EMPLOYEE: CLAIM #

Job Analysis Form

ALTERNATE FORMAT AVAILABLE

JOB TITLE Industrial Instrument Technician **JOB CLASSIFICATION** Industrial Instrument Technician

DICTIONARY OF OCCUPATIONAL TITLES (DOT) NUMBER 710.281-030

DOT TITLE Instrument Technician

DEPARTMENT Natural Resources and Parks **DIVISION** Wastewater

 # OF POSITIONS IN THE DEPARTMENT WITH THIS JOB TITLE 8

CONTACT'S NAME & TITLE Steve Davidson, Supervisor III

CONTACT'S PHONE 206-684-2418

ADDRESS OF WORKSITE
1200 Monster Road
Renton, WA 98055

VRC NAME Kyle Pletz, VRC **DATE COMPLETED** 2/24/06

VRC NAME Jeff Casem **DATE REVISED** 5/14/09

WORK HOURS
10 hours per day, 4 days per week or 8 hours per day, 5 days per week; may also include rotating shifts. The employee is on call 24 hours per day, 7 days per week.

OVERTIME (Note: Overtime requirements may change at the employer's discretion)
Required on an emergency basis. Optional overtime is present approximately 30 hours per year.

JOB DESCRIPTION
Performing a wide variety of highly skilled technical and journey-level duties to design, construct, maintain, troubleshoot and modify computerized systems, electrical, electronics, pneumatics, hydraulics and related instrumentation. Incumbents in this classification apply journey level instrumentation knowledge and experience to perform instrumentation duties in an industrial environment. Incumbents work as journey-level instrumentation technicians independently or cooperatively with other instrument technicians, other skilled trades and industrial plant operations staff. This worker is responsible for performing the day-to-day activities that cover all aspects of instrument and control systems at a wastewater collection and treatment facility, including pumping and regulating stations.

ESSENTIAL ABILITIES FOR ALL KING COUNTY JOB CLASSIFICATIONS

1. Ability to demonstrate predictable, reliable, and timely attendance.
2. Ability to follow written and verbal directions and to complete assigned tasks on schedule.
3. Ability to read, write & communicate in English and understand basic math.
4. Ability to learn from directions, observations, and mistakes, and apply procedures using good judgment.

5. Ability to work independently or part of a team; ability to interact appropriately with others.
6. Ability to work with supervision, receiving instructions/feedback, coaching/counseling and/or action/discipline.

JOB SPECIFIC REQUIREMENTS

Completion of an apprentice program, or two years of technical schooling, or the equivalent related experience. Valid driver's license at the time of hire. Ability to lift and carry objects up to 50 pounds. Three years of journey-level experience in a related field such as instrumentation, electronics. Knowledge of basic mathematics; electronic/electrical circuits and instrumentation test equipment; physics and chemistry; PID control loops; soldering techniques. Must have analytical skills, communications skills (verbal and written) and computer skills. Must possess skill in using electrical and electronic test equipment, safely operating power tools and using customary hand tools, effectively troubleshooting equipment using limited documentation, working in harsh environments and in emergency situations, designing or modifying technical publications and instrument/electrical drawings, applying codes and guidelines in the design, installation and maintenance of all plant instrumentation, working safely around electrical, mechanical and environmental hazards and working well with others.

ESSENTIAL FUNCTIONS

1. Troubleshoot, repair and maintain all plant control systems (computer, electronic, pneumatic and hydraulic).
2. Use considerable knowledge of chemistry and physics to analyze industrial processes in troubleshooting and repair of process control instrumentation. Use this same knowledge base to design new controls and implement modifications to existing controls systems.
3. Troubleshoot and repair distributed control systems (DCS's) and programmable logic controllers (PLC's). Use applied electronic theory, digital electronics and proportional integral derivative (PID) control strategies to implement program changes to DCS's and PLC's.
4. Update technical and process documentation.
5. Determine appropriate inventory of spare parts for critical instrumentation.
6. Review blueprints, work orders or shop drawings to facilitate coordination of maintenance efforts.
7. Assist in inspection of instrumentation installed by contractors.
8. Witness and assess loop commission testing.
9. Work with operations personnel, engineers and suppliers to explain the functioning of process and procedures needed for the operation of new equipment.
10. Provide on-the-job training for new and subordinate staff.

PERSONAL PROTECTIVE EQUIPMENT USED

Ear protection, eye protection, hip boots, foot protection, coveralls, respirator, hard hat, safety vest, gloves and dust mask.

