



**GUIDELINE
FOUNDATION**

Principles of Good Practice

Section 5:

Legionella and
Waterborne Pathogens

For the Industrial Hygienist/Occupational
Hygienist (IH/OH)

[aiha.org](https://www.aiha.org)

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Principles of Good Practice Documents

The PGP are organized by OEHS areas of practice in a concise, easy-to-use table format. They are published as they are developed for each area of practice and are designed to be kept “evergreen” via regular updates. Refer to Section 1 for PGP use and limitations.

Currently, PGP have been documented for the following areas of practice:

OEHS Area of Practice/ PRP Authors and Contributors	Date	
	Initial Publication	Most Recent Update
Indoor Environmental Quality Committee PGP Version 1 PGP AG Members: Larry Sloan, Michele Twilley IEQC PGP Subteam: David Krause, Alex LeBeau, Robert McNeely, Deborah Jaeger, Jack Springston, David Miller, Donald Weekes, Eric Brown, Cheri Marcham, David Brinkerhoff and Kadeem Hill.	11/3/2025	11/3/2025

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Preamble

This guidance identifies the foundational knowledge and background information needed to reliably assess the risk of *Legionella* and other Waterborne Pathogen contamination in building water systems.

Before working on facility water issues, offering consultation, or providing technical services related to the assessment of water sources for *Legionella* and other waterborne pathogens, or in support of a disease outbreak investigation, practitioners, referred throughout this guidance as Competent Technicians and Competent Professionals, should possess basic knowledge of the biology, ecology, and pathogenic risks of common waterborne pathogens. Individuals should seek out and attend reliable education and training courses, read relevant reference texts and guidelines, and work under the guidance and supervision of competent professionals before practicing independently in this area. This information and education will allow the practitioner to gain the experience necessary to safely and reliably investigate possible sources of amplification and exposure or assess the risk of amplification and disease transmission. When assessments are performed or guidance is provided without sufficient knowledge, sources of amplification can be missed, exposures to pathogens can continue, and additional cases of disease can occur. (1-4)

Practitioners need to possess knowledge of the biology, ecology, and pathogenic risks of *Legionella*, *Pseudomonas*, and nontuberculous mycobacteria (NTM). (5-11)

Practitioners need to have knowledge about diseases caused by *Legionella* (i.e., Legionnaires' disease and Pontiac Fever, referred to collectively as Legionellosis), how it is transmitted, disease signs and symptoms, and the known risk factors for contracting Legionellosis. (12-15)

Competent Technicians and Competent Professionals should also possess knowledge of respiratory diseases resulting from exposure to aerosols containing *Pseudomonas* and NTM. (5,6,11,12)

Practitioners must understand and can describe the chain of events and conditions that are known to cause Legionnaires' disease. (13, 14)

Practitioners should also know the history of Legionnaires' disease, and particularly about the seminal outbreak in 1976.

Competent Professionals should understand how Legionnaires' disease is clinically diagnosed, how different clinical diagnostic methods relate to interpretation of environmental sampling methods, and how Legionnaires' disease cases are classified and investigated by public health authorities. (15-17)

The PGPs described throughout this document are intended to apply to the assessments of any waterborne pathogen, with a focus on *Legionella* species, *Pseudomonas* species, and NTMs. Because there is more historical knowledge about *Legionella* in building water systems and sources than for other waterborne pathogens, *Legionella* is used as an exemplar or proxy for the assessment of all waterborne pathogens.

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Where specific pathogens exhibit differences in ecology, risks, or assessment practices, the practitioner must act accordingly. As more information becomes available and is published on the assessment, prevalence, and prevention of contaminated water sources and systems by *Pseudomonas* species, NTMs, and other waterborne pathogens, this guide will be updated accordingly to cite and reference credible sources. It is incumbent upon the practitioner, whether at the Technician level or Professional level, to stay informed and up-to-date on research, publications, and practices affecting the assessment, prevention, and control of waterborne pathogens.

The guidance presented here is relevant to the following.

