

STANDARD ISSUE PPE - PERSONAL PPE SPECIALTY PPE

Health Hazards in Construction



Chemical



Physical



Biological

- Night work
- visibility
- Public ROW
- Impact - Crushing
- Flying objects
- Falling objects
- Hand protection
- Fall protection

- Gases
- Vapors
- Fumes
- Dusts
- Fibers
- Mists

- Temperature
- Noise
- Repetitive Motion & Awkward Postures
- Ionizing & Non-Ionizing Radiation

- Fungi (Mold)
- Bloodborne Pathogens
- Bacteria
- Poisonous Plants
- Poisonous & Infectious Animals

PPE

The Last Line of Defence



Anticipation of Health Hazards

To anticipate hazards: —

- Survey job-site conditions. — (See attached JHA)
- Be aware of the actions and behaviors of workers.

Hazardous conditions that can be anticipated on construction job-sites include:

- ✓ Confined or enclosed spaces (hazardous atmospheres).
- ✓ Contaminated soil conditions (hazardous atmospheres).
- ✓ Unsanitary conditions (poor housekeeping, poorly kept toilet facilities, etc.).
- ✓ Presence of hazardous materials (dangerous coatings on structures & metal containing alloys, concrete & silica).
- ✓ The use of hazardous chemicals (gases, solvents & glues).
- ✓ The presence of residues left by degreasing agents, usually chlorinated hydrocarbons (chloroform and carbon tetrachloride).
- ✓ Older buildings and structures; unoccupied dwellings (fungi/mold, asbestos & lead).
- ✓ Extreme temperatures (hot & cold environments; working outside or in attics, boiler rooms, etc.).
- ✓ Radiological exposures (nuclear power plants, antennas, hospitals, laboratories and the sun).
- ✓ Loud noise (use of tools and equipment).
- ✓ Hot work (welding and cutting).
- ✓ The presence of plant and/or animal wildlife (poisonous venom, feces, rabies...).

Use your senses

What do you see?

- Visible material in the air —

If you see visible clouds of vapor or particles, there may be a serious exposure problem. Remember, however, that most gases and vapors are invisible, and that often



Concrete cutting with saw creates obvious dust exposure.

the most dangerous particles are too small to see.

➤ Settled dust –

If there is chemical dust on the ground or other surfaces, it probably got there by settling out of the air. If disturbed, settled dust can become airborne again.

➤ Warning signs, labels & decals –

As required by Cal-OSHA GISO §5194. Hazard Communication and other applicable standards.

Do you hear anything?

Loud noise can severely damage your hearing!

Sources of loud noise in construction:

- Hand tools (e.g., metal hammers)
- Power tools (e.g., jackhammers, grinders, saws, powder actuated tools)
- Equipment (e.g., generators, excavators, cranes, trucks)
- Blasting



What does it feel like?

- Are there sharp edges or protruding objects
- Is the object very hot or cold
- Is it wet from oils, grease or chemicals
- Is it caustic or acidic

Does it smell funny?

- Many construction projects have noxious gases present; ie H₂S, methane or other gases
- Mold or decomposing materials



- Is it wet from oils, grease or chemicals

What does your inner voice say?

- Sometimes things just don't feel right
- You don't quite know what it is but you know you don't want to go there



Hierarchy of Controls

Controlling exposures to occupational hazards is the fundamental method of protecting workers. Traditionally, a hierarchy of controls has been used as a means of determining how to implement feasible and effective controls.

Cal-OSHA requires that employers use the hierarchy of controls in order of preference for protecting the worker.

Hierarchy of controls in order of preference:

1. ***Elimination of hazard;*** Substitution with safe alternative.
2. ***Engineering;*** Ventilation & wet methods.
3. ***Administrative;*** Work practices, scheduling workers to minimize exposure, extended breaks, etc.
4. ***Personal Protective Equipment (PPE);*** Respiratory and hearing protection, protection of face, hand, feet, eyes & whole body.

**BCA will provide all the PPE you need....
you just need to make sure you use it.**