OTHER TOOLS & EQUIPMENT USED

Various hand tools, calibration equipment (pneumatic, voltmeter, amp meter etc.), drills, jig saw, hydraulic bender, hand pipe bender, PC, phone, fax machine, copy machine, transmitter, laptop computer, O-scope, video processing unit (VPU), two way radio, Nextel cellular telephone, reference materials and various instruments.

PHYSICAL DEMANDS AS JOB IS TYPICALLY PERFORMED
Continuously = occurs 66-100% of the time
Frequently = occurs 33-66% of the time
Occasionally = occurs 1-33% of the time
Rarely = may occur less than 1% of the time
Never = does not ever occur (such demands are not listed)

Highly Repetitive = Repeating the same motion every few seconds with little or no variation for more than two hours total per day.

This job is classified as
Medium—exerting 20 to 50 pounds of force occasionally, and/or 10-25 pounds of force frequently, and/or up to 10 pounds of force constantly.

Standing Health Care Provider initials if restricted_____
Continuously on cement, asphalt, carpet, metal, metal grating, ladders, scaffolding and dirt surfaces for up to 2.5 hours at a time for up to 7 hours total in a work shift. Most commonly occurs while installing, repairing and calibrating instruments.

Walking Health Care Provider initials if restricted_____
Occasionally on cement, asphalt, carpet, metal, metal grating, ladders, scaffolding and dirt surfaces for distances of up to ½ mile for up to 15 minutes at a time for up to 2 hours total in a work shift. Most commonly occurs while traversing within the wastewater facility, to/from construction projects, to/from offsite facilities and to/from the flow meter area.

Sitting Health Care Provider initials if restricted_____
Frequently to Continuously on an automobile seat or office chair for up to 1.5 hours at a time for up to 8 hours total in a work shift. Most commonly occurs while performing computer duties, driving to various facilities and installing, repairing and calibrating instruments.

Climbing stairs Health Care Provider initials if restricted_____
Occasionally for up to 125 steps for up to 3 minutes at a time for up to 30 minutes total in a work shift. Most commonly occurs while traversing between the upper and lower levels of the wastewater treatment facility.

Climbing Health Care Provider initials if restricted_____
Occasionally for up to 3 minutes at a time for up to 6 minutes total in a work shift. Most commonly occurs while using a ladder to reach upper instruments at heights of up to 20 feet.

Balancing Health Care Provider initials if restricted_____
Occasionally on ladders, cat walks, narrow overhead walkways and slick/uneven ground for up to 4-5 minutes at a time for up to 1 hour total in a work shift. Most commonly occurs while traversing throughout the wastewater facility to perform such duties as checking on a velocity probe on a narrow

Bending neck up Health Care Provider initials if restricted_____
Occasionally for up to 5 minutes at a time for up to 1-1.5 hours total in a work shift. Most commonly occurs while installing, repairing and calibrating instruments in upper areas. On a rare occasion the employee may need to bend the neck up for almost the entirety of a shift when troubleshooting or installing an upper panel.

Bending neck down Health Care Provider initials if restricted_____
Occasionally for up to 10 minutes at a time for up to 2 hours total in a work shift. Most commonly occurs while installing, repairing and calibrating instruments in lower areas as well as when reviewing drawings/manuals performing computer duties and reaching for tools.

Bending/Stooping Health Care Provider initials if restricted_____
Occasionally for up to 10 minutes at a time for up to 2 hours total in a work shift. Most commonly occurs while installing, repairing and calibrating instruments in lower areas as well as when reviewing drawings/manuals and reaching for tools. On a rare occasion the employee may need to bend for almost the entirety of a shift when troubleshooting or installing or inspecting a lower panel or lower instruments. The employee can alternate with kneeling or squatting on most occasions in accordance with preference.

Kneeling Health Care Provider initials if restricted_____
Occasionally for up to 10 minutes at a time for up to 2 hours total in a work shift. Most commonly occurs while installing, repairing and calibrating instruments in lower areas as well as when reviewing drawings/manuals and reaching for tools. On a rare occasion the employee may need to kneel for almost the entirety of a shift when troubleshooting or installing or inspecting a lower panel or lower instruments. The employee can alternate with bending/stooping or squatting on most occasions in accordance with preference.