- Performing inventories and assessments of water sources and building water systems to identify risk factors for the colonization and amplification of waterborne pathogens and for possible aerosolization of infectious agents and hazardous substances.
- Assessing microbiological sources within cooling towers, decorative water features, green walls, and other recognized sources that may be external to the premise plumbing or the specific building but are served by the building's water system.
- When remediation of pathogen sources is necessary; assessing residual levels of biological contamination (i.e. waterborne pathogens) after remediation efforts are performed in premise plumbing systems, cooling towers, recreational spas, and other sources of pathogen amplification to validate their effectiveness and determine if further actions are needed.

This PGP includes a "Performed by:" column in indicate whether a risk critical task must be performed by a competent professional (CP), is typically performed by a competent technician (CT), or is typically performed by both (CT/CP). It should be noted that risk critical tasks designated as typically performed by a competent technician may be performed by a competent professional should a competent technician not be available, but that competent technicians should not perform risk critical tasks that must be performed by a competent professional.

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AIHA PRINCIPLES OF GOOD PRACTICE for LEGIONELLA AND WATERBORNE PATHOGENS

v1.0 - 11/03/2025

OEHS Process / Program	Risk-Critical Practices	Good Practice	Enhanced Practice	Performed by:	References
Chapter 1	Scope and Objective				
Scope and Objectives)	The AIHA Principles of Good Practice (PGP) for Assessing Legionella and Other Waterborne Pathogens is directed at preventing illness and disease in workers and members of the community from aerosol exposures to waterborne pathogens in water sources and systems controlled or managed in the workplace. This is achieved through the efforts of Competent Professionals (CPs) and Competent Technicians (CTs), collectively referred to as “Practitioners.” Collectively, their responsibility is to recognize, assess, and manage all building water systems for risk factors, and to monitor (i.e., sampling) them for signs of colonization and amplification by pathogenic organisms, including but not limited to Legionella species, Pseudomonas species, and nontuberculous mycobacteria (NTM).	X		CT/CP	Section 1.0: AIHA Legionella Guidelines 2nd Edition CDC 2021: Developing a WMP for Legionella
	<i>Note: The PGP does not address unknown atypical sources of amplification or exposure, person-to-person transmission of waterborne pathogens (which is not currently recognized to occur), transmission via improperly sterilized medical instruments or devices, or pathogen transmission via pathways beyond inhalation or aspiration.</i>				

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Chapter 2	Assessing Building Water Sources & Systems to Identify Risk Factors				
Assessing Building Water Sources & Systems to Identify Risk Factors	Legionella Source Risk Assessments (LSRAs) and Waterborne Pathogen Source Risk Assessments (WPSRAs) are performed by Competent Technicians (CTs) under the supervision of, a Competent Professional (CP), or directly by a CP who has been trained, and has demonstrated competence, in assessment methodologies, technically sound measurement and sampling techniques, and interpretation of sample results.	X		CT/CP	Chapter 7: AIHA Legionella Guidelines 2nd Edition AIHA Technical Framework (pp 11-26): section on Legionella knowledge levels
	Prepare an assessment strategy and sampling plan for Legionella or other waterborne pathogens of concern. Establish the scope of the assessment, which water systems and sources must be assessed, and how to identify risk factors for pathogen growth and transmission via aerosols for both routine and investigative risk assessments.	X		CP	Section 7.0: AIHA Legionella Guidelines 2nd Edition
	Perform the sampling and risk assessment tasks that have been prescribed or recommended by a CP in the assessment strategy and sampling plan. Provide reliable data, measurements, and observations.	X		CT	Section 7.2: AIHA Legionella Guidelines 2nd Edition
	Review facility plans, drawings, and other information necessary to perform a building water system assessment safely and efficiently.	X		CT	Section 7.2: AIHA Legionella Guidelines 2nd Edition AIHA Technical Framework: Legionella
	Identify and document potential sources of water that can harbor pathogen growth (amplification) and may be capable of producing aerosols.	X		CT	Section 7.2: AIHA Legionella Guidelines 2nd Edition AIHA Technical Framework: Legionella

