

Linda O'Neil - Wastewater Treatment Plant Operator

From: "Tom Traut" <tomtraut@functionalignergonomics.com>
To: "Linda O'Neil" <oneill@co.kern.ca.us>
Date: 6/26/2012 2:34 PM
Subject: Wastewater Treatment Plant Operator

Linda:

The Functional Capacity Evaluation is a battery of tests designed to measure performance in work related tasks. The tests to be performed and pass/fail score for each test should be taken directly from the Job Task Analysis to ensure validity and job relatedness. I would recommend the inclusion of the following job demands in a Pre-Placement FCE for the Wastewater Treatment Plant Operator.

1. Floor to 30" height Occasional Lift Test – 100 pounds
2. 30" top 60" height Occasional Lift Test – 50 pounds
3. Waist Height Carry 20 feet – 50 pounds
4. Pushing Force – 48" height horizontally – 100 pounds
5. Pulling Force – 48" height horizontally – 100 pounds
6. Stair climbing, ladder climbing, kneeling, reaching overhead, reaching forward, crouching, twisting, balance, and power grasp on an occasional basis.
7. Walking, stooping, forward bending, and sitting on a frequent basis.
8. Standing on a continuous basis.

Please feel free to reply with any questions.

Thomas B. Traut, M.Ed., RKT, CWCE
Functional Ergonomics, Inc.
4200 Truxtun Avenue, Suite 106
Bakersfield, CA 93309
Office Phone: 661-328-0692
Mobile Phone: 661-303-3474
Fax: 661-328-0791
www.functionalignergonomics.com

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JOB TASK ANALYSIS

Employer: The County of Kern
Location: The County of Kern Waste Water Treatment Plant
4101 Kimber Avenue
Bakersfield, CA
Job Title: Waste Water Treatment Plant Operator Trainee, I, II, III
Employer Contact: Linda O-Neil, Senior Personnel Analyst
Telephone: 868-3941
Analyst: Thomas B. Traut, M.Ed., RKT, CWCE
Functional Ergonomics
661-328-0692
Date: 1/25/2012

Introduction:

The County of Kern provided the General Work Description including the essential functions for this document. Functional Ergonomics documented the physical demands for this Job Task Analysis. The methodology for documentation consisted of an on-site visit using various measuring devices such as dynamometers, scales, and tape measures. Observation of job tasks and interviews with employees and managers was conducted.

General Work Description:

Trainee: Under direct supervision, to assist in the operation of a wastewater treatment plant and work as a member of the sewer maintenance crew.

Operator I: Under direct supervision to assist in the operation of a wastewater treatment plant and/or lead the sewer maintenance crew.

Operator II: Under general supervision, to be responsible for the overall operation of a wastewater treatment plant and/or lead the sewer maintenance crew.

Operator III: Under general direction to be responsible for the overall operations of a remote and/or complex wastewater treatment plant or serve as principal backup for the Chief Operator of a complex treatment plant.

Essential Job Functions:

The essential job functions for all positions in the Wastewater Treatment Plant Operator series include are detailed in the Job Descriptions for each position. The physical demands quantified in this report may be applied to the essential job functions shared by each position in the series.

Qualifications and Requirements:

See Job Description

PHYSICAL DEMANDS ANALYSIS

Percentages below are expressed in terms of the maximal amount of time that may be required in an 8 hour work day. This may vary significantly each day depending upon the tasks to be performed.

Not Required (NR)
0%

Occasional (O)
1-33%

Frequent (F)
34-66%

Constant (C)
67-100%

LIFTING – Floor to Waist							
WEIGHT	NR	O.	F	C	Objects	Low	High
1 - 25 LBS.		X			Tools, rakes, hoses, lime bags <i>Pump motors</i> Pumps parts and man hole covers		
26 - 50 LBS.		X					
51 - 75 LBS.		X					
76 - 100 LBS.		X					
100+ LBS.	X						
Job Duties / Comments: Manhole covers weighing up to 205 pounds are lifted off/on to manholes with assistance of a pry bar. Force of up to 100 lbs. is applied to the pry bar in all directions.							

LIFTING – Waist to Shoulder							
WEIGHT	NR	O.	F	C	Objects	Low	High
1 - 25 LBS.		X			Tools, rakes, hoses <i>pump motors</i>		
26 - 50 LBS.		X					
51 - 75 LBS.	X						
76 - 100 LBS.	X						
100+ LBS.	X						
Job Duties / Comments: Lifting from waist height to shoulder height is performed on the objects during performance of plant operation and maintenance tasks.							

