



National Safety
Management
Society

DIGEST

Updating Members on Safety Management News

November 2007

Table Of Contents

1. [Welcoming Our New 2007 NSMS Members](#)
2. [Don't Forget to Register Now for the NSMS Annual Conference](#)
3. ["Safety Management Integration and Operational Excellence"](#)
4. [NSMS Annual Conference Vendor Invitation](#)
5. [The NSMS "Blog" is Here](#)
6. [FREE ACCESS: Online Certified Safety and Health Manager \(CSHM\) Educational and Exam Preparation Reference Materials](#)
7. [National Safety Management Society Now on Giveline!](#)
8. [BP, Under New Chief, to Pay a Big Settlement](#)
9. [Americans' Pessimistic View of Accident Prevention Poses Hurdle to Reducing Injuries](#)
10. ['Whoosh': The Newest Datacenter Occupational Hazard? - Trend toward larger facilities could mean datacenters are crossing the threshold for federal noise levels standards](#)
11. [Final CSB Report on Synthron Explosion Finds Inadequate Safety Controls for Chemical Reaction Hazards](#)
12. [Online Resources for Emergency Preparedness](#)
13. [Expert: Emotional and Mental Health Essential for Responder Safety](#)
14. [Why People are Unbalanced and Oftentimes Stressed Out](#)
15. [We Appreciate You](#)
16. [Ironic Fires](#)
17. [Safety Tidbits](#)

Welcoming Our New 2007 NSMS Members

On behalf NSMS President Roosevelt, the NSMS Executive Committee and the NSMS Board of Directors, we would also like to acknowledge and welcome the following new members and/or certificants this month to our Society:

- Mark Kasehagen, EHS Engineer-Director – MWI Southwest (Albuquerque, New Mexico)
- Newly Credentialed Certified Safety Technicians (CSTs) as of October 10, 2007:

Jason Carrier
Richard Duginski
John Hubicsak
Jim Lynch
Brad Read
Meghan Rice
Stefanie Scruggs
Steve Short
Linda Szuma
Jarrett Toms

We appreciate your passion and drive to further your skills, knowledge and abilities in the management of safety and risks, as well as your interest to networking and professional development. Welcome again to NSMS!

Don't Forget to Register Now for the

NSMS Annual Conference

See You in Las Vegas!

Last Chance to get your registration forms completed and submitted to NSMS for attending our annual safety conference. **DON'T MISS OUT!** We need to supply our host facility a headcount by mid-October at the latest.

Our **2-Day Annual Conference will be in Las Vegas, Nevada from November 15-16, 2007** (Thursday and Friday) and held at:

Tuscany Suites and Casino

(255 E Flamingo Rd., Las Vegas, NV 89169)

Tuscany Room Reservations Toll Free 1-877-887-2261

(Ask for the Safety Management Integration & Operational Excellence Group Rate)

*Enjoy the beauty of Italy in Las Vegas. The Tuscany is on Flamingo Road, just east of the famous Las Vegas Strip. Tuscany offers attractive over sized guest "Suites". Each suite is situated in a lovely European setting that offers a great sense of relaxation and privacy. Their standard suites (king bed or two double beds) are significantly larger than average hotel rooms and are offered at extremely affordable rates for NSMS Conference attendees (\$65/night, plus tax). Additional person in the room will be at \$20 per person, per night, plus room tax. Children twelve (12) and under may share the same room with parents at no additional charge.
Website - <http://www.tuscanylasvegas.com/>*

Conference registration may be completed in one of three manners:

1. Downloading and printing the hardcopy form from our NSMS website (http://www.nsms.us/newsletters/conference_agenda.pdf) and mailing it along with your conference registration fee payment to:

National Safety Management Society
P.O. Box 4460
Walnut Creek, CA 94596-0460

2. Registering online at http://www.nsms.us/conference/conf_reg.htm and mailing your conference registration fee payment to:

National Safety Management Society
P.O. Box 4460
Walnut Creek, CA 94596-0460

3. Registering online at http://www.nsms.us/conference/conf_reg.htm and paying online via PayPal at <http://www.nsms.us/pages/confonlinepay.html>
4. Register at the Door on the day of the conference. However, you may not immediately receive a pre-printed packet of program materials if we have a last-minute surge in walk-in attendance.

Don't miss the opportunity to attend this informative conference. It is a cost-effective investment for yourself and your organization!

“Safety Management Integration and Operational Excellence”

(Program Agenda - Updated November 2, 2007)

Our conference theme this year is, **“Safety Management Integration and Operational Excellence”**. This event will offer informative speakers, professional development workshops and networking opportunities to help our members and guests acquire or enhance skills, knowledge and abilities to effectively develop, implement, evaluate and improve its safety management programs in alignment with their organizational missions and business operations, as well as enhance their level of skills, knowledge and abilities to become for competitive advantage and career success. The learning objectives of this conference is to provide attendees with the latest concepts, best practices and professional development skills to help them partner with, and integrate safety management practices into, business operations, as well as gain competitive advantage for career advancement and professional success.

