

National Construction Safety Officer

VIDEO CLIP

Acknowledgement

The Alberta Construction Safety Association (ACSA) with the cooperation of member companies and their electrical contractors/workers, the Electrical Contractors Association of Alberta and Jason Shepherd Physical Therapy Inc. developed this electrical industry Physical Demands Analysis.

Disclaimer

The job tasks described in this report & related video footage may vary, please contact the company directly to confirm this job description is accurate.

Purpose of Physical Demands Analysis

Job demands information that can be utilized for assistance in selecting suitable job candidates, developing proactive injury prevention interventions and effective, sustainable disability management programs.

General Description

The Construction Safety Officer is responsible for assisting management (and other company personnel) in the administration, development, implementation and monitoring of the safety, health and environment (HSE) program.

Safety Officers identify and review a variety of safety, health and environment issues specific to the jobsite, and keep management current of the status of any issue(s) that may impact on the work being performed.

Safety Officers are also responsible for conducting safety orientation/training sessions for all personnel and jobsite visitors, as well as keeping current with all aspects of the HSE program by liaising with government and construction safety associations.

Work Organization

Construction Safety Officer numbers vary by work site and company

Work Schedule

8+ hour shifts

Regular breaks spaced throughout workday: Usually two 15-minute coffee breaks and one 30-minute lunch break per shift

Essential Job Tasks

- Assisting management (and other company personnel) in the administration, development, implementation and monitoring of the safety, health and environment (HSE) program
- Identifying and reviewing a variety of safety, health and environment issues specific to the jobsite, and keep management current of the status of any issue(s) that may impact on the work being performed
- Conducting safety orientation sessions for all personnel and jobsite visitors
- Keeping current with all aspects of the HSE program by liaising with government and construction safety associations

Equipment used to perform the job **(May include, but not limited to the following)**

- Laptop
- Books
- Clipboard
- Pen/Pencil
- Training Demo Equipment

Personal Protective Equipment Recommended

- ✓ Safety Glasses
- ✓ Hearing Protection
- ✓ Hard Hat
- ✓ Steel Toed Boots
- ✓ Gloves
- ✓ Overalls (Optional)
- ✓ Fall Protection Equipment (Task-specific)
- ✓ Respiratory Protection Equipment (Where required)

Environmental Conditions

Inside/Outside Work:

Inside 40%; Outside 60%

Working Temperature:

Depending on which phase of construction the building is in, this task may involve exposure to hot or cold weather conditions

Walking Surfaces:

Inside - OSB/Plywood, carpet, linoleum, tile, concrete

Outside - Mud, wood, snow, ice, concrete, rebar, metal grating (terrain may be uneven)

Dust:

Vary according to site and job activity

Lighting:

Adequate lighting in most indoor areas. Natural lighting may vary with season &/or weather conditions.

Vapour/Fumes:

Vary according to site and job activity

Noise Levels (measured with Audiometer):

Can exceed 100 dBA if portable generators, mobile equipment, power tools or hammers are being utilized nearby

Vibration:

N/A

Moving Objects:

Mobile equipment, work trucks

Risks/Hazards:

Slips/Trips/Falls, skin punctures, muscle strains/soreness, pinch points, cuts/abrasions, electric shock

Size of Work Space:

Usually adequate, although the worker may have to maneuver into tight spots in order to complete task on occasion

Sensory Requirements

The following are required to complete essential job functions and remain safe at all times:

Hearing (Conversation or Sounds)

Vision (Near/Far, Colour, and Depth)

Feeling (Tactile sensory discrimination)

Reading (English)

Speech/Comprehension (English)

Other Work Factors**Traveling:**

Varies according to site requirements

Working Alone:

Worker may have to perform task at a work site without colleagues or other trades people, on a **Rare** basis

Working Independently / in Group:

Task-dependent: Generally required to work independently for the majority of the shift, although he/she may be asked to assist a co-worker or request assistance for him-/herself when required

Work Pace (self or machine):

Self-Motivated – Slow to Moderate pace

Interacting with Others:

Required to work with colleagues and other trades people

Operation of Mobile Equipment:

Varies according to site requirements

Assessment Criteria Used

Frequency Key		
FREQUENCY	% OF WORKDAY	HOURS OF 8-HOUR WORKDAY
Not required (N/R)	0%	0
Seldom (S)	0 - 5%	Not performed on a daily basis
Rare (R)	1 – 5%	< 29 min/day
Occasional (O)	6 - 33%	29 min to 2 hours 42 min per day or 1 rep/30 min
Frequent (F)	34 - 66%	2 hours 43 min to 5 hours 21 min per day or 1 rep/2 min
Constant (C)	67 – 100%	5 hours 22 min to 8 hours per day or 1 rep/30 sec

FORCE LEVEL	WEIGHT HANDLED
Light	Less than 20 lbs.
Medium	20-49 lbs.
Heavy	50-99 lbs.
Very-Heavy	100⁺ lbs.

