WORKPLACE SAFETY, NEEDS DIVERSITY TO ENSURE EVERYONE IS SAFE

Fall 2022 – American Chemical Society Meeting

Division of Chemical Health and Safety

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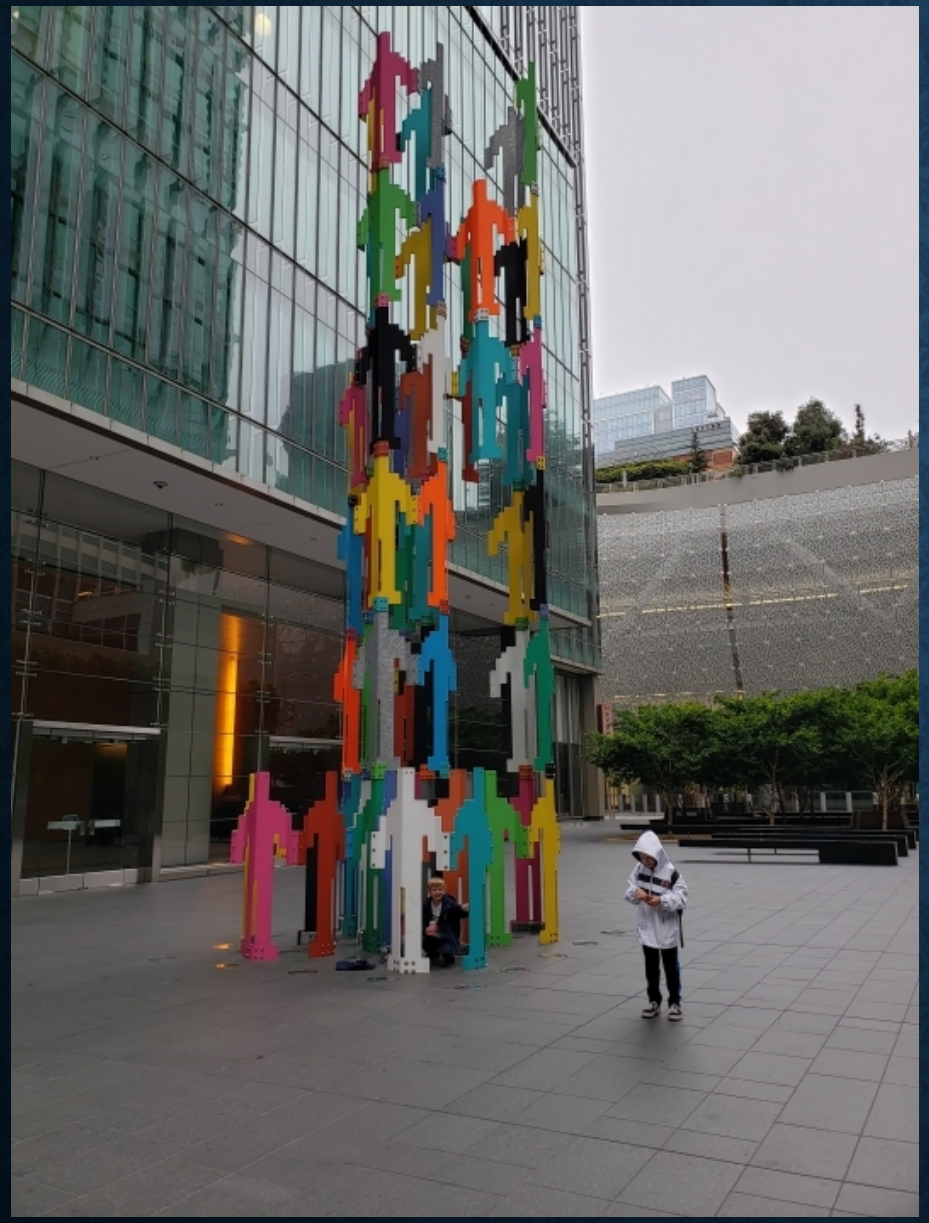


