R³ Report | Requirement, Rationale, Reference

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Published for Joint Commission-accredited organizations and interested health care professionals, *R3 Report* provides the rationale and references that The Joint Commission employs in the development of new requirements. While the standards manuals also may provide a rationale, *R3 Report* goes into more depth, providing a rationale statement for each element of performance (EP). The references provide the evidence that supports the requirement. *R3 Report* may be reproduced if credited to The Joint Commission. Sign up for email delivery.

New Standard for Water Management Program – Hospitals, Critical Access Hospitals, and Nursing Care Centers

The new water management standard (EC.02.05.02, EPs 1 through 4) will go into effect January 1, 2022. This standard will appear in the July 1, 2021 spring update so that organizations will have the opportunity to become familiar with the requirements and begin planning for the additional expectations. EC.02.05.01, EP 14 (for hospitals and critical access hospitals) and EP 6 (for nursing care centers) will continue to be utilized for scoring purposes until January 1, 2022 and will then be deleted from these programs.

Currently, EC.02.05.01, EPs 6 and 14 address the need for organizations to minimize pathogenic biological agents in cooling towers, domestic hot- and cold-water systems, and other aerosolizing water systems. The expectation is that this process includes a risk assessment, water management plan, and testing protocols and acceptable ranges.

The new standard and EPs are designed to further improve the quality and safety of care provided to hospital patients and nursing care residents who are immunocompromised. This new standard incorporates the latest research and best practices with the primary goal of improving quality and safety in these settings.

The Joint Commission evaluated expert literature to determine what additional requirements were needed to help protect immunocompromised patients and residents from waterborne pathogen–related illnesses. The literature review revealed that in addition to the need for a risk assessment, water management plan, and testing protocols and acceptable ranges, there was a need for more specific requirements related to a water management program. The new standard requires that an individual or team be responsible for the oversight and implementation of the water management program, including but not limited to, development, management, and maintenance activities. It also specifies required elements to be included in the water management program, such as a basic diagram that maps water supply sources, treatment systems, processing steps, control measures, and end-use points. The water risk management plan is based on the information in the diagram and includes an evaluation of the physical and chemical conditions of each step of the water flow diagram. There is also a requirement for an annual review of the water management program and when any changes have occurred.

This approach was supported by a Standards Review Panel assembled by The Joint Commission, discussions with the Centers for Disease Control and Prevention (CDC), and the Centers for Medicare & Medicaid Services' (CMS) memorandum QSO-17-30.

Engagement with stakeholders, customers, and experts

The Joint Commission obtained expert guidance from the following group:

- Standards Review Panel (SRP) comprised of clinicians and administrators who provided a "boots on the ground" point of view and insights into the practical application of the proposed standards.

The prepublication version of the standards will be available online until January 1, 2022. After January 1, 2022, please access the new requirement in the E-dition or standards manual.

Environment of Care

Standard EC.02.05.02

This standard will go into effect January 1, 2022: The organization has a water management program that addresses Legionella and other waterborne pathogens.
Note: The water management program is in accordance with law and regulation.

Requirement	
	EC.02.05.02, EP 1 This element of performance will go into effect January 1, 2022: The water management program has an individual or team responsible for the oversight and implementation of the program, including but not limited to, development, management, and maintenance activities. **EC.02.05.02, EP 2** This element of performance will go into effect January 1, 2022: The individual or team responsible for the water management program develops the following: - A basic diagram that maps all water supply sources, treatment systems, processing steps, control measures, and end-use points Note: An example would be a flow chart with symbols showing sinks, showers, water fountains, ice machines, and so forth. - A water risk management plan based on the diagram that includes an evaluation of the physical and chemical conditions of each step of the water flow diagram to identify any areas where potentially hazardous conditions may occur (these conditions can most likely occur in areas with slow or stagnant water) Note: Refer to the Centers for Disease Control and Prevention's "Water Infection Control Risk Assessment (WICRA) for Healthcare Settings" tool as an example for conducting a water-related risk assessment. - A plan for addressing the use of water in areas of buildings where water may have been stagnant for a period. (for example, unoccupied or temporarily closed areas) - An evaluation of the patient populations served to identify patients who are immunocompromised - Monitoring protocols and acceptable ranges for control measures Note: Hospitals should consider incorporating basic practices for water monitoring within their water management programs that include monitoring of water temperature, residual disinfectant, and pH. Additionally, protocols should include specificity around the parameters measured, locations where measurements are made, and appropriate corrective actions taken when parameters are out of range. **EC.02.05.02, EP 3** This element of performance will go into effect January 1, 2022: The individual or team responsible for the water management program manages the following: - Documenting results of all monitoring activities

