



JOB TASK ANALYSIS

Employer:	Stanislaus County
Occupation:	Senior Multilith Operator
Company Contact:	CEO-Recruitment Unit
Date:	June 2001

Analysis Provided By: Lyle Andersen, PT, CWCE
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INTRODUCTION:

The job description for this document was provided by Stanislaus County. The environmental factors, physical and functional demands for this Job Task Analysis were documented by Andersen & Baim 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 are 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 and specific duties; safety requirements; uniform/equipment; required job-related knowledge, education, ability, and experience; union; 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 Senior Multilith Operator operates off-set printing machines and related equipment in the reproduction of forms, charts, letters, envelopes and other material, prepares plates and makes up material for press runs.

SPECIFIC DUTIES:

- 1.) Operates, services and makes minor repairs to off-set printing presses and other machines and equipment used in the Central Services Printing Division.
- 2.) Prepares and duplicates the more difficult job assignments.
- 3.) Examines mats and plates for defects and smears.
- 4.) Makes corrections and prepares the more difficult material for duplicating.
- 5.) Performs process camera work such as halftones and the more complex tasks.
- 6.) Opaques and mask negatives.
- 7.) Makes plates using exposure frame developing fluids.
- 8.) Removes mats and plates, cleans and prepares for preservation.
- 9.) Maintains files of mates, plates and duplicated material.
- 10.) Mixes and matches ink.
- 11.) Communicates with various County departments regarding printing needs.
- 12.) Sets up and operates mail inserting equipment.
- 13.) Keeps work space and storeroom in good order.
- 14.) Operates binding equipment.
- 15.) Operates perforating, scoring and numbering machines.
- 16.) Operates collating equipment.
- 17.) Assembles and staples materials.
- 18.) Supervises the performance of special programs relief workers and other personnel.
- 19.) Transports necessary supplies and mail as required.
- 20.) Orders and maintains supplies as necessary.

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.
2. Eye protection.
3. Hand wear protection.
4. Steel-toed shoes.

EQUIPMENT:

1. Multilith 1850 press
2. Multilith 1330 press
3. Multilith 2850 press
4. Multilith 3875 press
5. Brown darkroom camera
6. Nu Arc platemaker
7. Rollem, perf, number, score
8. Baum folder
9. Paper cutter 30"
10. Paper drill
11. Bourg collator
12. Multilith collator
13. Pitney Bowes 3166 mail inserter
14. Docu 40 color copier (Xerox)
15. Risograph color copier
16. Yale-forklift
17. Powis Parker Fastback binder
18. Padding press
19. Latter-shrink wrap machine
20. GBC- ring bind punch
21. Acme floor modd. Stapler
22. Interlake booklet maker

Required Job-Related Knowledge, Education, Ability or Experience:

KNOWLEDGE:

- 1.) A variety of Multilith equipment.
- 2.) The principles of the offset duplicating process.
- 3.) The operation and care of offset machines and other related equipment.

EDUCATION:

- 1.) A combination of approximately two years of education and increasingly responsible experience, which would lead to the required abilities and knowledge listed above. Part of the required experience must include the use of Multilith equipment.

ABILITY/QUALIFICATIONS:

- 1.) Operate Multilith offset machines.
- 2.) Plan and schedule printing activities for greatest efficiency and service.
- 3.) Make up material for printing runs, including the processing of plates.
- 4.) Adjust off-set machines so as to secure at various operating speeds with proper registration, neat, clear and even impressions.
- 5.) Service and make minor repairs to off-set machines.
- 6.) Perform general clerical work of average difficulty and demonstrate good mechanic aptitude.
- 7.) Work with and control sensitive confidential information on assignment.
- 8.) Stand for long periods of time.
- 9.) Physically reach and bend in order to adjust various pieces of equipment.
- 10.) Follow oral and written directions.
- 11.) Lift heavy supplies, pieces of equipment and furniture often weighing in excess of 50 pounds.
- 12.) Supervise and train personnel as assigned.

EXPERIENCE/QUALIFICATIONS:

1.) Successful completion of a post-offer, pre-placement physical abilities test.

All employees within the Senior Multilith Operator 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 Senior Multilith Operator position.

WORK HOURS:

Monday through Friday
8:00 a.m. to 5:00 p.m.

