



Job Task Analysis

Employer:	Stanislaus County
Occupation:	Environmental Health Specialist
Classification:	I, II, III
Company Contact:	Risk Management 1010 10 th Street Modesto, California 95354 (209) 525-5770
Date:	October 2008
Analysis Provided By:	Lyle Andersen, PT, CWCE Andersen Physical Therapy, Inc. 3500 Coffee Road, Suite 3 Modesto, California 95355 (209) 549-4626

INTRODUCTION:

A complete job description is available through Stanislaus County Human Resources. The environmental factors, physical and functional demands for this Job Task Analysis were documented by Andersen Physical Therapy, Inc. The methodology for documentation consisted of on-site visits, using various measuring devices such as dynamometers and scales, as well as observation and interviews with employees and managers. A detailed record was made of the physical and functional demands of the job in terms of force pounds, weight, frequency, height, distance, anthropometric measurements, stamina, and degrees of range of motion. The determination of the frequencies of functional activities is based on standards provided by the National Institute for Occupational Safety and Health (NIOSH) and the Work Practice Guide for Manual Lifting (U.S. Department of Commerce, National Technical Information Service).

The Job Task Analysis is organized as follows: General work description; safety requirements; equipment; environmental factors; and physical/functional demands.

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GENERAL WORK DESCRIPTION:

The frequency of the following activities may vary according to the physical requirements of the specific job tasks that the employee may be required to perform at random intervals.

Under the general supervision of the department manager, the incumbent to this position conducts inspections and investigations in the enforcement of Environmental Health and Safety laws, rules and regulations for the Environmental Health and Solid Waste Division; and performs other related work as required.

SPECIFIC DUTIES: Available through the Human Resources Department at the County of Stanislaus.

<http://www.stancounty.com/riskmgmt/risk-dm-jta-class-sub-main.shtm>

Safety Requirements: All employees are required to observe company safety procedures and standards to insure individual and collective safety, in addition to avoiding unnecessary risk to oneself, co-workers, customers, and property.

Uniform:

- | | |
|----------------------------|--|
| 1. Hearing protection. | 7. Logo shirt. |
| 2. Eye protection. | 8. Badge. |
| 3. Hand wear protection. | 9. Hard hat. |
| 4. Respiratory protection. | 10. Miscellaneous protections and/or gear is available at hazardous material personnel sites, as required. |
| 5. Rubber boots. | |
| 6. Pepper spray. | |

Equipment:

- | | |
|--------------------------|--|
| 1. Alcohol swabs | 15. Measuring wheel |
| 2. Vehicle | 16. Mirror |
| 3. Calculator | 17. Mud scale |
| 4. Camera | 18. Pager |
| 5. Cell phone | 19. pH meter |
| 6. Computer (with mouse) | 20. Pool test kits |
| 7. Dog spray | 21. Rubber boots |
| 8. Flashlight | 22. Septic probe |
| 9. GPS | 23. Staple gun |
| 10. Hard hat | 24. Test strips (chlorine, pH, quaternary ammonia) |
| 11. Inspector spray | 25. Thermometers (probe, thermocouple, infrared) |
| 12. Level | 26. UV light |
| 13. Measuring tape | 27. Water sample bottles |

*All employees within the **Environmental Health Specialist** position are required to provide physical assistance for all weight and frequency requirement needs of all job tasks in order to maintain a safe work environment. Employees must be physically capable of working in any of the job tasks within the **Environmental Health Specialist** position.*

ENVIRONMENTAL FACTORS



The following percentages are given in terms of an eight-hour workday:

Seldom = 1% - 2%	Frequent = 34% - 66%
Occasional = 3% - 33%	Constant = 67% - 100%

