



JOB TASK ANALYSIS

Employer:	Stanislaus County
Occupation:	Agricultural /Weights and Measures Inspector I, II, III
Company Contact:	CEO-Recruitment Unit
Date:	June 2013

Analysis Provided By: Lyle Andersen, PT, CWCE
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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 Agricultural/Weights and Measures Inspector I, II, III may be appointed to work in either the Weights and Measures or Agricultural Inspection area. While the primary focus of incumbents will be in either Weights and Measures or Agricultural Inspection, they will be required to perform any of the typical tasks listed below, in either area. Incumbents perform a wide variety of inspections and investigations.

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.

Equipment:

- | | |
|--|---|
| 1. Air Compressor | 21. Pry bar |
| 2. Bee smoker-hive tool | 22. Refractometer |
| 3. Briefcase | 23. Retail dispenser test vehicle and equipment |
| 4. Code Book | 24. Scales |
| 5. Computer and accessories | 25. Seed pan and probe |
| 6. Egg candler | 26. Shovel |
| 7. Electric meter test unit | 27. Small hand tools |
| 8. Forklift | 28. Stop watch |
| 9. Hand carts | 29. Tape measures |
| 10. Heavy capacity weight truck with hoist | 30. Telephone |
| 11. Jeep and trailer | 31. Tie-down ratchet |
| 12. Measuring wheel (distance) | 32. Vapor meter test unit |
| 13. Melon knife-machete | 33. Vapor recovery test unit |
| 14. Micrometer | 34. Vehicle |
| 15. Microscope | 35. Vehicle trailers |
| 16. Motorized cart | 36. 1 milligram -1000 pound test weights |
| 17. Petroleum test equipment | 37. ¼ to 1 cubic yard measures |
| 18. Pick-up trucks | 38. 2-wheel hand cart |
| 19. PUE safety equipment respirator | 39. 4-wheeled flatbed hand cart |
| 20. Produce knife | |

*All employees within the **Agricultural Weights and Measures Inspector I, II, III** 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 **Agricultural Weights and Measures Inspector I, II, III** position.*

ENVIRONMENTAL FACTORS

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

Seldom = 1% - 2%
Occasional = 3% - 33%

Frequent = 34% - 66%
Constant = 67% - 100%

ENVIRONMENTAL FACTORS		MAXIMUM FREQUENCY
1.	Unprotected heights: weight truck bed, ladder	Occasional
2.	Being around moving machinery: vehicle traffic, farm equipment	Frequent
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): fuel, pesticide, protective clothing is available	Seldom
5.	Driving: vehicle	Occasional
6.	Exposure to excessive noise:..... <i>Hearing protection is available</i>	Not Applicable
7.	Exposure to radiant or electrical energy:..... electrical meters	Seldom
8.	Exposure to solvents or chemicals:..... <i>Refer to MSDS document.</i>	Occasional
9.	Exposure to slippery or uneven walking surfaces:..... spills, undeveloped ground	Occasional
10.	Working below ground:.....	Not Applicable
11.	Unusual fatigue factors:	Not Applicable
12.	Working with explosives:..... petroleum, LPG	Occasional
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:	Constant Constant
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	
26-35 pounds:	Seldom	
36-50 pounds:	Seldom	
51-100 pounds:	Not Required	Maximum Force: 50 Pounds

Assistive Devices: 4-Wheel Cart, Hand Truck. Additionally, one person's assistance is available with forces greater than 50 pounds.

Comments: Pushing is utilized with activities such as retrieving, returning, storing, adjusting, moving, and/or transporting equipment and supplies (e.g. cart, hand truck, weight holder). The employee exerts up to 50 pounds of force in a horizontal plane from waist to shoulder height of a distance up to 50+ feet when performing job tasks (e.g. travel cart to/from work sites; open/close door/gate).

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	
26-35 pounds:	Seldom	
36-50 pounds:	Seldom	
51-100 pounds:	Not Required	Maximum Force: 50 Pounds

Assistive Devices: 4-Wheel Cart, Hand Truck. Additionally, one or more person(s) assistance is available with forces greater than 50 pounds.