CARRYING – Waist Height						
	NR	O	F	C	Objects	Distance
1 - 25 LBS.		X			Tools, rakes, hoses	
26 - 50 LBS.		X				
51 - 75 LBS.	X					
76 - 100 LBS.	X					
100+ LBS.	X					
Job Duties / Comments: Carrying is performed on the objects during performance of plant operation and maintenance tasks.						

PUSHING - MAX. FORCE							
	NR	O	F	C	Objects	Distance	
1 - 25 LBS.		X			Rakes, valves, hoses, brooms, tools		
26 - 50 LBS.		X					
51 - 75 LBS.		X			Hoses, valves, pry bars on manhole covers, pumps & motors		
76 - 100 LBS.		X			Hoses, valves, pry bars on manhole covers, pumps & motors		

Job Duties / Comments: Pushing is performed on the objects during performance of plant operation and maintenance tasks.

PULLING - MAX. FORCE

	NR	O	F	C	Objects	Distance
1 - 25 LBS.		X			Rakes, valves, hoses, brooms	
26 - 50 LBS.		X			Rakes, valves, hoses, brooms, tools	
51 - 75 LBS.		X			Hoses, valves, pry bars on manhole covers, pumps & motors	
76 - 100 LBS.		X			Hoses, valves, pry bars on manhole covers, pumps & motors, climbing vertical ladders	

Job Duties / Comments: Pulling is performed on the objects during the performance of plant operation and maintenance tasks.

SITTING

Frequency: Frequent

Job Duties/Comments: Sitting is performed while in the office and when operating vehicles.

STANDING

Frequency: Continuous

Job Duties/Comments: Standing is performed for sustained periods of time on a daily basis when inspecting the plant equipment, plant processes, and during performance of maintenance tasks.

WALKING

Frequency: Frequently

Job Duties/Comments: Walking is performed on even, uneven, dry, and wet surfaces on a daily basis when inspecting the plant equipment, plant processes, and during performance of maintenance tasks. Surfaces may be sloped as when on top of a storage tank.

STAIR CLIMB

Frequency: Occasional

Job Duties/Comments: Ascending and descending stairs is performed on a daily basis. Up to 40 stairs consecutively is required to reach the top of a storage tank.

LADDER CLIMBING

Frequency: Occasional

Job Duties/Comments: Ascending and descending ladders is required on a daily basis. Metal vertical ladders affixed to sides of concrete walls up to 30 feet are used. Six (6) foot step and 16 foot tension ladders are also used on an occasional basis. Climbing in/out/ and on top of the Vacuum Truck is required.

KNEELING

Frequency: Occasional

Job Duties/Comments: Kneeling is present when inspecting the plant equipment, plant processes, and during performance of maintenance tasks.

OVERHEAD REACH**Frequency:** Occasional**Job Duties/Comments:** Reaching above shoulder or head level is performed when inspecting the plant equipment, plant processes, and during performance of maintenance tasks.**FORWARD REACH****Frequency:** Occasional**Job Duties/Comments:** Reaching forward between waist and shoulder height is performed when inspecting the plant equipment, plant processes, and during performance of maintenance tasks.**STOOPING AND FORWARD BENDING****Frequency:** Frequent**Job Duties/Comments:** Stooping and forward bending at the waist is performed when inspecting the plant equipment, plant processes, and during performance of maintenance tasks.**SQUATTING / CROUCHING****Frequency:** Occasional**Job Duties/Comments:** Squatting is performed when inspecting the plant equipment, plant processes, and during performance of maintenance tasks.**TWISTING****Frequency:** Occasional**Job Duties/Comments:** The employee twists at the waist is performed when inspecting the plant equipment, plant processes, and during performance of maintenance tasks.**BALANCE****Frequency:** Occasional**Job Duties/Comments:** Static and dynamic balance is required above the normal levels of walking and standing when on uneven ground, slopes, and slippery surfaces.**POWER GRASPING****Frequency:** Occasional**Job Duties/Comments:** Power grasping is required when using tools, dragging hoses, opening/closing manhole covers, and during lifting.**FOREARM AND WRIST TURNING, FLEXING, EXTENDING****Frequency:** Occasional**Job Duties/Comments:** Required during use of hand tools, turning of valves, operation of hoses, etc.**FINE MANIPULATION AND MEDIUM DEXTERITY****Frequency:** Occasional**Job Duties/Comments:** Fine manipulation is required using hand tools, adjustment/operation of equipment, using fasteners, etc.

OTHER PHYSICAL DEMANDS	Never 0%	Occasional 1-33%	Frequent 34-66%	Constant 67-100%
NEAR VISION				X
FAR VISION				X
COLOR VISION				X
HEARING				X
Job Duties/ Comments: Color vision is required to identify wires, gauges, meters, etc. Hearing is required to identify proper function of motors and pumps.				