DIVERSITY

A variety or assortment

TOTAL WORKER HEALTH - NIOSH

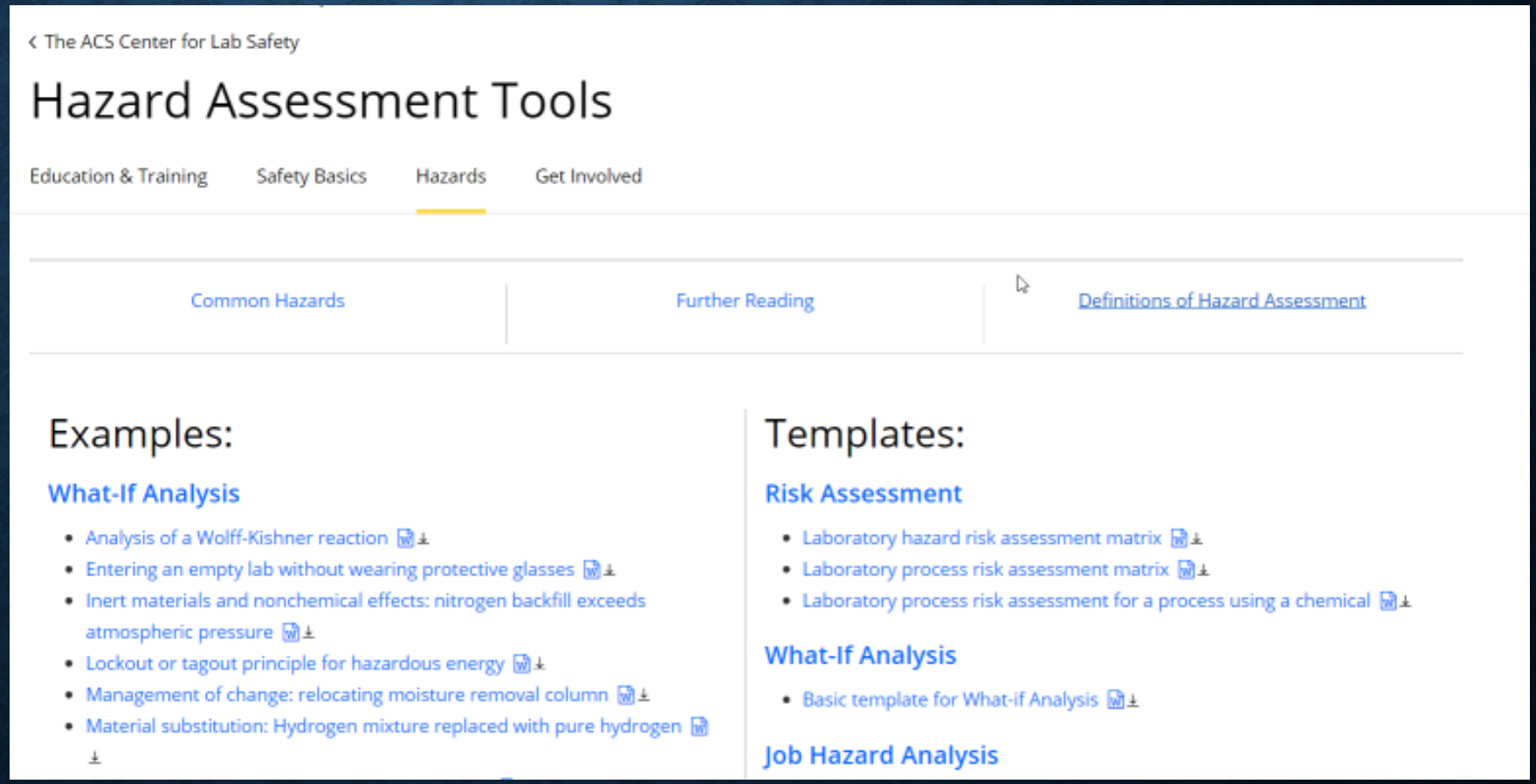
- Organizational Bottom Line (https://www.cdc.gov/niosh/twh/business.html)
  - L.L. Bean – reported a positive return on investment
  - Reduction in days late or leaving early, days away from work, missed deadlines
  - Reduction in overall incidents and injuries
  - Reduction in chronic issues
  - Reduction in fatigue

JULY 16, 2020 | MARK PARADIES

Do They See the Hazard? [Hazard Recognition]