	ENVIRONMENTAL FACTORS	MAXIMUM FREQUENCY
1.	Unprotected heights:	Not Applicable
2.	Being around moving machinery: traffic.....	Occasional
3.	Exposure to marked changes in temperature and humidity: outside temperatures may seasonally vary between 28-110 degrees.	Occasional
4.	Exposure to dust, fumes, smoke, gases, or other irritating substances (specify):	Seldom
5.	Driving: vehicle.....	Not Applicable
6.	Exposure to excessive noise:..... <i>Hearing protection is available</i>	Not Required
7.	Exposure to radiant or electrical energy:.....	Not Applicable
8.	Exposure to solvents or chemicals:..... <i>Refer to MSDS document.</i>	Seldom
9.	Exposure to slippery or uneven walking surfaces:.....	Occasional
10.	Working below ground:.....	Not Applicable
11.	Unusual fatigue factors:	Not Applicable
12.	Working with explosives:.....	Not Applicable
13.	Excessive vibration:	Not Applicable
14.	Working with hands in water or other substance:..... <i>Hand protection is available</i>	Seldom
15.	Working proximity:..... Alone: Closely with others:	Frequent Occasional
16.	Working inside:.....	Frequent
17.	Working outside:.....	Frequent

FUNCTIONAL ACTIVITIES



The frequency of the following activities may vary according to the physical requirements of the specific job tasks the employee may be required to perform at random intervals.

PHYSICAL AND FUNCTIONAL REQUIREMENTS

<u>FREQUENCY DEFINITIONS</u>	<u>SELDOM</u>	<u>OCCASIONAL</u>	<u>FREQUENT</u>	<u>CONSTANT</u>
Percent of the Day	1-2%	3-33%	34-66%	67-100%
Material Handling	1-4 Reps	5-32 Reps	33-250 Reps	251-2,000 Reps
Non Material Handling	1-4 Reps	5-32 Reps	33-250 Reps	251-2,000 Reps
Repetitive & Static Work	1-50 Reps	51-250 Reps	251-1,000 Reps	1,001-20,000 Reps

1.) **PUSH:** *Pushing activities may require use of the back in conjunction with leg and arm musculature.*

MAXIMUM REQUIREMENT

0-10 pounds:	Occasional		
11-25 pounds:	Seldom		
26-100 pounds:	Not Required	Maximum Force:	<u>15</u> Pounds

Assistive Devices: Travel cart. Additionally, one person assistance is available with forces greater than 15 pounds.

Comments: Pushing is utilized with activities such as retrieving, returning, storing, adjusting, moving and/or transporting equipment and supplies (e.g. environmental health educational materials; door). The employee exerts up to 15 pounds of force in a horizontal plane from waist to shoulder height of a distance up to 3 feet when performing job tasks (e.g. push up to 15 pounds force when traveling with a 2-wheeled cart; open/close door, drawer, file; T-bar probing).

2.) **PULL:** *Pulling activities may require use of the back in conjunction with leg and arm musculature.*

MAXIMUM REQUIREMENT

0-10 pounds:	Occasional		
11-25 pounds:	Seldom		
26-100 pounds:	Not Required	Maximum Force:	<u>15</u> Pounds

Assistive Devices: Travel cart. Additionally, one person assistance is available with forces greater than 15 pounds.

Comments: Pulling is utilized with activities such as retrieving, returning, storing, adjusting, moving, and/or transporting equipment and supplies (e.g. environmental health educational materials; door). The employee exerts up to 15 pounds of force in a horizontal plane from waist to shoulder height of a distance up to 400+ feet when performing job tasks (e.g. pull up to 15 pounds of force traveling with a 2-wheeled cart; open/close door, drawer, file; T-bar probing). *Pushing is the preferred method of moving carts.*

3.) **STAND-UP LIFT:** *Lifting weighted objects between floor and waist height.***MAXIMUM REQUIREMENT**

0-100 pounds: Not Required **Maximum Force:** 0 Pounds

Assistive Devices: Not required.

Comments: A stand-up lift is not required to perform job tasks.

