

GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

Air Monitoring Technician I / II

Summary

Under general supervision, installs, operates, maintains, calibrates, and repairs instrumentation and equipment associated with air quality and meteorological monitoring. Calibrates balances, weighs air quality filter samples, and maintains gravimetric laboratory systems to required regulatory specifications.

Distinguishing Characteristics

Air Monitoring Technician I: The entry and training level class of the series. Incumbents learn air monitoring station operation, including data collection and analysis techniques and installation, operation, and repair of air and meteorological monitoring instruments; gravimetric laboratory techniques, including weighing filters, calibrating balances, computer spreadsheet data entry, and elementary data analysis.

Air Monitoring Technician II: The fully experienced, journey level class of the series. Incumbents are responsible for installing, operating, and maintaining air quality monitoring stations and research project monitoring sites with a variety of instruments, including the repair and installation of instruments and for maintaining laboratory systems, including the balances and the temperature/relative humidity control system. Serves as lead on air monitoring, meteorological or other special monitoring projects.

Principal Duties:

(Any one position may not include all duties listed, nor do the examples listed cover all the duties that may be performed.)

Installs, operates, maintains, and repairs air monitoring instrumentation and equipment including weather monitoring stations, particulate monitors, and ambient air gas analyzers; performs routine servicing and preventative maintenance of equipment; calibrates air monitoring and meteorological instruments according to GBUAPCD, State and Federal specifications; troubleshoots and repairs malfunctioning instruments and components.

Collects and tabulates data from sampling equipment; programs data loggers; reviews data for accuracy and takes appropriate action to remedy faulty data collection; prepares data reports; documents information and activities in instrument and station log books, on maintenance sheets, and other documents as required. Documents all repairs, calibrations, notes on instrument performance, and instrument modification in appropriate logbooks or on forms.

Inspects, weighs, and catalogs particulate filters; operates, maintains, and calibrates analytical and micro balances; operates and maintains the District's laboratory systems, temperature and humidity control systems; cleans and assembles filter cartridges; inputs data from filter samples collected throughout the District into a computer database; prepares initial computer analysis of particulate data; coordinates work activities with the station operators.

Installs, operates, maintains, and repairs sand motion monitoring equipment; observes and documents dust storm activity; performs simple chemical and physical tests such as weighing, sieving, electrical conductivity, hydrometer analyses on soils samples and input of resultant data into computer database.

Assists other technicians in installation and set up of new equipment and instrumentation; responds to emergency service calls; provides vacation and temporary replacement help as required.

Performs other comparable duties as assigned.

Employment Specifications

Knowledge of:

Both classes: Basic principles and theory of environmental sciences; basic principles and theory of electronics; safe work practices.

Air Monitoring Technician II: Principles of operation of scientific equipment; theories and principles of physics and chemistry as applied to installation, operation, calibration, maintenance, and repair of air monitoring and laboratory instruments and equipment; air pollution terminology; federal and state regulations regarding air monitoring and quality assurance; laboratory practices; personal computer software packages including spreadsheet, database, word processing and other computer software packages, especially: Microsoft Excel, Corel Word Perfect, Microsoft Word, etc.

Ability to:

Both Classes: Learn mechanical, electronic, and computer systems; learn and work independently; prioritize and schedule work assignments.

Air Monitoring Technician II: Plan and manage the installation of monitoring systems; analyze, diagnose, and solve technical instrumentation problems; understand and work from a variety of technical manuals. Have the ability to work independently with a minimum of supervision and strong math and computer skills, as well as skills in detail oriented work, organization, communication, and follow through.

Skill in:

Solving algebraic equations, use of hand and power tools, manual dexterity, and use of computer software applications.

Education and Experience:

Air Monitoring Technician I: Completion of two years of college with major course work in electronics, a Bachelor's degree in an environmental science or any combination of training and/or experience that could likely provide the desired knowledge and abilities.

Air Monitoring Technician II: Completion of two years of college with major course work in electronics or a Bachelor's degree in an environmental science and two years' experience as an

Air Monitoring Technician I in air quality monitoring field work or in an air quality monitoring filter laboratory or any combination of training and/or experience that could likely provide the desired knowledge and abilities.

Physical Demands:

Involves active physical work (bending, stooping, squatting, twisting, reaching, working on irregular surfaces) but not prolonged heavy exertion. The majority of the time is spent standing or sitting. Work also involves lifting, pushing, or pulling objects up to 20 lbs. on a regular basis and up to 50 lbs. on an occasional basis. The work involves climbing ladders and working in high places. The work requires travel by car, ATV, or other off-road vehicle on a regular basis.

Special Requirements:

A valid California driver's license is required. The work involves operation of off-road vehicles. Work overtime, after hours and respond to emergency calls as needed.

Working Conditions

The work involves exposure to extreme weather conditions (heat, cold, wind, snow) and dust on an occasional basis. A computer terminal is used on a daily basis.