

Management Tips: WATER SAFETY PROGRAM

Ensuring water safety is a key public health priority, with organizations like the Centers for Disease Control (CDC), The Joint Commission (TJC), and Garratt-Callahan (G-C) at the forefront of reducing risks and enhancing system efficiency. Complementing these efforts, The Joint Commission has set new standards for water management programs. These standards, designed to protect the general public, mandate a comprehensive approach involving risk assessments, detailed system mapping, and regular program reviews to adapt to changes and maintain safety.



This is not a comprehensive list and should not be used to diagnose or treat systems. It is a starting point to help you begin mitigating risks and assist with:

- protecting the well-being of buildings' occupants and visitors
- extending the life of equipment
- ensuring the ongoing safety of a buildings water system
- sourcing next steps and direction to additional information

In the following pages we will touch on the three components of a Water Safety Plans (WSP)¹ through G-C's multi-barrier approach to water safety:

- Comprehensive System Assessment
- Thorough and On-going Monitoring
- Effective Management and Communication

¹ "Framework for safe drinking water", Guidelines for Drinking-Water Quality, WHO, 2022.

ASSE/AMMI 12080 Certified

Centers for Medicare & Medicaid Services (CMS) Compliant Programs

Comprehensive Assessment: ASSE 12080 certified members of Garratt-Callahan's Water Safety Group (WSG) can help develop and guide your water safety teams.

- Conduct a thorough risk assessment of your system and facility, evaluating the likelihood and severity of hazards based on exposure factors (type, extent, and frequency) and the vulnerability of those exposed.²
- American Society of Sanitary Engineering (ASSE) is a third-party certifier for professionals and products in the plumbing and mechanical industries. An ASSE 12080 certification means that the team member has been trained and tested on the specific knowledge needed to develop a Water Safety Program and function as a trained Water Safety Team member.
- ASSE/IAPMO/ANSI 12080 outlines the minimum qualifications needed, including knowledge and competency, to become a member of a water safety team involved in the development of a risk assessment analysis, and water management and sampling plan, for protection from Legionella and other waterborne pathogens.³
- An ASSE 12080 certified team member can help train your employees and provide ongoing assistance to help navigate and implement a comprehensive Water Management Program.
- Empower your workforce with G-C's onsite training on basic Water Treatment with courses geared towards their respective industry. By increasing your employees' understanding of water treatment, sampling techniques, and the available technology and resources available to improve water safety and compliance at your facility.
- Evaluate your industrial water system through a series of analyses and benchmark findings using a course of analyses that include:
 - water analysis
 - deposit analysis
 - corrosion evaluation
 - product formula analysis
- Regularly engage with G-C's WSG and be informed of regulatory guidelines and mandates and actively integrate regulations, like ST-108:2023 Water for the processing of medical devices, into your water treatment processes.
- Schedule ongoing system monitoring to familiarize your team with the facility and equipment including potential complexity associated with the building use case, weaknesses, or at-risk areas.
- Maintain a good rapport with city/municipality water officials, and ensure that they fully understand your activity in pertinent details.

Thorough Monitoring

- Design and implement a program tailored to your system(s) and/or facility with the ability to proactively test and detect when KPI are out of set limits and remotely treat to preserve water quality and operational efficiency.
 - Train staff on system testing methods, including automated and remote observation and control of regulated treatment processes
 - When applicable, utilize integrated surveillance tools like smart acoustic leak detection systems to manage, observe, and test systems with real-time alerts.
 - Automate chemical feeds with G-C LumiTrac to reduce over- and under-feeding, and reduce handling of reagents and testing
- Design and implement a Water Sampling Plan tailored to your system(s) and/or facility that proactively track and document water safety.
 - Ensure staff is properly trained in water sampling techniques to collect valid and representative samples.



²“ASSE/IAPMO/ANSI 12080 for Legionella Water Safety and Management”, ASSE website Conduct a thorough risk assessment of your system and facility, evaluating the likelihood and severity of hazards based on exposure factors.

³“Framework for safe drinking water”, Guidelines for Drinking-Water Quality, WHO, 2022.

