

Specification for Class of

ELECTRONIC TECHNICIAN 3

Abolished Effective July 1, 2007

Definition: Directs daily assignments of lower-level Electronic Technicians and/or other employees involved in the operation, maintenance, modification, troubleshooting, adjustment, testing, repair and installation of electronic air monitoring systems, equipment and devices or other scientific monitoring and measuring equipment; or validates data and ensures accuracy of data obtained from other Electronic Technicians, the State-wide monitoring network, and local agencies.

Typical Work

Directs daily assignments of lower-level technicians in installation, operation, maintenance, troubleshooting, adjustment and repair functions for the air monitoring network;

Performs shop or field testing, adjustment, troubleshooting and repair (replaces integrated circuits, transistors, resistors, capacitors, etc.) of electronic systems, equipment and devices; constructs, calibrates, designs, develops and/or modifies electronic instrumentation;

Fabricates and tests air flow connectors and electronic circuitry in accordance with schematics and diagrams; improvises as the job requires;

Checks, adjusts, calibrates and repairs a wide variety of recording and indicating devices and equipment such as ultraviolet photometric, ultraviolet fluorescence, digitally controlled nondispersive infrared, chemiluminescent, and particulate samplers, strip chart recorders and computerized data transfer equipment;

Performs research and development on environmental monitoring systems and evaluates newly developed air monitoring instrumentation; reports results to management;

Provides technical assistance, advises and instructs personnel from the department, other agencies, and the public in the use and maintenance of electronic instrumentation systems and devices;

Trains lower-level technicians and may train local air pollution agency staff in operation, maintenance, repair and troubleshooting of air monitoring equipment;

Develops preventative maintenance procedures, schedules and forms;

Keeps records of work performed and supplies used; orders supplies as needed;

Prepares reports for management review;

Develops quality assurance procedures for proposal to management; reads, records and tabulates chart and instrument data with understanding of zero deviations and abnormal or erratic fluctuations; interprets erroneous readings and reports causes to management; prepares quality assurance reports and summarizes;

Maintains and operates electronic test equipment, including digital multimeters, oscilloscopes, signal generators, frequency oscillators, electronic counters and power supplies;

Uses and maintains air flow systems, including manometers, critical orifices and flowmeters;

Performs other work as required.

Knowledge and Abilities

Knowledge of: theory and operational principles of electronic systems, equipment and devices; methods, tools, materials and test equipment used in installation, operation, maintenance, testing, adjustment, troubleshooting, repair, construction, calibration, design, development and modification of industrial electronic instrumentation; physics, chemistry and electronic theory used in ambient monitoring instrumentation; practices of quality control; practices of planning, scheduling and availability of resources; safety precautions; record keeping and report preparation.

Ability to: recognize and repair defects in complex electronic systems, equipment and devices; understand schematic diagrams, instructional manuals, drawings, plans and sketches; plan assignments detailing or recommending ending methods for achieving solutions; analyze field data and evaluate ambient monitoring equipment; prepare reports, maintenance schedules and procedures, and quality control summaries; modify, design and fabricate electronic instrumentation; maintain effective work methods and work schedules.

Minimum Qualifications

Graduation from high school or GED equivalent and five years of experience in installation, operation, maintenance, repair and use of industrial or scientific electronic and measurement equipment, one year of which must have been equal to the Electronic Technician 2.

Full-time training in electrical engineering, electronics, physics, chemistry or closely related field may be substituted, year for year, for a maximum of two years of the required experience.

New class

Effective August 1, 1967

Revised November 9, 1984 Revises definition, minimum qualifications, general revision, title change (formerly Instrument Technician 2)

Revised January 11, 1985

Revises definition Revised June 14, 1985

Revises definition