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Assessing Building Water Sources & Systems to Identify Risk Factors	Identify the potable water service of a building and trace how water flows from the municipal water supply entry point to distal termination sites within the facility. Prepare a building water system process flow diagram that accurately and simply depicts the building's water distribution system and how water flows through the building.	X		CT	Section 7.2: AIHA Legionella Guidelines 2nd Edition AIHA Technical Framework: Legionella 6.2.3 and Appendix A (A.3) ASHRAE 188-2021
	Identify and document non-potable water service, systems, and sources that can harbor pathogen growth (amplification) and may be capable of producing aerosols (i.e., fire suppression systems, hot water service, bathing facility water and treatment systems, and HVAC systems).	X		CT	Section 7.2: AIHA Legionella Guidelines 2nd Edition AIHA Technical Framework: Legionella
	Identify and document how plumbing lines serving non-potable systems are prevented from back flowing into potable service lines.	X		CT	Section 7.2: AIHA Legionella Guidelines 2nd Edition AIHA Technical Framework: Legionella
	Document observations of building water systems and water quality that can indicate an increased risk of waterborne pathogen growth.	X		CT	Section 7.2: AIHA Legionella Guidelines 2nd Edition
	Survey a building's water systems to identify potential Legionella (or other waterborne pathogens) amplification and transmission sources.	X		CT	Section 7.2: AIHA Legionella Guidelines 2nd Edition AIHA Technical Framework: Legionella
	Provide recommendations for repairing deficiencies and mitigating immediate risks of Legionella transmission.	X		CP	Section 7.1: AIHA Legionella Guidelines 2nd Edition Pg. 11: AIHA Technical Framework: Legionella
	Recommend further investigation of water systems to assess malfunctions or deficiencies that will be conveyed to the Water Management Team or Public Health Authorities.	X		CP	
	Compile, interpret and report the findings and observations of a building water systems assessment to stakeholders. Provide substantive and direct recommendations for testing, sampling, modification, or closure of a water source based upon the assessment results, observations, reliable information, or evidence of contamination by Legionella or other waterborne pathogens.	X		CP	

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Chapter 3	Waterborne Pathogen Risk Assessments					
Waterborne Pathogen Risk Assessments	Design and direct Legionella or other waterborne pathogen source risk assessments that describes the water parameter measurements, the means to collect measurements, and describes the number, location, types, and analysis methods used for samples. Review the measurement data, observations, field notes, and sample results to interpret them and form conclusions and recommendations. Prepare and author written reports that provide recommendations, including the selection of any supplemental disinfection systems necessary to control (i.e., remediate or prevent) Legionella or other waterborne pathogen amplification.	X		CP	Section 7.0: AIHA Legionella Guidelines 2nd Edition AIHA Technical Framework: Legionella Chapter 12: ACGIH Bioaerosols 2nd edition	
	Implement risk assessments for Legionella or other waterborne pathogen sources. Help to refine the scope of work, collect measurements, take field notes and document observations to characterize building water sources and systems. Perform routine monitoring of building water systems to ensure they do not become a source of waterborne pathogen amplification or disease transmission.	X		CT	Section 7.0: AIHA Legionella Guidelines 2nd Edition AIHA Technical Framework: Legionella	
	Interpret the findings and observations resulting from a water system and source inventory. Evaluate this information to prepare an assessment strategy and sampling plan.	X		CP	Chapter 3: AIHA Legionella Guidelines 2nd Edition	
	Identify water sources that have and have NOT generally been associated with Legionnaires' disease. Water sources that are frequently but incorrectly assumed to be sources of amplification (e.g., Air Handling Units (AHUs), swimming pools [cold], metal working fluids, etc. should be identified and reported along with their operational status.			X	CT	
	Collect environmental samples for Legionella and other WBPs from sources commonly recognized as sites of amplification and exposure.	X			CT	
	Identify uncommon sources of Legionella or other WBP amplification and aerosol exposure. These are sources that have been well documented to cause Legionnaires' disease or to harbor and transmit other waterborne pathogens.				CP	

