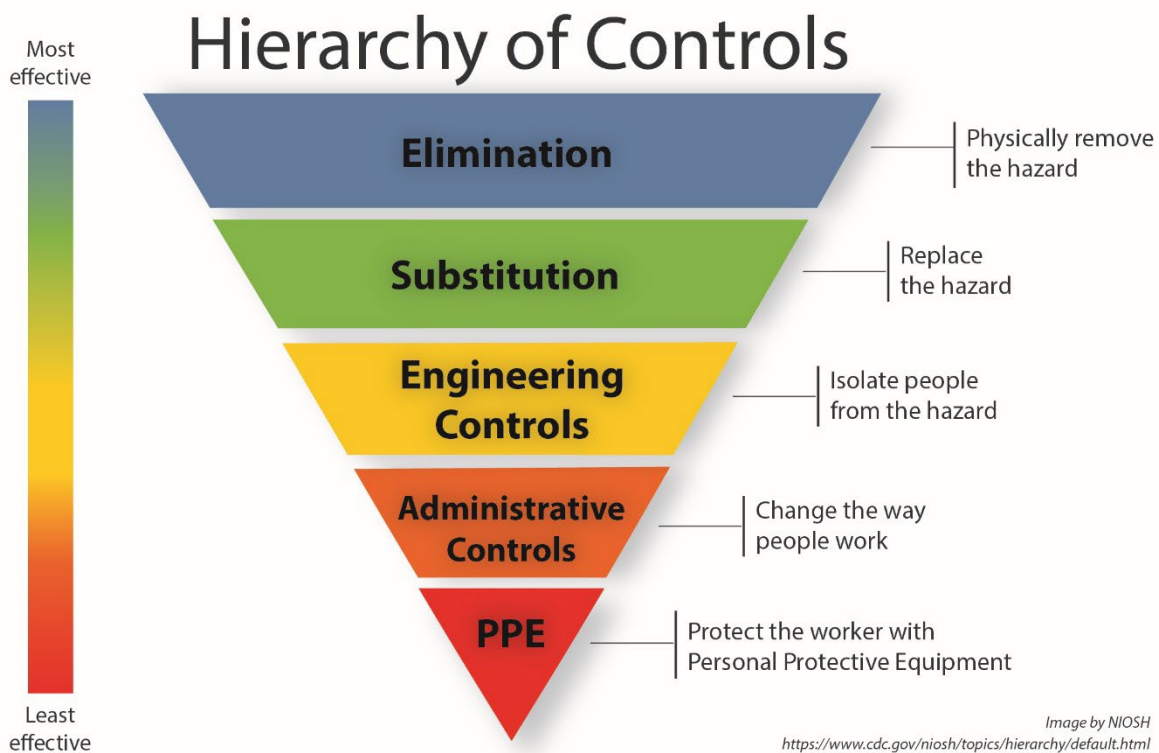


Commitment to Occupational Safety

Penn is committed to providing a safe and healthy workplace for members of our community by encouraging the inclusion of employee health and safety in the design process. At the core of Penn's safety philosophy is the implementation of the Hierarchy of Controls that emphasizes the elimination of hazards over mitigation by other means. This philosophy is included in the National Institute of Occupational Safety and Health (NIOSH) initiative – Prevention through Design (PtD). By eliminating a hazard or hazardous condition, safety will not be dependent upon following a procedure, obtaining training, maintaining equipment, or using personal protective equipment. The A/E must strive to eliminate hazards or hazardous conditions during the design phase of capital projects.



Hazard Elimination

Two of the most common situations where hazards could be easily eliminated during the design phase are related to fall hazards and permit-required confined spaces.

Fall Hazards:

Emphasis on Passive Fall Protection

When possible, fall hazards, such as those encountered on roofs, should be eliminated using passive systems including 42-inch-tall parapets or railing systems. Active systems including anchor points and horizontal lifeline systems are considered personal protective equipment (PPE) and are the least effective and least desirable solution. Active systems also require on-going inspections, maintenance, replacement, employee training and proper use to be effective.

Consider all building components or systems that may require service and maintenance and may also present a fall hazard and design the component with passive fall protection to allow safe access and servicing.

Confined Spaces:

A confined space is a space that is large enough and so configured that an employee can bodily enter and perform assigned work, has limited or restricted means for entry or exit, and is not designed for continuous employee occupancy.

A permit-required confined space

- Contains or has the potential to contain a hazardous atmosphere;
- Contains material that has the potential to engulf an entrant;
- Has walls that converge inward or floors that slope downward and taper into a smaller area which could trap or asphyxiate an entrant; or
- Contains any other recognized safety or health hazard, such as unguarded machinery, exposed live wires, or heat stress.

Minimize the creation of confined spaces, especially those with the potential to be classified as permit-required confined spaces. If a confined space is created, remove the potential for classification as a permit-required confined space by considering what potential hazards exist or could be created by activity in the space and eliminate them. For example, providing adequate ventilation can eliminate the potential for an atmospheric hazard, or instead of housing equipment in underground vaults to keep equipment out of sight, when feasible, install equipment above ground and use screening or landscaping to hide it.