

## City of Mission Job Description

Job Title: **Water Plant Operator**



Classification: **Non-Exempt**

Department: Public Works

Division: Wa Treatment Plant

Supervisor: Water Treatment Plant Supervisor/  
Public Works Director

Effective: 01/31/2013

### **I. JOB SUMMARY**

The individual is responsible for properly operating and maintaining the city's water system under close supervision. Controls treatment plant machines and equipment to purify and clarify water of human consumption and for industrial use. Operates and controls electric motor pumps and valves to regulate flow of raw water into treatment plant. Dumps specified amounts of chemicals such as chlorine, ammonia and lime into water. May adjust automatic devices that admit specified amounts of chemicals into tanks to disinfect, deodorize and clarify water. Turns valves to regulate water through filter beds to remove impurities. Pumps purified water into water mains. May monitor panel board and adjusts controls to regulate flow rates, loss of head pressure, water elevation and distribution of water. Cleans tanks and filter beds using backwashing. May repair and lubricates machines and equipment using hand tools and power tools. Collects daily water samples and performs daily lab tests, to determine acidity color and impurities in accordance with regular parameters and other duties assigned. This position has no supervisory responsibilities. Individual will perform other duties assigned by supervisor/department head when needed.

### **II. EDUCATION REQUIREMENTS**

- High school diploma or G.E.D is required.
- Must have oral and written communication skills in English to at least the 9<sup>th</sup> grade level (to include correct spelling).
- Enrollment in a course leading to Class "D" certificate of competency from Texas Commission on Environmental Quality within one year of date of hire.
- Must obtain a "D" certification from the Texas Commission on Environmental Quality within one (1) year from the date of hire. Must obtain a "C" surface water certification within two (2) years from the date of hire. The inability to obtain either certificate will be grounds for immediate termination.

### **III. EMPLOYMENT REQUIREMENTS**

- Applicant will be subject to a complete background investigation. Incomplete, inaccurate and/or failure to report information will cause the applicant rejection from consideration.
- Applicant must take and pass a drug, physical, and pre-placement screenings administered by the City of Mission doctor at the City's expense.
- Applicant must have a current valid class "C" driver's license from the Department of Public Safety with no more than two (2) moving traffic violations within the past two (2) years.
- Applicant must meet all other department and City employment standards



#### **IV. SKILL AND ABILITY REQUIREMENTS**

- Ability to skillfully use equipment and machines within the water plant.
- Accept responsibility for the accuracy of one's work.
- Ability to work outdoors and indoors as necessary.
- Ability to make decisions based on information that can be measured or verified.
- Ability to understand principles of water technology.
- Ability to use eyes, hands and fingers to operate and adjust delicate equipment and hand valves and measuring equipment.
- Ability to determine volume measurements based on standards that can be measured or checked.
- Ability in record keeping and logging of data.
- Ability to use math skills to count, measure or keep inspection records.
- Ability to analyze water content with lab equipment provided.
- Ability to follow a specific work schedule as directed, working two twelve hour days rotating shifts.

#### **V. ESSENTIAL JOB FUNCTIONS**

- Maintains City of Mission water system under close supervision via visual and manual inspection.
- Effects control of treatment plant through computer monitoring and manual resets in order to purify and clarify water for human consumption and industrial use.
- Connect and disconnect chlorine gas.
- Operates and controls water pumps by turning gate valves to regulate flow of raw water into treatment plant.
- Adjusts automatic devices turning knobs to admit specified amount of chemicals into tanks to disinfect, deodorize and clarify water.
- Releases specified amounts of chemicals such as chlorine, ammonia and aluminum into water.
- Turn on and off switches to pump water into water mains.
- Monitors computer panel board and adjusts controls to regulate flow rates, loss of high pressure, water regulation and distribution of water.
  
- Perform all job functions with special attention placed on good public relations, safety, and proper office procedures in compliance with city policies.
- Cleans tanks and filter beds using back washing, drain sludge basin by operating gate valves.
- Repairs and lubricates machines and equipment using hand tools and power tools.
- Walks down pipe gallery stairs to collect water samples to perform daily laboratory tests to determine acidity, color and impurities in accordance with a regular parameter.
- Documents chemicals administered to water supply on a chemical worksheet log.

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- Must be able to use SCBA (self contained breathing apparatus.)
- Mow front lawn of water plant on a riding mower.

**VI. NON-ESSENTIAL JOB FUNCTIONS**

- None

**VII. EQUIPMENT/MATERIALS**

Safety equipment/materials to include but not limited to the following:

- NTV Meters, Chemical Feeders, PH Meters, Lab Equipment
- Personal Computer, Keyboard, Printer, Scanner, Mouse
- City Vehicle, Two-way radio, Telephone, Cell phone
- Shovel , Gasoline container, Lawn mower
- Pens, Pencils, Highlighters, Stapler, Clip board,
- City ID, Uniform, Safety vest, Hart Hat
- Policy and Procedure handbook

**VIII. WORK ENVIRONMENT**

Exposure to the following environmental conditions are required for this job.

