



National Safety
Management
Society

DIGEST

Updating Members on Safety Management News

AUGUST 2007

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Welcoming Our New 2007 NSMS Members

On behalf NSMS President Roosevelt, the NSMS Executive Committee and the NSMS Board of Directors, we like to thank all members who have renewed their 2007 membership to the National Safety Management Society. We would also like to acknowledge and welcome the following new members this month to our Society:

- Daniel Catanzaro, Safety Manager – Evans Construction Company (Cartersville, Georgia).
- Alanna E. Donovan, Environmental Health and Safety Manager – Potlach Corporation (Elwood, Illinois).
- Philip A. Hollis, Jr., HSE Supervisor – KBR (Luling, Louisiana).
- Mrs. Emanuella O. Samuel, IT Training – First City Monument Bank (Yenagoa, Bayelsa Nigeria).

We appreciate your interest in furthering 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!

Members-On-The-Move (Professional Advancement/Promotions): Congratulations to:

Steven R. Davis, Safety Generalist to Safety Manager
DaimlerChrysler Corporation

We would like to recognize and celebrate our members' career advancements or new job positions. Please email us at nsmsinc@yahoo.com

NSMS Annual Conference “Early Bird” Registration Deadline Nears!

Please join the National Safety Management Society for its **2-Day Annual Conference in Las Vegas, Nevada from November 15-16, 2007** (Thursday and Friday). Our Annual Conference will be held at the:

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/>

Current dues-paying members will receive deep discounts in registration fees compared to non-member attendees, and “**Early Bird**” registration and payment (before August 22, 2007) will result in further significant savings. **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>

Early Bird Registration ends on August 22, 2007. Don’t miss the opportunity to attend this conference at the most cost-effective investment for yourself and your organization!

“Safety Management Integration and Operational Excellence”

(Program Agenda - Updated Draft – 8/5/07)

Our conference theme this year is, “*Safety Management Integration and Operational Excellence*”. This event will be 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.

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 (possible Luncheon Speaker)
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 6:30 pm	Vendor(s)-Sponsored Networking Session
6:30 pm	Free Evening

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	“Emerging Human Factor Issues Facing Safety Managers, Supervisors and Operations: The Aging Workforce” – 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	Lunch (possible Luncheon Speaker)
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.*

***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.

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 – Call for Presenters and Papers

A formal request for papers and presentations is being made by the conference planning committee for sharing at the National Safety Management Society 2-Day Annual Conference in Las Vegas, Nevada from November 15-16, 2007. Our theme this year is, “Safety Management Integration and Operational Excellence”. Having informative speakers will help our conference attendees achieve our learning objectives of providing everyone 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. Our goal is to provide speakers that will share with our attendees:

- Key issues facing business executives, safety/risk manager and front line supervisors and those professionals and technicians anticipating or entering into such a role.
- Insights into best safety management practices.
- Skills, knowledge and abilities for professional development.
- How to prepare for the challenges in the occupational safety and risk management fields.

If you are interested in being considered as a speaker for this conference or wish to share your publication without presenting it, please prepare a short abstract (one or two paragraphs) of your topic, along with your complete contact information (include email and daytime phone number). If suggesting a speaker other than yourself, please include contact information for the proposed speaker. Submit your proposal or speaker recommendation **no later than August 31, 2007** to:

Charles W. McGlothlin, Jr. PhD PE
Program Director, OS&H
Oakland University School of Health Sciences
Rochester, MI 48306

Email: mcglothl@oakland.edu
(248) 370-2664

The members of the NSMS Annual Conference planning committee will evaluate all proposals. You will be notified whether or not your proposal was selected for the conference by August 1, 2007. Written papers are to be in Microsoft Word format and presentations developed with Microsoft PowerPoint and copies provided for inclusion in our conference program compendium.

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 are also looking for a vendor(s) who may be interested in sponsoring either a mid-session "hospitality break" and/or a "Networking Social Hour" immediately following the exhibit session (from 5 pm to 6 pm).

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.

Rule-Breaking, Poor Training Contribute to Deadly Accidents (by Erica Solvig, The Desert Sun)

Experts say trench cave-ins such as the recent collapse that trapped a private contractor in Desert Hot Springs, California are an avoidable danger. Yet such accidents keep happening. State officials issued more than 1,400 citations from 2002 to 2006 for trenches that violated excavation safety guidelines, failed to have proper bracing and put workers in danger.