	- Corrective actions and procedures to follow if a test result outside of acceptable limits is obtained, including when a probable or confirmed waterborne pathogen(s) indicates action is necessary - Documenting corrective actions taken when control limits are not maintained Note: See EC.04.01.01, EP 1 for the process of monitoring, reporting, and investigating utility system issues. **EC.02.05.02, EP 4** This element of performance will go into effect January 1, 2022: The individual or team responsible for the water management program reviews the program annually and when the following occurs: - Changes have been made to the water system that would add additional risk. - New equipment or at-risk water system(s) has been added that could generate aerosols or be a potential source for Legionella. This includes the commissioning of a new wing or building. Note 1: The Joint Commission and the Centers for Medicare & Medicaid Services (CMS) do not require culturing for Legionella or other waterborne pathogens. Testing protocols are at the discretion of the hospital unless required by law or regulation. Note 2: Refer to ASHRAE Standard 188-2018 "Legionellosis: Risk Management for Building Water Systems" and the Centers for Disease Control and Prevention Toolkit "Developing a Water Management Program to Reduce Legionella Growth and Spread in Buildings" for additional guidance on creating a water management plan. For additional guidance, consult ANSI/ASHRAE Guideline 12-2020 "Managing the Risk of Legionellosis Associated with Building Water Systems."
Rationale	In health care facilities, water systems often have complex distribution pathways with areas of stagnation; exposure to a variety of plumbing materials; and wide variability in temperature, pH, and disinfectant types and levels. These conditions can promote the development of biofilms and opportunistic pathogens such as Legionella, nontuberculous mycobacteria (NTM), and Pseudomonas species. Because of the nature of water systems in health care settings, exposure to the water while in the organization can place patients/residents at risk for infection from waterborne pathogens or at risk of exposure to an outbreak. Moreover, many people being treated at health care facilities, including long-term care facilities and hospitals, have conditions that put them at greater risk of getting sick and dying from these pathogens.[1] Outbreak investigations by the Centers for Disease Control and Prevention show that most problems leading to health care–associated outbreaks could be prevented with effective water management programs.[2] An effective water management program includes individual or team oversight, evaluation of water supply sources, water monitoring protocols, and corrective actions.
Reference*	1. Perkins KM, et al. (2019). Investigation of healthcare infection risks from water-related organisms: Summary of CDC consultations, 2014—2017. Infection Control & Hospital Epidemiology, 40: 621–626 doi:10.1017/ice.2019.60 2. Legionnaires' Disease: A problem for health care facilities. *CDC Vitalsigns*, June 2017. Retrieved from https://www.cdc.gov/vitalsigns/pdf/2017-06-vitalsigns.pdf ASHRAE Standard 188-2018 "Legionellosis: Risk Management for Building Water Systems" and the Centers for Disease Control and Prevention Toolkit "Developing a Water Management Program to Reduce Legionella Growth and Spread in Buildings

	ANSI/ASHRAE Guideline 12-2020 "Managing the Risk of Legionellosis Associated with Building Water Systems CMS QSO-17-30 Requirement to Reduce Legionella Risk in Health Care Facility Water Systems to Prevent Cases and Outbreaks of Legionnaires' Disease https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/SurveyCertificationGenInfo/Policy-and-Memos-to-States-and-Regions-Items/Survey-And-Cert-Letter-17-30-

***Not a complete literature review.**

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