

Safety Through Engineering Inc.





Sustainable Safety®

- The integration of safety methods throughout the life cycle of buildings, machinery, equipment and processes to protect people from workplace hazards
- Maximizes the economic, environmental and safety performance of buildings, machinery, equipment and processes







Sustainable Safety®

- Business decisions made with safety influences increases safety and decreases injury/fatality rates as well as worker's compensation and third-party lawsuits to generate money
- As General Industry becomes more aware of the financial cost associated with the growing number of fall-related injuries and fatalities, the integration of Sustainable Safety methodologies will become a must if the likelihood of a serious or fatal injury exists



Fall Protection - Historical Document





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- Letter of interpretation in 1987 said employers are required to provide fall protection for all employees exposed and did not allow grandfather exceptions



 In September 1973, OSHA published a proposed revision of subpart D in the Federal Register. In April 1976, however, OSHA withdrew the proposal because, in the agency's view, it had become outdated and did not reflect current industry practices



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- On May 2, 2003, OSHA reopened the rulemaking record on the proposed revisions to Walking and Working Surfaces; Personal Protective Equipment (Fall Protection Systems)
- On May 24, 2010, OSHA posted the "Walking and Working Surfaces; Personal Protective Equipment (Fall Protection Systems); Proposed Rule"



OSHA's 2010 Redesignation Table

Section	Existing	Proposed Rule
Sec. 1910.21	Definitions	Scope, application and definitions
Sec. 1910.22	General requirements	General requirements
Sec. 1910.23	Guarding floor and wall openings and holes	Ladders
Sec. 1910.24	Fixed industrial stairs	Step bolts and manhole steps
Sec. 1910.25	Portable wood ladders	Stairways
Sec. 1910.26	Portable metal ladders	Dockboards (bridge plates)
Sec. 1910.27	Fixed ladders	Scaffolds (including rope descent systems)
Sec. 1910.28	Safety requirements for scaffolding	Duty to have fall protection
Sec. 1910.29	Manually propelled mobile ladder stands and scaffolds (towers)	Fall protection systems criteria and practices
Sec. 1910.30	Other working surfaces	Training requirements STE SAFETY

- Performance-oriented verbiage
 - Seeks to eliminate the fog created when the focus is on compliance only. The laundry list approach can't keep up with technology
 - OSHA realized that technology was making previous proposals obsolete



 "Any employer who experiences difficulty applying these performance-oriented standards may consult the applicable national consensus standards for additional information"



- "Proposed subpart D establishes requirements for general industry walking-working surfaces and prescribes the use of fall protection systems (including personal fall protection systems) to protect employees from falls"
- "Proposed subpart I contains performance criteria for personal fall protection systems only"



- Terms and definitions
 - Major term definitions are standardized for all sections
 - There are 48 terms that have been added or revised
- "The revised performance-oriented provisions are designed to eliminate detailed specifications and facilitate compliance"
- More focus is placed on the employer
 - For example, posting of plates indicating load limits of the building/structure is no longer required
 - The burden for making sure the walking-working surface is strong enough is placed upon the employer



- 1910.30 Training Requirements
 - "Proposed paragraph (a)(2) requires that each employee be trained by a <u>qualified person</u>,* and identifies four specific areas that the training must cover, including:
 - (i) The nature of fall hazards in the work area;
 - (ii) The correct procedures for erecting, maintaining, disassembling, and inspecting the fall protection systems to be used;
 - (iii) The use and operation of guardrail systems, safety net systems, warning lines used in designated areas, and other protection; and
 - (iv) The use, operation, and limitations of personal fall protection systems including proper hook-up, anchoring and tie-off techniques, methods of use, and proper methods of equipment inspection and storage as recommended by the manufacturer"

*emphasis added



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- Some adjustments in the proposed rule; but, looking at the history, OSHA has been stating that these adjustments were coming
- The proposed rule clarifies the requirements that were already in existence through:
 - Sustainable Safety[®]
 - 5(a)(1) citations
 - Industry standards



Integrate Safety

- Innovative and successful companies know that safety on the job does not have to delay projects but can actually improve output
- The solution is not to add surfacelevel compliance checklists when preparing to start a job but to integrate safety at every point of the job process
- If the proposed rule is creating panic, your fall protection safety program may need updated