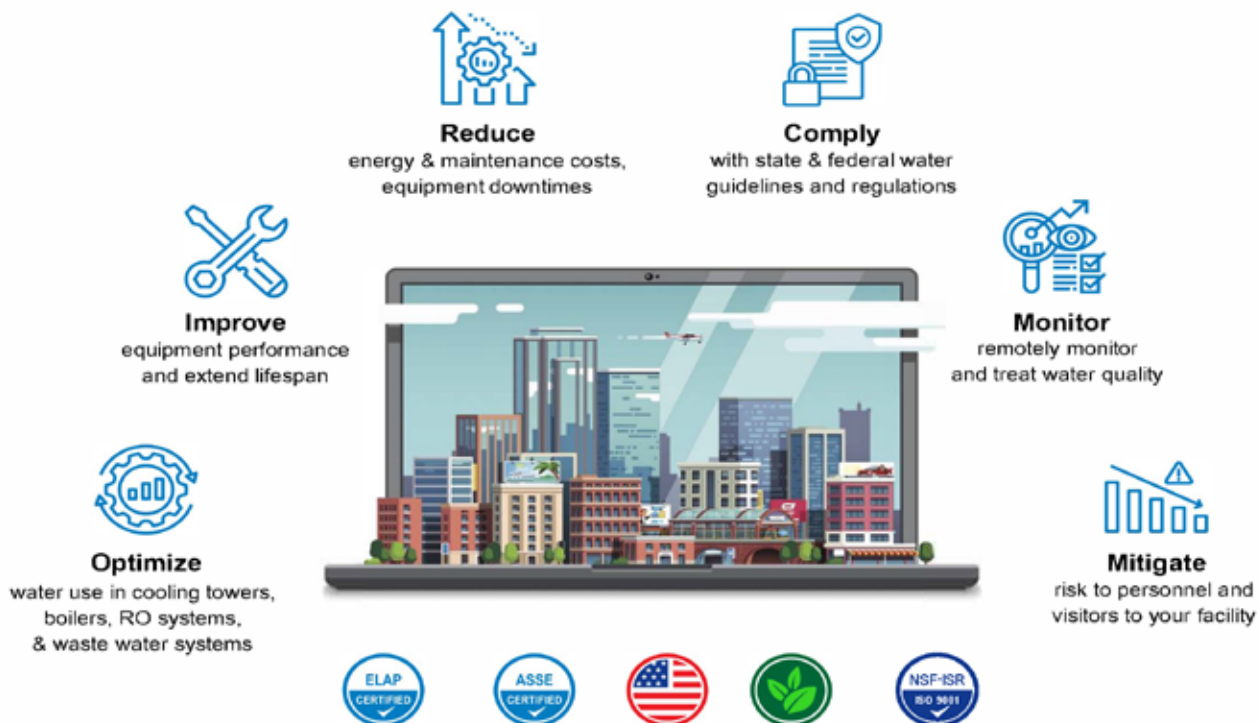
Effective Management and Communication

- Document and communicate monitoring and risk assessment results and their outcomes, including mitigation measures, to your management team.
- Document all factors that affect equipment performance and lifespan, to accurately forecast capital and remedial expenditures.
- Consider using automated applications like Garratt-Callahan's Digital Water Management System (G-C's Digital WMS) to document your processes. G-C's WMS is a secure mobile web-based application designed to manage your water treatment systems from anywhere in the world,* in real time, 24/7. It is easily scalable and can be shared with multiple teams, to monitor multiple facilities in different locations, and all done from one dashboard.

“Conduct a thorough risk assessment of your system and facility, evaluating the likelihood and severity of hazards based on exposure factors (type, extent, and frequency) and the vulnerability of those exposed.”²

- Use safer & greener products, like the following G-C alternatives:
 - Descaling and cleaning: “safe-acid” alternatives, with concentrated chemicals in solid pellets, e.g. SolidTrac and Controlled Release. Lighter pellet formulas cost less to transport, eliminate the need for drum cleaning, and are easier to handle with less spills or leaks.
 - Disinfection: Formula 3110 is an alternative to sodium hypochlorite, that provides a superior disinfection and is also approved by both the EPA and FDA. It is routinely used on produce.
- Provide and maintain appropriate staff training, with regular updates and reminders, to keep your team informed, focused, and prepared.

Industrial Water Treatment Area of Expertise



“\$3.33 Billion in healthcare cost...”

- Around 7.15 million people become sick from waterborne illnesses each year in the United States.
- Of these people, 601,000 are rushed to the emergency room, and 118,000 of those people must be hospitalized. 6,630 people died. Better water treatment systems would go a long way to preventing many of these illnesses and deaths.
- Furthermore, the United States incurs about \$3.33 billion in healthcare costs as a direct result of waterborne disease transmission. While it seems crass to attach a dollar amount to such sobering statistics, it's important to keep in mind that these very healthcare costs are a huge strain on human lives, both for patients and for healthcare workers themselves. Reducing these costs should be a major priority for everyone.



Cutting Healthcare Costs with Expert Water Treatment Systems

G-C water treatment services provide the highest level of expertise, certification and advanced healthcare water treatment equipment that directly addresses the pressing concerns about waterborne illness within healthcare settings. To solve these problems, G-C provides the following to our healthcare clients:

- Water quality management that complies with all CDC, healthcare and pharmaceutical regulations.
- Systems to optimize water treatment for cooling towers, RO systems and boilers to lengthen equipment lifespan and increase water quality.
- Ongoing water quality monitoring to prevent potential waterborne pathogen hazards.
- Customized, high-quality water treatment solutions that protect patients, healthcare staff and the environment

Sources:

https://wwwnc.cdc.gov/eid/article/27/1/19-0676_article
<https://garrattcallahan.com/services/>
<https://www.grainger.com/know-how/industry/healthcare/kh-battling-waterborne-bacteria-and-viruses>
<https://www.cdc.gov/legionella/health-depts/healthcare-resources/healthcare-facilities.html>
<https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/SurveyCertificationGenInfo/Downloads/Survey-and-Cert-Letter-17-30.pdf>
<https://pubmed.ncbi.nlm.nih.gov/27348980/>
<https://www.cdc.gov/infectioncontrol/guidelines/environmental/background/water.html>

About Garratt-Callahan



Garratt-Callahan is a recognized provider of expert industrial water treatment solutions. By offering products, services, and support backed by over 120 years of experience, we deliver peace-of-mind and real savings in time, manpower, and resources. What we do positively impacts our customer's ability to conserve energy, reduce water consumption and become more environmentally conscious. At Garratt-Callahan expertise matters and has since 1904.

Discover more at www.garrattcallahan.com      @garrattcallahan

Headquarters

50 Ingold Road
Burlingame, CA 94010
(650) 697-5811
(650) 692-6098 Fax

Southwest Region

13721 Welch Road
Farmers Branch, TX 75244
(972) 661-5006
(972) 980-0822 Fax

Midwest Region

340 S. La Londe Avenue
Addison, IL 60101
(630) 543-4411
(630) 543-8382 Fax

Southeast Region

100 Fisk Drive S.W.
Atlanta, GA 30336
(404) 691-7440
(404) 691-3411 Fax

Northeast Region

306 Talmadge Road
Edison, NJ 08817
(732) 287-2200
(732) 287-1439 Fax