UNION:

Association of Federal, State, County and Municipal Employees, Optional

ENVIRONMENTAL FACTORS

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

Seldom = Less than 1%
Occasional = 1% - 33%

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

ENVIRONMENTAL FACTORS		MAXIMUM FREQUENCY
1.	Unprotected heights: 2-step step stool	Seldom
2.	Being around moving machinery: printing press, cutter, folder punch, collator stitchers	Frequent
3.	Exposure to marked changes in temperature and humidity:	Not Applicable
4.	Exposure to dust, fumes, smoke, gases, or other irritating substances (specify): cleaning agent, carbon arc camera, paper dust	Continuous
5.	Driving material handling and cleaning equipment: forklift	Seldom
6.	Exposure to excessive noise: Hearing protection is required. Sound levels produced up to 85dB.	Occasional
7.	Exposure to radiant or electrical energy: electric motors	Frequent
8.	Exposure to solvents or chemicals: fixing agent, cleaning agents, developing fluid	Occasional
9.	Exposure to slippery or uneven walking surfaces:	Not Applicable
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:	Not Applicable
15.	Working proximity: Alone - Closely with others -	Not Applicable Continuous
16.	Working inside:	Continuous
17.	Working outside: drive forklift	Seldom

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.

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

Seldom = Less than 1%	Frequent = 34% - 66%
Occasional = 1% - 33%	Continuous = 67% - 100%

1) PUSH: Pushing activities may require use of the back flexors and extensors in conjunction with bicep/tricep musculature.

MAXIMUM REQUIREMENT	
0-10 Pounds:	Occasional
11-25 Pounds:	Seldom
26-35 Pounds:	Seldom
36-50 Pounds:	Seldom
51-75 Pounds:	Not Required
76-100 Pounds:	Not Required

MAXIMUM FORCE: 40 Pounds

Assistive Devices: 4-Wheeled Cart, Hand Truck, Pallet Jack. Additionally, one person assistance is available with forces greater than 40 pounds.

Comments: Pushing is utilized with activities such as retrieving, returning, storing, adjusting, moving, and/or transporting equipment, and supplies (e.g. carts, doors). The employee exerts up to 40 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. push up to 40 pounds of force to travel with carts; open/close doors, drawers, files, cabinets; feeding parted-sized sheets into paper cutter; loading press).

2) PULL: Pulling activities may require use of the back flexors and extensors in conjunction with bicep/tricep musculature.

MAXIMUM REQUIREMENT	
0-10 Pounds:	Occasional
11-25 Pounds:	Seldom
26-35 Pounds:	Seldom
36-50 Pounds:	Seldom
51-75 Pounds:	Not Required
76-100 Pounds:	Not Required

MAXIMUM FORCE: 40 Pounds

Assistive Devices: 4-Wheeled Cart, Hand Truck, Pallet Jack. Additionally, one person assistance is available with forces greater than 40 pounds.

Comments: Pulling is utilized with activities such as retrieving, returning, storing, adjusting, moving, and/or transporting equipment, and supplies (e.g. carts, doors). The employee exerts up to 40 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. pull up to 40 pounds of force to travel with carts; open/close doors, drawers, files, cabinets; collecting parted-sized sheets from paper cutter; unloading press). *Pushing is the preferred method of moving carts.*

3) STAND-UP LIFT: *Lifting from/to floor and waist height level.*

	MAXIMUM REQUIREMENT	
0-10 Pounds:	Occasional	
11-25 Pounds:	Occasional	
26-35 Pounds:	Occasional	
36-50 Pounds:	Seldom	
51-75 Pounds:	Seldom	
76-100 Pounds:	Not Required	
		MAXIMUM FORCE: 60 Pounds

Assistive Devices: One person assistance is available with weights greater than 60 pounds.

Comments: A stand-up lift is utilized with activities such as retrieving, returning, storing, adjusting, moving, and/or transporting product, equipment and supplies (e.g. paper, storage). The employee lifts items weighing between <1pound and 60 pounds from/to 36 inches off the floor when performing job tasks (e.g. lift up to 120-pound cases of paper; loose or reamed stock; film; miscellaneous stored items; moving stacked cases to/from pallet loads).

4) LEVEL LIFT: *Lifting weight from between waist height level and chest height level for a maximum horizontal distance of four feet.*

	MAXIMUM REQUIREMENT	
0-10 Pounds:	Frequent	
11-25 Pounds:	Occasional	
26-35 Pounds:	Occasional	
36-50 Pounds:	Seldom	
51-75 Pounds:	Seldom	
76-100 Pounds:	Not Required	
		MAXIMUM FORCE: 60 Pounds

Assistive Devices: Forklift, Pallet Jack, 4-Wheeled Cart, Hand Truck. One person assistance is available with weights greater than 60 pounds.

Comments: A level lift is utilized with activities such as retrieving, returning, storing, adjusting, moving, and/or transporting product, equipment and supplies (e.g. paper, storage). The employee lifts items weighing between <1pound and 60 pounds from/to 36 inches off the floor when performing job tasks (e.g. lift up to 120-pound cases paper; loose or reamed stock; film; miscellaneous stored items; moving stacked cases to/from pallet loads; miscellaneous hand or armfuls of paper product).

