YOLO-SOLANO AIR QUALITY MANAGEMENT DISTRICT

ASSISTANT/ASSOCIATE AIR QUALITY ENGINEER

Department: Engineering **Reports To:** Engineering Manager **FLSA Status:** Non-Exempt

Employment Group: Employee Association – Represented / Regular Full-Time **Approved/Revised:** 09/2023

DEFINITION

Under immediate or general supervision, learns to perform and performs engineering reviews of emission sources; evaluates permit applications for Authority to Construct (ATC) and Permits to Operate (PTO) and recommends approval or denial; reviews the design of air pollution control equipment for industrial or commercial processes; evaluates emission inventory plans and reports; and performs related work as required.

SUPERVISION RECEIVED AND EXERCISED

The **Assistant Air Quality Engineer** receives immediate supervision from the assigned lead, supervisor, or manager and exercises no supervision over staff.

The **Associate Air Quality Engineer** receives general supervision from the assigned lead person, supervisor, or manager. The Associate Air Quality Engineer may exercise functional and technical direction over assigned staff to the classification of Assistant Air Quality Engineer and to others assisting the Engineering Division on projects.

CLASS CHARACTERISTICS

The **Assistant Air Quality Engineer** is the entry-level class in the Air Quality Engineer series, allowing the incumbent to develop journey-level knowledge and abilities. Initially, under immediate supervision, incumbents perform routine, less complex assignments within an established procedural framework, where errors have minimal consequences, including assisting more experienced engineers while learning the permit evaluation process, standards, and procedures. Independent assignments consist of less complex permit evaluations. This classification may advance to a higher level after gaining experience and demonstrating proficiency that meets the qualifications of the higher-level class. Positions at this level usually perform most of the duties required of positions at the associate level but are not expected to function at the same skill level. They typically exercise less independent discretion and judgment in matters related to work procedures and methods. Work is usually supervised while in progress and fits an established structure or pattern. Exceptions or changes in procedures are explained in detail as they arise.

The **Associate Air Quality Engineer** is the journey-level class in the Air Quality Engineer series, in which incumbents are expected to independently perform the full scope of engineering assignments related to controlling industrial and commercial sources of air pollution, including special engineering studies and projects. Positions at this level differ from assistant-level positions by performing the full range of assigned duties, working independently, and exercising greater judgment and initiative. Positions at this level receive only occasional instruction or assistance as new or unusual situations arise and are fully aware of the operating procedures and policies of the work unit.

EXAMPLES OF ESSENTIAL JOB FUNCTIONS (Illustrative Only)

Management reserves the right to add, modify, change, or rescind the work assignments of different positions and to make reasonable accommodations so that qualified employees can perform the essential functions of the job.

- Reviews permit applications for Authority to Construct (ATC), Permits to Operate (PTO), Emission Reduction Credits (ERCs), and Federal permits (Title III, IV, or V); meets with applicants and assists them with the application process; reviews the design of air pollution controls for the industrial or commercial process; analyzes operational procedures to determine emission control; calculates emissions rates associated with the permit; creates and/or maintains an inventory of criteria air pollutants for stationary sources; identifies and evaluates toxic air contaminant and risk assessment determinations; checks applicant's compliance with District rules and regulations, including federal and state regulations; generates equipment list; writes ATCs and PTOs and determines fees.

- Conducts field inspections of manufacturing, commercial, and industrial sources
- Inspect new or existing sources of air contaminants, evaluate the effectiveness of control equipment, determine compliance, and identify problems.
- Generates air dispersion models and conducts health risk assessments for projects; calculates Toxic Air Contaminant (TAC) emissions; gathers and documents input parameters for mathematical models that estimate potential health risks from substances emitted into the air; recommends approval or denial of applications for ATCs and PTOs.
- provides compliance assistance to constituents including small business owners or sole proprietors, consultants, and public agency representatives; meets with industry representatives to discuss modifications; Provides compliance assistance to constituents including small business owners or sole proprietors, consultants, and public agency representatives; meets with industry representatives to discuss modifications; and provides information to applicants, consultants, and the public on permit requirements and District air quality rules and regulations.

