

EMPLOYEE:

CLAIM #



# Job Analysis Form

ALTERNATE FORMAT AVAILABLE

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**JOB TITLE** Building Operating Engineer      **JOB CLASSIFICATION** Operating Engineer III

**DOT TITLE** Heating-And-Air-Conditioning Installer-Servicer

**DOT NUMBER** 637.261-014

**DEPARTMENT** Transportation

**DIVISION** Transit

**POSITIONS IN THE DEPARTMENT WITH THIS JOB TITLE** 7

**CONTACT'S NAME & TITLE** Stephanie Erickess, Transit Supervisor

**CONTACT'S PHONE** 206-684-2260

## ADDRESS OF WORKSITE

11911 East Marginal Way South, Building C  
Tukwila, WA 98168

**VRC NAME** Kyle Pletz

**DATE COMPLETED** 3/30/04

**VRC NAME** Jeff Casem

**DATE REVISED** 9/8/09

## WORK HOURS

40 hours per week, either four eight-hour days per week (6:00am-2:30pm) or four ten-hour shifts per week (6:00-4:30). Swing shift is 2:00pm-12:30am.

**OVERTIME** (Note: Overtime requirements may change at the employer's discretion)  
Rarely required but regularly offered to employee, based on seniority..

## JOB DESCRIPTION

This position performs skilled day to day operation, maintenance, troubleshooting, and repair of facility heating, ventilation, refrigeration and air condition (HVAC and related building systems).

## 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**

Three years of related journey level experience. Must have experience as a Steam Operating Engineer Class III or Refrigerating Operating Engineer. The employee must successfully obtain a City of Seattle license within 1 year of hire date. Must possess a valid driver's license and a valid handler certification (EPA 608-buy and handle refrigerants) upon employment.

## **ESSENTIAL FUNCTIONS**

1. Operates, maintains, troubleshoots, replaces and installs boilers, water heaters, air conditioning systems, chillers, heat pumps, air handlers, gas fired equipment and auxiliary equipment.
2. Inspects and services boilers, water heaters, air compressors, pneumatic and digital controls, thermostats, air filters and ducts, circulating pumps, air conditioning and heat pump system, chillers, paint booths, dust and chip collectors, water coolers, oil pressure indicators, cooling towers, blower fans and control panels to ensure proper operation.
3. Notes gauge readings and makes necessary adjustments or corrections.
4. Makes water tests and chemically treats boiler, condenser and chilled water systems.
5. Retrieves samples for environmental testing purposes.
6. Conducts routine overhaul and cleaning of boilers.
7. Repairs, packs and replaces valves, gauge glasses and fittings.
8. Installs pipe insulation.
9. Performs preventative maintenance in assigned areas, maintains operating logs and prepares reports.
10. Troubleshoots and repairs electrical control circuits for all types of HVAC equipment.
11. Uses desktop and laptop computer to access and operate Siemens Building Technologies DDC control system and related controls devices.
12. Performs other related duties as assigned.

## **PERSONAL PROTECTIVE EQUIPMENT USED**

Gloves, fall protection, respirator, dust mask, steel toe boots, ear protection, eye protection and safety vest.

## **OTHER TOOLS & EQUIPMENT USED**

Pumps, hand tools, power tools, refrigeration equipment/tools, laptop, desktop, tool pouch, compressors, digital multimeter, equipment lift, hand truck, vacuum pump, nitrogen bottles, tube puncher, filters, forklift, lifts, gas leak detector, refrigeration leak detector, temperature sensor, lubricants, flashlight hoses, van, gauges, scaffolding and ladders.

## **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 25-50 pounds of force frequently, and/or 10-20 pounds of force constantly.

**Standing**

Health Care Provider initials if restricted \_\_\_\_\_

Frequently on cement and roofing surfaces for up to 2 hours at a time for up to 4 hours total in a work shift. Most commonly occurs while working on HVAC equipment and reading gauges.

**Walking**

Health Care Provider initials if restricted \_\_\_\_\_

Occasionally to frequently on cement and roofing surfaces for distances of up to 300 feet for up to 30 minutes at a time for up to 2-3 hours total in a work shift. Most commonly occurs while traversing between work sites and the County van.

**Sitting**

Health Care Provider initials if restricted \_\_\_\_\_

Occasionally on and automobile seat or office chair for up to 30 minutes at a time for up to 2 hours total in a work shift. Most commonly occurs while driving a County van to various County locations or performing computer duties such as monitoring controls.

**Climbing stairs**

Health Care Provider initials if restricted \_\_\_\_\_

Occasionally for up to 1 minute at a time while climbing up to two flights for up to 30 minutes total in a work shift. Most commonly occurs while walking between work van and work site.