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

	MAXIMUM REQUIREMENT	
0-10 Pounds:	Occasional	
11-25 Pounds:	Occasional	
26-35 Pounds:	Seldom	
36-50 Pounds:	Seldom	
51-75 Pounds:	Seldom	
76-100 Pounds:	Not Required	
		MAXIMUM FORCE: 60 Pounds

Assistive Devices: Forklift, Pallet Jack, 4-Wheeled Cart, Hand Truck. One person assistance is available with weights greater than 60 pounds.

Comments: A weight carry is utilized with activities such as retrieving, returning, storing, adjusting, moving, and/or transporting product, equipment and supplies (e.g. paper, storage). The employee carries items weighing between <1 pound and 60 pounds between 3 feet and 20 feet when performing job tasks (e.g. carry up to 120-pound cases or paper; loose or reamed stock; film; miscellaneous stored items; moving stacked cases to/from pallet loads; miscellaneous hand or armfuls of paper product).

6) OVERHEAD LIFT/PULL DOWN: Lifting weight from/to chest and overhead height level

MAXIMUM REQUIREMENT

0-10 Pounds:	Not required
11-25 Pounds:	Not required
26-35 Pounds:	Not required
36-50 Pounds:	Not required
51-75 Pounds:	Not required
76-100 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 retrieving, returning, storing, adjusting, moving (e.g. reach lateral or forward for loading paper printer, cutter, press; equipment adjustments; machine oiling/greasing; paper jam removal; cleaning and/or preserving plates; maintaining storage). The degree of elbow extension required for reaching will vary according to the employee's anthropometric reach.

9) STOOPING:

MAXIMUM FREQUENCY: Occasional

Comments: Stooping is performed when retrieving, returning, storing, adjusting and moving (e.g. stoop to reach below waist height for loading paper printer, cutter, press; equipment maintenance and adjustments; machine oiling/greasing; paper jam removal; maintaining storage). 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) SQUATTING: (Unloaded)

MAXIMUM FREQUENCY: Seldom

FREQUENCY:

Comments: Squatting is performed when retrieving, returning, storing, adjusting and moving (e.g. squat to reach below waist height for loading paper printer, cutter, press; equipment maintenance and adjustments; machine oiling/greasing; paper jam removal; maintaining storage). *Squatting may be minimized or avoided by substituting alternate positions of bending or kneeling. Partial squatting is a preferred lifting posture.*

11) **REPETITIVE BENDING:**

MAXIMUM FREQUENCY: Occasional

Comments: Bending forward at the waist is performed when retrieving, returning, storing, adjusting and moving (e.g. bend to reach near or far below waist height for loading paper printer, cutter, press; equipment maintenance and adjustments; machine oiling/greasing; paper jam removal; maintaining storage). 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) **TWISTING:**

MAXIMUM FREQUENCY: Occasional

Comments: Twisting at the waist is performed when retrieving, returning, storing, adjusting and moving (e.g. twist for loading paper printer, cutter, press; equipment maintenance and adjustments; machine oiling/greasing; paper jam removal; maintaining storage; job site observation). *Twisting at the waist may be minimized by turning the whole body, including the feet and working from a swivel chair.*

13) **TURNING:**

MAXIMUM FREQUENCY: Occasional

Comments: Turning is performed when retrieving, returning, storing, adjusting and moving (e.g. turn for loading paper printer, cutter, press; equipment maintenance and adjustments; machine oiling/greasing; paper jam removal; maintaining storage; job site observation).

14) **KNEELING:**

MAXIMUM FREQUENCY: Not Required

Comments: Kneeling is not required to perform job tasks. *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

FREQUENCY:

Comments: Stair climb is required in order to go to/from top of roll-a-way wheeled stairs and step stool. Maximum number of 2 steps may be 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) WALKING:

MAXIMUM FREQUENCY: Frequent

Comments: Walking is performed when retrieving, returning, storing, adjusting, moving, and/or transporting product, equipment and supplies (e.g. walk to/from office printing machinery, storeroom). Walking length varies between 3 feet and 100 feet depending on job task.

19) SITTING:

MAXIMUM FREQUENCY: Seldom

Comments: Sitting is performed for a maximum of 15 minute intervals when performing job tasks (e.g. sit to operate fork lift).

20) STANDING: (Static)

MAXIMUM FREQUENCY: Frequent

Comments: Static standing is performed for a maximum of 30 minute intervals when retrieving, returning, storing, adjusting, operating product, equipment, controls and supplies (e.g. stand for printing process observation; operating printing equipment).

