

LEAD ENGINEERING INSPECTOR

*Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are **not** intended to reflect all duties performed within the job.*

DEFINITION

Under general supervision, performs a variety of quality control, compliance and safety inspection duties of water, sewer and recycled water systems ensures compliance to District's Construction Standards; inspections of industrial users to ensures compliance with the District's Pretreatment/Source Control Program and inspection to ensure compliance to the District's Cross-Connection Control Program in accordance with Title 17 and 22 of the California Code of Regulations.

DISTINGUISHING CHARACTERISTICS

The Lead Engineering Inspector is an advanced journey working level classification. At this level, incumbents perform the most complex and specialized work tasks, while exercising broader discretion and independent judgment within established guidelines. At this level, incumbents shall have knowledge and proficiency in two or more disciplines (Construction, Industrial Waste or Cross-connection).

SUPERVISION RECEIVED AND EXERCISED

Direct supervision is received from the Associate Engineer and/or the Engineering Manager (Capital & Development).

Technical or functional work direction may occasionally be provided to Engineering Inspector I/II by the Lead Engineering Inspector

ESSENTIAL AND MARGINAL FUNCTION STATEMENTS

Essential and other important responsibilities and duties may include, but are not limited to, the following: Incumbents at any level in the job series perform the same or similar tasks.

Essential Functions:

General

1. Be familiar with District, local, and national codes, standards, ordinances, and regulations.
2. Reads, reviews, analyzes, and evaluates plans and specifications.
3. Communicates and coordinates construction activities with all project stakeholders including the contractors, developers, city inspectors, utility agencies, and affected property owners throughout the inspection process.
4. Regular attendance at the work site.

Construction Discipline

1. Perform constructability review by comparing construction documents, standards and site conditions prior to the start of construction.

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Construction Discipline (continued):

2. Inspects work quality and materials used at a variety of construction sites within the District service area; verifies contractors are properly licensed and ensures compliance with applicable plans, codes, standards, ordinances, and regulations.
3. Communicates and coordinates construction activities with all project stakeholders including the contractors, developers, city inspectors, utility agencies, and affected property owners throughout the construction process; observes and coordinates with all stakeholders to ensure that safety procedures are followed and proper materials are used throughout the construction process.
4. Conducts pre-construction meetings with developers and contractors.
5. Reports possible safety violations including traffic control, trench shoring, Cal/OSHA and other safety regulations at job sites.
6. Prepares inspector's daily report and periodic progress reports on construction projects and installation work.
7. Maintain accurate and up-to-date as-built drawings to depict current status of projects; records drawings, hydrostatic test data sheets, concrete cylinder test data sheets and various miscellaneous reports as needed.
8. Assists in locating water, sewer and recycled water lines; informs USA Locates organization and other entities of facility locations during construction phase.
9. Schedules and coordinates shutdowns of water systems for construction and emergencies.
10. Assist contractors in obtaining District supplied materials through coordination with District warehouse.
11. Supervises and observes hydrostatic pressure testing of newly installed water mains and air testing of newly installed sewer systems to verify proper installation in accordance with approved engineering specifications.
12. Observe disinfection of newly constructed pipeline and obtains water samples at construction sites and tests for chlorine content to ensure work is in accordance with approved engineering specifications.

Industrial Waste Discipline

1. Conduct site inspections of sewer user industrial processes including, but not limited to, metal finishing, electrostatic painting, and pharmaceutical manufacturing; collects wastewater discharge samples and sends to laboratory for testing.
2. Identifies and categorizes sewer dischargers by manufacturing process or materials used for applicable federal regulations; evaluates potential to harm a downstream wastewater treatment plant or discharge of pollutants into local rivers.

