



Chapter Officers and Committee Chairs

Chapter President	Allison Bresloff, CSP	allibrez@gmail.com
President Elect	Maryanne Steele	msteele@ehs.umass.edu
Vice President	Dan Pivin	dan.pivin@espn.com
Secretary	Mike Stanczyk, CHST	mikes@mcpheeuusa.com
Treasurer	Rosemary Coggeshall	rosecog@sbcglobal.net
Past President	Nate Fague	nathanfague@gmail.com
Western MA Section Chair	Maryanne Steele	msteele@ehs.umass.edu
Membership Chair	Sylvia Malinski	smalinski1@msn.com
Construction Chair	Joe Bongiovanni	jbongiovanni007@gmail.com
Government Affairs Chair	Walt Tucker	walt.tucker@att.net
Newsletter Editor	John Able, CSP	john.able@ct.gov
Communication & Jobs Chair	Nate Fague	nathanfague@gmail.com
Awards & Honors Chair	Dave Butterfield	dave.a.butterfield@gmail.com
Nominations Chair	Nate Fague	nathanfague@gmail.com
Foundation Liaisons	Jack Braddock	john.braddock@cox.net
Scholarship Chair	Ralph Willing	willingrvw1@cox.net
Delegates	Marc Nettleton	mnettleton@themdc.com
	Nate Fague	nathanfague@gmail.com

Chapter and Area Events

The CT Valley Chapter ASSE is hosting a dinner meeting, movie and tour at UMass Amherst on Wednesday, November 9, 2016 at 5:45 pm. Please join us for a special showing of the movie "After the Fire," a documentary on the January 19, 2000 Seton Hall University fire that left 3 students dead and 58 others injured. The film will be presented by Shawn Simons & Alvaro Llanos, two survivors of the fire. There will be Q&A following the movie. **Please RSVP by Tuesday, November 8, 2016.** Sign up on the CT Valley ASSE website: <http://ctvalley.asse.org/events/>

The ASSE Region VIII New England Area Professional Development Conference and EXPO will be November 15 and 16, 2016 at the Sea Crest Hotel, North Falmouth, MA. For information go to: <http://region8.asse.org/events/357-2/>

The CT Valley Chapter ASSE is hosting a holiday party and technical presentation at the Mystic Aquarium on Monday, December 5, 2016. Save the date! Details to follow. Contact CT Valley Chapter President Allison Bresloff at 203-841-8100, or allibrez@gmail.com. <http://ctvalley.asse.org/>

Check out the photos of some of our recent events!
<http://ctvalley.asse.org/photos/>

Welcome New Members!

Adam Smardin, Arthur Beames, Jared Davignon, John Fraioli, David Garner, Monica Gierula, Jane Harrington, Patrick McNally and Chantelle Melendez





Egypt chapter members at a tech meeting



A gift to the Egypt Chapter engraved "From your Friends Connecticut Valley ASSE"

CT Valley Chapter Members Around the World!

Our very own Chip Darius had a wonderful opportunity to work on a project to provide safety consulting & training with the US Agency for International Development in Egypt this summer. The project was to develop a safety handbook and provide training for school safety officers in high school level technical/vocational schools. Chip had the chance to partner with the President of the Egypt Chapter of ASSE. Our Chapter gave a small gift of a beautiful CT made Woodbury pewter bowl as a sign of friendship and collaboration. Safety really is a global effort. Great stuff Chip!



The American Society of Safety Engineers Egypt International Chapter (الشعبة المصرية للجمعية الأمريكية لمهندسي السلامة)



Certificate of Appreciation is hereby conferred upon

ASSE Connecticut Valley Chapter, USA

In recognition of the professional collaboration between our chapters in serving the Egyptian Community through the Workforce Improvement and Skill Enhancement Program (WISE), funded by the US Agency for International Development (USAID).

Presented 26 August 2016, at Cairo, Egypt.

S. Khalifa
 Said Khalifa, CSP
 President

M. Khalaf
 Mohamed Khalaf
 Secretary

Are Accidents Here To Stay?

Joseph J. Werbicki, MS, CSP

Do we really want to get rid of the word "accident"? While there is a definition of accident on its website, the National Safety Council is trying to get rid of the word from its materials "because workplace incidents are preventable"¹. The problem is whether any other term would carry the same impact. And, would insurers accept any other terms as the basis for any form of reimbursement? "Accident" gets attention!

We do, however, need to get rid of the perception, that, if you are working in hazardous conditions that, sometimes, you are going to experience an accident or injury, and there's nothing you can do to avoid it. There is no shortage of occupations where danger is inherent in the job. The most dangerous jobs in the U.S. (in terms of fatalities per 100,000) include truck drivers, construction workers, refuse collectors, taxicab drivers, farm occupations, electrical power line installers, loggers, commercial fishermen, miners, roofers, airline pilots, and structural steel workers.

We can think of other professions that, while they don't appear on the "most dangerous" list, expose people to on-the-job dangers far above most other occupations. These include firemen,

policemen, smoke jumpers, Seal Team members, NFL players, race car drivers, military in combat zones, and, members of the Blue Angels.