**Climbing**

Health Care Provider initials if restricted \_\_\_\_\_

Occasionally for up to 1 minute at a time to heights of 10-12 feet for up to 30 minutes total in a work shift. Most commonly occurs while climbing a ladder to access work areas and complete maintenance and repairs of HVAC equipment as well as replace filters. Anything over 12 feet is accessed via a high-lift.

**Balancing**

Health Care Provider initials if restricted \_\_\_\_\_

Occasionally for up to 1 minute at a time to heights of 10-12 feet for up to 30 minutes total in a work shift. Most commonly occurs while using a ladder to access work areas and complete maintenance and repairs of HVAC equipment. The employee also uses balance when performing duties near the edge of rooftops as well as working on heat pumps and chillers. Anything over 12 feet is accessed via a high-lift.

**Bending neck up**

Health Care Provider initials if restricted \_\_\_\_\_

Frequently for up to 15 minutes at a time for up to 3 hours total in a work shift. Most commonly occurs while performing rooftop preventative maintenance and equipment repair. Some equipment can be in elevated areas.

**Bending neck down**

Health Care Provider initials if restricted \_\_\_\_\_

Frequently for up to 15 minutes at a time for up to 3 hours total in a work shift. Most commonly occurs while performing rooftop preventative maintenance and equipment repair. Some equipment is at floor level.

**Bending/Stooping**

Health Care Provider initials if restricted \_\_\_\_\_

Frequently for up to 30 minutes at a time for up to 3 hours total in a work shift. Most commonly occurs while performing rooftop preventative maintenance and equipment repair such as bearings, and fan belts as well as when performing air handler work. Some equipment is at floor level.

**Kneeling**

Health Care Provider initials if restricted \_\_\_\_\_

Frequently for up to 30 minutes at a time for up to 3 hours total in a work shift. Most commonly occurs while performing rooftop preventative maintenance and equipment repair such as bearings, and fan belts as well as when performing air handler work. Some equipment is at floor level.

**Squatting**

Health Care Provider initials if restricted \_\_\_\_\_

Frequently for up to 30 minutes at a time for up to 3 hours total in a work shift. Most commonly occurs while performing rooftop preventative maintenance and equipment repair such as bearings, and fan belts as well as when performing air handler work. Some equipment is at floor level.

**Crawling**

Health Care Provider initials if restricted \_\_\_\_\_

Occasionally on rooftop, machinery, metal and ducting surfaces for distances of up to 25 feet for up to 5 minutes at a time for up to 2 hours total in a work shift. Most commonly occurs while crawling inside machinery to perform maintenance and repairs, crawling through tunnels and traversing access space to fan areas.

**Operating Controls with Feet**

Health Care Provider initials if restricted \_\_\_\_\_

Occasionally for up to 45 minutes at a time for up to 1.5 hours total in a work shift while driving a County van to and from various County facilities as well as when operating a forklift.

**Reaching above shoulder height**

Health Care Provider initials if restricted \_\_\_\_\_

Frequently for up to 5 minutes at a time for up to 5 hours total in a work shift while installing filters and performing maintenance and repairs of overhead ducts, vents and piping.

**Reaching at waist to shoulder height**

Health Care Provider initials if restricted \_\_\_\_\_

Continuously for up to 30 minutes at a time for up to 8 hours total in a work shift while manipulating gauges and filters as well as performing maintenance and repairs of HVAC equipment.

**Reaching at knee to waist height**

Health Care Provider initials if restricted \_\_\_\_\_

Occasionally for up to 1 minute at a time for up to 1 hour total in a work shift while performing maintenance and repairs of HVAC equipment.

**Reaching at floor to knee height**

Health Care Provider initials if restricted \_\_\_\_\_

Frequently for up to 30 minutes at a time for up to 3 hours total in a work shift. Most commonly occurs while performing rooftop preventative maintenance and equipment repair such as bearings, and fan belts as well as when performing air handler work. Some equipment is at floor level.

**Lifting 1-10 pounds**

Health Care Provider initials if restricted \_\_\_\_\_

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 1-9 pounds while manipulating hand tools equipment parts, tool pouch, laptop, screw gun, filters, hoses and tube puncher.

**Carrying 1-10- pounds**

Health Care Provider initials if restricted \_\_\_\_\_

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 1-9 pounds while transporting equipment parts and tools between the work area and County van.

**Lifting 11-20 pounds**

Health Care Provider initials if restricted \_\_\_\_\_

Occasionally for up to 5 minutes at a time for up to 30 minutes total in a work shift. Most commonly occurs with weights of 12-20 pounds height while manipulating a tool pouch or a ladder.