Nationwide, about 40 to 50 people die in construction trench collapses each year, said George Kennedy, vice president of safety for the National Utility Contractors Association. California recorded six deaths in 2005 alone. A man also died after a trench collapse in Temecula earlier this year, Riverside County fire officials said.

In many cases, experts say workers aren't following safety guidelines. "Cost is a factor. The other factor is lack of knowledge and complacency," Kennedy said. "We find a lot of people are not trained and they take chances. I hear it all the time: 'I've done it for 30 years. It's not a big deal.' "All it takes is one cave in and someone could lose their life."

The 45-year-old man trapped in the June 23 collapse was buried up to his chest in sand for at least seven hours before rescuers pulled him out. He survived. But because of patient confidentiality, Desert Regional Medical Center officials have not been able to release his condition or whether he is still hospitalized. The property owner, who records show is also the contractor, declined to comment.

Cal/OSHA is still investigating but officials say citations are likely. State officials say initial findings show crews failed to install any shoring on the 20-foot hole and did not have the proper permit for the dig. "It's such a preventable type of accident," Cal/OSHA spokesman Dean Fryer said.

By the book

State regulations require trenches to be shored when they are deeper than five feet and will have workers inside. Shoring for a project such as the one in Desert Hot Springs - roughly the size of a driveway and 15 feet deeper than the minimum depth required for shoring - could cost \$500 to \$1,000 to rent, said Joel Voss, a customer service representative with Fullerton-based Allied Trench Shoring service.

Typically workers will use either an aluminum hydraulic shoring that pushes back the trench walls or use steel shields to create a box inside the trench and protect the crew. Allied is one of many companies that serves the Coachella Valley and Southern California. Shoring is usually available on the same day, said Voss, who has helped customers throughout the desert. "Even if you are a couple feet deep, there's a chance the soil will collapse in and you can't get out," he said. "I wouldn't get into any kind of hole for anything unless it was shored up. You never know." Regulations also require the on-site crew to have at least one person with specialized training.

The training costs \$75 to \$150 a person, said Kennedy, whose organization trains about 10,000 people a year. Cal/OSHA officials still are investigating if anyone with the three-member crew was trained. But training and stricter rule enforcement from OSHA has helped curb fatalities nationwide, Kennedy said. Just 15 years ago, the number of deaths each year was closer to 100 - about twice what it is now. "It's a good investment," he added.

Owner declines comment

A building permit filed with the city of Desert Hot Springs registered "Sylvia M. Martin Rawlinson" of Indio as the owner and contractor. Reached at her home, Rawlinson declined comment and referred questions to her husband. He did not return messages left with his wife and on his phone.

Neighbors near the unoccupied duplex on Susan Way say the crew was digging a hole for about a week before the accident. Several children live in the area. "We always tell them: 'Don't go near it,'" said Aldo Zapata, a 21-year-old who lives in the neighboring duplex. "We're just happy no one got hurt." Fire crews were called to the scene shortly after 1 p.m. But neighbors told The Desert Sun last week that before rescuers were called, the trapped man's fellow contractors went door to door and asked for shovels. Neighbors, including Zapata and Anthony Concevida, said they rushed over to help and jumped in the hole, too.

That's a typical reaction, but one that leads to "a second cave-in burying a would-be rescuer" in about 40 percent of the cases, Kennedy said. No one else was injured in this collapse. "Every cave-in situation is different," he said. "It's not a standard, routine job. It requires careful thought and planning before you enter.

Workers in No-Smoking Restaurants Show Lower Carcinogen Levels

Recent research on the dangers of secondhand smoke could help clear the air about the value of no-smoking laws governing bars and eateries. A new study compares the level of a tobacco-specific carcinogen in nonsmokers who work in restaurants that allow smoking with that of employees in restaurants that ban it.

Restaurant workers exposed to tobacco smoke on the job were more likely to have a detectable level of NNK, a carcinogen implicated in the development of lung cancer, than those who worked in tobacco-free environments. "There are no studies showing any safe level of exposure to this potent lung carcinogen," said lead author Michael Stark, Ph.D. "In addition to NNK, secondhand smoke contains more than 50 other carcinogens and a host of other toxic substances that cause lung cancer, various other cancers, heart disease and lung disease."

