

OSHA's Proposed Subparts D and I: What's the Big Deal?

**Mark E. Williams, Safety Specialist
Michael C. Wright, PE, CSP, CPE
Safety through Engineering, Inc.
New Carlisle, OH**

Introduction

On May 24, 2010, OSHA posted the “Walking-Working Surfaces and Personal Protective Equipment (Fall Protection Systems); Proposed Rule.”¹ As business owners and safety professionals wonder how these changes will affect them, the stir created by the proposal process has fed a “Chicken Little—the sky is falling” atmosphere through the sales pitches of ill-informed safety consultants and product manufacturers. EHS professionals are asked to see past the fog and confusion to analyze if their company’s focus points need to be adjusted. Time, money and effort all rely on an accurate portrayal of the compliance changes that will be brought about by the 2010 proposed revision of subparts D and I.

OSHA summarized the proposal of subparts D and I in this manner:

“The proposal reorganizes the rule in a clearer, more logical manner and provides greater compliance flexibility. The proposed rule is written in plain-language to make it easier to understand, thereby facilitating compliance. Additionally, the proposal increases consistency between construction, maritime, and general industry standards, and eliminates duplication.”²

It makes sense that the proposal keeps subparts D and I together. Subpart D establishes the walking-working surfaces requirements for general industry and advises the use of fall protection systems to protect employees from fall hazards while subpart I focuses on the fall protection systems performance.

The reorganization of subpart D is an effort to make the rule clearer. The proposed format brings about a lot of consolidation, such as combining the wood, metal and fixed ladders into a single section instead of the three they previously sprawled across. OSHA provides a redesignation table to visually aid in understanding the changes to subpart D as shown in Table 1

¹ Occupational Safety and Health Administration (OSHA): Federal Registers. May 24, 2010. Proposed Rules. Federal Register No. 75:28861–29153, *Walking-Working Surfaces and Personal Protective Equipment (Fall Protection Systems); Proposed Rule* (retrieved December 1, 2010) (http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=FEDERAL_REGISTER&p_id=21518).

² Ibid.

below.³ OSHA also used the reorganization to highlight items such as training requirements by making them stand-alone sections.

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	<u>Dockboards</u> (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

Table 1. OSHA’s redesignation table aids in understanding the changes to subpart D.

OSHA makes it clear that the advance in technology has made many of the previous requirements in earlier proposals inappropriate. In response to this, the proposal makes a marked shift to performance-oriented language seeking to allow for further advancement while maintaining the minimum requirements for the safety of America’s workers.

This focus on performance may be the cause of the fog and confusion that plagues the focus of compliance. When you have a laundry list, you can check it off and be done. The problem is that the advances in technology may no longer be applicable to that list and, as a result, the activity contains hazards that are not addressed. Compare the current 1910.22(a) (3) with the proposed verbiage, and the concept of performance-based compliance may not seem so appealing. The existing standard states, “To facilitate cleaning, every floor, working place, and passageway shall be kept free from protruding nails, splinters, holes, or loose boards.”⁴ In proposed paragraph (a)(3), OSHA requires employers to ensure that all surfaces be designed, constructed and maintained free of recognized hazards that can result in death or serious injury to employees.

The performance-oriented verbiage moves the focus from simply checking a box on a list to training Competent and Qualified Persons’ to incorporate safety standards and methodologies in

³ Ibid.

⁴ Occupational Safety and Health Administration (OSHA). 2003. 29 CFR 1910.22, *Walking-Working Surfaces* (retrieved December 15, 2010) (http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9714)

the identification of “recognized hazards.” But is removing the checklist mentality possible? Is the compliance fog so great that safety is now an elusive goal? In the proposal for subparts D and I, OSHA says, “Any employer who experiences difficulty applying these performance-oriented standards may consult the applicable national consensus standards for additional information.”⁵

The requirements of OSHA and ANSI are often deemed incompatible with workplace activities, especially since changing workplace safety behaviors and practices generate much quarreling among the ranks in a workforce that has not always been adequately trained on fall protection. However, 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 surface-level compliance checklists when preparing to start a job but to integrate safety at every point of the job process.