**Carrying 11-20 pounds**

Health Care Provider initials if restricted \_\_\_\_\_

Occasionally for up to 5 minutes at a time for distances of up to 300 feet for up to 30 minutes total in a work shift. Most commonly occurs with weights of while transporting equipment parts and tools between the work area and County van.

**Lifting 21-50 pounds**

Health Care Provider initials if restricted \_\_\_\_\_

Occasionally for up to 1 minutes at a time for up to 10 minutes total in a work shift. Most commonly occurs with weights of 30-40 pounds while manipulating ladders and vacuum pumps.

**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 total in a work shift. Most commonly occurs with weights of 30-40 pounds while transporting equipment parts, ladders and vacuum pumps between the work area and County van.

**Lifting 51-100 pounds**

Health Care Provider initials if restricted \_\_\_\_\_

Rarely for up to 10 seconds at a time for up to 3 minutes total in a work shift. Most commonly occurs with weights of 60 pounds while manipulating bottles of nitrogen.

**Pushing and Pulling**

Health Care Provider initials if restricted \_\_\_\_\_

Frequently with a force of 5-60 pounds for up to 2 minutes at a time for up to 3 hours total in a work shift while manipulating a compressor, equipment parts, tools boxes, motors, filters, tool bag, equipment lift and hand truck.

**Handling**

Health Care Provider initials if restricted \_\_\_\_\_

Continuously for up to 45 minutes at a time for up to 6 hours total in a work shift while driving a County van, using hand tools turning knob and performing equipment repair and maintenance.

**Operating Controls with Hands**

Health Care Provider initials if restricted \_\_\_\_\_

Frequently for up to 45 minutes at a time for up to 4 hours total in a work shift while driving a County van, using testers and gauges, turning knobs and performing equipment repair and maintenance.

**Fingering**

Health Care Provider initials if restricted \_\_\_\_\_

Continuously and highly repetitive for up to 5 minutes at a time for up to 6 hours total in a work shift turning knobs, tightening and loosening hoses, typing, writing and performing equipment repair and maintenance.

**Feeling**

Health Care Provider initials if restricted \_\_\_\_\_

Occasionally for up to 10 seconds at a time for up to 1 hour total in a work shift while feeling for hidden bolts as well as sensing temperature and vibrations of equipment.

**Talking**

Health Care Provider initials if restricted \_\_\_\_\_

Frequently for up to 10 minutes at a time for up to 3 hours total in a work shift while conversing with co-workers, superiors, vendors and customers.

**Hearing**

Health Care Provider initials if restricted \_\_\_\_\_

Frequently for up to 10 minutes at a time for up to 3 hours total in a work shift while listening for equipment malfunction, vacuum leaks and regular operative sounds as well as conversing with co-workers, superiors, vendors and customers.

**Seeing**

Health Care Provider initials if restricted \_\_\_\_\_

Continuously for up to 2 hours at a time for up to 8 hours total in a work shift while performing rooftop preventative maintenance and equipment repair.

**ENVIRONMENTAL FACTORS**

Work is performed in an industrial building setting with much of the work being performed outdoors on rooftops. The worker is exposed to outside weather and moving mechanical machinery. Work is performed on HVAC machinery so there is the potential exposure to refrigerants.

**The noise level is**

HCP Initials if Restricted

Approximately 40-80 decibels. The noise is caused by tools and machinery.

**Work environment may include the following exposure(s):**

HCP Initials if Restricted

- Outside weather: Frequent-continuous
- Non-weather related temperatures above 75 degrees: Occasionally
- Wet: Rare
- Humidity/dampness: Rare
- Fumes: Rare
- Odors: Continuous
- Dusts: Continuous
- Mists: Rare-Occasional
- Gases: Rare
- Moving mechanical parts: Continuous
- Vibration: Rare-Occasional
- Working in high, exposed places: Occasional
- Toxic or caustic chemicals: Rare

KING COUNTY JOB ANALYSIS COMPLETED ON: 3/30/04

JOB TITLE: Building Operating Engineer

EMPLOYEE:

DOT #: 637.261-014

CLAIM #

**POTENTIAL MODIFICATIONS TO JOB**

Lifting assistance is available via the help of co-workers on most occasions. Lifting equipment and hand truck are also available to assist in heavy lifting. High quality ergonomic knee pads could provide increased comfort during extended durations of kneeling.

### 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.

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Printed name & title of VRC evaluator

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Signature of VRC evaluator

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Date

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Printed name & title of contact

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Signature of contact

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Date

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Printed name & title of employee

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Signature of employee

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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