

ENVIRONMENTAL ANALYST 1

KIND OF WORK

Entry professional environmental analysis work.

NATURE AND PURPOSE

Under immediate supervision, analyzes environmental samples within the Health Department Analytical Laboratory using techniques and instrumentation appropriate for microparticulate analysis, radiochemical analysis, organic chemical analysis, metal analysis, environmental microbiology analysis, air chemistry analysis or general chemistry to provide test results to clientele so that hazardous situations are detected, monitored, and corrected and State and Federal regulations are followed, and in order to ensure and protect the quality of the environment; performs related work as required.

EXAMPLES OF WORK (A position may not include all the work examples given, nor does the list include all that may be assigned.)

Analyzes environmental samples for parameters which produce generally predictable results from sample to sample to meet requests of clientele using established methodology for the parameter.

Analyzes special environmental samples as assigned to meet requests of clientele using methodology specified by unit leader.

Follows quality control procedures and unit protocol to ensure accuracy of tests using documented procedures of the Analytical Services Laboratory and the unit in which they work.

Recommends changes in established techniques and procedures to ensure the quality and reliability of data generated and reported using or relying on knowledges gained through training and experience.

Studies new developments so that procedures and instrument utilization in the unit are up to date in area(s) of analysis using scientific and technical literature, seminars, etc. and as directed by unit leader.

Cleans and repairs instrumentation to maintain equipment in operating order using tools, rags, towels, machine oil, etc.

Calibrates and aligns equipment to maintain proper working condition so that sample flow is not disrupted using procedures provided by unit leader and/or manufacturer's manual.

Stocks supplies and reagents to maintain adequate inventory so that sample flow through the unit is not disrupted by observing stock levels and usage rates or as directed by unit leader.

Testifies on authenticity of results and specific methods used as required during pre-litigation meetings or in actual court proceedings using knowledge of work performed and laboratory records.

KNOWLEDGE, SKILLS, AND ABILITIES REQUIRED

Knowledge of:

Techniques and instrumentation as applied to at least one or more of the following: microparticulate analysis, radiochemical analysis, organic chemical analysis, metal analysis, environmental microbiology analysis, air chemistry analysis or general chemical analysis.

The natural sciences including chemistry, physics, geology, materials science or microbiology as applied to measurement techniques.

Basic college mathematics as applied to measurement techniques.

Statistics as applied to measurement techniques.

Ability to:

Operate one or more of the following instruments: radio activity counters, gamma spectrometers, microscopes (electron, light, and phase contrast), x-ray diffraction apparatus, gas chromatographs, liquid chromatographs, atomic absorption spectrometers, spectrofluorimeters, ultraviolet, visual, and infrared spectrometers, etc.

Communicate results in verbal and written reports that are concise and correct.

Operate instruments at a laboratory bench for extended periods of time.

Est.: 3/83
Rev.:

T.C.:
Former Title(s):