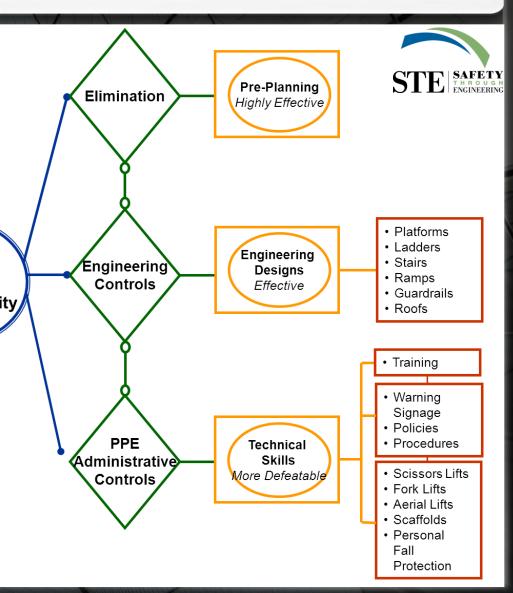
Getting Back to the Basics

- A systematic approach to developing any fall protection safety program should include the following three recommendations:
 - Establishing a Hierarchy of Control
 - Developing a fall protection safety program
 - 3. Coordinating a fall protection safety committee



 Some control methods are considered passive while others are considered active

The Hierarchy of Control was developed to illustrate that due consideration should be given to elimination, substitution and engineering controls first

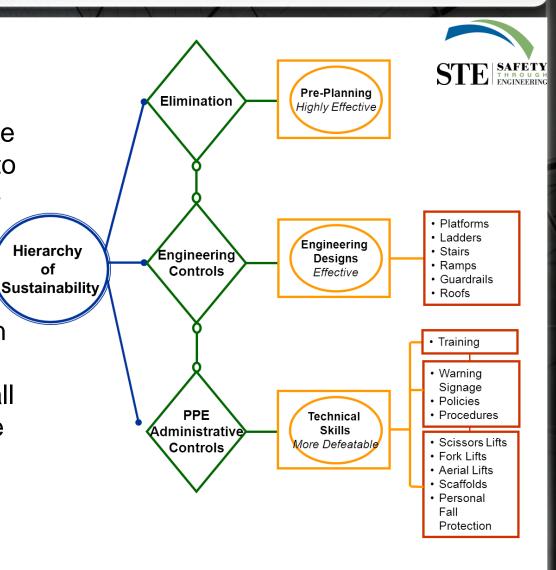


of

Elimination

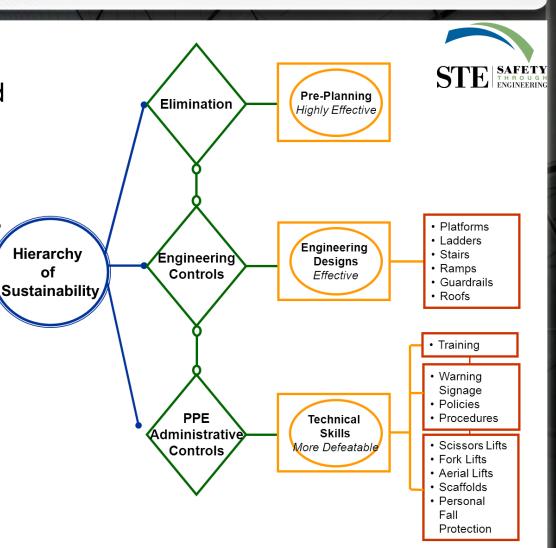
The most effective method used to increase fall protection safety is to remove or eliminate the exposure of falling

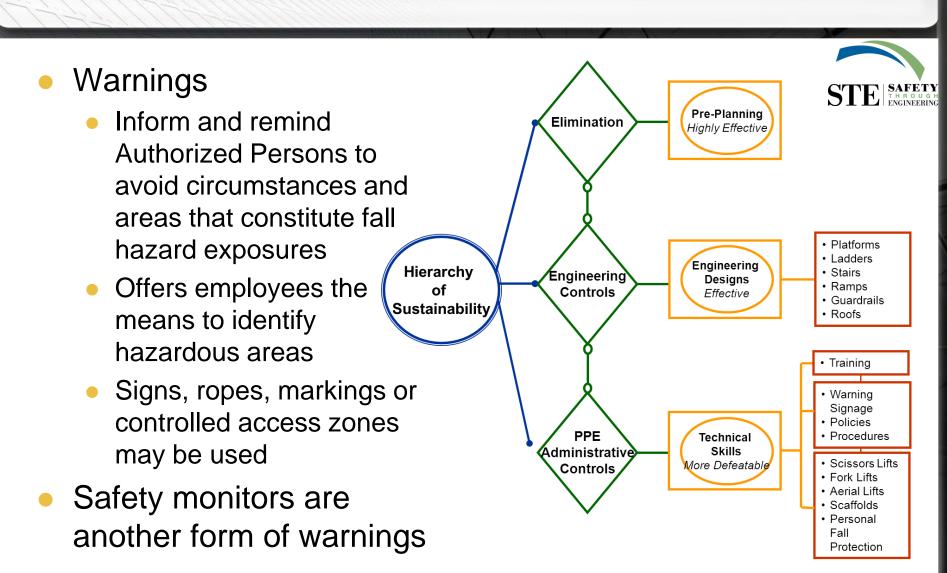
This may be accomplished by eliminating an operation or by substituting an operation that has no fall hazard exposure for the existing operation that possesses the fall exposure