What safeguards are there for those who work in dangerous occupations? The critical ones include extensive training, physical and mental fitness, appropriate personal protective equipment, constant risk awareness, and the ability to respond to unplanned circumstances.

We must consider that no accident is accepted as the cost of doing business, no matter how hazardous the job. To make strides toward this goal, there must be ongoing efforts expended to improve safety awareness, such as:

- Work to eliminate all injuries, not just the severe ones.
- Incorporate Prevention by Design, where safeguards are engineered into equipment and systems, rather than installed as an afterthought.
- Provide meaningful training
- Stress accountability for safety across the entire chain of command as a condition of employment. The ultimate responsibility for safety must rest with each individual.
- Raise awareness of hazards and the associated risks by a constant sharing of information

The risk posed by a hazard incorporates a number of factors, such as: probability of accident occurrence if appropriate action is not taken; severity of outcome if remedial action is not taken; and, the frequency in which people are exposed to the hazard. Each of the three elements can be evaluated on a numerical scale from minimal (1) to catastrophic (5). It's a good idea to ask a cross-section of the workforce to participate in such an evaluation, in order to identify and classify all of the hazards (both obvious and hidden) that may be present. Adding up the three numbers for each hazard prioritizes them. If you have a Safety

Management System, this is a way to identify your Significant Safety Hazards.

¹ Private communication from Kathy Lane, National Safety Council

If you find it difficult to decide which numerical hazard rating number categorizes a hazard as significant, you might want to use the Risk Score Formula² developed by F.A. Manuele, which can assist in making a more objective decision, by classifying calculated risk numbers into four decision-making categories.

Workplace injuries are tabulated annually by the Bureau of Labor Statistics, a government agency (www.bls.gov) into 12 major categories (Overexertion; Struck By; Struck Against; Falls to Lower Level; Falls on Same Level; Slips, Trips, Loss of Balance, no fall; Caught in; Exposure to Harmful Substances; Transportation; Repetitive Motion; Assault/Violent Acts; and, Fire/Explosion). While the number of incidents in each category varies slightly from year to year, typically, 70% or more of accidents can be grouped into just four condensed categories – Overexertion; Slips/Trips/Falls; Struck By; and Struck Against. Looking at the number of in-house incidents in these four areas provides a starting point to concentrate abatement efforts for the maximum impact.

After analyzing thousands of Travelers Insurance Company accident reports, H.W. Heinrich, in 1931, estimated that, for every 300 unsafe acts, you could expect 29 minor incidents, and 1 major incident. He concluded that 80% of all accidents were the result of human error. His findings are memorialized in the Heinrich Triangle.

A later study, conducted in 1969 by Frank E. Bird, Jr., analyzing over 1.7 million Insurance Company of North America accident reports, concluded that, for every 600 near misses, you could expect 30 incidents of property damage, 10 minor injuries, and 1 serious/major injury. He emphasized the importance of directing efforts at



reducing the occurrence of not only serious, but of less serious events, which could ultimately reduce the number of major injuries, especially low probability events which often defy explanation.

While there has been much discussion of late on the validity of Heinrich's conclusions, each of us experiences far more near-misses and minor injuries than major injuries over our lifetime, either on or off-the-job, i.e., our own personal Heinrich-type pyramid.



² Manuele, F.A., *Advanced Safety Management: Focusing on Z10 and Serious Injury Prevention*

One way to document the status of a safety program using trailing indicators is to plot three monthly totals:

- All incidents (near-misses, minor incidents, recordables and lost workday incidents)
- Recordables
- Lost workday incidents

Doing so will probably show a lot of variability at first, but once you have sufficient data to plot 3, 6, 9 or 12-month totals you will see that the plots track each other, confirming Bird's suggestion that attention directed toward low impact events may well reduce the potential for larger impact events.

The term, "Human error," may no longer be politically correct, because it can imply that

accidents are almost entirely the fault of the person or persons involved. While we should not use "Told employee to more careful" as a default root cause, with some critical examination, it may be concluded that some unsafe conditions can have a human element, i.e., a hazard was not addressed before it could result in an accident or injury.

Another approach to consider is how many incidents are the result of "system error." In other words, there is something in the way that things are done (the culture) that seems to tolerate, or, even encourage unsafe actions as a means to get the job done. For example:

- Supervisors failing to enforce safety rules
- Tolerating short cuts
- Tacit approval that ignoring standard procedures is acceptable
- The feeling that "I've done it for so long, and never gotten hurt" (low probability error)
- Equipment designs that don't take safety into account
- Ineffective safety procedures
- Lack of or ineffective training ("check the box" training)
- Failure to maintain equipment
- Failure to "fix" identified hazards
- Skirting safety procedures in the interest of productivity
- Allowing warning signs or labels to deteriorate to the point that they are no longer "seen"

Vince Lombardi once said, "Gentlemen, we will chase perfection. And we will chase it relentlessly, knowing all the while we can never attain it. But, along the way we shall catch excellence." If ever there was a statement to sum up the task of safety people, this is it.