4.) **LEVEL LIFT:** *Lifting weighted objects from between waist and chest height level for a maximum horizontal distance of up to four feet.***MAXIMUM REQUIREMENT**

0-10 pounds: Occasional
11-100 pounds: Not Required **Maximum Force:** 10 Pounds

Assistive Devices: Not required. Additionally, one or more person(s) assistance is available with weights greater than 10 pounds.

Comments: A level lift is utilized with activities such as retrieving, returning, storing, adjusting, moving, and/or transporting equipment, and supplies (e.g. testing devices, educational material; files). The employee lifts items weighing between <1 pounds and 10 pounds up to 36 inches in height when performing job tasks (e.g. lift up to 10 pound files, documents, notices, thermometers, septic probe, level, measuring tape, cellular phone, camera).

5.) **WEIGHT CARRY:** *Carrying weighted objects between waist and chest height beyond a distance of four feet.***MAXIMUM REQUIREMENT**

0-10 pounds: Occasional
11-100 pounds: Not Required **Maximum Force:** 10 Pounds

Assistive Devices: Travel cart. Additionally, one or more person(s) assistance is available with weights greater than 10 pounds.

Comments: Weight carry is not required to perform job tasks. The employee carries items weighing between <1 pounds and 10 pounds between 5 feet and 200+ feet when performing job tasks (e.g. lift up to 10 pound files, documents, notices, thermometers, septic probe, level, measuring tape, cellular phone, camera).

6.) **OVERHEAD LIFT/PULL DOWN:** *Lifting weighted object from/to chest and overhead height level.***MAXIMUM REQUIREMENT**

0-100 pounds: Not Required **Maximum Force:** 0 Pounds

Assistive Devices: A vertical ladder, step ladder or step stool is available to bring items to eye or shoulder level.

Comments: Overhead lift/pull down is not required to perform job tasks. *Variables to overhead reaching will be the employee's height and anthropometric reach.*

7.) **OVERHEAD REACH:**

MAXIMUM FREQUENCY: Not Required

Comments: Overhead reach is not required to perform job tasks. *A ladder (appropriate height) or step stool may be utilized to bring items to eye or shoulder level. Variables to overhead reaching will be the employee's height and anthropometric reach.*

8.) **FORWARD REACH:**

**MAXIMUM
FREQUENCY:** Frequent

Comments: Forward reach is performed to a distance of 28 inches when inspecting, investigating, retrieving, returning, adjusting, equipment, controls, and supplies (e.g. reach in order to perform environmental testing with thermometer, chemical test equipment, flash light, camera, probes; drive vehicle; office work). *The degree of elbow extension required for reaching will vary according to the employee's anthropometric reach.*

9.) **STOOP:**

**MAXIMUM
FREQUENCY:** Occasional

Comments: Stooping is performed when inspecting, investigating, retrieving, returning, adjusting, equipment, controls, and supplies (e.g. stoop to reach below waist height in order to perform environmental testing with thermometer, chemical test equipment, flash light, camera, probes; drive vehicle; office work). *Variable to stooping will be the employee's height. Stooping of the head, trunk and knees can be minimized or avoided by substituting alternate positions of squatting, kneeling or bending when performing job tasks.*

10.) **SQUAT: (Unloaded)**

**MAXIMUM
FREQUENCY:** Seldom

Comments: Squatting is performed when inspecting, investigating, retrieving, returning, storing, adjusting, equipment, controls, , and supplies (e.g. squat to reach below waist height in order to perform environmental testing). *Squatting may be minimized or avoided by substituting alternate positions of bending or kneeling. Partial squatting is a preferred lifting posture.*

11.) **FORWARD BEND:**

**MAXIMUM
FREQUENCY:** Occasional

Comments: Bending forward at the waist is performed when inspecting, investigating, retrieving, returning, storing, adjusting, equipment, controls, , and supplies (e.g. bend to reach near or far below waist height on order to perform environmental testing). *Maximum forward trunk flexion required is 60 degrees. Employee may avoid excessive forward bending of the trunk up to 80 degrees by using alternate positions of bending at the hips, kneeling, half kneeling, stooping, sitting or squatting.*

