

Prevention through Design Program

What are our priorities?

The National Institute for Occupational Safety and Health (NIOSH) Prevention through Design (PtD) Program works with partners in industry, labor, trade associations, professional organizations, and academia. The program focuses on preventing illness, injury, and fatality by "designing out" occupational hazards and risks.

What do we do?

- Research the effectiveness of current PtD interventions, investigate additional solutions for existing design-related challenges, and identify future research needs.
- Educate and motivate others to use PtD priorities and processes in collaborative design and redesign of facilities, materials, work processes, equipment and tools by:
 - Helping universities integrate PtD principles into engineering curricula.
 - Encouraging professional accreditation bodies to include PtD in their assessments.
 - Making business leaders aware of potential cost savings from PtD.

- Increase practice of PtD by sharing case-studies of real-life PtD solutions, and encouraging stakeholders to apply them and share further.
- Encourage business, labor, government, academic, and consensus standards organizations to integrate PtD into policy revisions.
- Produce concise, practical PtD guides and checklists for small businesses, their insurers, and the publishers of building code books.
- Advocate lifecycle sustainability to address health & safety for all occupants or users. The U.S. Green Building Council's Leadership in Energy & Environmental Design (LEED®) PtD credits now cover construction and operations and maintenance (O&M) occupants.

What have we accomplished?

- Developed model contract language that incorporates PtD roles and responsibilities into design and construction contracts.
- Developed model language for incorporating PtD into liability insurance policies for designers and builders.
- Developed 8 industry case studies of successful PtD use, including a business case analysis.
- Collaborated and presented PtD methods at 10 events to hundreds of professionals in business, safety, government, and academia.
- Provided NIOSH PtD intervention research to OSHA's Sustainability in the Workplace group, contributing to the OSHA White Paper and website.
- Collaborated on PtD integration efforts with key industry, academic, and government leaders, including OSHA, Green Chemistry & Commerce Council, American Ladder Institute, Arizona State University's Global Safety Center, Purdue Process Safety & Assurance Center, U.S. Army Corps of Engineers, and LJB Engineering.

What's next?

- Develop 4 construction case studies of successful PtD use with business case analysis.
- Publish a journal article that shows how to use the free, NIOSH-developed Business Case Developer software to make proposals for adoption of PtD processes in a business.
- Publish a Workplace Design Solution for nanotechnology manufacturing with the NIOSH Nanotechnology Research Center.
- Publish a series of 8 to 12 industry PtD Case Studies including business case evaluations.
- Participate in ASSE and ANSI consensus standard revisions to advance PtD use in business.

- Publish PtD curricula slides and instructor guides for Engineering undergrad programs in:
 - Agricultural Engineering
 - Manufacturing and Industrial Engineering
 - Nanotechnology
 - Chemical Process Safety
- Publish a Capital Projects Processes web site with resources showing how to incorporate PtD methods in large building projects.
- Publish a Current Intelligence Bulletin, e-Tool, Toxicology Primer, training and education, and a Topic Page for the proposed NIOSH Occupational Exposure Banding process.

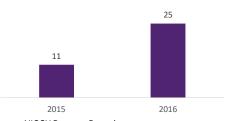
At-A-Glance

The Prevention through Design (PtD) Program's mission is to prevent or reduce occupational injuries, illnesses, and fatalities through the inclusion of prevention considerations in all designs that impact workers. This snapshot shows recent accomplishments and upcoming work.

Visits to PtD topics/publications web page

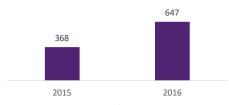


Projects using PtD LEED® Credits



Source: NIOSH Program Records

LEED® Professionals Earning PtD CEU's



Source: NIOSH Program Records

Publication Spotlight: Education Modules



