American Council of Engineering Companies (ACEC) California
Policy Platform
Safety by Design

Draft, April 29, 2015

Approved by the Executive Committee on April 28, 2015
Approved by the Board of Directors on May 11, 2015

Issue

• According to U.S. Department of Labor statistics, work force injury and illness incidence rates have decreased from 1 in 20 per year to 1 in 30 per year over the past 10 years. Some of this decrease can be attributed to greater efforts in promoting and monitoring construction site safety and the safe use and maintenance of facilities. While these trends are going in the right direction, much more can be done to prevent worker injury and illness before construction begins. Worker safety can further be improved during the planning, conceptual and design phases of a project.

• The mission of U.S. National Institute of Occupational Safety and Health’s (NIOSH’s) Prevention through Design is to “prevent or reduce occupational injuries, illnesses, and fatalities through the inclusion of prevention considerations in all designs that impact workers by:
  o Eliminating hazards and controlling risks to workers to an acceptable level “at the source” or as early as possible in the life cycle of items or workplaces.
  o Including design, redesign and retrofit of new and existing work premises, structures, tools, facilities, equipment, machinery, products, substances, work processes and the organization of work.
  o Enhancing the work environment through the inclusion of prevention methods in all designs that impact workers and others on the premises.”

• In addition to a general concern for worker safety and well-being, the interest in improving safety and health is driven by such factors as:
  o Rising costs and legal liability associated with injuries;
  o A declining number of qualified workers and the need to retain a well-trained, productive workforce; and
  o The recognition that safety improvements can benefit worker productivity and overall project quality.

• In recent years, the construction industry has become increasingly aware of the importance of ensuring worker safety and health on construction sites.

Policy

ACEC California supports and encourages efforts to “design out” health and safety risks during project planning and design by considering initiatives such as the NIOSH “Prevention through Design” and the U.K. Health and Safety Executive’s (HSE) “Safe by Design” as helpful guidance.
Rationale

- There are ethical as well as other very important reasons for ACEC California to have a stated policy on safety by design.
- The National Society of Professional Engineers Code of Ethics states “Engineers shall hold paramount the safety, health, and welfare of the public.”
- The American Society of Civil Engineers' Code of Ethics states “Engineers shall recognize that the lives, safety, health and welfare of the general public are dependent upon engineering decisions…”
- Beyond complying with relevant statutory safety provisions in the work place, reasonably practicable measures are being taken to minimize risk to employees and others who may be affected by work place operations and activities.

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First Approved (2015)