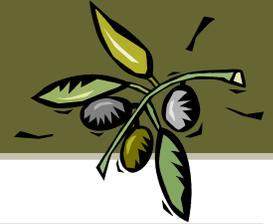


WHOLESALE AND RETAIL TRADE: NORA SECTOR BULLETIN



National Institute for Occupational Safety and Health, 4676 Columbia Parkway, Cincinnati, Oh 45226

Save the Date – July 9-11, 2007 *Prevention through Design Workshop*

Why Prevention through Design (PtD)?

The simple answer is: It's better to make it right at the start than to fix it later. The dilemma is: We often do not know what is right or safe until the product or tool is used. As an example, your workstation, chair, keyboard, and screen reflect 20 years of subtle design improvements that were shaped over the years by studies to determine the causes of "VDT-related injuries." The premise of the **PtD** initiative is that investing in research to evaluate the human factor components will pay off in safer and improved designs that are more compatible with human capacities.

The **PtD** initiative is an attempt to apply what we know about safety and health at the earliest design stage, to make an informed effort, and to seek expert input at the design stage before it is put into use. **PtD** has been identified by business leaders as a cost-effective means to enhance occupational safety and health. The Workshop will address four functional topics:

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Project 1. Research: Benchmarking management practices related to PtD in the U.S & U.K.

Project 2. Education: Diffusing PtD principles through engineering textbooks.

Project 3. Practice: Moving NIOSH engineering design solutions into practice.

Project 4. Policy: Integrating PtD concepts into management systems and standards.

NIOSH and its partners will be hosting Prevention through Design Workshop, **July 9-11, 2007**, in Washington, DC to bring together over 300 thought leaders from diverse disciplines to develop a national strategy to promote the adoption of PtD principles.

Prevention of Slips, Trips, and Falls

"Help, I've fallen and I can't get up!" It was easy to laugh as teenagers when we first heard that commercial. However, there is nothing funny when someone has fallen in the workplace. Each fall has the potential for incurring serious injury that impacts the worker, family, and the business. Slips, trips, and falls constitute the majority of general industry accidents. They cause 15% of all deaths, and are second only to motor vehicles as a cause of fatalities.

In 2005, 52 WRT workers died from a fall. (BLS Table A-1 2005)* In the same year, there were a total of 52,040 cases of nonfatal injuries and illnesses attributed to falls. The majority (37,820) were in retail component (BLS, Table 6 2005). Fortunately, most falls are preventable.

*(Bureau of Labor Statistics)

Scan the following URL citations and you will find many useful solutions and good work practices that are adaptable to the WRT sector. If this does not meet your needs, let us know and we can send a complete bibliography on fall prevention.

- http://www.osha.gov/SLTC/walkingworking_surfaces/solutions.html (OSHA's walking/working surface hazards and solutions website)
- <http://www.cdc.gov/niosh/00-116pd.html> (NIOSH report on worker's deaths by falls and strategic precautions against fatal falls on the job)
- <http://www.cdc.gov/niosh/injury/traumafall.html> (NIOSH safety and health traumatic injuries topic page)

MMH-Leading Source of Workers' Comp Claims

Manual Materials Handling (MMH) tasks (pushing, pulling, lifting, lowering, and carrying) are common job activities in the WRT sector. They also continue to be the leading source of workers' compensation claims (Dempsey and Maynard, 2005). In a 2005 paper in *Professional Safety*, the authors summarize the research conducted on MMH that took place over 20 years at the Liberty Mutual (LM) laboratories in Hopkinton, MA. Although the authors note that engineering controls usually in the form of automation are the first choice when faced with handling materials, automation is not always feasible in many of the smaller enterprises.