Engineering Controls

 The general idea behind using engineering controls is to provide mechanisms or guards that Authorized Persons would need to actively and consciously overcome in order to place themselves in jeopardy



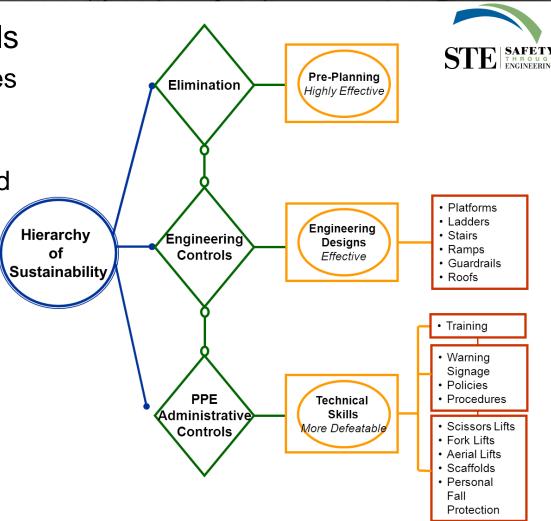


Administrative Controls

 Policies and procedures that serve to enhance fall protection safety

 Adopted, promoted and enforced by the employer

 May include simple, precise and specific rules for operations



Personal Protective Equipment Lowest on the hierarchy, but Pre-Planning Elimination Highly Effective often the only method used Low on the hierarchy because in most cases the Platforms hazard has not been Ladders Engineering **Hierarchy** Stairs Engineering Designs removed Ramps of Controls Effective Guardrails Sustainability Specialized training of Roofs the Authorized Person is Training required Warning Signage Considered active in nature Policies PPE Procedures Technical Skills and most easily defeated Administrativ Scissors Lifts More Defeatable Controls Fork Lifts Aerial Lifts Scaffolds Personal Fall Protection

- The ultimate goal of a fall protection system is to eliminate the risk of falling
 - It is more reliable to depend on engineering and design controls, or "automatic" hazard abatement controls, than it is to depend on the behavior of Authorized Persons and their supervisors to abate the fall hazards
 - The least effective controls are those that are easily defeated

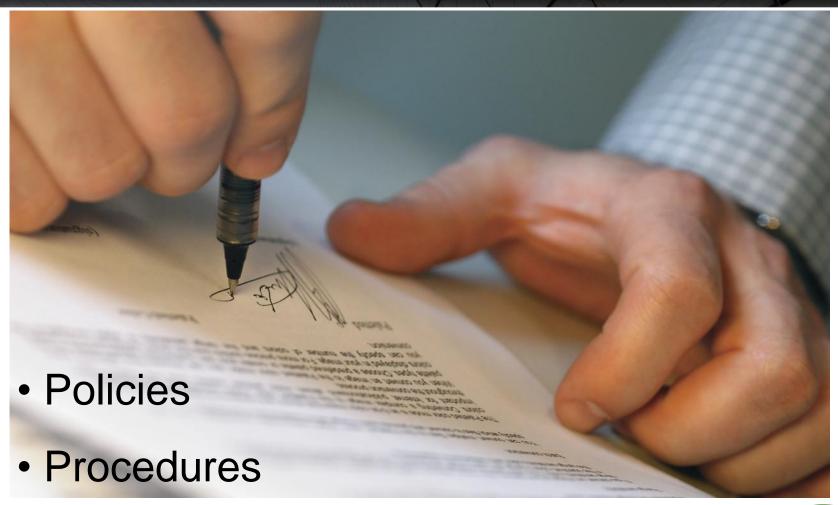


- Sustainable Safety requires four key beliefs for every fall protection program
 - All fall hazard exposures can be prevented or controlled
 - Eliminating fall hazard exposure is an ethical obligation
 - Controlling fall hazard exposure reduces the cost associated with a fall protection safety program
 - Establishing and implementing a fall protection safety program is the most effective way to identity, evaluate and control fall hazards



- Management must take a leadership role
 - The first step in developing a fall protection program is to establish a company safety policy
 - The policy should state the direction and desires of management and the safety department







- To establish a safety program, you must develop awareness among the safety and engineering departments
- Team effort is vital for a fall protection safety program