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Chapter 4	Routine Risk Assessments				
Routine Risk Assessments	Perform routine risk assessments of water sources and systems for Legionella and other WBPs when there are no known or suspected cases of disease associated with the facility.	X		CT	Chapter 3.0: AIHA Legionella Guidelines 2nd Edition
	Establish a Water Management Plan (WMP) or program following the completion of a routine risk assessment.	X		CP	Chapter 3.0: AIHA Legionella Guidelines 2nd Edition CDC 2021: Developing a WMP for Legionella CSTE 2019 WMP template
	Determine if existing water sources and systems are impacted by Legionella or other WBPs, what risk factors are contributing to conditions, and if existing operations or control measures are preventing the amplification of WBPs.	X		CP	Chapter 3.0: AIHA Legionella Guidelines 2nd Edition
	Select appropriate and reliable measurement methods and devices to characterize water quality parameters and interpret the results to determine if the risk of Legionella or other WBPs amplification is high or low.	X		CP	Chapter 3.0: AIHA Legionella Guidelines 2nd Edition
	Perform quantitative testing and collect water quality measurements, using appropriate and reliable measurement methods and devices to determine if the risk of Legionella amplification (or other WBPs) is high or low.	X		CT	Section 3.1.3 #3: AIHA Legionella Guidelines 2nd Edition AIHA Field Guide for the Determination of Biological Contaminants in Environmental Samples, 2nd Edition section 6.2 Legionella

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OEHS Process / Program	Risk-Critical Practices	Good Practice	Enhanced Practice	Performed by:	References
Routine Risk Assessments	Select or approve appropriate and reliable sample collection and laboratory analysis methods to estimate the concentrations of Legionella or other WBPs in water sources and systems. Interpret the results of laboratory sample analysis, water parameter measurements, and all available information to determine if pathogen amplification is present, or if the risk of amplification is elevated.	X		CP	Section 3.5.1: AIHA Legionella Guidelines 2nd Edition AIHA Field Guide for the Determination of Biological Contaminants in Environmental Samples, 2nd Edition section 6.2 Legionella
	Perform environmental sampling of water sources and systems, using appropriate and reliable sample collection and analysis methods, to determine if pathogen amplification is taking place, or if the risk of amplification is elevated.	X		CT	Section 3.5: AIHA Legionella Guidelines 2nd Edition AIHA Field Guide for the Determination of Biological Contaminants in Environmental Samples, 2nd Edition section 6.2 Legionella

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Chapter 5	Investigative Risk Assessments				
Investigative Risk Assessments	Oversee or perform investigative Legionella risk assessments of water sources and systems when there are known or suspected cases of Legionellosis associated with the facility.	X		CP	Chapter 3: AIHA Legionella Guidelines 2nd Edition
	Inventory potential sources of pathogen amplification and exposure based upon epidemiological and/or empirical evidence provided by public health authorities, historical environmental water sampling data, or affected individuals.	X		CT/CP	Chapters 3 and 6: AIHA Legionella Guidelines 2nd Edition
	Select appropriate and reliable measurement methods and devices to characterize water quality parameters and to interpret the results to determine if the risk of Legionella amplification is high or low.	X		CP	Section 3.1.3: AIHA Legionella Guidelines 2nd Edition
	Collect quantitative water quality measurements using appropriate and reliable measurement methods and devices to determine if the risk of Legionella amplification is high or low.	X		CT	Chapter 3: AIHA Legionella Guidelines 2nd Edition
	Select appropriate and reliable sample collection and laboratory analysis methods to estimate the concentrations of Legionella in water sources and systems. Interpret the results of these measurements and samples to determine if Legionella amplification is present, is possibly present, or there is potential for amplification.	X		CP	Section 3.5.5 & Table 3.1: AIHA Legionella Guidelines 2nd Edition
	Perform environmental sampling of water sources and systems, using appropriate and reliable sample collection and analysis methods that are used to estimate concentrations of Legionella or other WBPs.	X		CT	Section 3.5.2: AIHA Legionella Guidelines 2nd Edition