12.) **TWIST:**

**MAXIMUM
FREQUENCY:** Seldom

Comments: Twisting at the waist is performed when inspecting, investigating, retrieving, returning, storing, adjusting, equipment, controls, , and supplies (e.g. twist in order to perform environmental testing; climb in/out of vehicle; work site surveillance; drive vehicle). *Twisting at the waist may be minimized by turning the whole body, including the feet and working from a swivel chair.*

13.) **TURN:**

**MAXIMUM
FREQUENCY:** Occasional

Comments: Turning is performed when inspecting, investigating, retrieving, returning, storing, adjusting, equipment, controls, , and supplies (e.g. turn in order to perform environmental testing; work site surveillance).

14.) **KNEEL:**

**MAXIMUM
FREQUENCY:** Seldom

Comments: Kneeling is performed when retrieving, returning, storing, adjusting, inspecting, investigating, equipment, controls, and supplies (e.g. kneel in order to perform environmental testing). *Kneeling may be minimized or avoided by substituting alternate positions of bending, squatting, or half kneeling.*

15.) **CRAWL:**

**MAXIMUM
FREQUENCY:** Not Required

Comments: Crawling is not required.

16.) **STAIR CLIMB:**

**MAXIMUM
FREQUENCY:** Seldom

Comments: Stair climb is required in order to go to/from basements, two or more story buildings, entrance to buildings). Maximum number of 24 steps is climbed.

17.) **LADDER CLIMB:**

**MAXIMUM
FREQUENCY:** Not Required

Comments: Ladder climbing is not required to perform job tasks. *Variables to overhead climbing will vary according to the employee's height and anthropometric reach.*

18.) **WALK:**

**MAXIMUM
FREQUENCY:** Frequent

Comments: Walking is performed when inspecting and investigating (e.g. walk to/from office/vehicle, vehicle/ inspection sites; permit inspection for public bathing areas; water supply wells; septic systems; complaint sites; surveillance; into/out of leach fields; on/off septic tanks; uneven and underdeveloped ground surfaces; embankments and slopes). Walking length varies between 3 feet and 600+ feet depending on job task.

19.) **SIT:**

**MAXIMUM
FREQUENCY:** Frequent

Comments: Sitting is required to perform job tasks (e.g. sit in order to perform desk work; drive vehicle; meetings; training sessions). *Specific work tasks may require up to frequent standing and/or walking.*

20.) **STAND: (Static)**

**MAXIMUM
FREQUENCY:** Occasional

Comments: Static standing is required to perform job tasks (e.g. stand during on-site inspection and/or investigation; surveillance; collaborating with outside agency and/or colleague). *Specific work tasks may require up to frequent sitting and/or walking.*

21.) **BALANCE:**

**MAXIMUM
FREQUENCY:** Frequent

Comments: Good balance is required for safe walking, standing, climbing, reaching and lifting.

22.) **HAND/FOOT CONTROL:**

<u>MAXIMUM REQUIREMENT</u>	
HAND:	
Right:	Occasional
Left:	Occasional
Both:	Occasional
Either:	Not Required
FOOT:	
Right:	Occasional
Left:	Seldom
Both:	Not Required
Either:	Not Required

Comments: Hand controls are utilized to operate equipment (e.g. vehicle) when operating, equipment, (e.g. drive vehicle). Foot controls are utilized to operate equipment (e.g. drive vehicle).

23.) UPPER AND LOWER EXTREMITY COORDINATION:

<u>MAXIMUM REQUIREMENT</u>	
Simple Grasp:	Occasional
Firm Grasp:	Occasional
Fine Manipulation:	Frequent
Eye/Hand Coordination:	Frequent
Hand/Foot Coordination:	Occasional

Comments: Grasping and coordination activities are performed when retrieving, returning, storing, adjusting, transporting equipment, testing devices, and supplies (e.g. monitoring environmental sites; office work; drive vehicle).

