BALTIMORE AIRCOIL COMPANY

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BAC Recommends Following Best Practices for Building Water System Hygiene

Facility lockdown or low-occupancy rates require attention

Today governments have instituted mandatory lockdowns, work limitations that allow only essential business to operate, and various levels of shelter-in-place orders. For example, many facilities including hotels, schools, universities, office buildings, shopping malls, entertainment centers, airports, and all or parts of various manufacturing plants are being shut down or operated with very low occupancy or capacity. As a result, building water systems that normally have large volumes of water flowing through the facility piping and equipment may now be experiencing stagnant conditions in their building water systems which can include evaporative heat rejection systems. Because of requests to 'work from home' and furloughs, it is also more likely that workers with responsibility for critical operational and safety tasks and checks may be absent from work on site, often on short notice, for long periods.

Low flow and stagnation can lead to biofilms and bacteria

Low flow and stagnation in water systems reduces the available disinfectant levels and can provide conditions favorable for biofilms to form in hot and cold water storage tanks, hot water heaters, showerheads, faucets, ice machines, pools and spas, decorative fountains, and evaporative heat rejection systems. Biofilms are communities of surface-attached bacteria that can lead to corrosion problems, biofouling, and the growth of Legionella and other water-borne pathogens. Once established, biofilms can be difficult to remove from water systems even with high disinfectant levels.

Tips from BAC for healthy water systems

To keep your building and process water systems healthy, BAC recommends following guidance in accepted standards and guidelines as well as any local, state, or federal regulations. It is vital that employers have the necessary measures and resources in place to ensure the continuity of safe operating systems, including building water systems. This includes adequately trained operators and engineers to carry out equipment checks and the required water treatment control programs.

It is also essential that when buildings and facilities reopen or restart, that any water system is not simply put straight back into use. During the period of shutdown, it would be sensible to formulate a restarting or recommissioning plan for each building water system to allow safe start-up and assurance to users that it is safe. Industry best practices (ASHRAE SPC-188, EUROVENT or ESGLI, etc.), or any national guidelines or legislations applicable to your location (UK HSG – 274, French Rubrique, etc.) can also be consulted. For additional support, BAC recommends that building owners and operators seek help from an experienced and competent water treatment advisor, public health official, or environmental health authority.

BAC Operating & Maintenance Manuals provide specific information on the maintenance, shutdown, disinfection, and safe start-up of evaporative cooling systems, including both open and closed-circuit cooling towers, evaporative condensers, and adiabatic units. These manuals can be downloaded from BAC's website (www.baltimoreaircoil.eu). Periods of reduced operation or shutdown can also be great opportunities for facilities personnel, with the proper safety and social distancing procedures, to perform required maintenance and necessary upgrades on their evaporative heat rejection equipment.

Baltimore Aircoil Company remains committed to the safety and well-being of our employees, customers, and communities. BAC factories have been designated as essential facilities, critical to keeping vital infrastructure, food production facilities, data centers, etc. operating smoothly. As such our factories are open and working diligently to support unit and parts requests for our customers during this time. Along with keeping your building water systems safe, please contact your local BAC Sales representative to help keep all your evaporative cooling equipment operating efficiently and safely during this difficult time.