Comments: Pulling is utilized with activities such as retrieving, returning, storing, adjusting, moving and/or transporting equipment, controls, merchandise and supplies (e.g. cart, hand truck, weight holder).

The employee exerts up to 50 pounds of force in a horizontal plane between waist and shoulder height of a distance up to 50 feet when performing job tasks (e.g. travel with cart to/from work sites; open/close door/gates).

Pushing is the preferred method of moving carts.

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

0-10 pounds:	Occasional	
11-25 pounds:	Occasional	
26-35 pounds:	Seldom	
36-50 pounds:	Seldom	
51-100 pounds:	Not Required	Maximum Force: 50 Pounds

Assistive Devices: One or more person(s) assistance is available with weights greater than 50 pounds.

Comments: A stand-up lift is utilized with activities such as retrieving, returning, storing, adjusting, moving and/or transporting equipment, controls, merchandise and supplies (e.g. document, files, sacks, steel weights, meters).

The employee lifts items weighing between <1 pound and 50 pounds from/to the floor when performing job tasks (e.g. up to 50-pound measuring weights; up to 50-pound sack or boxed rodent bait; 32-pound egg baskets; 46-pound 5-gallon petroleum measures; up to 30-pound vapor meter; 25-pound weight satchel; 45-pound box of storage data, files).

Safe lifting is performed by utilizing a posture of partial squatting and a straight back.

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:	Frequent	
11-25 pounds:	Frequent	
26-35 pounds:	Frequent	
36-50 pounds:	Occasional	
51-100 pounds:	Not Required	Maximum Force: 50 Pounds

Assistive Devices: Forklift, 4-Wheel Cart, Hand Truck. Additionally, one or more person(s) assistance is available with weights greater than 50 pounds.

Comments: A level lift is utilized with activities such as retrieving, returning, storing, adjusting, moving and/or transporting equipment, controls, merchandise and supplies (e.g. document, files, sacks, steel weights, meters).

The employee lifts items weighing between <1 pound and 50 pounds when performing job tasks (e.g. up to 50-pound measuring weights; up to 50-pound sack or boxed rodent bait; 32-pound egg baskets; 46-pound 5-gallon petroleum measures; up to 30-pound vapor meter; 25-pound weight satchel; 45-pound box of storage data files; 3-ring binders, briefcase; up to 25-pound barricade sign).

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

<u>MAXIMUM REQUIREMENT</u>	
0-10 pounds:	Occasional
11-25 pounds:	Occasional
26-35 pounds:	Seldom
36-100 pounds:	Not Required
Maximum Force: 35 Pounds	

Assistive Devices: Forklift, 4-Wheel Cart, Hand Truck. Additionally, one or more person(s) assistance is available with weights greater than 35 pounds.

Comments: Weight Carry is utilized with activities such as retrieving, returning, storing, adjusting, moving and/or transporting equipment, controls, merchandise and supplies (e.g. bait, sack, sign). The employee carries items weighing between <1 pound and 35 pounds between 5 feet and 50+ feet when performing job tasks (e.g. up to 10-pound sack of vertebrate pest bait; up to 30-pound satchel of weight testing components; up to 25-pound barricade sign).

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

<u>MAXIMUM REQUIREMENT</u>	
0-10 pounds:	Occasional
11-100 pounds:	Not Required
Maximum Force: 10 Pounds	

Assistive Devices: A vertical ladder, step ladder or step stool is available to bring items to eye or shoulder level. Additionally, one or more person(s) assistance is available with weights greater than 10 pounds.

Comments: Overhead lift/pull down is utilized with activities such as retrieving, returning, storing, adjusting, moving and/or transporting equipment, controls, merchandise and supplies (e.g. petroleum truck, testing components, traps). The employee lifts items weighing between <1 pound and 10 pounds to a maximum height of 72 inches when performing job tasks (e.g. retail motor fuel testing of gasoline nozzle pumps; climb in/out of truck; miscellaneous stored items; insect traps).

