

THE CITY OF LOS ANGELES



CIVIL SERVICE COMMISSION

## CLASS SPECIFICATION

6/14/07

ENVIRONMENTAL ENGINEER, 7872

**Summary of Duties:** Performs professional environmental engineering work in connection with water supply, water quality control, waste collection, disposal and treatment, and ionizing radiation; conducts engineering, planning and research studies in connection with the above activities; coordinates construction and operations of treatment facilities; or supervises other engineering and/or technical employees performing such work; and does related work.

**Distinguishing Features:** An Environmental Engineer may supervise a group of engineering, technical and other employees in water, waste and wastewater related engineering studies including economic and environmental analyses of proposed and current methods, procedures and equipment, and in the design, construction and operation of treatment facilities. In addition, an employee of this class performs the more difficult and responsible work.

### **Example of Duties:**

- Supervises a group of engineering, technical and other employees engaged in the above activities;
- Directs the continuous study of waste and water treatment plant operating procedures, including the efficiency and effects of waste and water treatment, pollution problems in waste disposal, and plant methods and capacities;
- Supervises the design and coordinates the installation of new treatment plants and plant modifications;
- Coordinates consultant and City employee activities during the design and construction phase;
- May train employees in plant operations;
- Directs oceanographic studies and analyzes findings for environmental engineering significance;
- Requests topographic surveys and soil tests;
- Develops plans and specifications for the operations of municipal land reclamation projects;
- Prepares plans for excavations;
- Designs land fills;
- Lays out drainage channels, access roads and other facilities;
- Consults with and makes recommendations relative to engineering and economic phases of present and proposed operations;
- Makes field trips for reconnaissance and inspection of projects and sites;
- Appears before governmental control boards as a City representative;
- Confers with public health officials regarding development of consistent back flow and cross-connection problems;
- Responds to inquires on technical and nontechnical matters relative to wastewater treatment systems.

**Qualifications****Knowledge of:**

- Environmental engineering, environmental and public health principles applicable to water supply, water pollution control, liquid and solid waste collection, wastewater treatment and disposal, plumbing, water and waste flow hydraulics, cross-connections, back flow and siphonage;
- Chemistry, bacteriology, water and environmental biology, botany, odors, gases, fumes, dust and theoretical epidemiology as related to water and waste treatment;
- Technological developments and sources of information in the field of environmental engineering;
- Principles of water and wastewater treatment processes;
- Economic and practical aspects of environmental engineering problems involved in wastewater treatment and disposal, water supply and solid waste management;
- Mechanical and electrical fundamentals related to treatment plant equipment and functions;
- Federal, State and local sanitation, environmental, building and planning regulations, codes and laws applicable to wastewater processing and water quality;
- Laws and regulations related to equal employment opportunity;
- Provisions and requirements for grant application and receipt;
- Memoranda of Understanding as they relate to subordinate personnel;
- Civil Service Commission Rules.

**Ability to:**

- Prepare maps, graphs, charts, diagrams, plans and sketches;
- Write technically clear and concise reports;
- Apply general engineering principles to specific problems and make efficient use of the sources of engineering information;
- Direct engineering studies and investigation on a variety of nonmedical public health, wastewater treatment, waste management and water supply subjects;
- Interpret and relate engineering data to problems concerning efficiency, feasibility, personnel and economic requirements;
- Direct the design and construction of water, waste treatment and collection projects;
- Direct water and wastewater treatment processes and evaluate their effectiveness;
- Set up and direct pilot and plant scale experiments on wastewater, water and waste treatment methods, procedures and equipment;
- Deal tactfully with employees, representatives of other agencies and the public.

**Requirements:** Two years of full-time paid engineering experience as an Environmental Engineering Associate or in a class which is at that level and which provides environmental engineering experience, and registration as a professional engineer with the California State Board of Registration for Professional Engineers is required for Environmental Engineer. Certification as a Grade V Wastewater Treatment Operator may be required for some positions.

**License:** A valid California driver's license and a good driving record are required prior to appointment to this class.

**Physical Requirements:** Strength to perform average lifting of less than five pounds and occasionally over 15 pounds; good speaking and hearing ability; and good eyesight.

Persons with disabilities may be able to perform the essential duties of this class with reasonable accommodation. Reasonable accommodation will be evaluated on an individual basis and depends in part, on specific requirements for the job, the limitations related to the disability and the ability of the hiring department to reasonably accommodate the limitations.

**As provided in Civil Service Commission Rule 2.5 and Section 4.55 of the Administrative Code, this specification is descriptive, explanatory and not restrictive. It is not intended to declare what all of the duties, responsibilities, and required qualifications of any position shall be.**