In order to make progress toward an accident-free working environment, we need to move away from placing blame when things go wrong (using human error as a default root cause of incidents),



and work to make the work environment as risk-free as humanly/economically possible by:

- Conducting frequent safety inspections, and correcting all findings, no matter how minor, as soon as possible
- Never being content with a safety record, no matter how good it may be
- Requiring that safe work procedures be followed at all times
- Conducting Job Safety Analyses to identify the hazards of each operation
- Using Job Safety Analyses as the basis for effective on-the-job safety training
- Worker involvement in the safety process
- Active supervisor oversight and mentoring
- Not tolerating short cuts
- Effective/ongoing safety training that ensures that the training “sticks”
- Encouraging employees to watch out for each other
- Active involvement of all levels of management in the safety process
- Effective accident investigations
- Eliminate “Told employee to be more careful” as the default conclusion of accident investigations

Even with hazards reduced to the lowest possible level, people still make mistakes which can lead to accidents.

Everyone knows the 12 main causes of accidents (see above). A thorough accident investigation is needed to identify the reasons for the causes. Reasons are the actions, conditions, or lack of actions, which, if addressed, can prevent accidents from happening. There may be some human elements that need to be addressed, but only if people are told why certain actions are unsafe, and are given the tools and knowledge to correct them. Some possible reasons include:

- Lack of knowledge about what hazards exist
- Failure to recognize risk or anticipate the unexpected
- Rushing

- Inattention
- Complacency (“Done it so often and never gotten hurt”)
- Didn’t think before acting
- Feeling of invincibility (“Won’t happen to me”)
- Low probability error (the “one in a million” event)
- Bad judgment/Bad choice
- Wrong place at the wrong time
- Lack of supervisory enforcement of safety rules and work procedures
- Poor equipment design/No safety devices
- Ignoring hazards or safety warnings
- Not following safe work procedures
- Improper/faulty tools/equipment
- Trying to do too many things at the same time
- Taking short cuts
- Ineffective safety procedures
- Frustration
- Fatigue
- Failure to use appropriate caution
- Lack of/inadequate training
- Putting production or schedules ahead of safety
- Bypassing interlocks or machine guards

Sharing information about these activators on an ongoing basis can’t help but raise awareness within the workforce, who can then file them away as “common sense” things that can be recognized as an effective way to reduce and eliminate unsafe actions.

To benchmark your safety program with other organizations, BLS data and the National Safety Council’s publication, Injury Facts, provide every possible permutation and combination of incident data. Use your SIC/NAICS code to compare your organization’s performance to others in your industry sector. At a minimum, your target should be to meet or beat your SIC/NAICS average. Continuous improvement is far better than setting numerical metrics goals. Metrics are your scorecard.



You can't do anything about what has already happened (trailing indicators). You can, however, use accident data to alert people to past or recurring hazards. You can't just tell people to be safe. You must tell them what it takes to be safe.

What it takes can be summed up in one word – AWARENESS. People must be aware of what can make them unsafe.

Joseph Werbicki, MS, CSP is a Safety Consultant/Trainer with over 40 years of professional safety and environmental management experience. He is the author of a comprehensive safety training program, entitled, "Does Safety Really Mean Safe?" He can be contacted at jwerbicki@comcast.net.

Quotes of the Day

"If you're bored with life, if you don't get up every morning with a burning desire to do things, you don't have enough goals."
-- Lou Holtz, football coach

"Great leaders are almost always great simplifiers, who cut through argument, debate and doubt to offer a solution everybody can understand and remember."
-- Michael Korda, writer and editor

"When the time for decision has arrived, the time for preparation has passed."
-- Thomas S. Monson

"It's easy to have faith in people who have already proved themselves. It's much tougher to believe in people before they have proved themselves. But that is the key to motivating people to reach their potential."
-- John Maxwell, writer and motivational speaker

The mediocre teacher tells. The good teacher explains. The superior teacher demonstrates. The great teacher inspires."

-- William Arthur Ward, writer

"Our chief want in life is somebody who shall make us do what we can."
-- Ralph Waldo Emerson, writer

CBYD Updates

The following is a very brief summary of the Call Before You Dig (CBYD) changes to their regulations. Several new requirements for excavators in the recently-adopted [Excavation Near Underground Utility Facilities](#) regulation were [summarized](#) by PURA, including:

- They **must** contact a utility if they believe that a utility has not marked facilities that are in the designated excavation area.
- If the pre-mark for the designated area of excavation is not clearly visible from a public street, directions to the designated area from the nearest street must be given in the ticket.
- If there is a damaged utility line that causes a serious electrical short circuit or the escape of combustible or hazardous gases, the excavator **must** alert police, fire, or other emergency personnel. The previous regulation made it optional.

The amendments, which became effective August 2, 2016, update the rules to the Call Before You Dig procedures and address proper techniques and protocol for the excavation of underground utility facilities.