Variables to overhead reaching will be the employee’s height and anthropometric reach.

7.) **OVERHEAD REACH:**

MAXIMUM FREQUENCY:	Occasional
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Comments: Overhead reach is performed to a maximum height of 72 inches when retrieving, returning, storing, adjusting, moving and/or transporting equipment, controls, merchandise and supplies (e.g. fruit inspection; motor fuel dispenser testing).

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 up to a distance of 32 inches when manipulating, handling, retrieving, returning, storing, adjusting, moving and/or transporting equipment, controls, merchandise and supplies (e.g. handle and inspect agricultural commodities; measuring and weighing device testing; desktop work; drive vehicle).

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 retrieving, returning, storing, adjusting, moving and/or transporting equipment, controls, merchandise and supplies (e.g. testing and weighing of commodities; obtaining soil temperature; inspecting agricultural commodities; reaching into lower file cabinets and shelves; pre-trip truck check; inspect petroleum product; vapor meter reading; open/close underground fuel tanks).

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:** Not Required

Comments: Squatting is not required to perform job tasks

Squatting may be minimized or avoided by substituting alternate positions of bending, stooping, sitting, kneeling or half kneeling. Partial squatting is a preferred lifting posture.

11.) FORWARD BEND:**MAXIMUM
FREQUENCY:** Frequent

Comments: Bending forward at the waist is performed when retrieving, returning, storing, adjusting, moving and/or transporting equipment, controls, merchandise and supplies (e.g. testing and weighing of commodities; obtaining soil temperature; inspect agricultural commodities; reaching into lower file cabinets and shelves; pre-trip truck check; operating valves and lever, lift miscellaneous items to/from vehicles; inspect petroleum product; vapor meter reading; open/close underground fuel tanks).

Maximum forward trunk flexion required is 60 degrees. *Employee may minimize or 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:** Occasional

Comments: Twisting at the waist is performed when retrieving, returning, storing, adjusting, moving and/or transporting equipment, controls, merchandise and supplies (e.g. testing and weighing of commodities; obtaining soil temperatures; inspecting agricultural commodities; reaching into lower file cabinets and shelves; pre-trip truck check; inspect petroleum product; vapor meter reading; open/close underground fuel tanks).

Twisting at the waist may be minimized by turning the whole body, including the feet and working from a swivel office chair.

13.) **TURN:**

**MAXIMUM
FREQUENCY:** Occasional

Comments: Turning is performed when retrieving, returning, storing, adjusting, moving and/or transporting equipment, controls, merchandise and supplies (e.g. testing and weight of commodities; inspect agricultural commodities; reaching into lower file cabinets and shelves; pre-trip truck check; operating valves and lever; lift miscellaneous items to/from vehicles).

14.) **KNEEL:**

**MAXIMUM
FREQUENCY:** Occasional

Comments: Kneeling is performed when performing job tasks such as retrieving, returning, storing, adjusting, moving and/or transporting equipment, controls, merchandise and supplies (e.g. obtain pest or chemical samples from agricultural commodities; inspect underground fuel storage tanks).

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 to perform job tasks.

16.) **STAIR CLIMB:**

**MAXIMUM
FREQUENCY:** Seldom

Comments: Stair climb is required in order to go to/from the upper level floors for inspection. Maximum number of 24 steps is climbed.

17.) **LADDER CLIMB:**

**MAXIMUM
FREQUENCY:** Occasional

Comments: Ladder climbing is performed onto/off of safety ladders or steps to access equipment, merchandise and supplies (e.g. truck cab and bed, rail car) located 12+ feet above floor level (e.g. climb to/from weight and measure truck up to 60-inches in height; sampling and detecting insect on top of rail car cargo, tote trailers).

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 retrieving, returning, storing, adjusting, moving and/or transporting equipment, controls, merchandise and supplies (e.g. to/from office, vehicle, inspection, collect samples for investigations; survey, measure and weight testing).

Walking length varies between 3 feet and 600+ feet depending on job task.