Squatting Health Care Provider initials if restricted_____
Occasionally for up to 10 minutes at a time for up to 2 hours total in a work shift. Most commonly occurs while installing, repairing and calibrating instruments in lower areas as well as when reviewing drawings/manuals and reaching for tools. On a rare occasion the employee may need to squat for almost the entirety of a shift when troubleshooting or installing or inspecting a lower panel or lower instruments. The employee can alternate with kneeling or bending/stooping on most occasions in accordance with preference.

Operating Controls with Feet Health Care Provider initials if restricted_____
Frequently to Continuously for up to 1.5 hours at a time for up to 6 hours total in a work shift while driving to various offsite facilities to perform station checks. The employee may also operate controls with the feet when operating a drill press.

Reaching above shoulder height Health Care Provider initials if restricted_____
Occasionally for up to 5 minutes at a time for up to 1 hour total in a work shift while installing, repairing and calibrating instruments in upper areas. The employee also reaches above the shoulder height when working on panels.

Reaching at waist to shoulder height Health Care Provider initials if restricted_____
Frequently to Continuously for up to 1.5 hours at a time for up to 5-6 hours total in a work shift while installing, repairing and calibrating instruments as well as when driving and performing computer duties.

Reaching at knee to waist height Health Care Provider initials if restricted_____
Occasionally for up to 5 minutes at a time for up to 1 hour total in a work shift while installing, repairing and calibrating instruments as well as when reaching for tools.

Reaching at floor to knee height Health Care Provider initials if restricted_____
Occasionally for up to 10 minutes at a time for up to 2 hours total in a work shift. Most commonly occurs while installing, repairing and calibrating instruments in lower areas as well as when reviewing drawings/manuals and reaching for tools.

Lifting 1-10 pounds Health Care Provider initials if restricted_____
Occasionally to frequently for up to 5 minutes at a time for up to 3 hours total in a work shift. Most commonly occurs with weights of 3-8 pounds while manipulating hand tools, test equipment, instruments and construction supplies.

Carrying 1-10 pounds Health Care Provider initials if restricted_____
Occasionally to frequently for distances up of to 300 feet for up to 5 minutes at a time for up to 2 hours total in a work shift. Most commonly occurs with weights of 2-8 pounds while transporting hand tools, test equipment, instruments and construction supplies to and from the work sites.

Lifting 11-20 pounds Health Care Provider initials if restricted_____
Occasionally for up to 5 minutes at a time for up to 2 hours total in a work shift. Most commonly occurs with weights of 12-17 pounds while manipulating a transmitter, bag of tools, calibrator O-scope and laptop computer.

Carrying 11-20 pounds Health Care Provider initials if restricted_____
Occasionally for distances of up to 300 feet for up to 5 minutes at a time for up to 2 hours total in a work shift. Most commonly occurs with weights of 12-17 pounds while transporting a transmitter, bag of tools, calibrator O-scope and laptop computer.

Lifting 21-50 pounds Health Care Provider initials if restricted_____
Occasionally for up to 2 minutes at a time for up to 1 hour total in a work shift. Most commonly occurs with weights of 35-47 pounds when manipulating a large instrument, bender, scope (35 pounds) or VPU (47 pounds).

Carrying 21-50 pounds Health Care Provider initials if restricted_____
Occasionally for distances of up to 300 feet for up to 5 minutes at a time for up to 30 minutes-1 hour total in a work shift. Most commonly occurs with weights of 35-47 pounds when transporting a large instrument, bender, scope (35 pounds) or VPU (47 pounds) to and from work sites.

Pushing and Pulling Health Care Provider initials if restricted_____

Occasionally for distances of up to 100 feet for up to 1 minute at a time with a force of 10-60 pounds for up to 1 hour total in a work shift while using various hand tools such as wrenches and ratchets, manipulating/fitting instruments, using a tool cart and moving process piping.

Handling Health Care Provider initials if restricted_____

Frequently for up to 10 minutes at a time for up to 4 hours total in a work shift while using hand tools and manipulating/fitting instruments. On a rare occasion the employee may handle almost the entirety of a shift when installing, troubleshooting and repairing instruments and panels.

Operating Controls with Hands Health Care Provider initials if restricted_____

Frequently for up to 10 minutes at a time for up to 4 hours total in a work shift while using the computer mouse to create code on the computer as well as when driving, using testers and calibrators (pneumatic).

Fingering Health Care Provider initials if restricted_____

Continuously for up to 5 minutes at a time for up to 8 hours total in a shift while using a computer to create code as well as using testers and manipulating instruments and small hand tools.