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Chapter 6	Measurement, Sampling Methods, & Equipment				
Measurement, Sampling Methods, & Equipment	Use appropriate and reliable equipment and/or sampling procedures to measure water quality parameters (i.e. temperature, free chlorine, pH, turbidity, etc.) to support interpretation of pathogen culture sample results. Maintain, calibrate, and operate testing equipment in accordance with manufacturer’s instructions or other industry guidance. Confirm that the selected equipment will scientifically support the goal of the WMP or risk assessment.	X		CT	Section 7.0: AIHA Legionella Guidelines 2nd Edition OSHA Website on Legionellosis (2-9-2025) Domain X: AIHA Technical Framework: Legionella

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Chapter 7	Identifying and Assessing Pathogen Control Measures				
Identifying and Assessing Pathogen Control Measures	Use appropriate and reliable measurement and sampling methods to assess if <i>Legionella</i> or other WBPs are effectively being controlled (i.e., not amplifying or growing) in building water systems and other water sources.	X		CT	Sections 1.3.1, 3.5.6, and 3.5.4.1: AIHA <i>Legionella</i> Guidelines 2nd Edition AIHA Field Guide for the Determination of Biological Contaminants in Environmental Samples, 2nd Edition section 6.2 <i>Legionella</i>
	Prescribe or approve appropriate methodologies for evaluating <i>Legionella</i> and other WBPs control measures. Establish the frequency of verification and validation assessments and specify the number and types of samples needed to reliably assess each water system or source using a reliable methodology.	X		CP	Section 3.5.6 & Table 3.3: AIHA <i>Legionella</i> Guidelines 2nd Edition Domain I Program Professional: AIHA Technical Framework: <i>Legionella</i> Chapter 11: ACGIH Bioaerosols 2nd edition AIHA Field Guide for the Determination of Biological Contaminants in Environmental Samples, 2nd Edition section 6.2 <i>Legionella</i>
	Determine if alternative sample analysis methods are appropriate to assess the effectiveness of control measures. Consider proficiency programs and quality assurance practices of the laboratories used to perform analyses for <i>Legionella</i> bacteria and other waterborne pathogens (e.g., <i>Pseudomonas</i> and nontuberculous mycobacteria).			X	CP

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Chapter 8	Sample Analysis and Interpretation of Results				
Sample Analysis and Interpretation of Results	Rely upon scientifically defensible culture-based methods for laboratory analysis of samples for waterborne pathogens that detect <i>Legionella pneumophila</i> and estimate concentrations of pathogens in environmental samples. Avoid selecting test methods that tend to produce false-positive results, and minimize reliance upon analysis methods that report non-viable and non-culturable pathogens as these findings can confuse investigators and the public.	X		CP	Section 3.5.3 & 3.3.1.3 #3: AIHA Legionella Guidelines 2nd Edition ISO 11731, 2017 Domain II: Responder & Program Professionals); AIHA Technical Framework: Legionella AIHA Field Guide for the Determination of Biological Contaminants in Environmental Samples, 2nd Edition section 6.2 Legionella
	Review laboratory culture sample results and interpret their meaning as it relates to the amplification or growth of <i>Legionella</i> and other WBPs. Consider sample results to determine the effectiveness of facility control measures. Based upon culture sample results, recommend corrective actions needed to mitigate risk and remediate sources of amplification.	X		CP	Section 3.5.5 Table 3.1: AIHA Legionella Guidelines 2nd Edition
	Determine if <i>Legionella</i> growth is occurring in a water system or source. Water clarity, surrogate measures of water chemistry (i.e. disinfectant levels and pH), temperature, heterotrophic bacteria concentrations (HPC) and total bacteria concentrations have not been demonstrated to be predictive indicators or surrogates of either the presence or absence of <i>Legionella</i> growth. However, these metrics and complimentary methods may be useful to understanding why <i>Legionella</i> growth may be occurring and what corrective actions may be needed.	X		CP	Sections 1.3.1, 3.3, and 3.1.3 #3 Table 3.1: AIHA Legionella Guidelines 2nd Edition
	Assist building operators and remediation contractors to implement elements of the WMP, remediation plans, or other corrective actions. Carry out procedures to verify and validate their effectiveness.	X		CT/CP	Table 3.2: AIHA Legionella Guidelines 2nd Edition