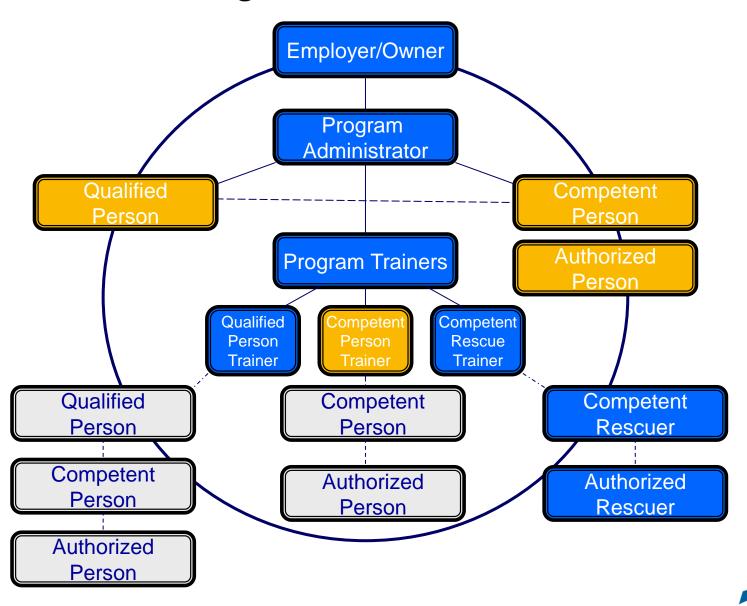


Fall Protection Safety Committee

- Made up of individuals who will implement the fall protection safety program
- Committee members require special training
 - Should be trained to the Competent Person or Qualified Person level (see MFP Team diagram on next slide)
 - Should be familiar with current ANSI standards for fall protection equipment (ANSI Z359)



STE Managed Fall Protection Team



Fall Protection Safety Committee

- Five Fall Protection Safety Committee Tasks
 - Identifying all existing and potential fall hazard exposures throughout the jobsite, often referred to as a job safety analysis
 - Evaluating possible elimination and control methods for the identified fall hazards
 - 3. Implementing elimination and engineering controls for the fall hazard exposures based on an extensive evaluation process
 - 4. Providing various levels of training for all employees directly involved with or indirectly affected by the fall protection safety program
 - Monitoring and evaluating the success of the fall protection safety program
- OSHA 1910.132



- Preplanning
 - Preamble to subpart M underscores that most organizations do not adequately plan for safety
 - Preplanning emphasizes planning for safety at the bidding stage rather than after an accident
- Foreseeable hazards





Preamble to subpart M quotes

"The duty to consider alternative methods of construction which permits compliance with the regulation is merely a corollary of the duty to comply"

—Cleveland Consol. v OSHRC, 649 F.2d 1160, 1166 (5th Cir. 1981)



- "Time Gap" of fall protection compliance/safety is the length of time from the actual acknowledgment of the fall hazard in the job safety analysis to the actual Authorized Person's fall hazard exposure time (doing the work activity)
- "Time Gap" greatly influences and limits the options you have
- Based on the Hierarchy of Control, reduces time to prepare results with reduced choices
- You may not be able to choose the most preferable solution and are left with the least desirable choice that of using personal fall arrest equipment instead of a guardrail system

- The decrease in the allowable "Time Gap" increases cost and lowers the effectiveness of available solutions when you do not plan ahead
- This is why preplanning is critical to safe workplace practices and to controlling fall hazard exposures for the Authorized Persons



Fall Protection Safety Committee Fall Protection Training

- The Competent Person, as defined by OSHA 1926.32 and the proposed subpart D, must be properly trained to foresee potential and existing fall hazards
- Unfortunately, the Competent Person designation often is simply assigned to the most skilled person, such as the foreman or the supervisor, regardless of whether this individual has the necessary fall protection training and experience to fulfill the responsibilities



Fall Protection Safety Committee Fall Protection Training

- The Competent Person roll is a significant area of responsibility and is an area that is critical to the success of the overall fall protection program
- Proposed subpart D echoes the importance of being adequately trained and now requires that "the employer must ensure that each employee is trained by a Qualified Person"



Conclusion

- Simply put, the compliance impact of proposed subparts
 D and I is minimal, if not completely absent, for those
 who are focused on safety rather than compliance
- The 2010 "Walking-Working Surfaces and Personal Protective Equipment (Fall Protection Systems);
 Proposed Rule" is simply making an official statement of what is already happening through OSHA General Duty Clause 5(a)(1) citations based on industry standards that are in agreement with subpart M
- This proposal seeks to move general industry from the absence of a fall protection standard to an agreed acceptance of what has been in place for ten years through subpart M

Conclusion

- Utilizing industry standards such as ANSI Z359 and Sustainable Safety methodologies, companies focused on safety and designing out the hazards are able to utilize the performance language in the proposed standards to obtain a new freedom in achieving their safety goals
- The result will be a safer work environment, improved employee relations and enhanced efficiencies that equate to overall cost savings



The End

Mike Wright – PE, CSP, President Mark Williams – Director of Training



9363 Detrick Jordan Pike New Carlisle, OH 45344

Phone: 937-964-1900

Fax: 937-964-8457

www.ste4u.com