Current List of Participants:

Carbon Block Technology
Eastern Kentucky University
EcoBank Nigeria
EnCana Oil & Gas USA
FEMA Gulf Coast Recovery Office
Griggs Safety
Oakland University
Oregon State University
Penta Building Group
Risk Management Resources, LLC
Risk Stewardship Group, Inc.
Service Lloyds Insurance Company
State of Nevada Risk Management Office
State of Nevada - SCATS
Tetra Technologies, Inc.
U.S. Department of Labor
Vestas Americas
Willis Pooling

Day 1 – November 15, 2007

- 7:30 am to 8:30 am Conference Registration/Check-in
- 8:30 am to 9:00 am Welcome/Introductions/Announcements (NSMS President Roosevelt Smith and Executive Director Jeffrey Chung)
- 9:00 am to 10:00 am “Integrating the Environmental, Health, Safety and Security Functions into Operations” – James J. Thatcher, PhD.
- 10:00 am to 10:30 am Morning Refreshment Break/Exhibits Open
- 10:45 am to 11:45 am “A New Benchmark for Integrating a Systematic Safety Management Approach” – Charles W. McGlothlin, Jr., PhD P.E.
- 11:45 am to 12:45 pm Group Lunch: "Communicating Diversity" – Marilyn C. Alston, MBA, CSHM
- 1:00 pm to 2:30 pm “Professional Development Workshop A: Problem Solving Tools for the Safety and Health Manager and Professional” – Jeffrey Y. Chung, PhD CSHM CHFP and Walter C. Caiazza, B.S. CSHM
- 2:30 pm to 3:00 pm Afternoon Refreshment Break/Exhibits Open
- 3:15 pm to 4:15 pm “The Five Stars of Safety Leadership” – Steven J. Geigle, M.A., CSHM.
- 4:30 pm to 6:00 pm Networking Session

Day 2 – November 16, 2007

- 7:30 am to 8:30 am Conference Registration Check-in
- 8:30 am to 9:30 am “How Surveys Can Be Used to Identify Management and Employee Perceptions of Your Safety Program” – Erike Young.
- 9:30 am to 10:00 am Morning Refreshment Break/Exhibits Open
- 10:15 am to 11:15 am “The Aging Workforce: An Emerging Human Factor and Safety Issue Facing Safety/Risk Managers, Supervisors and Operations – Jeffrey Y. Chung, PhD CSHM CHFP
- 11:30 am to 12:30 pm “Safety Management Integration and Operational Excellence” – Anthony Veltri, Ed.D.

12:45 pm to 1:45 pm	Open Lunch Period
2:00 pm to 3:30 pm	“Professional Development Workshop B: CSHM Exam Prep Course/Safety Management Practices Refresher” – Steven J. Geigle, M.A. CSHM.*
<p>*NOTE: For those who are interested in professional certification, the Institute for Safety and Health Management (ISHM) will offer the Certified Safety and Health Manager (CSHM) certification exam on Saturday, November 17, 2007, at the Nevada OSHA Office in Las Vegas (time TBA). ISHM Board of Directors Chairperson, Jan Rosenberg, will host and administer the CSHM certification test. Please visit the ISHM website at http://www.ishm.org for more information and to register.</p>	
3:30 pm to 4:00 pm	Afternoon Refreshment Break/Exhibits Open
4:00 pm to 5:00 pm-	“Safety vs. Risk Management: Can’t All Just Get Along” – Scott Sloan, CSP CSHM ARM.
5:00 pm to 5:30 pm	Closing Comments/Program Evaluation/Final Thoughts

NSMS Annual Conference Vendor Invitation

The National Safety Management Society is hosting a 2-Day Annual Conference in Las Vegas, Nevada from November 15-16, 2007. Our theme this year is, “Safety Management Integration and Operational Excellence”. This event is packed with informative speakers, professional development workshops and networking opportunities to help our members and other attendees learn more about the current state of safety and health practices, as well as resources and products that may facilitate their program implementation and worker protection.

Our conference agenda includes dedicating a portion of each day for interested vendors to set-up exhibit booths/display tables to for resources sharing and information exchange. NSMS would like to invite your company to showcase its safety products and services to our attendees. The exhibitor participation fee is \$150.

We wish to acknowledge the following organizations who have registered to participate:

- **Oakland University Rochester, Michigan**
- **Eastern Kentucky University**
- **State of Nevada - Safety Consultation & Training Section (SCATS)**

Contact Walter Caiazza (wcaiazza@roadrunner.com) to reserve your slot if your organization would like to participate in the afternoon vendor exhibit session or sponsor hospitality. Space is limited.