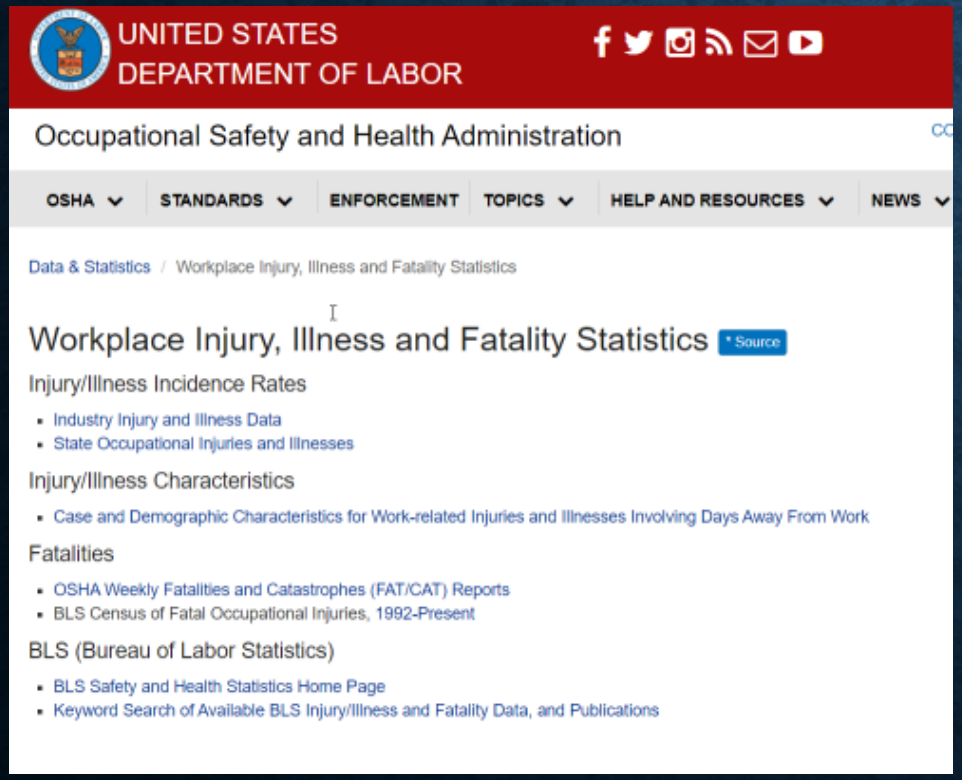
WE HAVE MEANS AND TOOLS

- RAMP Process
- 5 Whys
- Root Cause Analysis
- TapRoot
- Behavioral Safety



SO, WHAT DO WE KNOW

- General Workplace Statistics –
  - Industries
  - General Demographics
  - Types of Industries
  - Etc.



https://thrivemyway.com/workplace-injury-statistics/

SO, WHAT DO WE KNOW

The ???? Is the Why

- Ill fitting PPE results in injury and presents a hazard
- Improper sizing of equipment creates potential hazards
- The ability to spot a potential hazard can be influenced by past experience

CASE STUDIES

- Lead Battery Reproductive Health Case (Lancranjan I , Popescu HI, Gavanescu O, et al. Reproductive ability of workmen occupationally exposed to lead. Arch Environ Health1975;30:396–401.)
- Changes in our environments associated with access, ergonomics
- Toxic workplace cultures

https://incl.ca/the-problems-with-ramps-blended-into-stairs/

THERE IS A CASE FOR UNIVERSAL DESIGN

Universal safety and design: Transition from universal design to a new philosophy

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Affiliations + expand

PMID: 32986639 DOI: 10.3233/WOR-203261

Abstract

Background: The philosophy of universal design contributes to providing age-friendly products and environments in the ageing society.

Objective: The purpose of this study is to establish the philosophy of universal safety and design to ensure the safety and health of product users and production workers.

Methods: The concept and principles of universal safety and design are developed based on the limitations of universal design and the necessity of a new philosophy.

Results: Requirements of physical support, flexibility, accessibility, ensuring safety and health, diversity and inclusion, and sustainability are proposed for implementing the universal safety and design philosophy. Also, the guidelines for applying the universal safety and design philosophy are presented.

Conclusions: The principles presented in this study can be applied to reduce incidents and ensure productivity in customers and production workers by helping them to work efficiently, comfortably, and safely.

Universal Design Strategies Drive Better Workplace Safety Outcomes

By **Michael Perry**

0 comments | March 4, 2022

Improving safety measures is critical to organizations. A key outcome of Universal Design is that it minimizes hazards and the adverse consequences of accidental or unintended actions. Although there are many ways to reduce hazards in the workplace, I've selected five ideas that you should consider.

SOME IDEAS

- Stairs
- Corners
- Indicators – visual, sound, etc.
- Millwork
- Ergonomics
- Closed fist test
- Slip resistant flooring
- ……

What is Universal Design?

"Universal Design is the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design." – Ron Mace

Seven Principles of Universal Design

1. Equitable Use
2. Flexibility in Use
3. Simple and Intuitive Use
4. Perceptible Information
5. Tolerance for Error
6. Low Physical Effort
7. Size and Space for Approach and Use

https://nwadacenter.org/factsheet/universal-design-workplace

THIS IS WHERE DIVERSITY COMES IN…

- Need more eyes on the project or situation
- The prior experience, challenges, and solutions improve the outcome
- What one may perceive as a solution may create a new challenge
- May have to integrate multiple solutions