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Industrial Waste Discipline (continued)

3. Analyzes laboratory test results, issues notices of violations, and conducts other enforcement activities related to real or potential threats to a sewage treatment plant or water quality.
4. Issues and renews industrial sewer use permits; conducts enforcement actions related to technical or reporting violations of District ordinance or permit requirements; maintains master database records of inspection and permitting activities.
5. Conducts research and compiles analytical data; writes technical compliance reports and provides copies to the Inland Empire Utility Agency as it relates to operation of their wastewater treatment plant; provides information for inclusion in reports to State and Federal monitoring agencies.
6. Conducts plan check reviews to ensure proper design and installation of required pre-treatment equipment by industrial dischargers; makes field inspections of plumbing system upgrades.
7. Conducts a variety of special investigations of sewer odors and illegal discharges; issues citations to industries found to be violating applicable standards.
8. Stays abreast of new trends and innovations in the field of industrial waste and changes to Federal regulations; conducts Internet research and reviews printed literature describing details of industrial manufacturing processes.
9. Prepares a variety of written correspondence to industrial users, which may include policy informational letters, written warnings, notices of violations and other administrative or technical directives.

Cross-Connection / Recycled Water Discipline

1. Inspects and tests new backflow prevention assemblies installed by contractors or others for compliance with District standards and requirements.
2. Tests and maintains all backflow prevention assemblies belonging to the District or the City of Rancho Cucamonga.
3. Conducts site surveys and/or inspections of customer properties to determine need for backflow prevention; maintains surveillance of District to ensure against unauthorized connections.
4. Performs shut down testing of all recycled water facilities in conjunction with the San Bernardino Department of Health to ensure that there no cross connections between the potable domestic system and the recycled water system.
5. Assists in preparation of engineering reports to Division of Drinking Water regarding new recycled water services or conversions from potable to recycled water.
6. Conduct annual site inspections of all recycled water facilities to ensure all sites in the District stay in compliance with the California State Title 22 regulations.

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Cross-Connection / Recycled Water Discipline (continued)

7. Performs detailed building and facilities plan checks for compliance with District cross connection program requirements.
8. Inputs testing and inspection results into computerized data base; generates customer notifications from data base regarding testing and installation of cross connection devices; assists in scheduling of testing as necessary.
9. Maintains detailed records and statistics of work activities; compiles information into reports as necessary.
10. Responds to public inquiries in a courteous manner; provides information within area of assignments; resolves complaints in an efficient and timely manner.

Marginal Functions:

1. Attends and participates in professional group meetings.
2. Obtains records and information from contractors and developers for use by District auditors upon request.
3. Performs related duties and responsibilities as assigned.

KNOWLEDGE, SKILLS AND ABILITIES

Knowledge of:

Principles, methods, materials, equipment, and safety hazards of construction projects including water, sewer and recycling.

Principles and practices of construction inspection.

Regulations applicable to confined space entry.

Basic mathematics including algebra, and geometry.

Principles and methods of business correspondence, report writing, recordkeeping and filing.

English usage, spelling, grammar and punctuation.

Modern office procedures, methods and computer equipment and software.

Electronic data input.

Pertinent Federal, State, and local laws, codes and regulations governing the construction of assigned projects.

Appropriate safety precautions, procedures, practices and regulations.

Ability to:

Properly inspect various construction projects and ensure compliance with plans, specifications, codes and regulations.

Detect and locate faulty materials. Workmanship in construction and determine the stage of construction during which defects can be effectively and efficiently remedied.

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Knowledge, Skills, and Abilities (continued):

Oversee multiple tasks and assignments in an efficient manner.

Operate a two-radio, computer, camera, video equipment, various hand tools and other assigned equipment as required.

Ability to (continued):

Wear protective apparel, including eye protection, face protection, hearing protection, safety shoes and respirator protection.

Work in inclement weather and overtime as needed.

Operate a vehicle observing legal and defensive driving practices.

Read and interpret engineering and construction drawings.

Work independently in the absence of direct supervision.

Maintain accurate records and prepare inspection reports.

Respond effectively to requests and inquiries from the general public.

Understand and carry out oral and written instructions.

Communicate clearly and concisely, both orally and in writing.

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

Use tact, discretion, and diplomacy in dealing with others including contractors, and property owners.

Maintain physical condition appropriate to the performance of assigned duties and responsibilities.

Maintain mental capacity which allows the capability of making sound decisions and demonstrating intellectual capabilities.