As general industry becomes more aware of the safety and financial costs associated with the growing number of fall-related injuries and fatalities, the benefits of a proactive fall protection program will become more appealing. It will become clear that whenever the performance of any task would allow a worker to fall a distance of four feet or more, or any distance where the likelihood of a serious or fatal injury exists, integration of Sustainable Safety methodologies become a must. The hazard of falling must be identified, evaluated and controlled based on the hierarchy of controls.

An Overview of a Fall Protection Safety Program

At first glance, a fall protection safety program may appear to be nothing more than common sense with no special procedures, means and methods, or training required to properly implement it. This misconception is one of the main reasons safety, workplace habits, unsafe acts and methods have not improved significantly since the passage of 29 CFR 1926 Subpart M or Subpart R. A systematic approach to developing any fall protection safety program should include the following three recommendations:

1. Establishing a Hierarchy of Control
2. Developing a fall protection safety program
3. Coordinating a fall protection safety committee

Recommendation No. 1: Hierarchy of Control

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. Examples of the least effective controls include posting warning signs or having to use fall protection equipment.

The established Hierarchy of Controls is indicated below, going from most effective to least effective.

⁵ Occupational Safety and Health Administration (OSHA): Federal Registers. May 24, 2010. Proposed Rules. Federal Register No. 75:28861–29153, *Walking-Working Surfaces and Personal Protective Equipment (Fall Protection Systems); Proposed Rule* (retrieved December 1, 2010) (http://www.osha.gov/pls/oshaweb/owadispl.show_document?p_table=FEDERAL_REGISTER&p_id=21518).

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. While the elimination approach is not applicable to all operations, many traditional operations are assumed immutable when indeed they are not.

Foresight, creativity and strong motivation to enhance the safety culture together have led organizations to find alternatives to traditional operations or construction sequences that are much safer but not significantly more costly. Typically, these revised operations or sequences are intrinsically more economical. They can frequently be justified as a least-cost approach to establishing the required level of fall protection safety. That is, given that something must be done to rectify an unsafe operation, elimination or substitution may be less expensive than the costs associated with adding engineering controls or personal fall protection safety equipment to that operation.

A second redeeming feature of this approach is that it involves the exercise of studying the operations and sequences in depth, thus causing consideration of their inter-relationships and their fundamental objectives. This study typically leads to modifications that yield increased efficiency, economy or quality of the final product that would not be achieved without its completion. The complex inter-relationships between various operations must be foreseen, well understood and fully considered before a modification can be implemented.

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. For example, if a table saw will not operate unless the blade guard is in place, or a backhoe has a “dead man” seat, those are engineering controls. Engineering controls are considered passive in nature: Authorized Persons do not need to act in order to employ such engineering controls once they are in place. Guardrails, handrails and swinging gates are other examples of engineering controls.

Warnings. *Warning mechanisms* inform and remind Authorized Persons to avoid circumstances and areas that constitute fall hazard exposures. This approach offers employees the means to identify areas such as holes in the floor or work platform, roof or floor edges, or areas with insufficient strength. Signs instructing Authorized Persons to keep away (keep out) from specific areas may be used. Areas may be more distinctly identified by roping them off, by painting them or by creating controlled access zones. When the work area changes rapidly or frequently with the operation, an individual may be assigned to issue verbal warnings to those conducting the operation.

This approach is considered relatively effective because it prevents Authorized Persons from approaching the fall hazard exposure zones. However, if an employer is not perceived as serious in enforcing the warnings, this approach will fail.

Warning systems are considered active in nature. The warning mechanisms and systems referenced above are regarded as being an effective means of control because they are used to prevent persons from entering areas where they would be exposed to fall hazards.

