

EMPLOYEE:

CLAIM #



Job Analysis Form

ALTERNATE FORMAT AVAILABLE

JOB TITLE Wastewater Process Analyst II

JOB CLASSIFICATION Wastewater Process Analyst II

DICTIONARY OF OCCUPATIONAL TITLES (DOT) NUMBER 199.167-022

DOT TITLE Environmental Analyst

DEPARTMENT Natural Resources and Parks

DIVISION Wastewater

OF POSITIONS IN THE DEPARTMENT WITH THIS JOB TITLE 2

CONTACT'S NAME & TITLE Eugene Sugita, Process Control Supervisor

CONTACT'S PHONE 206-263-3817

ADDRESS OF WORKSITE

1400 Utah Street West
Seattle, WA 98199

VRC NAME Kyle Pletz

DATE COMPLETED 1/8/10

WORK HOURS

8 hours per day, 40 hours per week 6:30am-3:00pm, Monday through Friday may vary schedule within core hours.

OVERTIME (Note: Overtime requirements may change at the employer's discretion)
Optional, on a rare occasion in accordance with business demand.

JOB DESCRIPTION

Performing a variety of professional laboratory and field process evaluations and experiments using chemical, biological and other scientific approaches for a major wastewater treatment plant. Incumbents are responsible for process optimization and acting as the lead person for a unit wastewater process and/or special project. Approximately 4-6 hours per day is spent in the office on average; 2-4 hours per day, on average, is spent in the field.

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

- This classification requires the knowledge, skills and abilities of Level I in addition to:
- Knowledge of principles and application of wastewater process laboratory practices and methods including wet chemistry.
- Knowledge of wastewater process theory, fundamentals and equipment including control.
- Knowledge of wastewater process, support systems and residuals process evaluation using scientific, technical and economic factors.
- Knowledge of air handling and odor control principles and application.
- Knowledge of project design and implementation.
- Knowledge of the principles and application of project management techniques and theory.
- Knowledge of the principles and application of mathematical and statistical analyses.
- Knowledge of automated control systems.
- Knowledge of laboratory database record and retrieval computer system.
- Knowledge of mechanical, electrical and hydraulic wastewater treatment facility equipment.
- Knowledge of pumping systems and hydraulic (fluid mechanics) principles.
- Knowledge of current technologies, products and process innovations.
- Knowledge of industrial safety procedures.
- Knowledge of purchasing procedures.
- Knowledge of sampling methods, techniques, measurements and analysis.
- Data management, information collection and technical literature research skills.
- Analytical, problem-solving, organization, time management and record-keeping skills.
- Interpersonal skills and skill in working with diverse groups of individuals in technical fields.
- Skill in the use of hand tools.
- Skill in the recognition, understanding and use of scientific equipment and instrumentation.

ESSENTIAL FUNCTIONS

- Assume lead responsibility for the daily monitoring of the physical, chemical and biological process performance equipment and the instrumentation of one or more unit wastewater processes.
- Compile, verify, ensure quality of and analyze process monitoring information and data for one or more unit wastewater processes.
- Analyze and interpret process performance parameters and information using basic process performance models, design principles and statistical methods.
- Establish daily operating guidelines and process changes for process optimization.
- Monitor and manage the quality and quantity of process chemicals for one or more unit wastewater processes.
- Prepare daily, routine and ad hoc summary reports on process performance for senior staff and regulatory agencies.
- Plan and conduct experimental studies in process optimization.
- Identify, investigate, prioritize and initiate corrective actions for operations, performance, equipment and instrumentation problems.
- Schedule and coordinate equipment repairs and operational shutdowns for unit processes.

- Develop, plan and conduct project-specific field and bench scale tests to evaluate processes.
- Purchase, troubleshoot, repair and calibrate laboratory and portable field equipment and instruments.
- Review, evaluate and recommend new and different technologies, products, equipment, analytical procedures and methods.
- Interpret regulations and permit requirements. Develop programs to ensure compliance.
- Plan, schedule, direct and conduct pilot and experimental studies under direction of senior staff.
- Serve as scientific and technical consultant to internal and external customers.
- Participate in the scheduling of staff and resources.
- Determine needed staff, resources and economic implications of projects.

PERSONAL PROTECTIVE EQUIPMENT USED

Steel toe boots, ear protection, coveralls, eye protection, hard hat, rubber boots and nitrile gloves.