Maintain effective audio-visual discrimination and perception needed for making observations, communicating with others, reading, writing and operating assigned equipment.

Hear and respond to traffic and warning noises while on the job site.

Perform work in accordance with safety regulations, District and Department guidelines.

REQUIRED QUALIFICATIONS

Experience and Training Guidelines

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

Experience:

Four (4) years of journey-level engineering inspector experience.

Training/Education:

Equivalent to the completion of the twelfth grade supplemented by college or vocational/technical training in construction management, water utility construction inspection, or a related field; or supplemented by college level coursework in chemistry, biology, environmental science, or water/wastewater technology; or supplemented by courses dealing in backflow device tester or cross connection control or plumber.

Certificate:

Possession of all required certifications for two or more of the following discipline is required:

Construction Discipline – Required Certifications

Possession of a valid D3 Distribution System Operator Certificate issued by the State Water Resources Control Board (SWRCB).

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Construction Discipline -Required certificaions (continued):

Possession of a valid Grade I Sewer Collection System Operator Certificate issued by the California Environmental Association (CWEA).

Possession of a valid T I Water Treatment Operator Certificate issued by the State Water Resources Control Board (SWRCB).

Construction Discipline – Desirable Certifications

Possession of a valid Certified Welding Inspector Certification issued by the American Welding Society is desirable.

Possession of a valid Concrete Field Testing Technician-Grade I Certification issued by the American Concrete Institute is desirable.

and/or

Industrial Waste Discipline – Required Certification

Possession of a Grade 3 Environmental Compliance Inspector Certificate issued by the California Water Environment Association (CWEA).

Possession of a valid D2 Distribution System Operation Certificate issued by the State Water Resources Control Board (SWRCB).

and/or

Cross-Connection / Recycled Water Discipline – Required Certifications

Possession of a valid San Bernardino County Department of Public Health Certified Backflow Prevention Device Tester.

Possession of a valid Cross Connection Control Specialist Certificate issued by the American Water Works Association.

Possession of a valid D3 Distribution System Operator Certificate issued by the State Water Resources Control Board (SWRCB).

Possession of a valid T I Water Treatment Operator Certificate issued by the State Water Resources Control Board (SWRCB).

Possession of a valid Grade 2 Collection System Maintenance Certificate issued by the California Water Environmental Association (CWEA).

License:

Possession of a valid Class C California driver’s license, together with a satisfactory driving record.

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PHYSICAL DEMANDS AND WORKING ENVIRONMENT

The conditions herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential job functions.

Environment

Outdoor field and construction site environment; travel from site to site; exposure to wet conditions, fumes, airborne particles, all types of weather and temperature conditions, heavy vibration and loud or prolonged noise levels. Incumbent regularly work and/or walk near moving equipment and heavy traffic, in confined spaces such as trenches, pipelines, and vaults, and on uneven or slippery surfaces and rough terrain.

Physical

While performing the duties of this job, the incumbent is regularly required to use hands to finger, handle, feel or operate objects, tools or controls; perform repetitive movements with hands, and reach with hands and arms. Incumbent frequently is required to walk and stand, talk or hear; sit, climb or balance, stoop, kneel, crouch or crawl. The incumbent must frequently lift and/or move up to 25 pounds and occasionally up to 50 pounds.

Mental

While performing the duties of this class, incumbents are regularly required to use written and oral communication skills; read and interpret data, information and documents; analyze and solve problems; use math and mathematical reasoning; observe and interpret situations; learn and apply new information or new skills; perform highly detailed work; work under deadlines with constant interruptions; perform multiple, concurrent tasks; interact with District staff and other organizations; and interact with dissatisfied or quarrelsome individuals.

Vision

See in the normal visual range with or without correction; vision sufficient to read printed documents and to operate assigned equipment. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception and the ability to adjust focus.

Hearing

Hear in the normal audio range with our without correction.

JOB STATUS: Non-Exempt

DATE ADOPTED: January 2015

DATE MODIFIED: November 2021

Safety Sensitive Position