19.) **SIT:**

**MAXIMUM
FREQUENCY:** Frequent

Comments: Sitting is performed for a maximum of 120-minute intervals when retrieving, returning, storing, adjusting, moving and/or transporting equipment, controls, merchandise and supplies (e.g. meetings, drive vehicle, seminars; desktop work; operate forklift; weight mover).

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

**MAXIMUM
FREQUENCY:** Occasional

Comments: Static standing is performed for a maximum of 15-minute intervals when adjusting and/or observing scales, equipment and controls (e.g. test with weights and measurements; site inspection; customer service at reception counter).

Specific work tasks may require up to frequent sitting and/or walking.

21.) **BALANCE:**

**MAXIMUM
FREQUENCY:** Frequent

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

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

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

Comments: Hand controls are utilized to operate equipment (e.g. vehicle, weight mover, forklift, test equipment, vapor meter, microscope) when retrieving, returning, storing, adjusting, moving and/or transporting equipment, controls, merchandise and supplies (e.g. drive to/from inspection sites, perform weight and measure inspection; tie-down ratchet). Foot controls are utilized to operate equipment (e.g. vehicle, weight mover, forklift).

23.) **UPPER AND LOWER EXTREMITY COORDINATION:**

<u>MAXIMUM REQUIREMENT</u>	
Simple Grasp:	Frequent
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, moving and/or transporting product, equipment, controls, merchandise and supplies (e.g. testing equipment, drive; desktop work).

Simple grasping is utilized to perform job tasks (e.g. lift and manipulate objects weighing less than 5 pounds; sample collection, drive vehicle, operate testing equipment, laboratory work).

Firm grasping is utilized to perform job tasks (e.g. lift and handle objects weighing 5 pounds or greater; drive vehicle, climb ladder).

Fine manipulation is utilized to perform job tasks (e.g. keyboard, mouse, handwriting, 10-key, egg handle, calibrating equipment, page turn, perforation tear, laboratory work).

Eye/hand coordination is utilized to perform job tasks (e.g. drive vehicle, test, keyboard, mouse, handwriting, laboratory, work).

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

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. desktop work, pest surveillance, weight and measure inspection , drive vehicle).

Participation in the observation of the work environment allows 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>
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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:

Agricultural/Weights and Measures Inspector I, II, III

Functional Activities	Maximum Requirements	Functional Activities	Maximum Requirements
<i>Push (Force)</i> ¹	50 pounds	<i>Stair Climb</i> ¹	Seldom
<i>Pull (Force)</i> ¹	50 pounds	<i>Ladder Climb</i> ¹	Occasional
<i>Stand Up Lift</i> ¹	50 pounds	<i>Walk</i> ¹	Frequent
<i>Level Lift</i> ¹	50 pounds	<i>Sit</i> ¹	Frequent
<i>Weight Carry</i> ¹	35 pounds	<i>Stand (Static)</i> ¹	Occasional
<i>Overhead Lift/Pull Down</i>	10 pounds	<i>Balance</i> ¹	Frequent
<i>Overhead Reach</i> ¹	Occasional	<i>Hand Control</i> ¹	Frequent
<i>Forward Reach</i> ¹	Frequent	<i>Foot Control</i> ¹	Frequent
<i>Stoop</i> ¹	Occasional	<i>Simple Grasp</i> ¹	Frequent
<i>Squat (Unloaded)</i>	Not Required	<i>Firm Grasp</i> ¹	Occasional
<i>Forward Bend</i> ¹	Frequent	<i>Fine Manipulation</i> ¹	Frequent
<i>Twist</i> ¹	Occasional	<i>Eye/Hand Coordination</i> ¹	Frequent
<i>Turn</i> ¹	Occasional	<i>Hand/Foot Coordination</i> ¹	Occasional
<i>Kneel</i> ¹	Occasional	<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

Date: _____

W. G. Ok

 Contact Person
 Title

Date: 9-10-13

 Contact Person
 Title

Date: _____

 Contact Person
 Title

Date: _____

LA/yr