**Section 465.310 Personnel Requirements**

a) The microbiology laboratory supervisor shall have a minimum of a bachelor's degree in microbiology, biology, chemistry, or related natural or physical science field, shall have completed a training course conducted or approved by the Department, and shall have received Department approval to serve as laboratory supervisor. In addition, the laboratory supervisor shall have had a minimum of 80 hours of on-the-job training in water microbiology at a certified laboratory. The supervisor shall demonstrate the ability to properly perform representative test procedures under the supervisor's supervision while under observation by the certification officer. A laboratory supervisor shall be a full-time employee who is on-site at the certified laboratory. If the laboratory supervisor position becomes vacant, then a replacement supervisor shall be in place within 60 days.

b) The parasitology principal analyst/supervisor shall have a minimum of a bachelor's degree in microbiology or a closely related field, shall have a minimum of one year of bench experience with Cryptosporidium and immunofluorescence assay (FA) microscopy, have a minimum of six months experience using Method 1623 or 1623.1, and have analyzed a minimum of 100 samples using Method 1623 or 1623.1. The principal analyst/supervisor shall participate in a monthly analyst verification, shall supervise and verify the processing and microscopy in the laboratory, and may perform the same duties as an analyst. The principal analyst/supervisor shall ensure that all laboratory personnel are able to perform the analyses to which they are assigned and that all data reported by the laboratory meet the required quality assurance and regulatory criteria.

c) A microbiology analyst performs microbiological analyses on water, shall have a minimum of a high school diploma and shall have a minimum of 30 days of on-the-job training in drinking water microbiology under an experienced analyst. In addition, an analyst shall be able to perform representative test procedures with which the analyst is involved while under the observation of the certification officer. Analysts shall be under the direct supervision of the laboratory supervisor. Before analyzing compliance samples, the analyst shall demonstrate acceptable results on samples spiked with known culture controls.

d) A parasitology analyst establishes Kohler illumination for the microscope, may perform the same duties as a technician, and is able to examine samples using the microscope. An analyst shall have a minimum of two years of college with courses in microbiology or a closely related field, a minimum of six months of bench experience with Cryptosporidium and FA microscopy, and a minimum of three months of experience using Method 1623 or 1623.1. The analyst shall participate in a monthly analyst verification.

e) A parasitology technician filters samples, performs centrifugation, elution, concentration, and purification using immunomagnetic separation (IMS), and prepares purified samples on slides for microscopic examination, but does not perform microscopic protozoan identification. A technician shall have a minimum of three months of experience in filter extraction and processing of protozoa samples by Method 1623 or 1623.1 and have analyzed a minimum of 50 samples using Method 1623 or 1623.1 for the specific procedures that he or she will be using.

f) The Department may waive the need for the academic training required by this Section, on a case-by-case basis, for highly experienced analysts who hold a high school equivalency certificate.

g) The Department may waive the need for the college education and training required by this Section, on a case-by-case basis, for supervisors of microbiology laboratories that analyze samples from drinking water systems with which the laboratory is associated. The supervisor shall have a minimum of 10 years experience in water microbiology and shall have demonstrated a working knowledge of Quality Assurance activities as justification for the waiver.

h) The Department may waive college education in lieu of experience for a parasitology supervisor or analyst who has greater than 10 years experience of protozoan identification duties.

i) If a waiver is granted, the Department will prepare a written and signed justification for the waiver.

j) The Certification Officer shall have a minimum of a bachelor's degree in microbiology, biology, chemistry, or related natural or physical science field. The Certification Officer will have had a minimum of 80 hours of on-the-job training in water microbiology at a certified laboratory. Certification Officer shall have successfully completed the appropriate USEPA Laboratory Certification Officer Course and thereafter, audit the course every 5 years. The Certification Officer shall receive periodic training regarding newly promulgated regulations, newly adopted certification criteria, and new methods. This could be done by auditing the EPA Certification Officer Course or attending Regional or State Certification Officer Meeting. Certification Officer shall be a full-time employee of the Department.

k) The Program Certification Manager shall have a minimum of a bachelor's degree in microbiology, biology, chemistry, or related natural or physical science field, in addition will have had a minimum of 80 hours of on-the-job training in water microbiology at a certified laboratory. Program Certification Manager shall audit the appropriate USEPA Laboratory Certification Officer Course and thereafter, audit the course every 5 years. The Certification Program Manager will ensure a mechanism for Certification Officers to receive periodic training regarding newly promulgated regulations, newly adopted certification criteria and new methods. This could be done by auditing the EPA Certification Officer Course or attending Regional or State Certification Officer Meeting. Program Certification Manager shall be a full-time employee of the Department.

(Source: Amended at 46 Ill. Reg. 19150, effective November 17, 2022)