CONSTRUCTION
SAFETY WEEK

TUESDAY · *RESPOND*

INTRODUCTION OF DAILY TOPIC:

Responding is about what we do once a hazard is recognized—not reacting after something goes wrong, but acting in advance to prevent it from causing harm.

In construction, hazards are rarely a surprise. We know where the risks are: work at heights, heavy equipment, energy sources, changing site conditions, weather, and coordination between multiple trades. What makes the difference is how well we plan for those hazards and how clearly we put controls in place before work starts.

Responding effectively starts with up-front preplanning—thinking through the work, identifying hazardous energy, and selecting direct controls—engineering solutions and physical safeguards that protect workers even if a behavioral error occurs. It also includes daily planning, because conditions change. What was safe yesterday may not be safe today.

Just as important as the plan itself is how the plan is communicated. A plan that lives only on paper doesn't protect anyone. Real safety happens when the plan is discussed, understood, challenged, and improved through collaborative conversations involving everyone doing the work—supervisors, craft workers, and trade partners.

Today's discussion is about how we respond before an incident happens:

- Planning work with safety built in from the start
- Prioritizing direct controls (energy elimination, reduction, isolation) over warnings and reminders
- Re-checking and adjusting plans every day
- Making sure everyone understands the plan and their role in it

Responding well is how we turn hazard recognition into real protection. In response, find solutions beyond PPE when possible.

Direct Controls (Addresses Energy — most effective)

Energy Elimination – Remove the energy/hazard entirely
Example: Prefabricate assemblies at grade to eliminate work at height.

Energy Reduction – Reduce the amount/magnitude of hazardous energy
Example: Use equipment/methods that reduce manual force, pinch points, or exposure duration.

Energy Isolation – Physically separate people from the energy
Example: Guardrail systems/hard barricades, trench shields, shoring systems, machine guarding, lockout/tagout, exclusion zones.

Alternative Controls (Addresses Human Error — less effective)

Administrative Controls – Plans, procedures, and coordination that reduce the chance of error
Example: Pre-task planning, work sequencing, traffic control plans, role clarity, and coordination between trades.

PPE – Protect the worker when exposure remains
Example: Fall arrest where exposure cannot be eliminated/isolated; taskspecific PPE when required.

KEY POINT: Effective preplanning starts with **direct controls** and only relies on alternative controls when exposure remains.

Effective preplanning starts at the top of the hierarchy and works down, with daily conversations to confirm the controls are in place and understood by everyone involved.

CASE STUDY:

A crew is scheduled to install a large duct riser in a high-rise building. The work includes crane activity and exposure to gravitational and suspended-load energy, including work near shaft edges. Before work begins, the crew meets to identify hazardous energy and apply the Hierarchy of Energy Control:

Energy Elimination

The duct riser is prefabricated into four sections to eliminate significant field assembly and reduce time spent exposed at height.

Energy Reduction

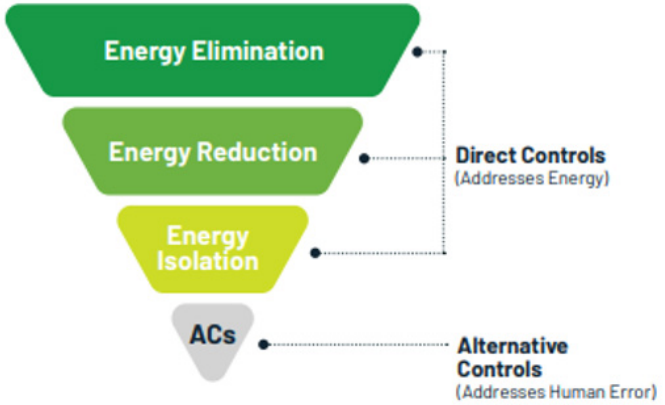
The crew selects equipment and methods that reduce instability and manual handling demands (e.g., a stable powered platform rather than climbing/positioning methods that increase exposure).

Energy Isolation

Rigging connections are engineered and stamped by a PE (no field improvisation). Shaft edges are protected with guardrails/hard barricades. Exclusion zones are established to separate workers from suspended-load paths.

Alternative Controls

During the pre-task meeting, the crew aligns with the crane operator, assigns roles, confirms travel paths, identifies required lift inspections, and agrees to stop work if controls are disturbed or conditions change.



PPE (Last Line)

Workers use required minimum PPE for most of the task, and where a leading-edge exposure remains, fall protection is used as the final layer—not the primary control.

WRAP UP:

Most of the protection in a task should come from how the work is designed, planned, and physically controlled—not from PPE at the end. PPE is important, but it is a last line of defense. The strongest protection happens when hazardous energy is eliminated, reduced, or isolated through planning, engineered safeguards, and verified field conditions before work begins.