Another category of *warnings* is used by safety monitors when Authorized Persons are permitted to approach leading edges or other fall hazard exposures. Such warnings issued by safety monitors to Authorized Persons who are within the roped off, painted or controlled access zones are significantly less effective and follow after personal protective equipment in the Hierarchy of Control.

Administrative Controls. *Administrative controls* include the policies and procedures that serve to enhance fall protection safety and are adopted, promoted and enforced by the employer. Administrative controls may include simple, precise and specific rules for operations, such as “Authorized Persons shall not work at heights greater than four feet above the lower level without proper guardrails and platforms or adequate personal fall protection methods and equipment.” This method may also include more general rules, such as “all work crews shall include at least one member, preferably the supervisor, who has completed sufficient training in fall protection safety so as to be a ‘Competent Person’ as defined by OSHA.”

Personal Protective Equipment (PPE). Although the use of *personal fall protection equipment* is the lowest item in the hierarchy of control, this is often the only method employed. Personal fall protection equipment includes full-body harnesses worn by Authorized Persons, restraining ropes, fall-arresting lanyards, self-retracting lanyards, vertical lifelines, horizontal lifelines, ladder climbing devices, and so forth, and all of their appurtenances. Authorized Persons who are face-to-face with the hazard of falling require these items.

This approach has the lower position in the hierarchy because, in most applications, the hazard has not been removed nor the Authorized Person removed from the hazard. Additionally, this method always requires the Authorized Person to erect rig assemblages, complete attachments or perform other actions each time the personal protective equipment is used. While this method of fall hazard abatement may appear to the employer to be the most economical in the short run or appear to be the most expedient, it is justified only when the other four methods have been seriously considered. Since specialized training of an Authorized Person is required, PPE control methods are considered active in nature and are the most easily defeated by the employees of all the control methods.

Conclusion. As noted in the previous paragraphs, some control methods are considered passive while others are considered active. Elimination and engineering controls, which are passive systems, are the most effective since they do not require any specific participation by an Authorized Person in order to be operative. Active systems, on the other hand, require some degree of participation by an Authorized Person, ranging from staying away from hazardous areas to conducting equipment inspections and completing attachments (rigging of equipment) for each workplace activity. For these reasons, the Hierarchy of Control was developed to illustrate that due consideration should be given to elimination, substitution, and engineering controls before decisions are made to implement “active” fall protection systems.

Recommendation No. 2: Fall Protection Safety Program

Sustainable Safety requires that a fall protection program be based upon the beliefs that:

- all fall hazard exposures can be prevented or controlled;
- eliminating fall hazard exposures is an ethical obligation;
- controlling fall hazard exposures makes good business practice and, ultimately, reduces costs associated with fall protection safety program; and
- establishing and implementing a fall protection safety program is the most effective way to identify, evaluate and control fall hazards.

To establish a fall protection safety program, you must first lay the groundwork for your plan by developing awareness among knowledgeable, observant safety and engineering department

personnel. You can further educate management by providing workplace injury and death statistics, as well as associated costs. This information can be obtained from the U.S. Bureau of Labor Statistics and the National Safety Council's "Injury Facts."

It is important that management takes a leadership role by setting clear guidelines and requirements as to the purpose and content of a company-wide fall protection safety program, and by ensuring that sufficient money and personnel resources are available to successfully implement it. The first step in developing a fall protection program is to establish a company safety policy. This policy should clearly state the direction and desires of management and the safety department.

Team effort is another vital component of a fall protection safety program. The need for coordination of efforts and teamwork is ever increasing, especially with the influx of corporate downsizing. Overworked and understaffed departments rely on good communication and cooperation to lead a company in a safety program that is well thought out (preplanned) and accepted throughout the organization—from upper management to Authorized Persons.

