



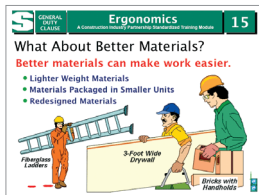
Smart Mark Hazard Awareness Training

Reaching a New Generation

The Challenge

The construction industry employs about 7 percent of the U.S. workforce but accounts for nearly 20 percent of deaths among major industries and has one of the highest injury rates. Although the Occupational Safety and Health Administration (OSHA) created training guidelines for construction workers, the decentralized nature of the industry made getting uniform training to workers a challenge. By the mid-1990s, training programs designed to meet the OSHA guidelines were in use; however, concerns about program inconsistencies, cost effectiveness, quality, and how to address common multi-craft hazards remained.

The Response



CPWR researchers worked with industry partners to identify the common elements to be incorporated into a basic hazard awareness training program for construction workers. They conducted the initial needs assessment research with funding awarded through CPWR's cooperative agreement with NIOSH. Utilizing the research findings, the Building and Construction Trades Department, AFL-CIO, (BCTD) joined in a partnership with national contractor associations to guide the development of a new standardized hazard awareness training program. In 1997, this labor-management

partnership received a grant from the Federal Mediation and Conciliation Service to support its safety and health training efforts. The partners brought a wealth of experience to the process, including expertise in apprenticeship programs, OSHA requirements, curriculum development, and training delivery. Using a hazard ranking method, they prioritized topics by craft on a one-to-five scale—a process that kept the focus on industry-wide hazards and helped to standardize the curriculum.

The partners identified a national delivery system, and developed a single cost-effective program that would meet OSHA's 10-hour safety awareness training requirements for workers and its 30-hour training requirements for supervisors and others with safety responsibilities.

The Results

In 1998, the partners completed the standardized curriculum and the BCTD launched the Smart Mark training program. Initially, Smart Mark included ten, 1-hour modules. Since then, it has grown to include interchangeable modules that instructors can select from to address craft-specific topics. In response to industry demand, a Spanish version of the program is now available.

The Smart Mark program satisfies the requirements of OSHA's Construction Outreach Program, which specifies mandatory topics and procedures for delivering 10- and 30-hour training programs. Through CPWR's Master Trainer system, more than 5,000 instructors have completed the OSHA 500 instructor-training course and are authorized to teach the Smart Mark program.

Smart Mark's interactive curriculum combines a questioning method with highly structured course scripts, detailed graphics, and programmed quizzes. Trainees take home course booklets that summarize the material. Those who finish the program receive a Smart Mark completion card and, depending on the training program, an OSHA 10- or 30-card.

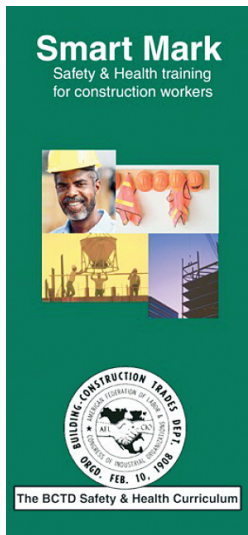
Reliance on Smart Mark as a consistent, cost-effective training resource continues to grow. Many states and localities now require OSHA 10-hour training on publicly funded projects. For example, trainers in Connecticut, Massachusetts, Missouri, Nevada, New Hampshire, New York, and Rhode Island use Smart Mark to satisfy the OSHA 10- and 30-hour training requirements. The addition of new modules and the migration of the site to a secure Internet-based distribution system reflect an ongoing commitment to improving the quality of the program and meeting industry needs.

SMART MARK'S TRAINING TOPICS

- Introduction to OSHA
- Focus Four
- Confined Spaces
- Electrical Safety 1
- Electrical Safety 2
- Ergonomics
- Excavations
- Fall Protection
- Fire Safety
- Hazard Communication
- Materials Handling
- Motor Vehicles
- Personal Protective Equipment
- Scaffolding
- Silica
- Stairways and Ladders
- Tool Safety
- Safety and Health Management
- Residential Construction
 - General Hazards
 - Fall Protection
 - Scaffold Safety
 - and more ...

The CPWR IMPACT

Smart Mark is considered the industry standard for safety and health training and is among the largest training initiatives of its kind in the U.S. construction industry.



- The program's acceptance was immediate—less than one year after its creation more than 50,000 workers had earned Smart Mark completion cards.
- Hundreds of thousands of workers have been trained using Smart Mark since 1998.
- Many contractors and facility owners now specify that employees complete Smart Mark training.
- A 2007 study revealed that trainees and their employers made improvements in safety practices after Smart Mark training was introduced, including increased use of personal protective equipment and changes in worksite safety policies and practices.
- A 2009 survey of trainees documented greater knowledge and improved attitudes toward safety among those who had participated in Smart Mark training.

“Contractors appreciate Smart Mark because it sends skilled workers trained in safety to the site, ready to work. Instructors like the range of presentation styles. The new online distribution system makes the curriculum even more accessible to UA instructors.”

— Laurie Shadrick, Health and Safety National Coordinator, United Association of Plumbers and Pipefitters

What made it a success?

Use of a partnership to deal with an industry issue led to the development of a training program that addresses an industry challenge and meets government requirements. Factors that contributed to the positive outcome included:

- The involvement of individuals and organizations in the partnership with the expertise to develop an effective training program and the authority to ensure its implementation. The core organizations that made up the original partnership continue to guide Smart Mark's curriculum development and distribution system.
- End-user participation in the development of a comprehensive list of training topics built around OSHA requirements.
- Collaboration between experienced curriculum developers and apprenticeship and training instructors to create a program that provides workers with uniform safety and health knowledge.
- Use of an interactive learning format with the flexibility to allow trainers to use varying styles of instruction.
- Access to a well-established network of more than 2,000 labor-management apprenticeship and training centers to deliver Smart Mark training.



Fall protection is demonstrated during a CPWR OSHA 500 class. Graduates are authorized to teach the Smart Mark program.

“We’ve been using the Smart Mark program for years to deliver the 10- and 30-hour courses. It’s a simple and effective method to deliver training.”

— Lee Worley, Executive Director of Apprenticeship and Training, International Association of Bridge, Structural, Ornamental and Reinforcing Ironworkers