The NSMS “Blog” is Here

Steve Geigle has created and launched the “NSMS Blog” on the NSMS website. It will allow members and others to post comments, remarks and initiate discussions about a variety of safety management topics and issues. You can participate in the Blog by going to the NSMS website (<http://nsms.us>) and look for the link on the home page along the left-hand column of navigation areas.

FREE ACCESS: Online Certified Safety and Health Manager (CSHM) Educational and Exam Preparation Reference Materials

As a benefit for our current and future dues-paying members, NSMS is **permanently** offering free access to the Certified Safety and Health Manager (CSHM) preparation and educational materials. The online resources, created by NSMS member Steve Geigle, can be found at www.cshmprep.com and the only action an NSMS member needs to take is to register for the CSHM exam (through the Institute for Safety and Health Management – ISHM) and then emailing Steve to request access from that website. You will need to include your current NSMS member number (found on your membership card and certificate). Once the number and membership status are verified, you will be granted a username and password to access the online reference materials. This is a great opportunity to brush up on your safety management and technical knowledge and prepare for a successful passing of the CSHM certification examination.

National Safety Management Society Now on Giveline!

The National Safety Management Society has been confirmed and added to Giveline, and is now eligible to receive donations.

START SPREADING THE WORD!

Be sure to use the following link for your web site and for e-mails you send about Giveline. The link will auto-select National Safety Management Society.

Your Personalized Link is : <http://www.giveline.com/default.asp?v=V068404794>

Start Shopping Now! Go ahead and make a purchase on behalf of National Safety Management Society. There is FREE SHIPPING using this discount code: NCD07

BP, Under New Chief, to Pay a Big Settlement

The chief executive of British Petroleum Company, PLC (BP PLC), Tony Hayward, presented himself when he took over in May as a leader who could move the company away from its troubled recent past. On Thursday, Mr. Hayward and BP took a big step forward in doing that. At a news conference in Washington, the Justice Department announced that BP and its subsidiaries had agreed to pay \$373 million in fines and restitution to settle accusations of environmental violations that had led to a fatal explosion at a Texas refinery in 2005 and to leaks of crude oil from pipelines in Alaska.

The settlement also covers fraud allegations related to conspiring to corner the market and manipulate the price of propane. As part of the plea agreement, BP will pay \$50 million in criminal fines for the 2005 explosion and \$20 million in fines, restitution and other payments for the pipeline leaks. In addition, BP said it would pay \$303 million in penalties and restitution to settle the energy trading violations. “The actions that we are taking today reflect that there were some very serious problems at the company,” said the acting attorney general, Peter D. Keisler. The settlement included the largest criminal fines ever imposed for violations of the Clean Air Act, as well as the largest fine for a violation of the Commodity Exchange Act.

Mr. Hayward has moved to change BP’s culture, despite some initial skepticism. He was a part of the management team during BP’s recent troubles, including the leaks in Alaska, the refinery explosion that killed 15 workers in Texas City, Tex., and problems at a refinery in Indiana. Mr. Hayward has already impressed investors with plans to streamline operations, cut costs and use more local expertise to catch up with rivals like [Royal Dutch Shell](#) and [Exxon Mobil](#). “Hayward has made a good impression so far,” said Fadel Gheit, an analyst at Oppenheimer & Company. “He is more of a technocrat and a hands-on guy.” BP still faces a shareholder lawsuit over the leaks in Alaska and more than 2,000 claims involving the Texas explosion. Its refineries in Texas and Indiana are expected to return to full capacity in early 2008.

Mr. Hayward joined BP in 1982 at age 25 as a geologist on an oil rig. After working in several jobs, he became exploration manager in Colombia in 1992 and president of BP Group in Venezuela in 1995. He became chief operating officer of BP’s exploration and production operations in 2002. Mr. Hayward’s performance was noticed by John Browne, the BP chief executive who resigned abruptly this year after losing a court battle with a London tabloid over disclosure of his relationship with a man. As he rose through the company, Mr. Hayward was named a “turtle,” BP’s title for a talent being groomed for leadership. As such, he saw firsthand the expansion that has been blamed for some of BP’s problems.

“There’s nothing wrong with the business as such, but things had gone a bit lax under the old Browne reign, and the management needs tightening up and focusing,” said Alan Beaney, a fund manager with Principal Investment Management. “It’s Hayward’s job to see if he can change that around.” His chances are good, Mr. Beaney said. For a start, Mr. Hayward has worked on an oil rig, which helps him relate more easily to the workers. That sets him apart from his predecessor, who was known for his expensive taste and for mingling with politicians, a lifestyle that had earned him the nickname “the sun king.”

A different approach has helped Mr. Hayward to be perceived as less aloof than Mr. Browne, said Neill Morton, an analyst at MF Global in London. That reputation could help him push through the cultural changes he envisions. Under Mr. Browne, BP was transformed by a series of takeover deals in the 1990s, including the \$62 billion purchase of Amoco, all of which weighed on BP's management structure. The system showed its cracks when Mr. Browne was forced to cut BP's 2005 production target three times in two months.