Recommendation No. 3: Fall Protection Safety Committee

Once organizational policy is defined and a general awareness safety manual is prepared, the third step is to organize a safety committee of individuals to help implement the fall protection safety program. The individuals for the committee should include representatives from the safety department, the bid department, the engineering department, the purchasing department, Authorized Persons and management. Each individual should bring to the table a broad base of skills and experience, as well as a willingness to work together.

Fall Protection Safety Committee members require special training and should be trained to the level of Competent Persons or Qualified Persons. This specialized training involves acquiring extensive knowledge in fall protection methodology and understanding all of the fall protection stipulations outlined in the OSHA requirements for the general industry as well as familiarity with the current ANSI standards for fall protection equipment (ANSI Z359).

The Fall Protection Safety Committee will be tasked with five primary responsibilities:

1. Identifying all existing and potential fall hazard exposures throughout the job site, often referred to as a job safety analysis.
2. 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.
5. Monitoring and evaluating the success of the fall protection safety program.

Preplanning. Preplanning is an integral part of effectively abating potential fall hazard exposure for either general industry or construction activities. OSHA CFR 1926 Subpart M, which focuses on fall protection, offers an important but often overlooked preamble to the document. This preamble underscores OSHA's view that most organizations do not adequately plan for safety, if at all, until construction or maintenance activities require some form of

protection. OSHA uses the word *preplanning* to emphasize the fact that contractors and general industry employers should start their safety planning at the time of bidding rather than waiting until a fall hazard exposure has become apparent.

As stated in the preamble of subpart M, “. . . equipment is generally available to provide safe anchorage points for personal fall arrest systems. It is in this area that preplanning of the project is most critical. Focusing on fall protection at the design and planning stages of a project will enable an employer to develop measures that protect affected employees from fall hazards.”⁶ Therefore, it is important to give consideration to fall protection early in the process (i.e., at the bidding phase) just as you would when determining how much shoring is required or how much concrete and steel will be needed, or deciding where to place the cranes or where to store materials during construction, and so forth. Preplanning may lead to modifications in the method of construction, maintenance or operation of a project or machine.

The preamble quotes from *Cleveland Consol vs. OSHRC*, 649 F.2d 1160, 1166 (5th Cir. 1981) point out: “The duty to consider alternative methods of construction which permits compliance with the regulation is merely a corollary of the duty to comply.”⁷ When fall protection is lightly evaluated at the bidding stage and only minor steps are taken to evaluate specific needs, it is most likely that the construction activities will not be modified from traditional methods in order to accommodate fall protection methodology. Therefore, less effective methods for controlling fall hazards may be implemented when Authorized Persons are exposed to fall hazards.

“Time Gap” is the length of time from the actual acknowledgement 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, the shorter amount of time you have to prepare for a project means your choices become limited. 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 controlling fall hazard exposures of Authorized Persons.

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. While these individuals may have extensive knowledge and experience in general industry safety, their experience with fall protection methodology may be very limited. Therefore, employers must ensure their company’s “Competent Person” receives adequate training before functioning in this role.

⁶ Occupational Safety and Health Administration (OSHA). 1994. 29 CFR 1926 Subpart M, *Fall Protection* (retrieved December 15, 2010)

(http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10922).

⁷ Occupational Safety and Health Administration (OSHA). 1994. 29 CFR 1926 Preamble to Subpart M, *Fall Protection* (retrieved December 15, 2010)

(http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=PREAMBLES&p_id=894).

The Competent Person role 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.”⁸ Without completing a comprehensive Competent Person training program, it will be impossible for the employer’s representative to properly and effectively perform this job function.

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 the 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.

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.

⁸ Occupational Safety and Health Administration (OSHA): Federal Registers. May 24, 2010. Proposed Rules. Federal Register No. 75:28861–29153, *Walking-Working Surfaces and Personal Protective Equipment (Fall Protection Systems); Proposed Rule* (retrieved December 1, 2010) (http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=FEDERAL_REGISTER&p_id=21518).