



## AIR QUALITY ENGINEER I, II, III

*Class specifications are only intended to present a descriptive summary of the range of duties and responsibilities associated with specified positions. Therefore, specifications may not include all duties performed by individuals within a classification. In addition, specifications are intended to outline the minimum qualifications necessary for entry into the class and do not necessarily convey the qualifications of incumbents within the position.*

### **DEFINITION:**

Under immediate supervision (I), general supervision (II), and limited supervision (III), performs professional engineering work in the processing, evaluation and issuance of permits; calculation of air pollutant emissions, analysis of air pollution control equipment and processes; toxic risk screening and assessment; compliance audits; source testing; rule analysis and evaluation; innovative technology projects; report preparation, presentations, and public meetings; performs related duties as required. Individuals in the III classification may act as a lead engineer and/or supervise a special program/project.

### **CLASS CHARACTERISTICS:**

The Air Quality Engineer I is the entry and training class of the series. Incumbents work under immediate supervision while performing the less complex office and professional engineering work and routine assignments of the unit that become increasingly complex over time and require less supervision as additional skills and abilities are acquired. The Air Quality Engineer II is the fully experienced, journey level class of the series which requires performance of more difficult tasks requiring a working knowledge of engineering principles, practices and equipment used in air quality analysis and control; engineering mathematics, statistical techniques, combustion processes and elementary thermodynamics, quantitative instrumentation and analysis. Incumbents work under general supervision performing a wide range of duties related to permitting, rules, toxics, innovative technologies, source testing and may specialize in one area. The Air Quality Engineer III is the advanced journey level class in the series; works with minimal supervision and may be either a lead worker or supervise a project providing guidance and oversight to other professional staff.

The Air Quality Engineer III is not considered a supervisory class in that the selection and discipline of employees is not assigned to this level and the number of employees for which direction is provided is limited.

### **ESSENTIAL FUNCTIONS:** *(includes but are not limited to the following)*

These functions may not be present in all positions in multiple position classes. When a position is to be filled, the essential functions will be noted in the announcement of position availability.

- Provides technical expertise and project management functions in specialized areas such as permitting, rules, toxics, innovative technologies, and source testing.
- Analyzes and makes recommendations on permit applications; recommends approval or denial of operating permits; analyzes requests for permit exemptions.
- Conducts air quality impact analyses of proposed new or modified sources of pollution; conducts air quality modeling, engineering inspections and tests of new and existing pollution sources; plans and conducts special studies to determine source compliance.
- May observe source tests; reviews source files and reference materials for pertinent data. Maintains records and evidence in such a way that effectively documents observations and actions taken.

- Participates in the development and revision of District rules based on analysis and investigations of emission sources, public workshops, and review of other District rules; enforces applicable rules, regulations, procedures, and policies; performs environmental review and makes recommendations; maintains associated files and records.
- Makes determinations and recommendations of best available control technology; prepares engineering reports in connection with a wide variety of air pollution control problems; provides professional advice in regard to surveillance, control, inspection, and enforcement; recommends emission control and reduction strategies.
- Participates in the development of innovative emission reduction strategies and programs based on analysis and investigations of emission sources; enforces applicable rules, regulations, procedures, and policies; performs review and makes recommendations; maintains associated files and records.
- Assists in the development of requests for proposals, selection of contractors, management and budgeting of contracts, and tracking of expenditures.
- Prepares and/or assists in the preparation of public presentations, correspondence, contracts, proposals, billings, articles, staff reports, sections on air quality for environmental documents and the air quality plan.
- Organizes and conducts workshops and public presentations, disseminates information and answers inquiries from individuals and groups on air quality and related topics. Participates on Statewide and/or National technical committees.
- Advises the public regarding policies, requirements, and procedures of the Santa Barbara County APCD.
- Monitors State and Federal legislation and administrative requirements related to air quality regulations and programs.
- Attends meetings, makes presentations and provides testimony, prepares reports related to air pollution control issues.