Some investors and analysts applauded Mr. Hayward's emphasis on addressing problems. "Reporting lines have become numerous and blurred," said the analyst Mr. Morton. "Hayward is removing management layers to make the line of sight clearer." Mr. Hayward has given himself 18 months to two years to fix BP. "The question is, will they be able to arrive at a workable organization and does the structure really work as intended," said Colin Smith, an oil analyst at Dresdner Kleinwort.

Americans' Pessimistic View of Accident Prevention Poses Hurdle to Reducing Injuries: Poll Shows Nearly 1 in 3 Believe Nothing Can Be Done 2 to 1 Rank Accidental Injury Over Crime as Greatest Risk to Well-Being

Nearly one in every three Americans believes nothing can be done to prevent accidental injuries, posing a major obstacle to national efforts to reverse escalating injury trends in the United States, according to a national survey of American attitudes on safety issues released today by the National Safety Council at its annual safety and health meeting here.

This finding comes on the heels of an NSC injury report in June showing that accidental deaths and injuries are climbing and at current rates could hit an all-time high in the next few years if public action isn't taken to reverse the trend.

Despite this pessimistic view on prevention, 58 percent of Americans believe accidental injuries are a serious public health concern, and 46 percent ranked accidental injuries as the greatest risk to their health and well-being, as opposed to less than 25 percent who ranked violent crime as the greatest risk.

"We're encouraged that Americans recognize accidental injuries as a major concern in their everyday lives," said NSC President and CEO Alan C. McMillan. "However, this survey clearly shows that we have our work cut out for us in educating Americans about how to prevent injuries from ever occurring."

For example, NSC data shows that poisoning – particularly from overdoses of prescription and illicit drugs – is now the fastest-rising cause of accidental death, with major increases among working age adults.

Once a leading cause of death among children, today the death rate from poisoning for children less than 6 years of age is just 0.4 per 100,000. Yet, survey results show that most people (81 percent) believe children are at greatest risk for poisoning, while less than 4 percent said adults.

When asked to rank potential causes of poisoning, 53 percent said household chemicals were most commonly associated with fatal poisoning while 34 percent pointed to drugs and medicine.

“It’s clear people don’t understand what is really happening in their homes and communities, which detracts from efforts to reduce injuries including deaths from poisonings,” said McMillan. “The fact is, we can control the risks of accidental deaths through education, and where we have buy-in from individuals, organizations, businesses and communities, the rate of accidental injuries decreases.”

The survey also indicates that the nation is receptive to safety advocacy efforts. A majority of the respondents believe they can act to prevent accidents, and three-quarters (76 percent) say their companies are concerned about injury prevention at work. This focus on occupational safety is reflected in a 17 percent decline in the workplace accidental death rate since 1992.

Respondents also expressed confidence in their employers’ ability to deal with emergency situations in the workplace. Sixty-one percent of respondents believe their employer is prepared to deal with emergency situations, compared with their family, at 57 percent, and their community, at 50 percent.

“These are positive developments that reinforce the Council’s commitment to work with employers to safeguard employees and their families where they are at greatest risk – in their homes and communities,” McMillan said.

Asked what precautions they have taken in their homes to prepare for an emergency, 84 percent of respondents said they have one or more smoke detectors, 63 percent have one or more first aid kits, and 46 percent have looked for and corrected hazardous areas or situations around the house.

One disturbing trend is that only 25 percent have taken a first aid/CPR/AED class in the last two years despite that fact the heart disease is the leading cause of death in the nation and 75-80 percent of cardiac arrests occur in homes.

Automobile accidents continue to be the leading cause of accidental deaths, although rates have declined in recent years as the NSC and other organizations have promoted seat belts, safety features and safe driving practices. Respondents to the poll overwhelmingly (89 percent) recognized that talking on a cell phone while driving is a dangerous distraction and 42 percent said they never do it.

When asked which of the following areas poses the greatest risk to their overall health and wellbeing, respondents rated accidental injuries (46 percent) higher than violent crime (25 percent), epidemics (11 percent), natural disasters and a terrorist attack (both 9 percent).

“We know safety works,” said McMillan, a former deputy assistant secretary of OSHA. “The greatest challenge we face is in reaching the public with information about their risks of unintentional injury and death and what they need to do to minimize those risks. We need to take the same energy and focus committed to workplace and transportation safety and apply it to where we now see the greatest need, and that is in our homes and communities.”

The survey of 1,614 randomly selected adults was conducted by InfoSurv Market Research Aug.7-14, 2007.

'Whoosh': The Newest Datacenter Occupational Hazard? - Trend toward larger facilities could mean datacenters are crossing the threshold for federal noise levels standards (by Patrick Thibodeau, Computerworld, July 31, 2007)

The more servers that are added to a datacenter, the more cooling that center is likely to need. And the more cooling those servers require, the more "whoosh" is generated. Whoosh, for the uninitiated, is the annoying noise of fans and humming power supplies that can feel like a pressure in your head.