Recognizing that some form of guidelines were necessary, Snook and Ciriello at the Hopkinton Laboratories devised a simple but realistic approach to determining how much (weight) was too much, i.e., potential risk of injury. They used what was called the *psychophysical method*. The LM Tables were developed with the goal of controlling losses associated with injuries attributed to manual handling operations. These losses are primarily due to costly low-back disability claims and reduced productivity and quality caused by poor job design. The LM Tables provide the user with an objective risk assessment of a problem manual-handling job and the foundation to help users recognize risk factors associated with manual handling activity. The authors believe that the LM Tables will assist decision makers in making more cost effective solutions in increasing the percentage of the population capable of performing MMH tasks.

The data from The Liberty Mutual Lifting Tables were used in the development of the *Revised NIOSH Lifting Equation* (1991). Liberty Mutual Web site provides a user friendly method for accessing the Table values (<http://www.libertymutual.com>)

Some sources of information for assessing lifting and MMH limits follow:

- The Revised NIOSH Lifting Equation - <http://www.cdc.gov/niosh/docs/94-110/>
- Snook Table for Maximum Acceptable Lifting Weights for Males - <http://www.rehab.queensu.ca/mclean/snooktables.pdf>
- The Liberty Mutual Manual Materials Lifting Tables - http://libertymmhtables.libertymutual.com/CM_LMTablesWeb/pdf/LibertyMutualTables.pdf

Note: The *psychophysical method* dates back to 1860 and was first used by Weber and Fechner to assess differences between the physical stimulus (a material) and its psychological representation (e.g., sense of heaviness) as was used by Snook and Ciriello in their research on MMH.

Let's Meet Face-to-Face

A note from your Coordinator:

I am encouraging the WRT Research Council (RC) to attend the Prevention through Design Workshop, July 9-11, at the Washington Hilton, DuPont Circle. The workshop will provide attendees with practical ideas for dealing with the hazards in the WRT sector. Since we anticipate a number of the WRT RC members will be attending the **PtD** workshop, it seemed prudent to piggy back on the **PtD** workshop and hold our 2nd WRT Research Council immediately following the ending of the **PtD** morning session (July 11). We would continue through the morning July 12, Thursday, and plan an adjournment at 1:30 pm for those who need to catch early flights. I will send the planned agenda in a separate e-mail.



July 11-12th, WRT Meeting
Washington Hilton, DuPont Circle

What's New in the WRT News?

The following is information about topics and events that may be of interest to a WRT audience.

1. *NIOSH Musculoskeletal Documents on CD-ROM: Preventing Work-Related Disorders*. NIOSH Publication 2001-122. This CD-ROM provides a compilation of NIOSH research and recommendations related to the prevention of workplace musculoskeletal disorder. A sample of the NIOSH publications included in the CD is: *Application Manual for the Revised Lifting Equation, Musculoskeletal Disorders and Workplace Factors*, and *Elements of Ergonomic Programs*.
2. Dempsey, P., and Maynard, W: Manual Materials Handling : Using the Liberty Mutual tables to evaluate these tasks. *PROFESSIONAL SAFETY* MAY 2005 www.asse.org, pp.20-25.
3. NRF 97th Annual Convention & Expo. NRF is accepting submissions from retail industry leaders for session topics at its 2008 Annual Convention & EXPO. All sessions must be educational in nature and may not include any type of sales pitch. For most sessions, a retail co-presenter is required. The deadline for submitting session proposals is May 18. Additional information can be found at:
<http://events.nrf.com/annual08/public/Content.aspx?ID=1539&sortMenu=103000&exp=3%2f13%2f2007+12%3a25%3a20+PM>.
4. Worklife 2007 – Protecting and Promoting Worker Health – A National Symposium. Mark your calendar for September 10-11, 2007, to attend this important symposium. It will be held in Bethesda, Maryland at the Hyatt Regency. Deadline for abstract submission is April 30, 2007. Additional information about abstract submission is available at: www.worklife2007.com.

Please send ideas for information sharing or questions for our next WRT e-Bulletin in May.

We're on the Web! Visit us at:

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