



## **SR. AIR QUALITY ENGINEER**

### **DEFINITION**

Under general direction, plans, supervises, organizes, coordinates, and reviews activities, initiatives, and projects related to professional engineering evaluations and assessments to minimize and control air pollution, air pollution precursors, and toxic air contaminants to protect human health and the environment; performs complex engineering evaluations of stationary and portable pollutant emitting sources; evaluates applications for permits to construct and operate; and performs related duties as assigned.

### **SUPERVISION RECEIVED AND EXERCISED**

Receives general direction from the Air Pollution Control Officer. Exercises direct or general supervision over professional, technical, and administrative support staff.

### **CLASS CHARACTERISTICS**

This is the full supervisory-level class in the professional Air Quality series. Incumbents work under general direction and exercise a high level of discretion and independent judgment in performing the full range of routine to complex duties related to the supervision and administration of air quality. Successful performance of the work requires an extensive professional background as well as the ability to coordinate District work with that of County departments and outside agencies.

This class is distinguished from the Air Pollution Control Officer in that the latter has overall responsibility for District administrative matters.

### **EXAMPLES OF TYPICAL JOB FUNCTIONS (Illustrative Only)**

- Assists in planning, organizing, administering, reviewing, and evaluating the activities of professional, technical, and administrative support staff; assists in the selection of staff and provides for their training and professional development.
- Assists in the development and implementation of goals, objectives, policies, procedures, and work standards for the District; provides input into the District's budget.
- Participates in the selection of, trains, motivates, and evaluates assigned personnel; works with employees to correct deficiencies; implements discipline and termination procedures.
- Contributes to the overall quality of the District by developing, reviewing, and implementing policies and procedures to meet legal requirements and County needs; monitors and evaluates the efficiency and effectiveness of service delivery methods and procedures; assesses and monitors the distribution of work, support systems, and internal reporting relationships; identifies opportunities for improvement; directs the implementation of change.
- Responds in person, by telephone, and in writing to industry, public, and District inquiries regarding regulation interpretation, permit preparation, various compliance measures, and emission calculation methods.
- Monitors and reviews, as required, inspection reports and supportive data and recommends appropriate action, including mutual settlement, prosecution on a criminal or civil basis, or dismissal or referral to another agency; investigates complaints regarding public nuisances, dust, odor, and related air pollution issues.
- Reviews, evaluates, and monitors federal and state legislation related to the area of assignment and evaluates possible effects of legislation on District policies and procedures; makes recommendations for

- and implements changes as needed.
- Evaluates stationary and mobile sources of air pollutants and contaminants to ensure compliance with federal, state, and local laws and regulations.
- Reviews a wide variety of documents for development, construction, and operation projects to calculate emission rates and advises on the same.
- Reviews and evaluates permit applications, including calculating emission rates and permit fees, determining compliance or non-compliance with air quality regulations, determining and recommending best available control technology, defining permit conditions and issuing authority to construct permits; screens and processes annual data updates for permits.
- Reviews new development proposals for consistency with CEQA, Air District rules, and federal and state requirements; drafts and provides comments.
- Conducts complex and sensitive annual inspections, evaluations, and documentation of stationary emission sources to determine compliance with air pollution control laws and regulations.
- Reviews permit and enforcement files to prepare materials and responses for variance requests, violation notices, case summaries, and hearing board referrals; recommends appropriate actions; may testify on behalf of the District.
- Calculates, reviews, and corrects the emissions inventory; evaluates accuracy of source emission calculations and methodologies; develops, maintains, and refines computer models of activity levels and emissions.
- Conducts environmental audits, compliance inspections, and source tests; evaluates results and recommends appropriate actions, including violation notices.
- Conducts toxic risk screening and risk assessment analyses; calculates toxic emissions, determines and applies appropriate air dispersion model, calculates maximum concentrations and calculates risk; recommends approval or denial of permit application.
- Researches grant opportunities, prepares applications, and implements awarded grant funds; administers District grants, including screening grant applicants for eligibility, tracking expenditures, calculating reductions achieved, preparing and submitting reports.
- Maintains cooperative working relationships with other County departments, divisions, other agencies, community groups, and industries; represents the District at various inter-departmental and other meetings as requested.
- May serve as the Air Pollution Control Officer on a relief basis.
- Performs related duties as assigned.

