

Toolbox Talk

Hierarchy of Control

No one is expected to remember every regulation number and the word-for-word definition. Safety training is meant to teach workers about hazards in their jobs, and the best ways to perform a task safely. Most of the training provided by OSHA and other institutes are based on something called a Hierarchy of Control.

You may have seen parts of this before in our previous Toolbox Talks on [Safety Glasses](#) or [Cement and Concrete](#). From a management side, this is one of the best tools you can use to create a safe work place. It provides the ability to look at each task in your business and evaluate the safest way to do it.

What is it?

The "Hierarchy" is four or five levels of analyzing a task. They start with the most effective and work down to the least effective (possibly that is the best option you have). Ultimately, the list looks like this:

1. Elimination: The best way to reduce a hazard is to eliminate it.
2. Substitution: Replace a hazardous material with a safe material.
3. Engineering Control: Physical changes to the workplace to protect workers.
4. Administrative Control: Rules and Procedures that guide workers how to work safely.
5. Personal Protective Equipment: Last line of defense. All other controls are unfeasible so protect the worker with gloves, respirators, glasses, fall arrest, boots, etc.

Sorry, What is it...?

To better understand how this process works, let's try a real world example.

Lets say we have a commercial business looking for an HVAC tech to do routine maintenance on a roof top unit.

Elimination/Substitution: In the design phase of construction, knowing this equipment would require routine maintenance, they decided to go with a ground unit. This will eliminate all of the hazards both during original install and annual maintenance work.

Engineering Control: The additional cost to change equipment is too great so it has to be on the roof. So they have guard rails installed on the roof to keep any future workers away from the edge. There is a fixed ladder on the side of the building to a designated access point, with anchor points and hoist for materials/tools.

Administrative Control: The equipment is on the roof, they couldn't do the guardrails because they thought it was extra leak points and looked bad from the road. So they are left to make rules for the HVAC contractor and fall protection. They train new employees on fall protection and tell them they can't come within 6' of the roof edge, they must wear fall protection, and all materials must be crane lifted onto the roof.

PPE: The HVAC tech wears a body harness and connects to an anchor point. There is not fixed ladder or guards set up. It is truly the last line of defense for working at heights.

For the hierarchy to work best, always start at the top and work through all the options before moving to the next lower step. Elimination will always be the best option. While PPE is safe, it involves too many variables and should be the last resort. Notice that none of this toolbox talk mentions a regulation number. You know the dangers of what you do, and you have the power to change how it's done.

Questions for you

1. What is the most dangerous task you do in a week?
2. Can you eliminate/substitute that?
3. What is stopping you from changing it?