OTHER TOOLS & EQUIPMENT USED

Computer, telephone, camera, sampling equipment, wastewater databases, County vehicle with an automatic transmission, fax machine, copy machine, clipboard, portable flow meter, maps, hand sampler, samplers and log books. Miscellaneous equipment used for monitoring wastewater (i.e. DO probes), air and odors (Jerome meters), and biosolids (i.e. Sludge Judge). Specialized equipment used for experiments such as those used during polymer testing.

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 flat carpeted, metal, wet or cement surfaces for up to 30 minutes at a time for up to 1 hour total in a work shift. Most commonly occurs while analyzing data, equipment and processes. Approximately 2-4 hours per day are spent out of the office working in the field.

Walking

Health Care Provider initials if restricted _____

Occasionally on flat carpeted, metal, wet or cement surfaces for distances of up to 1/2 mile for up to 15 minutes at a time for up to 1-2 hours total in a work shift. Most commonly occurs while obtaining data as well as observing equipment and processes. Approximately 2-4 hours per day are spent out of the office working in the field.

Sitting

Health Care Provider initials if restricted _____

Continuously on an office chair or automobile seat for up to 2 hours at a time for up to 6-7 hours total in a work shift. Most commonly occurs while performing computer duties as well as driving a County vehicle to and from worksites. The employee can alternate tasks to reduce sitting durations.

Climbing

Health Care Provider initials if restricted _____

Rarely for up to 30 seconds at a time for up to 1-2 minutes total in a work shift. Most commonly occurs while climbing up ladders to evaluate processes through visual observation, such as a particulate problem in a large tank, Biosolids dryness in the sludge trucks, polymer batch quality, or to grab a sample. The employee may take pictures of processes and equipment as well. Climbing is not formally required and can be avoided on most occasions.

Climbing Stairs

Health Care Provider initials if restricted _____

Occasionally for up to 5 minutes at a time for up to 1 hour total in a shift while traversing wastewater facilities, remote locations and various facilities. The employee may need to traverse up to 72 steps at a time.

Balancing

Health Care Provider initials if restricted _____

Occasionally on wet/slick surfaces for distances of up to 1/4 mile for up to 15 minutes at a time for up to 1 hour total in a work shift. Most commonly occurs while obtaining data as well as observing equipment and processes. Approximately 2-4 hours per day are spent out of the office working in the field.

Bending neck up

Health Care Provider initials if restricted _____

Occasionally for up to 30 seconds at a time for up to 1 hour total in a work shift. Most commonly occurs while looking up at equipment and tracing pipe.

Bending neck down

Health Care Provider initials if restricted _____

Frequently for up to 1 hour at a time for up to 4 hours total in a work shift. Most commonly occurs while reviewing documents, prints and reference materials.

Bending/Stooping

Health Care Provider initials if restricted _____

Occasionally for up to 2 minutes at a time for up to 30 minutes total in a work shift. Most commonly occurs while looking at equipment and processes in lower locations. The employee also bends when looking over a guardrail. The employee can alternate bending/stooping with squatting/kneeling as needed.

Kneeling

Health Care Provider initials if restricted _____

Occasionally for up to 10 minutes at a time for up to 1 hour total in a work shift. Most commonly occurs while obtaining equipment numbers as well as observing equipment and processes. The employee can alternate with squatting or bending/stooping as needed.

Squatting

Health Care Provider initials if restricted _____

Occasionally for up to 10 minutes at a time for up to 1 hour total in a work shift. Most commonly occurs while obtaining equipment numbers as well as observing equipment and processes. The employee can alternate with kneeling or bending/stooping as needed.

Operating Controls with Feet

Health Care Provider initials if restricted _____

Occasionally for up to 30 minutes at a time for up to 1 hour total in a work shift while driving a County vehicle or motorized cart. Driving is a non-essential function.

Reaching above shoulder height

Health Care Provider initials if restricted _____

Rarely for up to 10 seconds at a time for up to 10 minutes total in a work shift while reaching for objects on high shelves.

Reaching at waist to shoulder height

Health Care Provider initials if restricted _____

Continuously & highly repetitive for up to 2 hours at a time for up to 7 hours total in a work shift, reaching for/returning objects to shelving, opening/closing file cabinets, writing on clipboard, driving, performing computer duties and manipulating documents.

Reaching at knee to waist height

Health Care Provider initials if restricted _____

Occasionally for up to 20 minutes at a time for up to 2 hours total in a work shift while manipulating samples, loading/unloading a County vehicle as well as opening/closing office drawers.