Datacenter workers live with this noise. It's part of the job and the culture. But there may be reason to start giving the noise issue more attention: datacenter consolidations and the adoption of high-density equipment -- both big industry trends -- are bringing more equipment and denser and hotter systems into datacenters.

There's a dearth of scientific data assessing noise trends in datacenters, its health consequences, and the impact on productivity. Noise is simply taken for granted by datacenter managers who spend little, if any, time measuring sound levels. For the most part, datacenter workers just learn to deal with it. "It's pretty loud, it's pretty stressful," said computer operator Bruno Skiba, who works at a financial services firm and wears ear protectors similar to those used on a firing range.

Noise, of course, varies from center to center, system to system. It's now fairly common for datacenter workers to spend a lot of time off the datacenter floor and manage systems in separate rooms. And on a system level, noise can vary. While some racks may have high-speed, whinny fans, some Itanium-based servers from Hewlett-Packard have larger, less noisy fans. Skiba's firm recently got a delivery of those quieter servers.

Taken in concert, the noise generated from all the equipment in a datacenter can be distracting. That fact prompted datacenter workers at C I Host, a Dallas-based hosting company, to get Bose noise-canceling headphones to help make the work environment comfortable, said Christopher Faulkner, CEO at C I Host. "The noise -- the pressure on their head, if you will -- is very distracting and causes serious issues with [workers] being able to concentrate and do their jobs," said Faulkner.

Faulkner said he's never measured the noise in his datacenter, something that wouldn't be surprising to Tad Davies, executive vice president of the Brick Group, a St. Louis-based company that designs and builds datacenters. Davies said he can recall only one IT manager who asked for sound level measurements. "It's been, universally, an issue that has not been brought up," he said.

Davies, without naming the customer, shared a schematic of the datacenter showing the decibel levels taken in 12 different places in the facility. The lowest was 70 dB and the highest 79 dB. The highest levels were recorded near HVAC equipment. At these levels, you have to talk loudly to be heard, but they are considered safe levels under federal standards.

By comparison normal conversation is about 60 dB; a power lawn mower is about 90 dB, a jet engine at takeoff, 140 dB, according to the [National Institute for Occupational Safety and Health](#) (OSHA). The federal government sets workplace standards for noise, and doesn't require action until workers are exposed to average noise levels of 85 dB or greater during an eight-hour day.

Final CSB Report on Synthron Explosion Finds Inadequate Safety Controls for Chemical Reaction Hazards -

In a final report released in July 31, 2007, on last year's fatal explosion at the Synthron chemical manufacturing facility in Morganton, North Carolina, the U.S. Chemical Safety Board (CSB) concluded that the company's management of reactive chemical hazards was inadequate and that the facility was unprepared for a chemical process emergency. The CSB also found that ineffective corporate oversight by French parent company Protex International contributed to the likelihood and severity of the accident.

The explosion occurred on January 31, 2006, as the result of a runaway chemical reaction in a 1500-gallon process vessel inside the Synthron production building. One worker was fatally burned and fourteen others were injured, two seriously. The blast destroyed the facility and broke windows up to one-third of a mile away. Two churches and a home were damaged and were later condemned. Synthron filed for bankruptcy following the accident, and the facility has not been rebuilt.

The CSB released a two-minute computer-animated video depicting the sequence of events that led to the Synthron explosion. This computer animation is part of a new 20-minute CSB safety video on reactive chemical hazards, which was also released today. The video will be distributed worldwide in an effort to draw increased attention to the dangers from uncontrolled chemical reactions. 'The accident at Synthron emphasizes the need for effective corporate oversight, emergency planning, and reactive chemical process training and safeguards,' said Board Member John S. Bresland. 'If these measures had been in place, this accident could have been prevented.'

Synthron manufactured acrylic polymers for use as paint and coating additives. The polymers were typically produced inside a batch reactor by chemically reacting a blend of acrylic monomers in a mixture of flammable solvents. The polymerization reaction produced significant heat, which was removed by condensing the solvent vapor in an overhead, water-cooled condenser. The cooled, condensed solvent then flowed back into the reactor, keeping the temperature and the reaction under control.

The accident occurred when plant managers attempted to fulfill an order for acrylic polymer that exceeded the normal batch size for this product. Instead of making two smaller batches to fill the order, managers decided to make a single, larger batch. Managers decided to add all the extra acrylic monomer during the first stage of the reaction process, which was a critical mistake. Subsequent laboratory testing by the CSB showed that increasing the batch size in this manner raised the maximum heat output from the reaction by a factor of at least 2.3. The heat output exceeded the cooling capacity of the condenser, and the reaction accelerated out of control or 'ran away.'