Critical Job Demands

MANUAL HANDLING	Comments	FREQUENCY OF WORKDAY					
		N/R	S	R	O	F	C
Lift: Floor to Waist	Light force: PPE, books, training materials; Medium force: Fall Protection Demo equipment (S), Respirator (S), construction materials			X			
Lift: Waist to Waist	Light force: Laptop, PPE, books, training materials; Medium force: Fall Protection Demo equipment (S), Respirator (S), construction materials				X		
Lift: Waist to Chest	Light force: Laptop, PPE, books, training materials; Medium force: Fall Protection Demo equipment (S), Respirator (S), construction materials			X			
Lift: Waist to Overhead	N/R	X					
Front carry	Light force: PPE, books, training materials; Medium force: Fall Protection Demo equipment (S), Respirator (S), construction materials			X			
Right side carry	Light force: PPE, books, training materials, clipboard; Medium force: Fall Protection Demo equipment (S), Respirator (S), construction materials				X		
Left side carry	Light force: PPE, books, training materials, clipboard; Medium force: Fall Protection Demo equipment (S), Respirator (S), construction materials				X		
Static push	N/R	X					
Static pull	N/R	X					
Dynamic push	Medium force: Loading/Setting up Training Demo equipment; Heavy force : Construction materials		X				
Dynamic pull	Medium force: Unloading/Setting up Training Demo equipment; Heavy force : Construction materials		X				

GRIP STRENGTH /COORDINATION	Comments	FREQUENCY OF WORKDAY					
		N/R	S	R	O	F	C
Bilateral repetitive use of hands	Operating vehicle, writing/data input on laptop/computer, prepping handout materials					X	
Repetitive use of dominant hand	Operating vehicle, data input on laptop/computer				X		
Repetitive use of non-dominant hand	Operating vehicle, data input on laptop/computer				X		
Bilateral power grip	Medium force: Fall Protection Demo equipment, Respirator, construction materials; Heavy force: Construction materials (S)			X			
Power grip with dominant hand	Light force: Laptop, PPE, books, training materials; Medium force: Fall Protection Demo equipment (S), Respirator (S), construction materials					X	
Power grip with non-dominant hand	Light force: Laptop, PPE, books, training materials; Medium force: Fall Protection Demo equipment (S), construction materials				X		
Bilateral fine dexterity skills	Operating vehicle, data input on laptop/computer, prepping handout materials, donning/doffing respirator (S)					X	
Fine dexterity with dominant hand	Operating vehicle, writing/data input on paper/laptop/computer, prepping handout materials, donning/doffing respirator (S)					X	
Fine dexterity with non-dominant hand	Operating vehicle, data input on laptop/computer, prepping handout materials, donning/doffing respirator (S)			X			
Bilateral manual handling	Medium force: Fall Protection Demo equipment, construction materials; Heavy force: Construction materials (S)			X			
Manual handling with dominant hand	Light force: Laptop, PPE, books, handouts; Medium force: Fall Protection Demo equipment (S), Respirator (S), construction materials					X	
Manual handling with non-dominant hand	Light force: Laptop, PPE, books, handouts; Medium force: Fall Protection Demo equipment (S), Respirator (S), construction materials				X		
Tool usage bilaterally	N/R	X					
Tool usage with dominant hand	N/R	X					
Tool usage with non-dominant hand	N/R	X					