Stark is the principal investigator for the Multnomah County Health Department and Oregon Department of Human Services. The study appears online and in the August 2007 issue of the *American Journal of Public Health*. Nonsmokers exposed to secondhand smoke have about a 20 percent increase in the risk of lung cancer — and foodservice workers tend to have more exposure to indoor environmental tobacco smoke than workers do in any other occupation.

Clean indoor air laws already protect about 70 percent of workers from indoor environmental smoke. Yet, only 11 states have clean indoor air acts that ban smoking in all indoor workplaces. In states like Oregon, where the study took place, workplaces such as restaurants and bars have exemptions. The researchers concluded that there is no justification for any clean air exemptions. "Policymakers and the public need to protect the health of all nonsmoking workers by prohibiting smoking in all indoor workplaces," Stark said.

Restaurant patrons who smoke might be in denial about the dangers of secondhand smoke, said Bruce Leistikow, M.D., an epidemiologist with the department of public health sciences, University of California Davis Cancer Center. "I think they underestimate the effects on themselves and thereby on others. The risks are so high that absent tobacco-industry lobbying and disinformation, secondhand smoke exposure would already be banned in all states."

According to Elaine Fraser, of the Department of Labor, Occupational Safety and Health Administration, there has been no successful national effort at banning smoking in the workplace but grassroots efforts, which research results strengthen, are slowly making a difference at the state and local levels. Because of these efforts, "the antismoking groups believe they are having a positive effect on changing the policies of the relatively small number of businesses that do not have a smoke-free work policy," OSHA's Fraser said.

Older Farmers Face More Dangers (by John Seewer, Associated Press – July 1, 2007)

John Kidd has been farming since he was in grade school 70 years ago. He's had his share of bumps and bruises along the way -- and more. This spring, his legs were crushed when he was pinned by a truck that fell off a hoist at his farm near Bowling Green, Ohio. The accident sidelined him during planting. "I've had a lot of things happen to me," said Kidd, 82. "I've cut the tip of my nose off when a tire blew."

In an already dangerous occupation, the risks increase for older farm operators, who account for a growing percentage of all farmers. They can't dodge cattle like they once did, and years of sitting on tractors and combines have left many with damaged hearing. Arthritis and poor eyesight are common. The ailments hinder their ability to know when trouble is around the corner.

Those 75 and older are twice as likely to die than younger farmers in accidents on the job, according to the National Institute for Occupational Safety and Health. Tractor rollovers are the most frequent cause of death among all farmers, studies have shown.

"Older folks hang onto older equipment," said William Field, supervisor of Breaking New Ground, an outreach program for disabled farmers in Indiana. "Those are what seem to be killing people. They're the older machines that don't have rollover protection."

Nearly half of the 185 Indiana farmers killed on the job over the last decade were 60 and older, according to statistics compiled by Purdue University's Agricultural Safety and Health Program. Some of those accidents involved tractors that were a half-century old. "If grandpa's helping out, put him in the safest tractor you have," Field said. "Don't put him on the old tractor he's grown to adore."

More farmers and ranchers -- 341 -- died in 2005 than in any occupation except truckers and others who drive for a living, according to the U.S. Bureau of Labor Statistics. Farmers are exposed almost daily to moving machines, chemicals and repetitive motion. They also have the highest death rate from stress-related complications such as hypertension, ulcers and nervous disorders. Many farmers feel pressure to keep farming because they don't have a retirement plan. There are worries about the weather and finances, too.

They work long hours during planting and harvest seasons. That sometimes leads to short cuts and accidents, said Deborah Reed, a University of Kentucky professor who studies agriculture health. Older farmers have higher rates of skin cancer and high blood pressure, a survey of Kentucky farmers found eight years ago. Falls were the primary cause of injuries, the survey said. "The work is more seasonal and they're not used to be out doing physical work," Reed said.

More older people also are retiring to the country and dabbling in farming. "Those are the ones I'm really worried about," Reed said. These folks really receive no training. They are lucky if a seasoned farmer teaches them." Most of the safety awareness campaigns and research into farm accidents have focused on children even though injuries among the oldest farmers are more common.

