

ENVIRONMENTAL ANALYST 2

KIND OF WORK

Professional environmental analysis work.

NATURE AND PURPOSE

Under general 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 chemical analysis 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 environmental samples which have unpredictable behavior or where interferences must be recognized and neutralized to meet requests of clientele using established methodology.

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.

Instructs personnel in essential techniques so that high quality work is produced using knowledge and expertise acquired from working in analytical laboratory and as directed by unit leader.

Testifies on the results, procedures and instrumentation used in analyses of samples as required during pre-litigation meetings or in actual court proceedings using experience, laboratory records, and knowledge of scientific literature.

Investigates human exposure to environmental contaminants as a part of epidemiology survey, health risk assessment, or hazardous material spill so that the health impact of those exposures is evaluated by using analytical techniques and procedures that will produce the desired information in a shortened timeframe and by participating in discussion with other members of investigation team.

KNOWLEDGE, SKILLS, AND ABILITIES REQUIRED

Knowledge of:

Environmental measurement sciences, basic college math and practical statistics as applied to measurement techniques and health effects of environmental contaminants.

The literature in environmental studies as applied to environmental measurement sciences.

Electronic data processing, including programming, as applied to analytical data reduction and output.

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.

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

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

Est.: 3/83
Rev.:

T.C.:
Former Title(s):