After initiating the reaction on January 31, 2006, operators observed solvent vapor leaking from a hatchway on top of the reactor as the process overheated and pressure built up inside the reactor. Operators fled the production building and gathered just outside a doorway. A flammable vapor cloud formed inside the building, and a short time later it ignited and exploded, destroying the production facility and fatally burning a maintenance supervisor who had remained inside. Personnel who gathered just outside the building were among the injured.

CSB Lead Investigator Jim Lay said, 'Synthron had apparently never documented the actual capacity of the cooling equipment, which was essential to keeping reactions from running out of control. The CSB found no evidence that the company had ever cleaned or inspected the cooling water side of the condenser on the reactor for 30 years.' The CSB later found that this surface was fouled with scale, rust, and sediment which likely degraded the cooling capability of the condenser by at least 25 percent.

The CSB estimated that the flammable release occurred when the reactor reached a pressure of 23 pounds per square inch gauge (psig), which was well below the reactor's maximum working pressure of 75 psig. Further, Synthron had a longstanding practice of improperly securing the reactor hatch, using only four of the 18 metal clamps recommended by the manufacturer. Once the condenser cooling capacity was exceeded during the runaway reaction, the failure to fully clamp down the hatchway compromised the performance of the hatchway gasket, which allowed flammable solvent vapors to be released into the building.

The CSB investigation determined that Synthron had gathered only minimal safety information on its polymer-producing processes, and personnel, including the managers, were poorly prepared to recognize the dangers from an uncontrolled chemical reaction. 'We found that most of the management and operations personnel at Synthron had been on the job for less than a year - in some cases for only weeks or months,' Mr. Lay stated. 'The plant manager, superintendent, vice president, shift operators, and chemist all lacked experience in producing polymers.'

The CSB found that Synthron had not performed a systematic safety review of the reactor, also known as a process hazard analysis. The facility also failed to install safeguards to automatically detect, prevent, or mitigate a runaway reaction. The CSB also concluded that Synthron was not prepared for an emergency. Operating procedures did not instruct employees on what to do in the event of a chemical release or loss of chemical reactor control. Evacuation drills had not been conducted, and the facility was not equipped with an emergency alarm system. Investigators concluded there was adequate time available to have evacuated all personnel to a safe location after vapor escaped from the reactor hatchway. Such an evacuation would likely have prevented the death and injuries.

Synthron LLC was owned by a French company, Protex International, which has operations in Europe, Asia, North America, and South America. Protex has chemical facilities in Massachusetts, New Jersey, and Florida. The investigation found that Protex had testing equipment at its European facilities to measure chemical reaction hazards, but did not use this equipment to determine the safety of Synthron's processes or provide adequate technical support to Synthron.

The Board recommended that Protex International establish a program to follow good industry safety practices for managing reactive hazards at all its remaining U.S. facilities.

Mr. Bresland said, 'When there is a possibility of a catastrophic process failure, such as a runaway chemical reaction, companies should always have multiple independent safeguards in place. Some examples include high pressure alarms, automatic emergency cooling systems, or automatic systems to empty the reactor contents to a safe location.'

The CSB is an independent federal agency charged with investigating industrial chemical accidents. The agency's board members are appointed by the president and confirmed by the Senate. CSB investigations look into all aspects of chemical accidents, including physical causes such as equipment failure as well as inadequacies in regulations, industry standards, and safety management practices.

Online Resources for Emergency Preparedness

There are a variety of online resources to assist companies, individuals and families prepare for emergencies. These sites include governmental and private entities. The resources were provided in a couple of Safety X-Change website summer articles prepared by *Barry R. Weissman REM, CSP, CHMM, CHS-IV, CIPS*:

Governmental Agencies –

1. Department of Homeland Security.

The main government's portal for Preparedness/Emergency Planning Information provided by DHS

<http://www.dhs.gov> <http://www.ready.gov/>

2. U.S. Department of State.

Preparedness/emergency planning information provided by the U.S. Department of State can be found at: http://travel.state.gov/travel/tips/emergencies/emergencies_1212.html

3. The Department of Health and Human Services

This site has links for disasters, emergencies crisis and risk management links:

<http://www.hhs.gov/disasters/index.shtml>

4. The Office of Emergency Management

The OEM provides preparedness/emergency planning information. Look up your state's office by starting at your state's homepage and clicking on Emergency Management. Here are the links to New Jersey and New York's.

