
SELECTING HAZARD CONTROLS

CDN Power Pac supervisors and workers will work together on identifying hazards and to select the most appropriate controls. This is the best approach because it allows input from the workers who are most at risk to ensure that they are protected properly on the work site.

There are three common factors that influence the selection of hazard controls.

1. Legislation

- Has the hierarchy of Controls been used?
- Is there a legislated requirement for a Code of Practice?
- Does PPE or other equipment meet adopted standards?
- Are workers aware of how the hazard will be controlled?

2. Scope of Work

- Is this a short term project or long term work site?
- What is reasonably practicable based on the scope of work?

3. Site Management Requirements

- Has site management been involved in the hazard assessment process?
- Are there site management standards to consider when selecting controls?

HIERARCHY OF HAZARD CONTROLS

Hazard control must be a team effort by all divisions within the Company.

Worksite Hazards must be controlled in the following order on all CDN. Power Pac Job Sites:

1. Engineering Controls:

Engineering controls provide the highest degree of worker protection because they eliminate or control the hazard at its source. Engineering controls are the preferred method of eliminating or controlling hazards.

Engineering controls include the following:

a.) *Elimination* – Getting rid of a hazardous job, tool, process, machine or substance may be the best way of protecting workers. Examples include:

- using material handling equipment rather than have workers lift, lower, carry, etc. materials manually
- eliminating the need to elevate persons or objects above ground level

b.) *Substitution* – If elimination is not practical, try substituting or replacing one substance or process with another. Examples include:

- substituting a safer substance for a more hazardous one
- replacing hazardous operations with less hazardous operations

c.) *Re-design* – Hazards can sometimes be “engineered out” through redesign of the work site, workstations, work processes and jobs. Examples include:

- providing fail-safe interlocks on equipment, doors, valves, etc.
- installing guardrails around elevated work areas
- providing non-slip working surfaces
- controlling traffic to avoid collisions

d.) *Isolation* – Hazards can sometimes be isolated through containment or enclosure. Examples include:

- negative-pressure fume hoods in laboratory settings
- sound reducing enclosures for noisy equipment

e.) *Automation* – Some processes can be automated or mechanized. Examples include:

- spot welding by industrial robots
- assembly line operations that require repetitive manual handling by workers.

2. Administrative Controls:

If engineering controls cannot eliminate or control a hazard, administrative controls can be used to control the hazard to a level that is as low as reasonably achievable. Administrative controls are less effective than engineering controls since they do not eliminate the hazards. Examples include:

- Safe work practices, job procedures, policies, rules – safe work procedures describe how to correctly perform a job from start to finish
- Work/rest schedules to reduce worker exposure to hazardous substances or conditions
- Limiting hours of work
- Scheduling hazardous work during times when exposure of other workers is limited
- Wet methods as opposed to dry sanding or sweeping

3. Personal Protective Equipment (PPE):

As a last resort, workers may need to use personal protective equipment (PPE) to reduce the potentially harmful effects of exposure to a known hazard. PPE is much less effective than engineering controls since it does not eliminate the hazards.

PPE must be used properly and consistently to be effective. Awkward or bulky PPE may prevent a worker from working safely. In some cases, PPE can increase the likelihood of hazards such as heat stress and tripping and falling. Examples of PPE commonly used include:

- Safety eyewear, hard hats and safety boots
- Hearing protection if workers are exposed to noise that exceeds allowable levels
- Respiratory protective equipment to protect the lungs against harmful dusts and vapors.

4. Combination of Control Methods:

The control of some hazards requires the combined use of all three control methods to reduce the hazard to the lowest level practicable or achievable. Employers are not restricted to a single approach if using a combination achieves a greater level of worker safety than if only one approach was used.

IMPLEMENTING CONTROLS

Managers and supervisors are responsible to inform affected workers of all hazards and their available controls. Temporary controls may be used pending the use of permanent ones.

CPP's Job Hazard Analysis (JHA) shall be one of the main sources of information for hazard controls, training requirements, safe work procedures, and PPE requirements.

Control of some hazards can be implemented with a minimum amount of planning (*eg. Putting on a hard hat*). Others may require more planning (*eg. Installation of a ventilation system*). Regardless of the control, some level of planning must occur before introducing any hazard control into a work site.

Some considerations when planning controls;

- Does the control require an installation or modification?
- Will there be a work stoppage? And for how long?
- Does an outside organization have to come on site to install the control?
- Who is supplying the control?
- Will the control impact other parts of the operation or equipment?
- Will the control affect manufacturer's specifications?
- Is there any training requirements needed for workers?
- How will all affected workers be informed of the control?
- Will all shifts need to be notified?
- What are the timelines for implementation?
- Is the control covered by existing policies and procedures?
- Is a new policy or procedure required?
- Have other contractors been informed of the control?
- Does the owner of the project need to be informed of the control?

MONITORING CONTROLS

Monitoring controls involves checking to see if a control is still being effective. There are a number of opportunities for monitoring of controls to occur on a worksite, some opportunities are;

During Inspections

- Formal Inspections
- Informal Inspections

Exposure Testing

- Noise monitoring
- Water testing
- Air sampling and testing

Work Site Documentation

- First Aid records
- Incident reports
- Hazard reports
- Near Miss reports
- Investigation reports
- Hazard Assessments

Worker Feedback

- H&S Meetings
- Toolbox talks
- HSC/HSR
- Internal communications

REINFORCING USE OF HAZARD CONTROLS

CPP Managers and supervisors are responsible to reinforce the use of controls at a work site. Lack of supervision, worker turn over and production demands are all examples of situations where workers may begin to work around controls. In serious cases, CPP may utilize company rules to enforce the use of hazard controls. Opportunities to reinforce Hazard Controls;

- *Pre-Project meetings*
- *Inspections and Hazard Assessments (JHA)/(FLHA)*
- *Safety Meetings/Toolbox Talks/HSC Meetings*
- *Employee Disciplinary Meetings (enforcement)*