Researchers say it's easier to get federal grant money to study child safety on the farm because it is a more emotional issue. "It's sad in a way that there hasn't been comparable attention to elderly farmers," said Mary Fleming, a nurse who travels Ohio teaching farm safety. "Maybe grandpa's death should pull at our heart strings too." Fleming, who grew up on a dairy farm and still farms in Delaware County, fell out of a hay mound and broke her hip when she was a child. As an adult, she lost two close friends in farm accidents. "It's something that didn't have to happen," she said. "I've seen family members injured, and I've seen family members die in farm accidents." Farmers can be tough to change, Field said, but they will when they are shown a safer, less painful way to work.

Fleming said they know their jobs are dangerous but often don't know how quickly problems can arise. On occasion, she'll ask farmers if it's worth the risk to allow their sons and daughters to drive a tractor without devices that stop them from rolling over. "We need to help them see how those things happen and help them rethink their decisions," she said.

Getting Top Management Commitment (by Steven Geigle, CSHM)

It is essential to the success of your company's safety and health program that top management demonstrates not only an interest, but a long term serious commitment to protect every employee from injury and illness on the job. But, if you think you don't have that level of commitment, how do you get it? Real commitment doesn't just appear out of thin air. What is the secret?

Management commitment to safety will occur to the extent they clearly understand the positive benefits derived from the effort. Understanding the benefits will create a strong desire to improve the company's safety culture. Managers will invest serious time and money into effective safety management by developing programs, policies, plans, processes, procedures, and practices (the Six-P's). They will also display leadership through effective accountability and recognition of behaviors and results.

Why do Employers "do" Safety?

Employers are motivated to invest in safety to extent for all of the following reasons. It's important that safety and health professionals understand which of the three "buttons" below are the most important to the employers. Understanding what motivates top management will help the safety manager get buyin for safety. Let's take a look at the three major reasons.

The Three Imperatives

- **To fulfill the legal imperative.** At this level, the primary goal is to fulfill the obligation to comply with OSHA rules. To stay out of trouble. Do only what has to be done to meet minimum requirements. Safety is not a priority or value.
- **To fulfill the fiscal imperative.** Employers who are motivated to do safety understand the financial benefits derived from effective application of safety systems. The primary reason for "doing safety" shifts to maximizing profits. The goal is to fulfill the obligation to stakeholders to operate the business in a fiscally prudent manner. The employer will do whatever needs to be done reactively and proactively to save on direct and indirect costs of accidents. The employer will likely go beyond minimum legal requirements if needed. Safety is most likely a high priority...However, it may be subject to rapid change when the going gets tough.
- **To fulfill the social imperative.** Employers who, for whatever reason, have come to the realization that long-term corporate survival depends on more than maximizing short-term profits, will value and tap into the incredible creative potential of each employee, from janitor to president. Managers appreciate the inherent value of each employee, not just as a worker, but as a corporate "family" member. They also realize and value the roles their employees fulfill away from work, in the community, as mothers, fathers, coaches, helpers, etc. Employers strive to fulfill their obligation to each employee, local community, and general society to support and protect the welfare of all employees. Safety is perceived as a core corporate value that does not change when the going gets tough.

The primary challenge for safety and health professionals is to effectively educate top management about the legal, fiscal, and social benefits they'll experience as a result of a serious investment in safety. We've got to push the right buttons. If top management "gets it," they'll make the commitment.

Exposed! (Julie Deardorff – July 1, 2007, ChicagoTribune.com)

“It may not be a 'real' illness, but symptoms are very real to people with a sensitivity to common chemicals.”

When Marny Turvil of Evanston gets a whiff of certain cleaning products, fabric softener or gasoline fumes, she feels depressed, irritable, tired and foggy-headed. But at least one doctor ridiculed her self-diagnosed hypersensitivity to chemicals. Friends wondered about her mental health. And once, while on an airplane, a perfumed flight attendant gazed at the respiratory mask and snarkily asked, "Where are you going, Mt. Everest?"

Such is life with a disorder known as multiple chemical sensitivity (MCS), a confounding illness that is not officially recognized by the U.S. medical establishment but has very real symptoms for an estimated 12 percent of the population. Though a controversial new branch of medicine called clinical ecology (or environmental medicine) has sprung up to help treat people who are hypersensitive to chemicals, the disagreement over whether the condition actually exists has provoked a major schism among physicians and made it difficult to find care and research funding.

