

## **CONSTRUCTION SITE SAFETY**

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### Policy

The American Society of Civil Engineers (ASCE) believes improving construction site safety requires attention and commitment from all parties involved. It is ASCE's policy that:

- Safety issues be addressed for each project on a project specific basis
- Owners take an active role in project safety by:
  - Assigning overall project safety responsibility and authority to a specific organization or individual, (or specifically retaining that responsibility), and
  - Designating an individual or organization to both monitor safety performance during construction and have responsibility for developing a coordinated project safety plan, and
  - Designating responsibility for the final approval of shop drawings and details through contract documents, and
  - Including prior safety performance as a criterion for contractor selection.
- Engineers have responsibility for:
  - Recognizing that safety and constructability are important considerations when preparing construction plans and specifications;
  - Assuring through the specifications that the design or details of the critical elements of temporary construction, erection and lifting schemes, complicated form work and scaffolding be prepared by a professional engineer.
- Contractors have responsibility for:
  - Maintaining the safety of their employees, their subcontractors' employees, and for others in their work area, based on the contractors' control of workers, equipment, methods, techniques, sequence of work, and schedule;
  - Developing and implementing a coordinated safety program for each project with project specific safety guidelines including substance abuse programs. The safety program does not replace the contractor's responsibility for means and methods of construction.

- All employers with employees on the construction site provide appropriate safety training for their employees on specific hazards they may encounter, and inform employees concerning hazardous materials under the right to know provisions of the law.
- All on site workers, after proper training, assume personal responsibility and accountability for their actions, including knowing and observing safety rules and safe work procedures, wearing and using the required clothing, equipment and protective devices and being free from drugs and alcohol.
- Design or details of critical elements, such as, temporary construction, erection and lifting schemes, form work, scaffolding, and the use of lifting equipment and its supports be approved by a professional engineer.
- The construction industry develops innovative methods, techniques, and equipment, and assist in the formulation of legislation and in the development of ongoing safety training and education.
- The Occupational Safety and Health Administration (OSHA) continue to identify safety and health hazards and establish technical rules and standards in conjunction with the construction industry, while emphasizing voluntary participation, education and training.

## Issue

Improved construction site safety is needed. Safety problems to overcome include: lack of clear cut contractual responsibility for safety; lack of an industry wide agreement on shop drawing responsibility; the need for general and site specific safety training; and the need for workers to accept responsibility for their own actions.

Each construction project is unique with site specific issues. Hazards and exposures change daily. There are numerous contractual arrangements, such as design-build, multiple or single prime contract, or construction management that can affect construction site safety responsibility. Many projects have multiple prime contractors and possibly owner-employees working in the same area with safety responsibilities not always clearly delineated.

Numerous accidents have been attributed to the lack of clear responsibilities for final approval of shop drawings, such as L'Ambiance Plaza and the Kansas City Hyatt walkway. There is no clear consensus on an industry standard as to who (the designer, the contractor, the erector, the supplier, the manufacturer/fabricator or the detailer) should have ultimate responsibility for the approval of shop drawings that cover such critical items as connection details and temporary construction or form work.

Laws and regulations administered by OSHA generally provide adequate technical guidance to the construction industry on how to work safely, but the administrative and procedural requirements tend to be punitive and burdensome, especially on small projects.

## Rationale

ASCE believes that much can be done within the framework of existing laws and regulations to improve safety by focusing on solving the issues and problems on a project by project basis. Participating parties must agree, in advance, how these issues will be solved on each particular project.

ASCE believes that site safety responsibility should be assigned to the general contractor, construction manager, or other organization with the required expertise and resources, who is in control of the project site.

ASCE believes there is a continuing need for safety education and training for management, engineers, and workers involved in the construction industry.

Effective improvements in construction site safety can be achieved through a committed, cooperative relationship between owners, contractors, subcontractors, construction managers, safety professionals, construction workers, labor unions, designers, regulatory agencies, associations, institutes, academia, and legal and insurance professionals.

Safety issues vary during construction of different sizes and types of projects. Proposed regulations and legislation should recognize these differences. ASCE believes that legislation and OSHA's rule making, while continuing to identify safety and health hazards need to emphasize and apply an approach in which cooperation, education and training are the primary focus. The construction industry should actively participate in formulating changes to safety legislation.