<http://www.state.nj.us/njoem/>

<http://www.nyc.gov/html/oem/html/home/home.shtml>

5. The Centers for Disease Control and Prevention

The CDC offers information to help prepare for and respond to public health emergencies. Go to:

<http://www.bt.cdc.gov/>

6. FEMA

You can also download the Preparedness/Emergency Planning Information provided by the Federal Emergency Management Agency at:

<http://www.fema.gov/areyouready/>

7. NIOSH

Of course, NIOSH (National Institute of Occupational Safety & Health) has a list of emergency preparedness and response links:

<http://www.cdc.gov/niosh/topics/emergency.html>

8. Occupational Safety and Health Administration

And OSHA includes emergency situations and events in its concern for employee safety. This page links to OSHA requirements with many downloads, flowchart and eTools:

<http://www.osha.gov/SLTC/emergencypreparedness/index.html>

Learn about the Incident Command System (ICS) with OSHA's highly interactive eTool. Here you can get to understand what ICS is and how it works and download forms to help during an incident:

<http://www.osha.gov/SLTC/etools/ics/index.html>

9. Public Safety Canada

This site helps families understand the risks of their region and how to prepare an emergency plan and kit:

http://getprepared.ca/index_e.asp

Other Online Resources –

1. The Corporate Emergency Access System (CEAS)

CEAS is the only program recognized by the NYPD and NYOEM that authorizes essential employees (from the private sector) access to restricted areas following an emergency. Currently available only for New York City, it will be expanding to other major cities: <https://ceas.com/>

2. Handbooks and Workbooks

Adapted from the "Crisis Management Handbook: A Guide for Overseas Staff," provided by the Center for Global Education Crisis.

Handbook: http://www.globaled.us/peacecorps/crisis_h.html

Workbook: http://www.globaled.us/peacecorps/crisis_w.html

Risk Handbook: <http://www.globaled.us/peacecorps/risk.html>

3. American Red Cross

Talking About Disaster: Guide for Standard Messages; Preparedness/Emergency Planning Information provided by the National Disaster Education Coalition can be downloaded from: <http://www.redcross.org/disaster/disasterguide/standardmsg.html>.

The Red Cross also offers a family's guide to emergency preparation at:

<http://www.redcross.org/flash/brr/English-flash/default.asp>

4. Weather-related Information

The US Geological Survey has natural disaster information at: <http://earthquake.usgs.gov/>.

Natural disaster information is also provided by the National Weather Service and available on the National Hurricane Center website at: <http://www.nhc.noaa.gov/>

5. Food Security and Emergency Preparedness

Natural Disaster Information provided by the U.S. Department of Agriculture:

http://www.fsis.usda.gov/Food_Defense_&_Emergency_Response/index.asp

Reminder –

- No plan will be any good if:
- No one knows about it
- No one knows where it is when it's needed
- No one has practiced, trained or drilled on its use
- No one corrects it after it's been used
- No one updates it to keep names and telephone numbers current.

Otherwise, it will be a terrific plan!

Expert: Emotional and Mental Health Essential for Responder Safety (by Katherine Torres, Occupational Hazards, 8/10/07)

Emergency responders often have to be on the lookout for blatant hazards that harm their physical well-being, but according to Dori Reissman, senior medical advisor with the National Institute for Occupational Safety and Health (NIOSH), they often overlook their mental and emotional health, which equally can take a toll on them.

“The people factor seems to be the thing that we [emergency responders] forget about all the time,” said Reissman during the third annual National Response Team Worker Safety and Health Technical Conference in Washington D.C. “We forget that in order to use the equipment or to prevent the exposure, we have to be aware of our behavior and thinking. Those two have to interact in a successful fashion in order for you achieve safety and health.”

According to Reissman, operational stresses such as team dynamics, systemic issues and knowing who is in control and when are some of the typical hazards responders face, but almost hardly deal with.

“A lot of the stress [in an emergency response environment] comes from how we interact with others,” she said. “These are things we all deal with everyday in our usual job, but when you go into response environment, the usual boundaries are gone and the usual things you anchor your social connections with are gone.”

Fears and Sensory Overload Can Push Responder To Edge

Because of the nature of a disaster environment, response workers have to see and experience situations that can overwhelm them. The sensory overload of death, loss and destruction coupled with social disarray can put even the most competent worker feeling lost and not be able to cooperate properly with his or her team.

In addition, due to information on the potentials for exposure of dangerous toxins, response personnel face the possibility of being exposed or become fearful of getting exposure, especially since they almost always can't feel, see, or taste whatever they are potentially exposed to. Having this fear can cause response personnel to essentially break down, Reissman said, as “what we can create in our minds can very much direct what we do with our actions.”

Techniques Available to Prevent Mental and Emotional Breakdown

When a team member breaks down, it causes the whole group to suffer and affects the effectiveness of the mission, Reissman said. In order to have a response effort run smoothly, Reissman advised quickly determining who should be in command. She asserted that having a backup plan in place is crucial; it's important to know ahead of time who would be the next best person to lead response efforts, in case “the person in charge gets in over [his or her] head.”

She emphasized that this preparedness strategy doesn't mean that the next in line would oust the actual team leader, but only that he or she would help facilitate an effective response.

She also made the following recommendations to build team resilience during a response:

- Deploy as a team using a “buddy system.”
- Assess the situation.
- Monitor occupational safety, health and well-being by anticipating hazards (including psychological ones) and assessing environmental conditions and basic needs.
- Ensure regular communication by clarifying tasks required for mission success and matching tasks with team member skills.

