



## CLASS SPECIFICATION

Class Code: 3041  
Date Est: 03/1987  
Last Rev: 08/2018  
Last Title Chg:  
FLSA: exempt  
Probation: 12 months

### ENVIRONMENTAL ENGINEER II

- A) General Environmental
- B) Air Quality Option
- C) Water Quality Option

### DEFINITION

Under general supervision, performs a broad range of engineering duties requiring the application of public health, environmental and civil engineering principles, practices, and theories; evaluates proposed and existing projects, facilities and developments for compliance with public health and environmental statutes, ordinances, codes and regulations; and performs related work as required.

### EXPERIENCE AND TRAINING REQUIREMENTS

A bachelor's degree from an accredited college or university in civil engineering, environmental engineering or a closely related field AND one year of professional engineering experience in the specified option; OR an equivalent combination of education and experience.

### LICENSE OR CERTIFICATE

A valid driver's license is required at the time of appointment.

### DISTINGUISHING CHARACTERISTICS

This is the journey level in the Environmental Engineer class series. This class is distinguished from Environmental Engineer I by the ability to independently perform professional engineering duties related to design and compliance with environmental requirements.

### SUPERVISION EXERCISED

Exercises no supervision.

**EXAMPLES OF DUTIES** *(The following is used as a partial description and is not restrictive as to duties required.)*

### ALL OPTIONS:

Conduct evaluations, office and field reviews of projects and developments such as subdivisions, parcel maps, construction projects, grading permits, individual residences, variances, special use permits, structure moving, on-site sewage and liquid waste disposal facilities, trailer and mobile home parks, hotels and motels, institutions, swimming pools and spas, drinking water supply systems, water and soil remediation facilities and systems, waste management facilities and systems, air pollution sources, noise and odor sources and similar construction and facilities to determine compliance with applicable environmental and public health laws, rules and regulations.

Make complex computations and calculations regarding the design of pollution control and remediation systems and industrial processes (water, wastewater or air) to determine actual and projected treatment and/or emission rates and compliance with regulatory requirements.

Advise developers, contractors and business operators on remedial measures necessary for compliance by determining the effectiveness of control technology currently in place and recommending changes necessary to obtain compliance.

Collect samples; test and analyze data to determine if facilities and/or systems meet air, soil, water and/or wastewater pollution control requirements.

Write reports and correspondence; draft environmental regulations by performing necessary research to assess feasibility of proposed standards to present recommendations to interested parties.

Act as an expert witness on environmental engineering issues by providing information to courts, elected boards, councils, commissions and advisory boards.

Make presentations to federal, state and local agencies, elected officials, special interest groups, business and industry, community organizations and individuals to promote awareness and understanding of programs, services, policies and regulatory requirements.

#### OPTION A:

Under direction of a licensed engineer, plan, design and administer contracts for various public works projects such as potable and reclaimed water distribution systems, treatment and/or remediation systems and facilities, wastewater facilities, sewers and flood control.

Review subdivision plans to ensure compliance with tentative map conditions and applicable codes and County standards.

Review design and specifications for public works projects and private projects such as pumps, wells, storage tanks, lift stations, parks, office buildings, water, and sewer improvements to ensure compliance with county codes.

Check plans for well drilling and determine compliance with applicable standards and regulations to issue permits.

Review submittals, field reports, and laboratory testing results for compliance with material and equipment specifications.

Consult with professional engineers on the operation and maintenance of water, remediation and sanitary sewer systems; review engineering construction drawings for water and remediation systems; review and recommend issue or denial of permits, determining if proposed facilities meet requirements.

Review subdivision plans to ensure compliance with tentative map conditions and applicable codes and County standards.

Under general supervision, perform contract and field management of Washoe County capital projects.

#### OPTION B:

Prepare trend graphs and models, using computer software to perform engineering calculations; record and analyze data and develop and maintain databases to inventory emissions of air pollution sources, predict ambient air pollution levels, or otherwise support air quality management activities.

Determine and appropriately apply Reasonably Available Control Technology/Best Available Control Technology/Lowest Available Emissions Reduction (RACT/BACT/LAER) technologies for control of air pollution sources.