## **QUALIFICATIONS**

### **Knowledge of:**

- Organization and management practices as applied to the development, analysis, and evaluation of programs, policies, and operational needs of the assigned area of responsibility.
- Administrative principles and practices including goal setting, budget development and implementation, and employee supervision.
- Principles and practices of employee supervision, including work planning, assignment review and evaluation, discipline, and the training of staff in work procedures.
- Engineering principles and practices applicable to the assigned area of responsibility.
- Advanced principles, practices, methods, and technical requirements of air quality programs and regulations.
- Applicable federal, state, and local laws, regulatory codes, ordinances, and procedures relevant to air pollution control.
- Industrial processes and pollution control equipment.
- Industrial chemical processes and equipment.
- Recordkeeping and report preparation practices.
- Processes and procedures of a municipal government agency applicable to the area of assignment including the conduct of public hearings and process for gaining public approval.

- Principles and techniques for working with groups and fostering effective team interaction to ensure teamwork is conducted smoothly.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and County staff.
- The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- Modern equipment and communication tools used for business functions and program, project, and task coordination.
- Computers and software programs (e.g., Microsoft software packages) to conduct, compile, and/or generate documentation.

**Ability to:**

- Assist in developing and implementing goals, objectives, policies, procedures, and work standards.
- Assist in preparing and administering budgets; allocate limited resources in a cost effective manner.
- Select and supervise staff, provide training and development opportunities, ensure work is performed effectively, and evaluate performance in an objective and positive manner.
- Interpret and apply complex federal, state, regional, and local air quality laws, rules and regulations.
- Independently perform and conduct engineering and complex technical inspections and studies related to air quality emissions and their mitigation and prepare clear and persuasive reports and recommendations.
- Monitor and coordinate a comprehensive air quality compliance program.
- Apply sound engineering principles and techniques in a variety of air quality engineering matters.
- Perform detailed analysis of designs, specifications, and plans.
- Conduct a variety of air quality engineering studies.
- Analyze complex engineering data and reports, evaluate alternatives, and reach sound conclusions.
- Prepare comprehensive, effective grant applications.
- Administer grant funded programs and develop reports.
- Prepare clear, concise, and complete legal documentation and reports, correspondence, and other written material.
- Understand, interpret, and apply all pertinent laws, codes, regulations, policies and procedures, and standards relevant to work performed.
- Effectively represent the District and the County in meetings with governmental agencies; community groups; various business, professional, and regulatory organizations; and in meetings with individuals.
- Independently organize work, set priorities, meet critical deadlines, and follow-up on assignments.
- Effectively use computer systems, software applications, and modern business equipment to perform a variety of work tasks.
- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.
- Use tact, initiative, prudence, and independent judgment within general policy, procedural, and legal guidelines.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

**Education and Experience:**

*Any combination of the required experience, education, and training that would provide the essential knowledge, skills, and abilities is qualifying.*

Equivalent to a bachelor's degree from an accredited four-year college or university with major coursework in chemical, mechanical, petroleum, combustion, or environmental air quality engineering, or a closely related field, and four (4) years of progressively responsible experience in air quality engineering or a closely related field; including two (2) years of responsible lead or supervisory experience.

**Licenses and Certifications:**

- Possession of, or ability to obtain, a valid California Driver's License by time of appointment and a satisfactory driving record.
- Possession of a Visible Emissions Evaluation certification issued by the Air Resources Board by the date of appointment.

**PHYSICAL DEMANDS**

Must possess mobility to work in a standard office setting and use standard office equipment, including a computer, to inspect source sites, including traversing uneven terrain, climbing stairs, standing for extended periods, and other temporary or construction access points; to operate a motor vehicle and to visit various County and meeting sites; vision to read printed materials and a computer screen; and hearing and speech to communicate in person, before groups, and over the telephone. This is primarily a sedentary office classification with frequent field work such as inspecting business, residence and development sites. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate standard office equipment. Positions in this classification occasionally bend, stoop, kneel, reach, push, and pull drawers open and closed to retrieve and file information. Employees must possess the ability to lift, carry, push, and pull materials and objects weighing up to 25 pounds. Reasonable accommodations will be made for individuals on a case-by-case basis.

**ENVIRONMENTAL CONDITIONS**

Employees work in an office environment with moderate noise levels, controlled temperature conditions, and no direct exposure to hazardous physical substances. Employees also work in the field are occasionally exposed to loud noise levels, cold and hot temperatures, inclement weather conditions, road hazards, vibration, mechanical and/or electrical hazards, and hazardous physical substances and fumes. Employees may interact with members of the public or with staff under emotionally stressful conditions while interpreting and enforcing District policies and procedures.

**WORKING CONDITIONS**

Incumbents are required to periodically work evenings, weekends, and on-call.