“We can't prevent ourselves being exposed, we can't change who we are at the core, but there are a lot of ways we can develop techniques,” she emphasized. “We can become aware of what our personal triggers are, become aware of the more effective management schemes that we need to help shape.

“And the fact that we can actually do this in a safe and health manner is critical factor,” she added.

Why People are Unbalanced and Oftentimes Stressed Out

Culture--We live in a "hurry up" culture where what is considered normal has become harmful. We eat fast, move fast, and are constantly bombarded with "you must get more things to be happy" messages.

There is also a deluge of things competing for our attention. The Internet is doubling in content every one hundred days! Fifteen billion catalogs arrive at our homes every year, usually mixed in with more than seven billion pieces of direct mail delivered each month. And who knows how many billions of spam email messages are buzzing around while you read this.

All this pressure to hurry and have more can deaden our minds to life's simple pleasures, leaving us in a state of imbalance.

Parental Expectations/Upbringing-- Many of the harmful habits we develop are learned during childhood (as are the helpful ones). If you lack healthy self-esteem, there's a good chance you can trace this to your upbringing.

In school the emphasis is on learning so you can "get ahead." We are taught that being at the top of the class is what matters most--or at least it's the type of goal we should shoot for. How much time is spent teaching children how to enjoy life, be compassionate, build better relationships? Not much. (Active listening-- one of the most important skills a person can develop to help build relationships--is absent from the curriculum in most schools.)

No wonder so many modern adults are on a frantic treadmill that keeps them from noticing the simple pleasures in life and interacting deeply with other people.

Misconception/Ignorance-- It was once thought that butter was a helpful salve for a burn. Doctors use to prescribe smoking as a means to calm nerves! Of course, we discovered both to be gross fallacies. Likewise with success and balance. There are still many misconceptions that are believed and promoted today which are harmful and create imbalance.

Here is a big one: The more money you get, the happier you will become. This topic has been studied extensively, and it's been discovered that once your basic needs are met, the correlation between money and happiness is usually the opposite--more money tends to equate to less happiness. (For more details, check out *The Progress Paradox* by Gregg Easterbrook, *Affluenza* by John De Graaf and *Toxic Success* by Paul Pearsall, Ph.D..) This is just one of hundreds of modern misconceptions that can destroy our equilibrium.

We Appreciate You

When job satisfaction is studied, being appreciated (or lack of it) is always at the top of the list of why people do or don't enjoy their jobs. Well, here are a few companies who go out of their way to say "we appreciate you!" to their employees:

- At a New York consulting firm called Inlumen, employees get a cash award of \$50 a month to spend on "someone they love."
- Workers at New Belgium Brewing in Colorado get a free bike on their one-year anniversary with the company (they make Fat Tire beer). And after five years, they get a free trip. . . to Belgium.
- BMW Financial Services pays all healthcare costs for workers and their families. And if the employee doesn't have a family, the company will help out there, too, with \$30,000 toward fertility treatments.
- Acuity Insurance has a well-stocked fish pond on the company campus. Workers get to keep what they catch. Another perk: Acuity pays for Weight Watchers-- but only if the employee meets his or her goal weight.
- Outdoor supply company Patagonia will pay for employees to go on a two-month "environmental crusade."
- The Ohio Health hospital system provides free concierge service to its 15,200 workers. Everybody, from doctors to janitors, has someone to run any errand, such as feeding pets, meeting repair workers at their home, or waiting in line for concert tickets.

Ironic Fires

In 2002 firefighters were called to put out the flames at a factory in Neuruppin, Germany. What did the factory make? Fire extinguishers. But the fire extinguishers were filled with flame retardant at another facility, so at the time of the fire none of them worked.

In 1978, Giovanna D'Arco of Italy was sitting by her fireplace when a spark jumped out and ignited her clothes. Ironically, her name is Italian for "Joan of Arc." Related irony: a Texas man named Stanley Stillsmoking was jailed for trying to steal cigarettes.

Safety Tidbits (from "Safety Stuff" by Richard Hawk Inc. <http://www.richardhawking.com>)

- The risk that you will be admitted to a hospital *tomorrow*: 1 in 2,700.
- Wearing headphones for an hour can increase the number of bacteria in your ear by 700%.
- Pedestrians killed in the United States by falling objects from 1945-2005: 17,983.
- Egyptian shepherds made the first sunscreen from castor beans as early as 7800 BC.
- Recent estimates suggest that the use of alcohol, tobacco, or illicit drugs is implicated in about one-quarter of all deaths in the United States.
- A *lynchobite* is someone who works at night and sleeps during the day.
- Avalanches kill more climbers than skiers.
- The railroad linking Key West to the mainland was destroyed by a hurricane in 1935.
- Fast moving water only 2 feet deep can sweep a car away.