Reaching at floor to knee height

Health Care Provider initials if restricted _____

Occasionally for up to 10 minutes at a time for up to 1 hour total in a work shift. Most commonly occurs while obtaining equipment numbers as well as observing equipment and processes.

Lifting 1-10 pounds

Health Care Provider initials if restricted _____

Rarely to Occasionally for up to 1 minute at a time for up to 5-10 minutes total in a work shift. Most commonly occurs with weights of 5-10 pounds while manipulating samples, files, reference materials, books, site plans and logs.

Carrying 1-10 pounds

Health Care Provider initials if restricted _____

Occasionally for up to 10 minutes at a time for up to 1 hour total in a work shift. Most commonly occurs with weights of 2-7 pounds while transporting samples, files, reference materials, books, site plans and logs.

Lifting 11-20 pounds

Health Care Provider initials if restricted _____

Rarely for up to 5 seconds at a time for up to 5 minutes total in a work shift. Most commonly occurs with weights of 15-20 pounds while manipulating samples and portable flow meters. The employee may also lift a bag containing documents and a clipboard that weighs up to 20 pounds.

Carrying 11-20 pounds

Health Care Provider initials if restricted _____

Occasionally for distances of up to 20 feet for up to 1 minute at a time for up to 15 minutes total in a work shift. Most commonly occurs with weights of 15-20 pounds while transporting samples and flow meters.

Lifting 21-50 pounds

Health Care Provider initials if restricted _____

Rarely for up to 5 seconds at a time for up to 1 minute total in a work shift. Most commonly occurs with weights of up to 40-50 pounds while manipulating a large sample, polymer bag or a box of files.

Pushing and Pulling

Health Care Provider initials if restricted _____

Occasionally for up to 10 minutes at a time with a force of up to 20 pounds for up to 1 hour total in a work shift while using a cart, manipulating samples, moving reference materials and manipulating meters as well as opening and closing office and County vehicle doors.

Handling

Health Care Provider initials if restricted _____

Occasionally for up to 30 minutes at a time for up to 2 hours total in a work shift while driving, carrying samples meters, camera, field notebook, file boxes, books, code folders, site plans and site documents

Operating Controls with Hands

Health Care Provider initials if restricted _____

Occasionally for up to 30 minutes at a time for up to 2 hours total in a work shift while driving, operating meters, using the computer mouse and camera.

Fingering

Health Care Provider initials if restricted _____

Frequently for up to 1 hour at a time for up to 4 hours total in a work shift while performing computer duties, manipulating documents, using a camera, using meters and writing field notes.

Feeling

Health Care Provider initials if restricted _____

Rarely for up to 30 seconds at a time for up to 2 minutes total in a work shift while feeling equipment for proper operation such as flow and balance.

Talking

Health Care Provider initials if restricted _____

Occasionally to Frequently for up to 15 minutes at a time with for up to 2-4 hours total in a work shift while conversing with clients/vendors and co-workers, answering the telephone, and giving presentations.

Hearing

Health Care Provider initials if restricted _____

Continuously for up to 2.5 hours at a time for up to 7 hours total in a work shift while identifying safety sirens and alarms, listening for mechanical failures and conversing on the telephone and radio.

Seeing

Health Care Provider initials if restricted _____

Continuously for up to 2.5 hours at a time for up to 8 hours total in a work shift while reading documents, identifying potential hazards such as moving machinery and operating a computer.

Working with Heightened Awareness

Health Care Provider initials if restricted

Continuously for up to 2.5 hours at a time for up to 7 hours total in a work shift while working in a wastewater treatment facility. The employee works in the field 2-4 hours per day. Work is performed in a wastewater treatment plant which may include exposure to moving equipment, chlorine gas, raw sewage, etc.

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, eye protection, breathing protection and hard hats are required in some areas.

The noise level is

Approximately 40-120 decibels. The noise is caused by machinery.

HCP Initials if Restricted

Work environment may include the following exposure(s):

- Outside weather: Occasionally
- Wet: Rare to Occasionally
- Odors: Occasionally
- Dusts: Rare-Occasionally
- Mists: Rare
- Gases: Rare-Occasionally
- Moving mechanical parts: Occasionally
- Vibration: Occasionally
- Working in high, exposed places: Rarely

HCP Initials if Restricted

POTENTIAL MODIFICATIONS TO JOB

A cart is available to reduce carrying.
Temporary lifting modifications/lifting assistance.

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

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