Feeling Health Care Provider initials if restricted_____

Occasionally for up to 5 minutes at a time for up to 1 hour total in a work shift while feeling for hidden bolts, screws and wires. The employee also utilizes feeling when sensing heat, vibration and air leaks on equipment.

Talking Health Care Provider initials if restricted_____

Frequently to Continuously for up to 5 minutes at a time for up to 6 hours total in a work shift while conversing with supervisors, coworkers, vendors, contractors and the general public. The employee also talks when utilizing a two way radio, Nextel cellular phone and the telephone. Talking is also utilized when working in confined spaces and ensuring proper operation of equipment with a co-worker.

Hearing Health Care Provider initials if restricted_____

Continuously for up to 2.5 hours at a time for up to 10 hours total in a work shift while conversing with supervisors, coworkers, vendors, contractors and the general public. The employee also talks when utilizing a two way radio, Nextel cellular phone and the telephone. Talking is also utilized when working in confined spaces, ensuring proper operation of equipment with a co-worker and identifying sirens and alarms.

Seeing Health Care Provider initials if restricted_____

Continuously for up to 2.5 hours at a time for up to 10 hours total in a work shift while installing, repairing and troubleshooting instruments. The employee also utilizes vision to read the instruments, review plans and identify workplace safety hazards.

Working with Heightened Awareness Health Care Provider initials if restricted_____

Occasionally for up to 10 minutes at a time for up to 2 hours total in a work shift while working in confined spaces and around moving machinery such as cranes.

ENVIRONMENTAL FACTORS

Work is performed in an industrial wastewater setting where the worker is exposed to or in close proximity to heavy operating machinery, high voltage, sewage, adverse weather conditions, uneven surfaces, cat walks/metal grating, noxious or toxic gasses and chemicals, as well as loud noises. The noise level is quiet to very loud. Hearing protection and hard hats are required in some areas. The employee is occasionally exposed to hazardous materials including chlorine, sulfur dioxide, sodium hydrochloride, sodium hydroxide, methane, and hydrogen sulfide.

The noise level is	HCP Initials if Restricted
Approximately 95-115 decibels. The noise is caused by wastewater machinery.	

Work environment may include the following exposure(s):	HCP Initials if Restricted
Outside weather: Occasionally	
Non-weather related temperatures below 55 degrees: Occasionally	
Non-weather related temperatures above 75 degrees: Occasionally	
Wet: Occasionally	
Humidity/dampness: Frequently	
Fumes: Occasionally	
Odors: Frequently	
Dusts: Occasionally	
Mists: Occasionally	
Gases: Occasionally	
Moving mechanical parts: Occasionally	
Vibration: Frequently	
Working in high, exposed places: Occasionally	
Toxic or caustic chemicals: Occasionally	
Confined spaces: Occasionally	

SIGNATURES

Signatures on this page are obtained before the document becomes available for use and are not required each time the document is reused. Obtained signatures are kept on file at King County Safety & Claims. The Health Care Provider signature section is separate and appears on the following page.

_____
Printed name & title of VRC evaluator

_____ _____
Signature of VRC evaluator Date

_____
Printed name & title of contact

_____ _____
Signature of contact Date

_____
Printed name & title of employee

_____ _____
Signature of employee Date

KING COUNTY JOB ANALYSIS COMPLETED ON: 2/24/06
JOB TITLE: Industrial Instrument Technician
EMPLOYEE:
VRC: Kyle Pletz

DOT #: 710.281-030
CLAIM #

HEALTH CARE PROVIDER SECTION
Check all that apply

☐ **The employee is released to perform the described duties without restrictions on performance or work hours as of _____.**

☐ **The employee is released to perform the described duties on a reduced schedule as of _____. The recommended schedule is:**

_____

☐ **Temporary until _____** ☐ **Permanent as of _____**

☐ **The employee is released to perform the described job with the following modifications:**

_____
_____
_____
_____

☐ **Temporary until _____** ☐ **Permanent as of _____**

☐ **The employee is not released to perform the described duties due to the following job functions:**

_____
_____
_____
_____
_____
_____

☐ **Temporary until _____** ☐ **Permanent effective _____**

☐ **The employee is unable to work in any capacity.**
A release to work is: ☐ **anticipated by _____** ☐ **Not expected**

The limitations are due to the following objective medical findings:

_____
_____
_____
_____
_____

_____
Printed or typed name and phone number of Health Care Provider

_____ _____
Signature of Health Care Provider Date