



Legionella Report Interpretations and Recommendations



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NON-POTABLE SAMPLES (Cooling Towers and Decorative Fountains) - Risk Assessment; Remedial Action Criteria

Risk Level at Tower or Decorative Fountain Site	Very High Risk	High Risk	Moderate Risk	Low Risk	Very Low Risk
Legionella Detected Levels	Lp SG1 > 5,000 CFU/ml and/or Lp SG 2-14 & L. spp. > 10,000 CFU/ml	Lp SG1 1,000-5,000 CFU/ml and/or Lp SG 2-14 & L. spp. 5,000-10,000 CFU/ml	Lp SG1 100-999 CFU/ml and/or Lp SG 2-14 & L. spp. 1,000-4,999 CFU/ml	Lp SG1 10-99 CFU/ml and/or Lp SG 2-14 & L. spp. 100-999 CFU/ml	Lp SG1 <10 CFU/ml and/or Lp SG 2-14 & L. spp. < 100 CFU/ml
Legionnaires' Disease Risk Assessment	Significant Potential for causing an outbreak of Legionnaires' Disease	Legionella detected at level associated with outbreaks of Legionnaires' Disease.	Legionella approaching the level associated with outbreaks of Legionnaires' disease	Legionella well below the level associated with Legionnaires' disease outbreaks	Background levels of Legionella
Recommendation for Disinfection	Immediate Disinfection	Immediate Disinfection	Disinfection is usually indicated as a precaution against any future Legionella amplification	Disinfection is generally not recommended unless located near susceptible populations	Disinfection is generally not recommended unless located near susceptible populations
Recommendations for Legionella Testing	Schedule immediate retest to determine effectiveness of the disinfection	Schedule immediate retest to determine effectiveness of the disinfection	Schedule a retest to determine effectiveness of the disinfection	Maintain regular testing schedule for Legionella	Maintain regular testing schedule for Legionella
Recommendations for Biocide Treatment	Alter the current biocide treatment program	Alter the current biocide treatment program	Review the current biocide treatment program	Review the current biocide treatment program	Review the current biocide treatment program

POTABLE WATER SAMPLES - Overall Building Risk Assessment; Remedial Action Criteria: Viable L. pneumophila SG1

Overall Building Risk Assessment:	Faucet fixtures are dead-legs off of the building circulating hot water loop. Thus, the numbers of Legionella present in the water at each faucet will vary according to how frequently the faucet is used, since frequent flushing will repeatedly reduce Legionella that has accumulated in the water due to growth and release from the surface biofilm. Thus, the risk of Legionnaires' Disease is more closely correlated with the <u>percentage of sites that are positive</u> , rather than the numbers of Legionella at any one site. 30% positive has been used as an action threshold (New York Codes, Rules and Regulations, Volume A (Title 10), Part 4, protection Against Legionella, Effective Date 7/6/16.				
Risk for Development of Legionnaires' Disease (Percentage of Positive Sites)	High Risk ≥ 30%		Low Risk <30%		Very Low Risk
Recommendations for Disinfection for the Building's Potable Water System	Immediate Disinfection of Potable Water System		Disinfect if Legionnaires' disease cases are detected		No Action
Recommendations for Testing	Schedule an immediate Legionella retest to determine the effectiveness of disinfection. Schedule monthly testing for future Legionella monitoring. Consider prevention strategies if colonization is persistent.		Schedule monthly testing of at least ten (10) potable water sites in the building for routine Legionella monitoring if low or very low risks for Legionnaires' Disease are detected.		

While frequent use of a faucet may lead to a transiently false-low number of Legionella, high numbers of Legionella at a site are always relevant and should be acted upon as outlined below:

Individual Sample Risk for Legionnaires' Disease	Very High Risk	High Risk	Moderate Risk	Low Risk	Very Low Risk
Lp SG1 Detected Levels	> 1,000 per ml or swab	100-999 per ml or swab	10-99 per ml or swab	1-9 per ml or swab	< 1 per ml or swab
Lp SG2-14 & L. spp.	> 10,000 per ml or swab	1,000 – 9,999 per ml or swab	100-999 per ml or swab	10-99 per ml or swab	< 1-9 per ml or swab
Recommendation for Disinfection	Immediate Site Disinfection	Immediate Site Disinfection	Consider Site Disinfection	Consider Site Disinfection	No Action



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NON-POTABLE SAMPLES (Whirlpool Spas/Swimming Pools) - Overall Building Risk Assessment; Remedial Action Criteria: Viable *L. pneumophila* SG1, *Legionella* Serogroups (2-14), and other non-*pneumophila* species

Risk Level at Site	Very High Risk	High Risk	Moderate Risk	Low Risk	Very Low Risk
<i>Legionella</i> Detected Levels	Lp SG1 , Lp SG2-14, or L. spp >100/ml	Lp SG1 , Lp SG2-14, or L. spp 10-99/ml	Lp SG1 , Lp SG2-14, or L. spp 1-9/ml	Lp SG1 , Lp SG2-14, or L. spp <1/ml	Lp SG1 , Lp SG2-14, or L. spp None Detected
Legionnaires' Disease Risk Assessment	High potential for Legionnaires' Disease outbreak	Significant potential for Legionnaires' Disease outbreak	Moderate potential for Legionnaires' Disease	Low potential for Legionnaires' Disease	No potential risk for Legionnaires' Disease
Recommendation for Disinfection	Immediate shock disinfection of sample site	Immediate shock disinfection of sample site	Review disinfection system and maintenance program	Review disinfection system and maintenance program	No Action
Recommended <i>Legionella</i> Testing	Schedule an immediate retest to determine effectiveness of the disinfection. Review/modify the disinfection system and maintenance program	Schedule an immediate retest to determine effectiveness of the disinfection. Review/modify the disinfection system and maintenance program	Schedule an immediate retest of this site to check for <i>Legionella</i> amplification.	Schedule a retest of this site to check for <i>Legionella</i> amplification.	Maintain a regular testing schedule for <i>Legionella</i>

In order to assess the Overall Disinfection Control in whirlpool spas and pools, it is recommended to additionally test these sites for the presence of high total bacteria counts and *Pseudomonas* bacteria during routinely scheduled *Legionella* testing.

Overall Disinfection Control	Hazardous	Poor	Fair	Good
Detected Levels of Total Bacteria, <i>Pseudomonas</i> and <i>Legionella</i>	Total bacteria > 10,000/ml or <i>Pseudomonas</i> or <i>Legionella</i> > 100/ml	Total bacteria 1,000-9,999/ml or <i>Pseudomonas</i> or <i>Legionella</i> 10-99/ml	Total bacteria 200-999/ml or <i>Pseudomonas</i> 1-9/ml or <i>Legionella</i> 1-9/ml	Total bacteria <200/ml and <i>Pseudomonas</i> <1/ml and <i>Legionella</i> <1ml
Recommendations for Disinfection	Immediate shock disinfection. Review disinfection system and maintenance program.	Immediate shock disinfection. Review disinfection system and maintenance program.	Review disinfection system and maintenance program.	No immediate action.
Recommendations for Testing	Schedule an immediate retest	Schedule an immediate retest	Schedule retest	Maintain a regular testing schedule

Abbreviations: CFU = Colony Forming Unit, Lp SG1 = *Legionella pneumophila* Serogroup 1, LP SG2-14 = *Legionella pneumophila* Serogroups 2-14, L. spp. = *Legionella* non-*pneumophila* species.