

Using Fall Protection Procedures in the Real World

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Introduction

Developing, administering and adhering to fall protection procedures is a critical aspect of a safe working environment. The ASSE/ANSI Z359.2-2007 standard and OSHA's Fall Protection – Training Requirements regulation, 1926.503, both include procedures as an important element in an effective fall protection program. Both documents recognize that procedures are valuable tools for training and re-training workers—with the ultimate result being the proper use of fall protection systems.

Specifically for fall protection systems, OSHA states that they must be “designed, installed and used under the supervision of a qualified person.” The same qualified person that designs the system also needs to provide thorough fall protection procedures. It is important for safety managers to understand the elements of thorough system use and rescue procedure, so that they can be informed consumers—and ensure that they are receiving the appropriate information from their qualified persons.

Even if an organization has good intentions for creating and communicating fall protection procedures, there are a variety of common pitfalls that can derail the success of these documents:

- Policy is not clearly stated
- Roles and responsibilities are not defined
- Training on the procedures and the individual components included in the procedures is poor
- Follow through and accountability to adhere to procedures is inconsistent

Procedure Types

Any managed fall protection program should include a variety of different procedure types. Some general safety procedures that are common to fall protection programs are:

- Equipment component selection
- Equipment inspection
- Roof access
- Safe ladder practices
- General rescue

While the procedures in the list above provide details for common tasks, it is critical to have system-specific use and rescue procedures with every active fall protection system. This type of procedure provides specific use instructions that a worker engaging with an active fall protection system can read and review before using the equipment. For fall arrest systems, procedures should also include information on proper rescue procedures, which can be reviewed prior to use to increase the chances of prompt rescue in the event of a fall.

What the Standards Say

In order for system-specific procedures to serve as a valuable tool for training and re-training workers, organizations must avoid the pitfalls listed above. In addition, the following aspects should be included to ensure that workers have a complete understanding of system use.

- Equipment required and common misuses of equipment – this section highlights common misuses of equipment and illustrates proper inspection techniques that can prevent misuse (ANSI Z359.6-2009 § 3.3.1.4 & 3.3.1.10).
- Reference information – this section includes any outside reference documents that may be applicable to the system, as well as information on the initial installation and certification dates of the system (ANSI Z359.6-2009 § 3.3.1.1 & 3.3.1.15).
- System use procedures – this section describes in detail what the worker(s) are required to do during the use of the fall protection system (ANSI Z359.6-2009 § 3.3.1.11).
- System reference images – this section includes graphics or photos that represent proper use of the system. (ANSI Z359.6-2009 § 3.3.1.2).
- Rescue procedures – this section is critical and provides guidance for performing a rescue if a fall takes place. (ANSI Z359.6-2009 § 3.3.1.12).
- Design data – this section includes design data for details on usage limitations and fall clearances. (ANSI Z359 § 3.3.1.7-3.3.1.9).

Case Study

Implementing effective procedures can be difficult for any organization. For the U.S. Army Corps of Engineers (USACE), which employs more than 37,000 people at numerous sites, the challenge is magnified.

Getting Started

USACE communicates its procedures by providing a fall protection guide to supplement the EM-385-1-1, Section 21. This general document includes a written fall protection program that was developed with a goal of maintaining consistency for all the program's written procedures. Each

facility or site adopted this program and added their site-specific local information. The result is a nationally standardized but locally-specific, written program.

As with any long-term program, USACE knew it would need a group to champion the continued development and maintenance of its fall protection program. The High Hazard Working Group is now charged with maintaining the original EM-385 document and developing procedures and policies. The group also performs in-house risk surveys (Exhibit 1) and provides fall protection expertise for incidents and accident investigations.

The High Hazard Working Group is also charged with communicating important information about fall protection to USACE personnel. The group produces a publication, maintains an online fall protection FAQ document, and disseminates lessons learned after incidents.



Exhibit 1. This photograph shows a sample of performing an in-house risk survey.

Specific Procedures

To provide guidance to USACE personnel around the world, the EM-385 document outlined procedures for specific activities that are common at USACE sites. Local, facility-specific information was added for many of these items, but the original procedure documents provided a consistent baseline for each site. The specific procedures addressed fall protection for these work tasks:

- Communication towers
- Personnel lifting/hoisting
- Bridge inspection
- Dam inspection
- Electrical work on transformers
- Roof operations, maintenance and inspection
- Aerial/scissor lifts and mobile platforms
- Confined spaces
- Excavations
- Scaffolding
- Ladders (fixed and portable)
- Stairs
- Wall openings
- Working over/near water
- Elevated work near guardrails
- Temporary equipment

USACE also put a particular focus on rescue procedures. Information on rescue is required to be part of any project's fall protection plan. Some key concepts included in rescue procedures are: communication methods, rescue equipment, rescue-specific anchorages and rescue training for certified rescuers.

Current Focus

To properly implement its fall protection program and related procedures, USACE has established high-focus areas.

- Surveys at each USACE-owned facility
- Proper implementation of control methods (Exhibit 2)
- Training for competent persons, qualified persons, rescuers and users
- Sharing lessons learned for new designs and existing facilities



Exhibit 2. A primary focus for USACE is for initial design to account for fall protection measures. This wall required retrofitting with a handrail since it was not tall enough to be compliant.

Conclusion

Simply writing fall protection procedures once is not a panacea for all fall issues, especially for an organization as vast and diverse as USACE. But, properly written and communicated procedures provide users with the information they need to interact with the systems the way they were designed to be used. But, even though you prepare fall protection procedures, it does not mean your workers are safe. It is imperative to ensure that workers are properly trained and that procedures are followed.

All fall protection measures are implemented with a goal of reducing risk and, ultimately, saving a fallen worker from injury or death. With proper training and written procedures, the chances of equipment misuse or applying systems outside their limitations greatly decreases. Developing and maintaining proper procedures are a critical step in protecting all workers at heights.