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Chapter 9	Practitioner Safety Procedures and Interim Protective Measures				
Practitioner Safety Procedures and Interim Protective Measures	Anticipate and recognize hazards present that can cause injury or death to investigators, building occupants, and contractors including, but not limited to, chemical, biological, electrical, fire, the potential for slips/trips/falls, confined spaces, combustion gasses, mechanical hazards (i.e., machine guarding), and other relevant occupational hazards.	X		CT	Sections 4.5.1, 4.5.6, and 5.3.1 #1: AIHA Legionella Guidelines 2nd Edition Domain I; PHS Resources – Safety Training: AIHA Technical Framework: Legionella
	Take measures to protect investigators, building occupants, and members of the public from exposure to known or suspected sources of aerosolized Legionella or other WBPs. These procedures are commonly implemented when pathogen amplification is associated with an outbreak.	X		CT	Section 3.5: AIHA Legionella Guidelines 2nd Edition
	Implement interim or short-term measures to protect workers, patients, residents, visitors, building occupants, and the public from suspected or confirmed sources of Legionella or other waterborne pathogens.	X		CT	Sections 3.1.3 #2, 3.5.2, 3.5.5 and 4.4, and Table 3.2: AIHA Legionella Guidelines 2nd Edition Chapter 11: ACGIH Bioaerosols 2nd edition Domain 1 Responder Professional: AIHA Technical Framework: Legionella
	Select appropriate filtration, chemical disinfection, or thermal pasteurization to mitigate exposures to sources of pathogen amplification and aerosols for either short-term or long-term control measures.	X		CP	Chapter 4 and Appendix II Supplemental Treatment Technologies: AIHA Legionella Guidelines 2nd Edition Chapter 11 Section 11.8.1.2: ACGIH Bioaerosols 2nd edition EPA 2016: Technologies for Legionella Control

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Chapter 10	Remediating Contaminated Water Sources				
Remediating Contaminated Water Sources	Avoid conflicts of interest by not 1) allowing remediation contractors to collect or analyze post-remediation samples intended to validate the effectiveness of remediation procedures, and 2) not allowing water treatment providers to collect or analyze samples for Legionella or other WBPs, either as routine testing or when identifying sources suspected of being the cause of a disease cluster or outbreak. Fundamentally, practitioners recognize that “self-validating” water treatment or remediation activities creates a conflict of interest.	X		CT/CP	Section 4.5.1: AIHA Legionella Guidelines 2nd Edition
	Recommend the implementation of effective remediation methods for Legionella and other waterborne pathogens when amplification sources are identified. Recommend measures to minimize exposure of occupants to hazardous substances and unnecessary risks. (Note: Mechanical cleaning and removal of sediment, scale, biofilm, algae, and other substances can influence the effectiveness of remediation and control methods when needed.)	X		CP	Chapter 4: AIHA Legionella Guidelines 2nd Edition Chapter 11: ACGIH Bioaerosols 2nd edition EPA 2016: Technologies for Legionella Control
	Evaluate and prescribe appropriate chemical disinfection for primary remediation of Legionella and other WBPs in potable and non-potable premise plumbing systems and hot water systems when appropriate. Consider the effectiveness of supplemental treatment systems and identify systems that are appropriate for a specific facility.	X		CP	Chapter 4: AIHA Legionella Guidelines 2nd Edition Chapters 11 and 12: ACGIH Bioaerosols 2nd edition EPA 2016: Technologies for Legionella Control

