



Rodgers Muscle Fatigue Analysis

Date: _____	Task: _____
Company: _____	Supervisor: _____
Dept: _____	Evaluator: _____

Table A	Effort Level <small>(If the effort cannot be exerted by most people, enter 4 for Effort)</small>			Scores			Overall Priority	Overall Priority Matrix			
	Region	Light (1) <small>Borg: 0-3</small>	Moderate (2) <small>Borg: 4-6</small>	Heavy (3) <small>Borg: 7+</small>	Effort Level	Cont. Effort Duration		Effort Frequency	Low	Moderate	High
				See Table A	See Table B						
Neck	Neutral neck: head turned partly to side; back forward slightly; back leaning forward 0-20 degrees	Head turned to side; head fully back; head forward about 20 degrees	Same as moderate but with force or weight; head stretched forward (chin tucked into chest)					1-1-1	1-2-3	2-2-3	3-2-3
Shoulders	Neutral arms; arms slightly away from sides; arms extended with some support	Arms away from body, no support; working overhead or behind	Exerting forces or holding weight with arms away from body or overhead	Right				1-1-2	1-3-2	3-1-3	3-3-1
				Left				1-1-3	2-1-3	3-2-1	3-3-2
Back	Standing; sitting with lumbar support; leaning to side or bending slightly; arching back	Bending forward; no load; lifting moderately heavy loads near body; working overhead	Lifting or exerting force while twisting; high force or load while bending	Right				2-1-1	2-2-2	3-2-2	or
				Left				1-2-1	2-3-1		4-x-x
Arms/ Elbows	Neutral; arms away from body; no load; light forces lifting near body; no twisting	Rotating arm while exerting moderate force	High forces exerted with rotation; lifting with arms extended	Right				2-1-2	2-3-2		x-4-x
				Left				3-1-1	3-1-2		x-x-4
Wrists/ Hands/ Fingers	Light forces or weights handled close to body; straight wrists; comfortable power grips	Grips with wide or narrow span; moderate wrist angles, especially flexion; use of gloves with moderate forces	Pinch grips; strong wrist angles; slippery surfaces	Right				1-2-2			
				Left				1-3-1			
Legs/ Knees	Standing; walking without bending or leaning; weight on both feet	Bending forward, leaning on table; weight on one side; pivoting while exerting force	Exerting high forces while pulling or lifting; crouching while exerting force	Right				2-2-1			
				Left							
Ankles/ Feet/ Toes	Standing; walking without bending or leaning; weight on both feet	Bending forward, leaning on table; weight on one side; pivoting while exerting force	Exerting high forces while pulling or lifting; crouching while exerting force	Right							
				Left							
Note: Level of fatigue increases as you move down each column or to the right								NOTES:			

Table B	Score = 1	Score = 2	Score = 3	Score = 4
Continuous Effort Duration	< 6 s	6 - 20 s	20 - 30 s	> 30 s
Effort Frequency	< 1 / min	1 - 5 / min	6 - 15 / min	> 15 / min

Reference: Rodgers, Suzanne H. (1992). A functional job evaluation technique. *Occupational Medicine: State of the Art Reviews*. 7(4):679-711.
Rodgers, Suzanne H.(1988). Job evaluation in worker fitness determination. *Occupational Medicine: State of the Art Reviews*. 3(2): 219-239.