- Provides information to other divisions regarding the impact of violations, explanation of permit conditions, and explanation of emission factors and emissions rates; confers with other air pollution control districts regarding industrial processes and control systems; may act as an expert witness.
- Acts as a project leader for engineering studies or programs; develops program guidelines and notifications to sources/persons affected by new or modified regulations; serves on special committees to develop guidelines and procedures; makes community presentations to convey technical information.
- Works with data, including the input and review of information in the database; generates reports with specific information on the subject of permitted sources to assist in program implementation; responds to requests for information and clarification through the generation of reports.
- Assists in the development and implementation of District air quality rules and regulations.
- Assists and participates in source testing; evaluates source testing reports.
- Establishes positive working relationships with representatives of community organizations, state/local agencies, District management and staff, and the public.
- Represents the District on committees and at public activities, meetings, and before official bodies as determined by District management based on the employee's level of expertise.
- Provides support for grant implementation and tracks related time.
- Perform other duties as assigned.
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QUALIFICATION GUIDELINES

Education and/or Experience

Any combination of training and experience that would provide the required knowledge, skills, and abilities is qualifying. A typical way to obtain the required qualifications would be:

- **Assistant Air Quality Engineer:** A Bachelor's Degree from a four-year college or university with major coursework in environmental, chemical, mechanical, or petroleum engineering, or a closely related engineering discipline; or additional related coursework and/or engineering training may substitute for the required experience in an appropriate scientific discipline.
- **Associate Air Quality Engineer:** A Bachelor's Degree from a four-year college or university with major coursework in environmental, chemical, mechanical, or petroleum engineering, or a closely related engineering discipline and two years' experience as an Assistant Air Quality Engineer or equivalent; or three years of experience in air pollution control engineering or any combination of training and/or experience that could likely provide the desired knowledge and abilities.

KNOWLEDGE AND ABILITIES

Knowledge of (Both Classes):

- Engineering principles, practices, methods, and procedures.
- District engineering policies and procedures.
- Principles of fluid dynamics.
- Air dispersion modeling techniques.
- Toxic air contaminants and health risk assessment procedures.

- Applicable federal, state, and local laws, codes, and regulations, including those related to air quality control.
- Methods and techniques of scheduling work assignments.
- Standard office procedures, practices, and equipment, including a computer and applicable software.
- Methods and techniques for record-keeping and report preparation and writing.
- Occupational hazards and standard safety practices.
- English usage, spelling, vocabulary, grammar, and punctuation.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and District staff.

Ability to (Both Classes):

- Learn and apply District engineering policies and procedures.
- Perform engineering computations.
- Prepare technical reports.
- Interpret and analyze processes and equipment blueprints and specifications.
- Analyze engineering problems and recommend solutions.
- Identify the type and amount of criteria and toxic air contaminant emissions.
- Prepare health risk assessments.
- Understand, explain, and apply applicable laws, codes, and regulations.
- Read, interpret, and record data accurately.
- Organize, prioritize, and follow up on work assignments.
- Work independently and as part of a team.
- Make sound decisions within established guidelines.
- Respond to issues and concerns from contractors, permit holders, and the community.
- Analyze a complex issue and develop and implement an appropriate response.
- Follow written and oral directions.
- Observe safety principles and work in a safe manner.
- Operate an office computer and a variety of word processing and software applications.
- Use English effectively to communicate in person, over the telephone, and in writing.

PHYSICAL ABILITIES

Must be able to perform essential functions of the job. This position requires sitting, prolonged standing, walking on level and slippery surfaces, reaching, twisting, turning, kneeling, bending, stooping, squatting, crouching, grasping, and making repetitive hand movements while performing daily duties. The position also requires both near and far vision and color vision when inspecting work and operating assigned equipment. The position requires lifting, carrying, and pushing. The position also requires lifting, carrying, and pushing tools, equipment, and supplies weighing 25 pounds or less. The work also requires the incumbent to climb ladders and drive motorized vehicles when visiting businesses or construction sites. The position requires repetitive hand-eye coordination and fine manipulation skills to prepare reports and data using a PC keyboard, computer mouse, and other office equipment. Travel by vehicle is required.

At times, the public may disagree with regulatory agency requirements and may be difficult to work with. This position must handle these situations with diplomacy and tact.

WORKING CONDITIONS - ENVIRONMENTAL ELEMENTS

Incumbents perform work in an office setting with moderate noise levels, controlled temperature conditions, and no direct exposure to hazardous physical substances. Incumbents also occasionally work outdoors in all weather conditions, including wet, hot, and cold, with exposure to dust, fumes, diesel, gas, and other vapors. Incumbents may be required to wear personal protective equipment based on established safety policy.

SPECIAL REQUIREMENTS

- This position requires possession of, or the ability to obtain and maintain, a valid California Class C driver's license.

- California registration as a professional engineer is desirable.
- California engineer-in-training certification is desirable.