, in ground irrigation sprinklers, commercial or public kitchens, supermarkets and properties that use recycled water (for a complete list go to www.hewsa.com/backflow-prevention).

To prevent fines of up to $2000, the backflow preventers must be properly installed on all water supply lines by the services of a professional engineer (PE) or registered architect (RA) or request a property inspection by the DEP, if not, your water supply can also be shut off.

The purpose of backflow preventers is to prevent contaminated water or chemicals from going into a buildings domestic/drinking water supply. This can happen due to a sudden or unexpected change in water pressure, which can then contaminate the buildings domestic water. When water reverses and goes in the opposite direction it is intended to go, this creates an issue called backflow. Backflow is caused by two conditions backsiphonage or backpressure in the water system.

* Backsiphonage can occur when a sudden reduction in a water main or plumbing system in a building loses water pressure (which often happens with a water main break), thus creating reduced pressure in the water supply, reversing the water flow. This creates a suction effect which will draw potential contaminates back into your domestic water supply.
* Backpressure occurs when water pressure in a building becomes greater than the water pressure in municipal water system. This condition can force non-potable water or other fluids back into the potable water system.

Backflow is one of the greatest threats to our local water system, because it can take place in any public or private water distribution system. Therefore, the installation of the backflow preventers is imperative. Once in place, backflow does not happen and your domestic water is safe.

However; the challenge for each building is to insure their current house pumps have the capacity to produce the adequate pressure needed to compensate for the 10-15psi drop in pressure that will happen, which will be associated to the installation of the backflow preventers. The lack of due diligence on the buildings behalf before the installation of the preventers can cause extreme water emergencies resulting in little or no water pressure to the upper floors. As "Murphy's Law" dictates this usually happens in the middle of the night or on the weekend once the roof tank is emptied. If this occurs the quickest solution to temporarily solve the issue is to remove the backflow preventer and install a temporary transition piece known as a "Spool Piece," which will return the water pressure to the original psi needed to maintain the building while the proper pump is obtained expeditiously. This will also eliminate the need for costly overtime premium repairs and the possibility of the wrong pump being installed because it was the only one available during the emergency.

We suggest vertical multi-stage stainless steel pumps, which are perfect for these upgrades. These pumps ability to produce more than the sufficient amount of water flow and pressure needed for the building, while utilizing less horsepower (hp) than the pre-existing pumps. They are our number one choice because they run very quite, they are highly energy efficient and they save the building money on operating cost.

Pump & Motor Corp can provide free surveys prior to installation to prevent your backflow preventer from backing you into emergency repairs, which will insure a smooth transition as you comply with the DEP's Cross Connection Control and Backflow Preventer programs.

Visit our website site www.pumpandmotor.com for service and pump information or send us an email to info@pumpandmotor.com or call us for more information.

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