**WORKING CONDITIONS:**

Position requires prolonged sitting, standing, walking, reaching, twisting, turning, kneeling, bending, squatting, and stooping in the performance of daily activities. The position also requires grasping, repetitive hand movement and fine coordination in preparing statistical reports and data using a computer keyboard. Additionally, the position requires near vision in reading correspondence, statistical data on the computer, and acute hearing is required when providing telephone service and communicating in person. The need to lift, drag and push files, computer reports or other materials weighing up to 40 pounds also is required.

Dependent upon assignment, independent travel is required. Work is performed in an office environment and in the field and may require exposure to hazardous conditions and unpleasant elements such as dust, fumes, vapor, solvents, high temperatures from operating processes, high noise levels, vibration and/or outside weather conditions. Fieldwork involves moderate physical exertion such as walking, bending, stooping, kneeling, squatting, twisting, reaching, climbing, and working on uneven surfaces. Depending upon assignment may be required to climb ladders and high structures to evaluate processes in operation and/or occasionally perform work at elevated heights.

Transportation to offshore sites may require the use of airplane, helicopters or marine vessels in inclement weather and open sea conditions and transference to oil platforms over open seas on a rope ladder.

**QUALIFICATION GUIDELINES:** *(The following are minimal qualifications necessary for entry into the classification)*

**Education and/or Experience**

Any combination of education and/or experience that has provided the knowledge, skills, and abilities necessary for acceptable job performance. Example combinations include:

**Air Quality Engineer I**

Graduation with a bachelor's degree from an accredited college or university with a major in industrial, petroleum, chemical, sanitary, environmental, mechanical or civil engineering.

**Air Quality Engineer II**

Graduation with a bachelor's degree from an accredited college or university with a major in industrial, petroleum, chemical, sanitary, environmental, mechanical or civil engineering and at least two years of professional experience in the investigation and/or enforcement of air pollution control regulations or in the design of either mechanical equipment or chemical processes used in air pollution control. A Master's degree in any of the required disciplines may be substituted for one year of experience.

**Air Quality Engineer III**

Graduation with a bachelor's degree from an accredited college or university with a major in industrial, petroleum, chemical, sanitary, environmental, mechanical or civil engineering, at least two years of professional experience in the investigation and/or enforcement of air pollution control regulations or in the design of either mechanical equipment or chemical processes used in air pollution control and one additional year of increasingly responsible professional experience performed in an independent manner. A Master's degree in any of the required disciplines may be substituted for one year of experience.

**KNOWLEDGE/ABILITIES/SKILLS:** *(The following are a representative sample of the KAS's necessary to perform essential duties of the position)*

**Knowledge of:**

Complex engineering principles and practices used in air pollution analysis and control including physics, chemistry, mathematics, elementary thermodynamics, natural sciences, and meteorology as related to air quality management/air pollution control; local, regional, State, and Federal regulations and policies governing air pollution control activities; CEQA, NEPA, scientific computer programming/modeling applications, research methods, methods of statistical analysis, principles and methods of measuring atmospheric conditions and pollution levels, methods of measuring stationary source emissions, chemical and physical characteristics of air impurities and their interactions with the environment; nomenclature and equipment used in air quality monitoring, data collection, and planning; air pollution control devices and industrial processes; engineering calculations and statistical methods.

**Ability to:**

Communicate effectively orally and in writing; plan, direct, organize, carry out, and/or evaluate comprehensive engineering studies and analysis; prepare clear, complete, and technically accurate reports; analyze and evaluate engineering plans, specifications, technical reports and blueprints; perform complex mathematical and statistical analyses; interpret, explain, and enforce regulations and policies; develop recommendations based on findings, and reach sound and defensible conclusions; collect environmental and stationary source emission data; work effectively with various governmental agencies, private firms, and the general public; analyze

situations and take effective action; speak before groups, organizations, regulatory bodies and professional meetings, respond constructively to conflict and develop effective resolutions.

**Skill to:**

Operate an office computer and a variety of word processing, data management and other software applications.

**SPECIAL REQUIREMENTS:**

Possession of or ability to obtain a Class C California driver's license and a satisfactory driving record.

FLSA: I/II/III – Exempt  
I/II Flex  
Form 700 Required  
ETA, Unit 28

Adopted: October 20, 2005