The theory behind the disorder is that vague symptoms such as fatigue, depression, memory loss, headaches, confusion and difficulty concentrating are triggered by either one large chemical exposure such as a pesticide application or low-level exposure to everyday chemicals in the environment. But so far, science hasn't been able to link the causes and the symptoms that patients describe. "People who don't have it think [we're] crazy, making it up, or hypochondriacs because [the triggers] are products that people are around all the time but have no problem with," said Turvil, a pediatrician who recently retired from practice to open Health Green Goods in Evanston, a store that caters to those with environmental sensitivities.

MCS, which has been described since the 1940s, has been discounted as an organic disease by several groups, including the American Medical Association and the American Academy of Allergy, Asthma and Immunology. It's often confused with an allergy because many of the reactions, including headaches, fatigue, general malaise, swelling and breathing difficulties, can be the same as those in delayed-type allergic reactions to foods. "We have no real evidence to believe those things, at least in mainstream medicine," said dermatologist Andrew Scheman, director of the North Shore Center for Medical Aesthetics, who specializes in contact allergies. "A fragrance can give you a rash, but if you [think the fragrance] is behind fatigue, weakness or vague symptoms, then you go see Jerry Leikin," the state's only medical toxicologist.

But Leikin, of Evanston Northwestern Healthcare, hasn't found evidence of MCS and says it's not a toxicological illness because it doesn't follow the usual pattern: the higher the dose, the greater the effect. And patients often say they're suffering from overt chemical sensitivity rather than toxin accumulation. Still, MCS is recognized by the National Institute of Environmental Health Sciences as a "chronic, recurring disease caused by a person's inability to tolerate an environmental chemical or class of foreign chemicals." The Americans With Disabilities Act includes MCS as a disability. And researchers such as Claudia Miller, a professor of environmental and occupational health at the University of Texas Health Science Center at San Antonio, suggest that toxicants are the cause not just of MCS but of a host of other illnesses and disabilities as well.

"The mainstream likes to say this doesn't exist because they have refused to acquire the knowledge base that it takes to diagnose this and treat it," said internist Martha Howard, medical director of Wellness Associates of Chicago, who treated Turvil. "It is much easier to write off these patients as 'hypochondriac' or 'crazy.'"

No clear definition

One problem is that MCS is not clearly named or defined. Since 1996, it has been officially called "idiopathic environmental intolerance" but it has also been labeled environmental illness, toxic injury, chemical AIDS, 20th Century disease, total allergy syndrome, chemophobia, sick building syndrome and toxicant-induced loss of tolerance.

The symptoms, which can affect the central nervous system or cause respiratory or gastrointestinal problems, vary depending on the person and the trigger. One study of 20 patients in the journal *Clinical Toxicology* showed that mold, indoor volatile organic chemicals and ink printers were thought to cause symptoms. In that study, a 30-year-old woman said she had migraines and dizziness from household cleaners, a 47-year-old man complained of back pain from model rocket glue and a 59-year-old woman experienced weakness and tremors from toilet tissue. But after evaluations, the researchers could not find a toxic cause in any of the cases.

"The symptoms they have are anything they want them to be," said Mark Aronica, a physician in the department of pulmonary, allergy and critical care medicine at Cleveland Clinic. "There are hundreds of known exposures that can lead to medical conditions such as occupational asthma, contact dermatitis and a variety of other well-defined organic conditions related to known chemical or toxin exposures." But, he says, these types of exposures "don't fall into the category of MCS the way it is being defined by 'environmental specialists.'" (See accompanying story.)

Chemical sensitivity also overlaps with other "real" diseases, including chronic fatigue syndrome and fibromyalgia, making it impossible for someone to know which one is causing the problem. Some people believe it's a "sick building" phenomenon; other theories on the mechanism include allergy, a conditioned response, impaired biochemical and neurochemical pathways, psychological or psychiatric illness, a psychosomatic condition, or altered sensitivity of the nervous system.

The avoidance cure

The only "cure" is to avoid exposure, which means limited access to public places, including libraries, doctor's offices, grocery stores and churches. Some people also make drastic dietary changes such as removing wheat, gluten, yeast and dairy from their diet or avoiding all processed foods, which contain trace amounts of processing chemicals.

"[For me] fragrances are by far the worst offender," said Lynn Tondat Ruggeri, a physiological psychologist and co-author of "Safer for Your Baby: A Guide to Living with Fewer Chemicals" (SaferWorks, \$9.95) after becoming chemically sensitive in her 30s. "Going anywhere near the soap and laundry aisle in the store is torture." If she does, she might experience "a headache, nausea, and even mental confusion within minutes to an hour if I stay in the area of the chemical."