Determine appropriate operating parameters and requirements and include in air pollution source permit conditions.

Review air pollution permit applications and prepare air pollution permits for air pollution sources.

Provide technical assistance on process and air pollution control technologies, and air pollution source permit requirements to AQM staff and management.

Develop and revise State Implementation Plans to meet federal Clean Air Act requirements.

**OPTION C:**

Under direction (as appropriate) of a licensed engineer and/or program manager, plan, design and administer contracts for various water treatment and/or remediation facilities and systems.

Review design and specifications for public works projects such as pumps, wells, water treatment and/or remediation facilities and systems to ensure compliance with county codes.

Check plans for well drilling and determine compliance with applicable standards and regulations to issue permits.

Review submittals, field reports and laboratory testing results for compliance with material and equipment specifications.

Consult with professional engineers on the operation and maintenance of water and remediation systems; review engineering construction drawings for water and remediation systems; review and recommend issue or denial of permits, determining if proposed facilities meet requirements.

Perform contract and field management of water treatment and remediation capital projects.

**JOB RELATED AND ESSENTIAL QUALIFICATIONS**

**Full Performance** *(These may be acquired on the job and are needed to perform the work assigned.)*

**ALL OPTIONS:**

**Knowledge of:**

Organizational structure of Washoe County related to programs, activities and functions of assigned option.

Departmental/divisional policies, practices and procedures.

Federal, state and local laws, statutes, codes, regulations and standards pertaining to assigned option.

Terms and acronyms commonly used in the assigned function.

Management information systems and software programs used in the assigned area.

**Ability to:**

Perform a wide variety of difficult and complex environmental engineering assignments.

Make effective presentations using visual aids and other communication tools.

**Entry Level** *(Applicants will be screened for possession of these through written, oral, performance or other evaluation methods.)*

**Knowledge of:**

**ALL OPTIONS:**

Environmental engineering instrumentation and testing procedures.

Methods and techniques of design, construction and maintenance of industrial processes or public works projects.

Engineering mathematics, including calculus, trigonometry, geometry and algebra.

**OPTION A:**

Engineering practices and principles as applied to design, construction and operation of water and wastewater capital improvement projects.

Hydraulics, hydrology, geology, water and wastewater collection, treatment, distribution, reclamation, disposal and flood control.

Soil mechanics, bacteriology and water chemistry.

**OPTION B:**

Engineering practices and principles as applied to air quality management.

Sources of air pollutants and their properties.

Principles of air pollution control technology.

**OPTION C:**

Engineering practices and principles as applied to design, construction and operation of water treatment and remediation capital improvement projects.

Hydraulics, hydrology, geology, water and soil treatment and remediation.

Soil physics and chemistry and water chemistry.

Sources of water pollutants and their properties.

Principles of water pollution control technology.

**Ability to:**

**ALL OPTIONS:**

Analyze and interpret technical reports, graphs, charts and drawings.

Perform complex engineering calculations.

Interpret and apply laws, codes, regulations, policies and procedures pertaining to a variety of environmental health and pollution control programs.

Collect environmental samples.

Answer public inquires from developers, contractors, engineers, various agencies and the general public on a variety of topics. Coordinate with state and/or federal agencies on the implementation and enforcement of new regulations or the approval of permits or public works projects.

Operate a personal computer and use a variety of software programs.

Write correspondence, narrative reports and other documents.

Communicate orally in a clear, concise manner.

Establish and maintain effective working relationships with those contacted in the course of work.

**SPECIAL REQUIREMENTS** (*Essential duties require the following physical skills and work environment.*)

Ability to work in a standard office environment. Ability to lift and move objects weighing up to 50 lbs. Ability to use office equipment including computers, copiers, telephones and fax machines. Ability to tolerate occasional exposure to the elements, dust, grease, chemicals, and potential mechanical hazards. Ability to occasionally use personal protective equipment such as masks, goggles, gloves, etc.

*This class specification is used for classification, recruitment and examination purposes. It is not to be considered a substitute for work performance standards.*