21) BALANCE:

MAXIMUM FREQUENCY: Continuous

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

22) OPERATING HAND/FOOT CONTROLS:

	MAXIMUM REQUIREMENT
HAND:	
Right:	Seldom
Left:	Seldom
Both:	Seldom
Either:	Seldom
FOOT:	
Right:	Seldom
Left:	Not Required
Both:	Not Required
Either:	Seldom

Comments: Hand controls are utilized to operate equipment (e.g. forklift, printing machinery) when retrieving, returning, storing, adjusting, moving, and/or transporting equipment, controls and supplies (e.g. operate forklift, printing machinery). Foot controls are utilized to operate equipment (e.g. forklift, printing machinery).

23) UPPER AND LOWER EXTREMITY COORDINATION:

	MAXIMUM REQUIREMENT
Simple Grasping:	Frequent
Firm Grasping:	Occasional
Fine Manipulation:	Occasional
Eye/Hand Coordination:	Frequent
Hand/Foot Coordination:	Seldom

Comments: Grasping and coordination activities are performed when retrieving, returning, storing, operating, adjusting, moving, and/or transporting product, equipment, controls and supplies (e.g. printing machines).

Simple grasping is utilized to perform job tasks (e.g. lifting and manipulating objects weighing less than 5 pounds).

Firm grasping is utilized to perform job tasks (e.g. lifting and handling objects weighing 5 pounds or greater).

Fine manipulation is utilized to perform job tasks (e.g. handwriting, pouring, measuring, paper cutting, taping, opaquing).

Eye/hand coordination is utilized to perform job tasks (e.g. handwriting, pouring, measuring, paper cutting, taping, opaquing; operating forklift).

Hand/foot coordination is utilized to perform job tasks (e.g. operate forklift, paper cutter).

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

24) NECK RANGE OF MOTION:

	MAXIMUM REQUIREMENT
Static neutral position:	Frequent
Flexing:	Occasional
Rotating:	Occasional
Extending:	Not Required

Comments: Neck movement is required when performing job tasks (e.g. operate and observe printing process; negative preparation; evaluating quality control of product). *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

Enclosed are the results of the Essential and Marginal Functions of the Job Task Analysis that were obtained for the position of **Senior Multilith Operator**.

Please note the specific summary of maximum weight and frequency requirements of the definitions as follows:

Stanislaus County	
<i>Job Task Analysis Summary</i>	
Senior Multilith Operator	
<i>Functional Activities</i>	<i>Maximum Requirements</i>
<i>Push (Force)¹</i>	40 pounds
<i>Pull (Force)¹</i>	40 pounds
<i>Stand Up Lift¹</i>	60 pounds
<i>Level Lift¹</i>	60 pounds
<i>Weight Carry¹</i>	60 pounds
<i>Overhead Lift/Pull Down</i>	Not Required
<i>Overhead Reach</i>	Not Required
<i>Forward Reach¹</i>	Frequent
<i>Stooping¹</i>	Occasional
<i>Squatting (Unloaded)¹</i>	Seldom
<i>Repetitive Bending¹</i>	Occasional
<i>Twisting¹</i>	Occasional
<i>Turning¹</i>	Occasional
<i>Kneeling</i>	Not Required
<i>Crawl</i>	Not Required

<i>Stair Climb</i> ¹	Seldom
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¹ Essential functions required while performing the critical demands of the job.

<i>Job Task Analysis Summary (Continued)</i>	
Senior Multilith Operator	
<i>Functional Activities</i>	<i>Maximum Requirements</i>
<i>Ladder Climb</i>	Not Required
<i>Walking</i> ¹	Frequent
<i>Sitting</i> ¹	Seldom
<i>Standing (Static)</i> ¹	Frequent
<i>Balance</i> ¹	Continuous
<i>Operation of Hand Controls</i> ¹	Seldom
<i>Operation of Foot Controls</i> ¹	Seldom
<i>Simple Grasping</i> ¹	Frequent
<i>Firm Grasping</i> ¹	Occasional
<i>Fine Manipulation</i> ¹	Occasional
<i>Eye/Hand Coordination</i> ¹	Frequent
<i>Neck Range of Motion</i> ¹	Frequent

It is agreed that this document is correct.

Lyle Andersen, PT

Date:
Lyle Andersen, PT, CWCE
Preparer Signature

Thomas R. [Signature]

Date:
Contact Person
Title

[Signature]

Date:
Contact Person
Title
Date: 8/6/04

¹ Essential functions required while performing the critical demands of the job.

LA/cm