Turvil, a mother of two, figured out she had MCS about five years ago, primarily because her mother also suffers from it. "In typical mainstream fashion I thought she was nuts," Turvil said. "Then I started having clear symptoms." Driving in the car, for example, made her feel depressed and tired. "But as soon as I put on the recirculation button and didn't breathe in fumes, I was fine," she said. She also found she had trouble around plastic products and anything that emits gases or has the "new" smell. The realization forced her to overhaul her life. With Howard's help, she cleaned out her house, began eating a plain diet of meat, vegetables and fruit, and stopped going out in public. Finally, she even left her job as a pediatrician because if she spent 30 minutes in an exam room breathing in chemicals from fabric softener from a patient's clothing, she'd be knocked out for the day. "People will discredit things that threaten their well-being," said Turvil, who suspects the increase in chronic childhood illnesses is due to chemical exposure. "To be told products you use every day are full of dangerous chemicals is a very threatening thing."

Could it be MCS? Here's how to tell

These six criteria must be present for a person to be diagnosed with multiple chemical sensitivity, according to the Chronic Fatigue and Immune Dysfunction Syndrome Association of America:

1. The same symptoms occur with repeated exposure to the same chemical.
2. The condition is chronic.
3. Low levels of exposure (lower than previously tolerated) bring on the syndrome.
4. The symptoms improve or go away when the triggers are removed.
5. Responses occur to multiple chemically unrelated substances.
6. Symptoms involve multiple organ systems (most commonly the neurological, immune, respiratory, skin, gastrointestinal and musculoskeletal).

Common chemicals, uncommon reactions

Here are the chemicals that generally cause the most problems for MCS sufferers, according to psychologist Pamela Reed Gibson of James Madison University, author of "Multiple Chemical Sensitivity: A Survival Guide" (New Harbinger Publications, \$16.95):

- * Pesticides.
- * Formaldehyde.
- * Fresh paint.
- * New carpets.
- * Diesel exhaust.
- * Perfumes and air fresheners.

Other triggers include tobacco smoke, fresh asphalt, moth balls, nail polish and remover, fabric softener, dry cleaning chemicals, hair spray, auto exhaust, shampoos and conditioners, and newsprint.

The Four Basic Components of an Accident Investigation (Source: U.S. Forest Service)

The four basic components of the accident investigation process are:

- The accident sequence.
- Human factors accident and incident analysis.
- Equipment factors analysis.
- Environmental factors analysis.

The nature and complexity of the accident determines the extent to which these components are evaluated.

Accident Sequence

The accident sequence consists of five components and is established based only on the facts determined during the investigation. The five components are:

- Events occurring before the accident. Establish the sequence of events leading to the accident to answer the questions: who, what, when, where, and how. Identify any contributing factors such as urgency, weather, equipment condition, or terrain. If a fire was involved, establish when, where, and how the fire was started. Determine flame propagation and whether attempts were made to extinguish the fire.
- The accident sequence. Start with the initiating event (examples are the truck tire blew out or the helicopter tail rotor struck a snag) and continue until the sequence reaches a logical endpoint.
- Events occurring after the accident. Identify the sequence of events that occurred after the accident (such as search and rescue or medical efforts), how the accident was first reported, and the locations of personnel and equipment after the accident. Note any disturbance to the accident site and security or preservation measures taken, as well as any injury and causal or contributing factors due to events that occurred after the accident, such as rescue and medical response.
- Injuries. Record all injuries. Identify all medical facilities that provided treatment, document the condition of the patients, and summarize autopsy reports, if applicable.
- Damage. Estimate the cost of the equipment or property damage and define the damage as minor, major, destroyed, or repairable.

Human Factors Accident and Incident Analysis

Human factors play a large role in most accidents. Investigators need to be able to identify the human factors that contribute to an accident. Thorough analysis can result in effective intervention and prevention strategies and recommendations.

