

MICROBIOLOGY LABORATORY TECHNICIAN I

This is technical work performing a limited variety of routine, standard and occasionally moderately complex microbiological procedures and analyses.

Employees perform primarily multiple tube presumptive, confirmed and completed tests, membrane filter, plate count and serial dilution tests, physical examination of samples, and quality control checks. Work includes maintaining the media supply and water baths, recording the temperature of incubators and water baths, and preparing glassware. Employee checks incoming sample forms for completeness, interprets data to determine whether the sample should be analyzed and which routine procedure to use, enters data into the automated logging system, prepares samples and performs analyses, records results on worksheets, and reports private sample results. The employee generally works independently but will consult with higher level technicians or their supervisor on unusual situations, problems or results. Work is reviewed and evaluated periodically for proper techniques and accuracy. Work may include other duties as assigned.

I. DIFFICULTY OF WORK:

Complexity - Employees perform a limited variety of routine and standardized tests on drinking water from both public and private sources. Work includes checking incoming samples for complete and proper information, verifying data against computer files, deciding if sample is satisfactory for analysis, determining which test to run, performing the necessary tests and recording the results, and entering this information into the computer file. Positive or unusual test results are given to their supervisor for checking and recording. These are generally repetitive tasks with restrictive intricacy.

Guidelines - Test procedures and other guidelines are detailed and specific and applicable to most tests and analyses performed. Employees generally work with minimal direct supervision except when new procedures are initiated or atypical results are obtained. Guidance and instruction is readily available for all unusual or non-routine situations.

II. RESPONSIBILITY:

Accountability - Employees have limited opportunity to directly impact on the public. Positive test results and other unusual findings are checked and reviewed by the supervisor. An error in processing regular negative results could possibly endanger the public health or reflect adversely on the department.

Consequence of Action - An error in processing the sample or in conducting the test or analysis could lead to a limited loss of time or money, or to delays in implementing preventive measures that could result in sickness for individuals drinking unsafe water.

Review - Employees generally plan and conduct their daily assignments independently. Work is occasionally spot checked while in progress and is technically reviewed when unusual or non-routine results are obtained. There is a close working relationship with other laboratory personnel if advice or guidance is needed.

III. INTERPERSONAL COMMUNICATIONS:

Subject Matter - Methods, techniques, procedures and laboratory equipment used in the testing and analysis of crater samples are commonly accepted and readily understood by other laboratory personnel and by public and private water plant operators.

Purpose - Interpersonal contacts are generally limited to other laboratory personnel and usually consist of exchanging information or receiving instructions.

IV. WORK ENVIRONMENT:

Nature of Working Conditions - Employees spend all of their time in a laboratory setting under basically agreeable conditions. Employees would be subject to overtime and weekend work that could include working alone.

Nature and Potential of Personal Hazards - Employees are exposed to accident risks and other hazards while handling samples, cultures, Bunsen burners, and ultraviolet sterilizers.

V. RECRUITMENT STANDARDS:

Knowledges, Skills, and Abilities - Some knowledge of the basic principles, reference sources, and laboratory applications of biology and microbiology. Working knowledge of scientific methodology and of the hazards involved in laboratory procedures along with related safety practices. Ability to perform and record routine and standardized laboratory tests and procedures. Ability to perform basic mathematical calculations. Ability to understand and follow oral and written technical instructions. Ability to perceive colors normally and to make olfactory distinctions.

Training and Experience Requirements - High school or General Educational Development diploma and completion of a certified laboratory assistant course in medical technology; or High school or General Educational Development diploma and two years of related laboratory experience; or an equivalent combination of education and experience.