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Remediating Contaminated Water Sources	Prepare written remediation plans for building water systems that may include premise plumbing, hot tub spas, decorative water features, and cooling towers using established protocols and procedures.	X		CP	Sections 4.5.1 and 7.0: AIHA Legionella Guidelines 2nd Edition Domain III Responder Professional; Domain III Program Professional: AIHA Technical Framework: Legionella Chapter 11 Section 11.8.6: ACGIH Bioaerosols 2nd edition
	Develop specific protocols and procedures unique to an individual facility, its water systems, or its occupants.	X		CP	Section 3.5: AIHA Legionella Guidelines 2nd Edition
	Direct the work of CTs during an outbreak response.	X		CP	Section 3.5: AIHA Legionella Guidelines 2nd Edition

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Chapter 11	Verify and Validate Remediation & Control Measures				
Verify and Validate Remediation & Control Measures	Implement and oversee protocols to remediate water sources and systems. Collect samples to validate the effectiveness of remediation efforts in accordance with established procedures or specific recommendations. Implement and oversee remediation activities for building water systems that include premise plumbing, hot tub spas, decorative water features, and cooling towers using established protocols and procedures. Implement specific protocols and procedures that have been recommended by a CP.	X		CT	Sections 4.5.1 and 7.0: AIHA Legionella Guidelines 2nd Edition Domain III Responder Professional; Domain III Program Professional: AIHA Technical Framework: Legionella Chapter 11, Section 11.8.6: ACGIH Bioaerosols 2nd edition
	Verify remediation activities and procedures, perform oversight of cleaning per the remediation plan, and document the concentration of chemical treatment and duration of contact. For premise plumbing systems and drinking water sources, also document the effective flushing and removal of disinfecting chemicals prior to returning the systems to use by building occupants.	X		CT	Sections 3.3.1, 4.5 & 4.6; Table 3.2: AIHA Legionella Guidelines 2nd Edition

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<p>Verify and Validate Remediation & Control Measures</p>	<p>Implement procedures to validate the effectiveness of remediation efforts for premise plumbing systems (cold and hot water), cooling towers and evaporative condensers, hot tubs and spas, as well as decorative fountains and water features.</p>	<p>X</p>		<p>CT</p>	<p>Sections 4.5 & 4.6: AIHA Legionella Guidelines 2nd Edition</p> <p>Domain IV Program Professional: AIHA Technical Framework: Legionella</p> <p>Chapter 11, Section 11.8.6: ACGIH Bioaerosols 2nd edition</p> <p>Section 6.2.8: ASHRAE 188-2021</p> <p>Section 8.3: ASHRAE Guideline 12-2020</p> <p>CDC Toolkit 2021 Developing a Legionella Water Management Program: Section 6 – Make Sure the Program is Running as Designed & is Effective</p>

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Chapter 12	Documenting, Reports & Recordkeeping				
Documenting, Reports & Recordkeeping	Retain records for equipment used to measure water quality parameters, including maintenance and calibration records. Retain sample chain of custody (COC) and laboratory sample submission forms, shipping or courier documentation, field logs and notes, and remediation documentation forms. Retain records for at least 3 years or in accordance with local, State or Federal regulations.	X		CT	Section 3.5: AIHA Legionella Guidelines 2nd Edition Domain IV: Program Professional; Domain V Responder Professional; AIHA Technical Framework: Legionella Chapter 11 Section 11.8: ACGIH Bioaerosols 2nd edition
	Review all materials, documentation, and results to verify they are complete and reliable.	X		CP	Section 7.1: AIHA Legionella Guidelines 2nd Edition Domain IV Program Professional: AIHA Technical Framework: Legionella
	Prepare written reports on the effectiveness of recommendations to control (i.e., remediate or prevent) Legionella or other waterborne pathogen amplification based upon all available data, measurements, samples results, and observations.	X		CP	Section 5.3: AIHA Legionella Guidelines 2nd Edition Domain X: AIHA Technical Framework: Legionella

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