- A. **Qualifications and Training.** Determine the qualifications and training of individuals directly involved in the accident (the vehicle operator, passengers, and supervisor). Identify any contributing factors such as the lack of operator certifications or insufficient training.
- B. **Duties.** Identify the duties of individuals directly involved in the accident, such as primary and additional duties, and work and rest schedules. Note any contributing factors, such as employee fatigue. Conduct a work/rest analysis covering at least 72 hours before accident. Include an examination of time and attendance records as well as input from appropriate supervisors on tasks completed and actual time worked (may not necessarily match recorded time), off-duty activities, and sleep duration cycles.
- C. **Management.** Determine the organization, supervision, and external control of individuals directly involved in the accident. Identify any contributing factors, such as a failure to emphasize safety by the supervisor or organization.
- D. **Compliance.** Note deviations from policies, procedures, practices, and contract specifications. Review the JHA, safety equipment, and other items pertinent to the accident investigation.
- E. **Documents.** Identify whether directives, operating guides, and contracts were current, readily available, and properly used by individuals associated with the accident. Review records specific to the accident,

such as inspections, dispatch and equipment logs, time and attendance records, safety plans, and incident command system forms, if applicable.

- F. Communications. Identify the type of communications used before, during, and after the accident. Identify any contributing factors related to communications, such as radio coverage or faulty equipment.
- G. Services. Determine whether contractual services, such as road guards, traffic signs, or dispatch procedures contributed to the accident.
- H. Risk Management. Determine whether a JHA or other workplace risk analysis was developed. Establish the role that the risk analysis played in the performance of the work project or activity. Determine whether a tailgate safety session was held and documented before work began.

Equipment Factors Analysis

- A. Systems. Determine what equipment was involved in the accident and its suitability to perform the work project or activity. Include any pertinent operator manuals, maintenance records, inspections, and approvals of maintenance personnel.
- B. Survivability. Evaluate the ability and suitability of the vehicle, system, or equipment to perform the work project or activity, and the structural integrity of the occupant compartment.
 - Impact conditions and crash (dynamic) forces.
 - Restraint and rollover protection systems. Were such systems installed? Were they used?
 - Personal protective clothing and equipment, and safety equipment.
 - Backup and emergency systems.
 - Safety design.
- C. Laboratory or Teardown Analysis. Review the results of any equipment component analyses. Special studies or tests should be conducted by another agency or private laboratory.

Environmental Factors Analysis

- A. Weather. Verify the weather conditions before, during, and after the accident. Identify any contributing factors, such as precipitation, temperature, lighting, and visibility.
- B. Physical Environment. Fully describe the accident scene. Determine whether the scene was preserved. Note the terrain at the accident site. Provide a general area map, a site-specific location map, profiles of terrain features, diagrams and sketches of the accident site, and diagrams of any other relevant objects. Take all measurements from a control point that has some permanency. Measurements can be made from the control point during return trips to the site. Identify any contributing factors, such as altitude, vegetation, slope, accessibility, dust, and smoke.

Stress Management: Creating Balance In Your Life (from "Safety Stuff" by Richard Hawk Inc.)

What does it mean to create balance? In this context, it means "to bring into harmony or proportion" the many aspects of your life: home, work, community and self. It means controlling what you attend to and living your life by design rather than being swept along by outside influences.

Six Key Areas of Balance

Attention: Are you able to live in the moment? Or are you often thinking about the next (or a future) task that you plan to do? You can be aware of many stimuli, but you can only pay attention to one task at a time. (When it comes to your attention, there is no such thing as multitasking.) Being able to focus fully on one thing at a time is a sign of a balanced mind. Your most precious resource is your attention. Good question to ask yourself: Am I using it the way I should to live a productive and happy life--one where my moments matter?

Physical Health: Is staying or becoming healthy (which includes being physically fit, not just free of disease) a chore or a way of life? If tending to your health is something you only fit in when you're not too busy, then you are unbalanced. Do you put breathing and going to the bathroom on your "To Do List?" Of course not. They are natural and necessary aspects of your life . . . and so should be other activities that keep you fit and alive like eating colorful foods (not that you should never eat any, but candy and snacks don't count!) and exercising.

Self-Esteem/Mental Health: Do you love being you? This is not about being conceited (conceited people have an 'excessively high opinion of themselves and their abilities'). It's about having a balanced amount of self-esteem--enough for you to have first-rate relationships and accomplishments. When you don't have enough self-esteem, you're never satisfied. You always feel the need to do more and to prove yourself, which makes life miserable.