POSITIONAL/ MOBILITY	Comments	FREQUENCY OF WORKDAY					
		N/R	S	R	O	F	C
Sitting	Driving between designated work areas and data input on paper/laptop/computer					X	
Standing	Conducting safety orientation/training sessions, identifying/reviewing a variety of safety, health and environment issues					X	
Walking: Level surfaces	Conducting safety orientation/training sessions, identifying/reviewing a variety of safety, health and environment issues					X	
Rough surfaces	Identifying/reviewing a variety of safety, health and environment issues					X	
Slopes	Work site terrain				X		
Climbing: Regular stairs	Accessing designated work areas					X	
Ladders	Accessing designated work areas					X	
Other climbing	N/R	X					
Jumping	N/R	X					
Running	N/R	X					
Balancing	Work site terrain, environmental conditions					X	
Static bending	Conducting safety orientation/training sessions, identifying/ reviewing a variety of safety, health and environment issues			X			
Variable bending	Conducting safety orientation/training sessions, identifying/reviewing a variety of safety, health and environment issues					X	
Static twisting	Conducting safety orientation/training sessions, identifying/reviewing a variety of safety, health and environment issues			X			
Variable twisting	Conducting safety orientation/training sessions, identifying/reviewing a variety of safety, health and environment issues					X	
Kneeling	Conducting safety orientation/training sessions, identifying/reviewing a variety of safety, health and environment issues		X				
Crouching	Conducting safety orientation/training sessions, identifying/reviewing a variety of safety, health and environment issues		X				
Crawling	Identifying/reviewing a variety of safety, health and environment issues		X				
Repetitive squatting	N/R	X					
Reaching: Above shoulder	Conducting safety orientation/training sessions, identifying/reviewing a variety of safety, health and environment issues		X				
Reaching: Below shoulder	Conducting safety orientation/training sessions, identifying/reviewing a variety of safety, health and environment issues, traveling between designated work areas, data input on paper/laptop/computer						X
Neck Postures/Move ments	All neck positions required (180 ⁰ , up, down, side-to-side)						X
Throwing	N/R	X					
Foot Action	Light force: Operating vehicle pedals				X		
Forceful/Jerky movements	Moving construction materials		X				

Psychosocial Demands

Seldom/Rare/Occasional/ Frequent/Constant

A. Understanding and memory:

Remember locations and routine procedures **Constant**
Understand and remember short and simple instructions **Constant**
Understand and remember detailed instructions **Occasional**

B. Sustained concentration and persistence:

Carry out short and simple instructions **Constant**
Carry out detailed instructions **Occasional**
Maintain attention and concentration for extended periods Perform activities within a schedule **Constant**
Sustain an ordinary routine without supervision **Constant**
Make simple decisions **Constant**
Solve simple straightforward problems **Constant**
Solve complex problems **Occasional**

C. Social interaction:

Interact with the general public **Rare**
Ask questions or request assistance **Occasional**
Accept instructions and feedback **Occasional**
Get along well with others without distracting them **Constant**
Get along well with others without being distracted by them **Constant**

D. Adaptation:

Respond to changes in the environment or tasks **Constant**
Aware of normal hazards and take appropriate precautions **Constant**
Travel in unfamiliar places or use public transportation **Occasional**
Set realistic goals or make plans independently of others **Frequent**
Juggle tasks and prioritize **Frequent**

Yes/No

E. Responsibility and accountability:

Is work place without the pressure of deadlines? **No**
Does the work involve occasional pressure to meet deadlines? **Yes**
Does the work involve significant pressures? **Yes**

F. Language Requirements:

Is English required for safety purposes? **Yes**
Is English required for professional purposes? **Yes**

G. Educational Requirements:

Is grade 12 diploma required? **No (recommended)**
Is post-secondary required? **No (recommended)**
Is additional skill training required?
Yes*

*(NCSO Certificate)

Injury Prevention Recommendations

1. Stretch-regularly used muscles throughout the shift – neck, shoulders, chest, elbows, forearms, wrists, hands, lower back, thighs and calves/ankles
2. Neck, back, upper and lower extremity warm-up exercises recommended before undertaking manual handling tasks to reduce the chance of soft tissue injuries
3. To help prevent low back strain/sprain from incorrect manual handling techniques – incorporate proper manual handling techniques at all times; utilize dolly, cart, hoist or forklift for all items over 50 lbs or of awkward shape whenever possible; maintain physical conditioning to a **Medium** manual handling level
4. To help prevent lower extremity joint/muscle pain due to general deconditioning, poor cushioning in footwear and spending extended periods weightbearing on concrete surfaces – ensure proper fitting footwear with adequate cushioning; take regular stretch breaks hourly
5. To prevent knee injuries, knee pads should be utilized when kneeling on hard or rough surfaces