

POSITION DESCRIPTION
City of Big Spring

Job Title: Plant Operator
Department: Water Treatment Plant

Grade-Step: 12-1
Pay Rate: \$12.606 per hour

JOB SUMMARY

This position is responsible for operating, maintaining and repairing the City's water treatment plant, pump stations and storage tanks.

MINIMUM QUALIFICATIONS

- High School Diploma or GED
- Ability to read, write and perform mathematical calculations at a level commonly associated with the completion of high school or equivalent.
- Sufficient experience to understand the basic principles relevant to the major duties of the position usually associated with the completion of an apprenticeship/internship or having had a similar position for one to two years.
- Possession of or ability to readily obtain a required state-certified license for water treatment, as appropriate:
- A valid Class C Water Treatment Plant Operator's Certificate within three (3) years of hire.
- Possession of or ability to readily obtain a valid driver's license issued by the State of Texas for the type of vehicle or equipment operated.
- Must live within a thirty (30) minute travel time from workstation or be able to meet this requirement within six (6) months of employment.

MAJOR DUTIES, FUNCTIONS AND RESPONSIBILITIES:

Essential duties and functions, pursuant to the Americans with Disabilities Act, may include the following. Other related duties may be assigned.

- Controls and monitors water treatment plant chemicals, machines, and equipment to purify and clarify water for human consumption and industrial use.
- Collects representative water samples from the water plant and distribution system. Performs chemical, physical, and bacteriological tests to assure water quality and submits samples for testing as required by state agencies.
- Determines and adds specified amounts of chemicals such as chlorine, ammonia, aluminum sulfate and lime to disinfect and clarify water.
- Performs and records the results of various laboratory tests such as pH, alkalinity, turbidity, chlorine residual, hardness, temperature and conductivity; assesses water quality and determines optimal chemical treatment.
- Removes solids from treatment units and backwashes filters as needed.
- Maintains the efficiency of plant and laboratory operations including the maintenance of equipment, pumps, filters and machinery, testing, quality control, and record-keeping procedures.
- Calibrates laboratory equipment and adjusts chemical feeders for optimal water treatment.
- Maintains plant records, including operations logs, daily diaries, and chemical inventories; compiles reports as required by departmental policies.

- Monitors charts, dials, pumps, chemical feeders, laboratory equipment, meters, and gauges in the laboratory to determine status of various functions of the plant; performs equipment and laboratory preventive maintenance duties.
- Reads, calculates, and records water usage; changes charts on a daily basis.
- Fills out pump room charts; files completed charts.
- Maintains pressure and flow levels in distribution system and storage tanks.
- Performs minor repairs, operations adjustments, and preventive maintenance on plant equipment as needed.
- Maintains water pumping stations and elevated storage tanks.
- Records phone information about water leaks and reports to appropriate repair crews.
- Reads and records chemical usage, fills chemical feeders, mixes chemicals, changes reagents, and changes out chlorine cylinders.
- Checks motors and pumps for excessive noise and temperatures. Reports problems to the appropriate personnel.
- Performs grounds maintenance and housekeeping duties as needed.
- May be required to be on call after hours to respond to emergencies as needed.
- Performs other duties as assigned.

KNOWLEDGE, SKILLS AND ABILITIES REQUIRED BY THE POSITION

- Must possess required knowledge, skills, abilities and experience and be able to explain and demonstrate, with or without reasonable accommodations, that the essential functions of the job can be performed.
- Knowledge of water treatment processes.
- Knowledge of the handling and application of the chemicals necessary to maintain a safe water supply and personal safety.
- Knowledge of federal and state rules and regulations and City, department and safety policies and procedures.
- Knowledge of standard laboratory principles, techniques, equipment, and materials.
- Knowledge of water treatment plant operations and equipment, pumps and motors and related maintenance techniques.
- Knowledge of basic chemistry, mathematics, and biology.
- Skill in performing standard laboratory-related mathematical calculations.
- Skill in operating laboratory equipment.
- Skill in the use of water analysis equipment, meters, and gauges.
- Skill in the use of basic tools such as packing tools, socket wrenches, power tools, and screwdrivers.
- Skill in operating light and heavy equipment such as a front end loader and dump truck.
- Skill in the use of grounds maintenance equipment.
- Skill in basic computer use.
- Skill in oral and written communication.

SUPERVISORY CONTROLS

The Water Treatment Plant Superintendent assigns work in terms of general instructions. The supervisor checks completed work for compliance with procedures, accuracy, and the nature and propriety of the final results.

GUIDELINES

Guidelines include state and federal regulations and drinking water guidelines, plant operations policies, supervisor instructions, City and department policies and procedures, and standard laboratory practices. These guidelines are generally clear and specific, but require some interpretation in application.

COMPLEXITY

The work consists of duties related to water analysis and treatment. Mechanical failures and changes in source water quality contribute to the complexity of the work.

SCOPE AND EFFECT

The purpose of this position is to operate and maintain the water treatment plant and associated facilities, including testing, treating, and purifying water for public and industrial consumption. Successful performance helps ensure a safe and reliable water supply.

PERSONAL CONTACTS

Contacts are typically with co-workers, state agency personnel, city employees, and the general public.

PURPOSE OF CONTACTS

Contacts are typically to exchange information, resolve problems, and provide services.

PHYSICAL DEMANDS

The work is typically performed while sitting at a desk or table, standing, walking, bending, crouching, or stooping. The employee lifts light and heavy objects, climbs ladders, uses tools or equipment requiring a high degree of dexterity, and must be able to distinguish between shades of color.

WORK ENVIRONMENT

The work is performed in an office, laboratory, chemical storeroom, and outdoors. The employee is exposed to dust, dirt and grease, machinery with moving parts, infectious or contagious diseases, irritating or hazardous chemicals, and occasional inclement weather. The work may require the use of protective devices such as masks, goggles or gloves.

SUPERVISORY AND MANAGEMENT RESPONSIBILITY

None

This description is intended to indicate the kinds of tasks and levels of work difficulty required of the position given this title and shall not be construed as declaring what the specific duties and responsibilities of any particular position shall be. It is not intended to limit or in any way modify the right of management to assign, direct and control the work of employees under supervision. The listing of duties and responsibilities shall not be held to execute other duties not mentioned that are of similar kind or level of difficulty.