Relationships: Humans are social animals, so much so that we become sick when we have no interaction with other people. (Many well researched, real-life examples have proven this point.) Your success in business and life in general relies more on your ability to make and nurture relationships than any other single factor. When getting things done becomes the mainstay of your actions, you are unbalanced.

Service: Mother Teresa was a cheerful, funny and powerful woman. It's hard to believe that someone who lived amongst such dismal conditions could still enjoy life and be funny! You don't need to move to India and serve the poor all day to be balanced in this area, but you do need to give. Sages throughout the ages have reported that we are happiest when we are helping others.

Purpose: Where are you going with your life? Are you just surviving? Henry David Thoreau, an unusually insightful man, observed that most people live lives of "quiet desperation." Another powerful question: Do I simply exist or is there a powerful purpose behind my life that I am controlling?

Special Stress Release Days – Mark Your Calendars! (from "Safety Stuff" by Richard Hawk Inc.)

- January 7th is I'm Not Going to Take It Anymore Day.
- March 22 is International Goof-Off Day.
- October 12 is International Moment of Frustration Scream Day.

Doughnut Disk – Safety Training/Meeting Strategy (from "Safety Stuff" by Richard Hawk Inc. <http://www.richardhawkinc.com>)

A prop that can be used, which is always very effective and illustrates the true meaning of a slipped disc, is a doughnut.

Pass to each attendee to your safety training class a jelly-filled or custard-filled doughnut and a paper towel. Then illustrate poor lifting techniques such as not bending knees, etc. and show how this can put a great deal of pressure on the back. Explain the makeup of the spine, the vertebrae and cartilage discs between them. Further, inform the class how a slipped disc occurs when the soft part of the disc bulges through the circle of connective tissue.

Then ask the students to think of their doughnut as a disc and to put pressure on it, just as it would happen if they were carrying out a poor lifting technique. They then see the jam or custard from the middle oozing out just as the nucleus of the spinal disc does.

Many students do not realize what a slipped disc actually means and how painful it can be. Simple but very effective!!!

Keeping Your Safety and Health Team Alive

As with anything in life, no two teams are the same in their makeup and abilities. However, the ones that seem to "click" and make the biggest difference in the company's safety & health culture have these things in common. They:

- are willing to try new things.
- don't complain much.
- share the work.
- are energetic.
- laugh a lot and have fun.
- make their presence known around the plant/company.
- believe in what they are doing and members don't consider being on the team to be just a work chore.
- like being creative and coming up with competitions, video ideas, themes, posters, etc.
- get along and team members communicate well with one another.
- they have power and get plenty of support from company leaders.

More and more health and safety teams realize that finding and fixing hazards isn't their only purpose. Instead, they are also coming up with cool ways to heighten employees' awareness about their health, both mental and physical. (i.e. funding walking or weight loss competitions, creating rooms for meditating, holding hydration classes or having health fairs). Successful teams are also creating inventive ways to encourage employees to take safety and health messages home.

So, if your safety and health team(s) is still spending most of its time reviewing hazards and fretting over statistics--stop now! Change your agenda and use these tips to inject some energy into the members and liven-up the team.

The Most Dangerous Doctor

Galen, the third-century Creek anatomist, personal physician to the Roman emperor Marcus Aurelius, killed more people than any other man in medical history.

For more than one thousand years, Galen was acknowledged by the Roman Catholic Church to be the world's only official authority on human anatomy even though Galen had never actually seen the inside of the human body. His one hundred or so medical textbooks were wild guesswork based on his observations of dead pigs and dogs.

Thanks to Galen, generation of medical students learned that the brain was a large clot of phlegm, that the heart had two chambers, that the best way to cure a headache was to cut holes in the skull, that the quickest way to cure a cough was to amputate the uvula at the back of the patient's palate, and that postoperative wounds should be dressed with pigeon's blood.

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

- Most passenger cars will roll side-over-side on any slope greater than 30 degrees.
- The World Health Organization reports 1,000 to 3,000 cases of bubonic plague every year.
- The rear wall in a hotel closet is usually the easiest wall to kick through in the event of a fire.
- The "layshaft lever" shuts down a train engine in an emergency.
- According to the Royal Society for the Prevention of Accidents, some 19,000 people were hospitalized in 2002 by accidents at British swimming pools; 1,800 of whom hurt themselves colliding with somebody else.
- Venom can continue to enter the body for up to ten minutes after a bee's stinger punctures the skin.