Simple grasping is utilized to perform job tasks (e.g. lift and manipulate objects less than 5 pounds; handle miscellaneous office items and test equipment).

Firm grasping is utilized to perform job tasks (e.g. lift and handle objects 5 pounds or greater; drive vehicle, T-bar probe).

Fine manipulation is utilized to perform job tasks (e.g. keyboard, mouse, handwrite, page turn, sort and file, pour, measure).

Eye/hand coordination is utilized to perform job tasks (e.g. drive vehicle, keyboard, mouse, handwrite, page turn, sort and file, pour, measure).

Hand/foot coordination is utilized to perform job tasks (e.g. drive vehicle).

Depending on individual hand dominance, one hand may be used more frequently than the other when performing job tasks.

24.) CERVICAL (NECK) MOVEMENT:

<u>MAXIMUM REQUIREMENT</u>	
Static Neutral Position:	Frequent
Flexing:	Occasional
Rotating:	Occasional
Extending:	Seldom

Comments: Neck movement is required when performing job tasks (e.g. office work, environmental inspection and/or investigation; surveillance; customer consultation and/or complaint response; drive vehicle). *Participating in observation of work environment allowing for safe working conditions. Full cervical range of motion is required to safely perform the job tasks.*

{End of Report}



Stanislaus County

JOB TASK ANALYSIS SUMMARY

<u>FREQUENCY DEFINITIONS</u>	<u>SELDOM</u>	<u>OCCASIONAL</u>	<u>FREQUENT</u>	<u>CONSTANT</u>
Percent of the Day	1-2%	3-33%	34-66%	67-100%
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Non Material Handling	1-4 Reps	5-32 Reps	33-250 Reps	251-2,000 Reps
Repetitive & Static Work	1-50 Reps	51-250 Reps	251-1,000 Reps	1,001-20,000 Reps

The following is a summary of the physical demands of the Job Task Analysis that were obtained for the position of:

ENVIRONMENTAL HEALTH SPECIALIST

Functional Activities	Maximum Requirements	Functional Activities	Maximum Requirements
<i>Push (Force)</i> ¹	15 pounds	<i>Stair Climb</i> ¹	Seldom
<i>Pull (Force)</i> ¹	15 pounds	<i>Ladder Climb</i>	Not Required
<i>Stand Up Lift</i> ¹	0 pounds	<i>Walk</i> ¹	Frequent
<i>Level Lift</i> ¹	10 pounds	<i>Sit</i> ¹	Frequent
<i>Weight Carry</i> ¹	10 pounds	<i>Stand (Static)</i> ¹	Occasional
<i>Overhead Lift/Pull Down</i>	0 pounds	<i>Balance</i> ¹	Frequent
<i>Overhead Reach</i>	Not Required	<i>Hand Control</i> ¹	Occasional
<i>Forward Reach</i> ¹	Frequent	<i>Foot Control</i> ¹	Occasional
<i>Stoop</i> ¹	Occasional	<i>Simple Grasp</i> ¹	Occasional
<i>Squat (Unloaded)</i> ¹	Seldom	<i>Firm Grasp</i> ¹	Occasional
<i>Forward Bend</i> ¹	Occasional	<i>Fine Manipulation</i> ¹	Frequent
<i>Twist</i> ¹	Seldom	<i>Eye/Hand Coordination</i> ¹	Frequent
<i>Turn</i> ¹	Occasional	<i>Hand/Foot Coordination</i> ¹	Occasional
<i>Kneel</i> ¹	Seldom	<i>Cervical (neck) Movement</i> ¹	Frequent
<i>Crawl</i>	Not Required		

¹ The critical demands of the job.

Lyle Andersen, PT

 Lyle Andersen, PT, CWCE
 Preparer Signature

 Contact Person
 Title

 Contact Person
 Title

 Contact Person
 Title

LA/au