	None	Amount of Time		
		Under 1/3	1/3 to 2/3	Over 2/3
Wet humid conditions (non-weather)				X
Work near moving mechanical parts		X		
Work in high, precarious places			X	
Fumes or airborne particles		X		
Toxic or caustic chemicals				X
Outdoor weather conditions				X
Extreme cold (non-weather)	X			
Extreme heat (non-weather)	X			
Risk of electrical shock	X			
Work with explosives	X			
Risk of radiation	X			
Extreme Noise	X			
Vibration		X		

**IX. MANUAL DEXTERITY**

Both fine and gross hand manipulation is required to perform job functions. Gross hand manipulation is utilized to grip five gallon containers, while fine finger dexterity is utilized to activate button on control panels.



**X. PHYSICAL DEMAND ANALYSIS**

**MATERIAL HANDLING ACTIVITIES**

<b>Task</b>	<b>Weights</b>	<b>Frequency</b>	<b>Performance</b>
<b>LIFTING</b>	Up to 5 lbs	<b>F</b>	Water bottle (sample waters) to check water process from knee level up to waist level up to 100 yards.
	6-10 lbs	<b>N</b>	
	11-20 lbs	<b>N</b>	
	21-25 lbs	<b>O</b>	Computer paper from first level to second level up to 20 feet.
	26-50 lbs	<b>O</b>	Five gallon water packs, knee to waist level, to add chemicals to water for jar testing up to 10 feet.
	51-75 lbs	<b>N</b>	
	76-100 lbs	<b>N</b>	
	Over 100 lbs	<b>N</b>	
<b>CARRYING</b>	Up to 5 lbs	<b>F</b>	Water bottle (sample waters) to check water process from knee level up to waist level up to 100 yards.
	6-10 lbs	<b>N</b>	
	11-20 lbs	<b>N</b>	
	21-25 lbs	<b>O</b>	Computer paper from first level to second level up to 20 feet.
	26-50 lbs	<b>O</b>	Five gallon water packs, knee to waist level, to add chemicals to water for jar testing up to 10 feet.
	51-75 lbs	<b>N</b>	
	76-100 lbs	<b>N</b>	
	Over 100 lbs	<b>N</b>	
<b>PUSH/PULLING</b>	Up to 5 lbs	<b>F</b>	To turn from regulating valves utilizing moderate to heavy force
	6-10 lbs	<b>F</b>	To turn water drain valve using moderate to heavy force.
	11-20 lbs	<b>O</b>	To turn sludge gate valves every three days.
	21-25 lbs	<b>O</b>	To turn sludge gate valves every three days.
	26-50 lbs	<b>N</b>	
	51-75 lbs	<b>N</b>	
	76-100 lbs	<b>N</b>	
	Over 100 lbs	<b>N</b>	

**N-Never O-Occasional 1-33% F-Frequently 34-66% C-Constant 67-100%**



**NON-MATERIAL HANDLING ACTIVITIES**

Task	Frequency	Performance
<b>CLIMBING</b>	<b>F</b>	Stair well within plant office steps within water plant.
<b>STOOPING</b> (bending at waist)	<b>O</b>	To check water deposit and obtain water samples.
<b>KNEELING</b> (one or both knees)	<b>N</b>	
<b>CROUCHING</b> (bending at hips/knees)	<b>O</b>	To check water deposit and obtain water samples.
<b>CRAWLING</b>	<b>N</b>	
<b>REACHING</b>	<b>O</b>	
<b>TWISTING/TURNING</b> (rotation)	<b>F</b>	To monitor water levels and meters turning at waist shoulder and neck levels up to 180 degrees.
<b>HANDLING</b> (manipulated objects)	<b>O</b>	To purge valves.
<b>STANDING</b>	<b>O</b>	To activate water release for functioning valves.
<b>WALKING</b>	<b>O</b>	Within plant and surroundings.
<b>SITTING</b>	<b>O</b>	While monitoring plant on computer system.
<b>FINGERING</b> (finger dexterity)	<b>O</b>	To depress keys on computer board and to hand write information.
<b>GRASPING</b> (whole hand activities)	<b>O</b>	To grip valves exerting moderate to heavy force.

**N-Never O-Occasional 1-33% F-Frequently 34-66% C-Constant 67-100%**

**Water Plant Operator – Trainee Work Schedule**

Day Shift                    8:00 a.m.    to    5:00 p.m.  
 Day Shift                    4:00 p.m.    to 12:00 p.m.  
 Night Shift                 12:00 p.m.   to    8:00 a.m.  
 Swing Shift

Trainees will work the day shifts until they learn the job.

Trained employees will work weekends every other weekend.

I, \_\_\_\_\_ understand the physical demands, work environment factors and mental functions of this job. I can fulfill the essential functions of this position as described in this job description.

\_\_\_\_\_  
 Applicant Signature

\_\_\_\_\_  
 Date