New Human Resources Branch Formed
ASSE’s Council on Practices and Standards (CoPS) approved the formation of a Human Resources (HR) Branch under the Management Practice Specialty (MPS).

Today’s SH&E and human resources professionals are undertaking more of the same responsibilities. The HR Branch allows both groups to network with each other and to take advantage of training and educational opportunities.

For more information on the HR Branch, please contact Chris Gates, MPS Administrator, at cgates@rm.sbccounty.gov or Howard Hughes, HR Branch Chair, at HHughes@spi-ind.com.

Fire Protection Branch Becomes Practice Specialty
ASSE recently announced the establishment of the Fire Protection Practice Specialty (FPPS). Prior to its new status as a Practice Specialty, the Fire Protection group was a Branch of ASSE’s Engineering Practice Specialty.

FPPS’ initial goals are to continuously improve the group’s technical publication, Fireline, build webpage resources in conjunction with key issues identified by its members and develop a network of technical experts who can participate on a listserv system to assist members in finding answers to challenging questions.

For a Branch to become a Practice Specialty, the Branch must have at least 500 members and have published three newsletters in a previous year. A Branch must also have a Chair, Vice Chair and a strategic plan to be considered for Practice Specialty status.

FPPS membership costs $20 per year. For more information, visit http://www.asse.org/practicespecialties/fireprotect/.

BISE Takes Flight After Safety 2008
ASSE’s new Common Interest Group, Blacks in Safety Engineering (BISE), has kept busy since its first meeting at Safety 2008 in Las Vegas, NV this past June. The group is steadily building membership and has reached and exceeded its short-term membership goal.

BISE has formed the following committees:
• Membership
• Employment/Jobs
• Mentoring
• Newsletter
• Strategic Plan
• Website

Each committee has a lead person who conducts conference calls and provides monthly updates to BISE Chair Terry Wigfall.

BISE plans to publish its first electronic newsletter by the end of the summer and will add new content to its website.

BISE is currently preparing for Safety 2009 in San Antonio, TX.

For more information on BISE, please contact BISE Chair Terry Wigfall at wigfallterry@hotmail.com or visit http://www.asse.org/practicespecialties/bise/index.php.

Young Professionals in SH&E Hold First Networking Meeting
ASSE’s new Common Interest Group, Young Professionals in SH&E (YP) held their first networking meeting on June 11, 2008 at Safety 2008 in Las Vegas, NV. Those who attended had the opportunity to network with other young professionals in the SH&E field as well as learn more about YP and reasons to get involved in ASSE.
To start off the meeting, George Pearson, CSP, ARM, Vice President of the Council on Practices and Standards, provided an overview of the Practice Specialties. Selena Schmidt, YP Chair, outlined YP’s vision, mission and objectives. Mark D. Hansen, CSP, P.E., Vice President of Environmental and Safety for Range Resources Corporation, was the meeting’s featured guest speaker.

YP received positive feedback from meeting attendees. Jill Ellestad, Safety Specialist for Rubbermaid Home Products, said, “Thanks for getting the YP meeting together! I am excited about the potential this group has in offering guidance and assistance to ‘new-to-the-field’ safety professionals.”

YP was created to provide a forum for young professionals in SH&E as they enter the workforce. The target audience includes graduating seniors from colleges and universities through seven years of experience. YP also applies to those entering the field mid-career.

For more information on YP, please contact YP Chair Selena Schmidt or visit

IPS Welcomes New Assistant Administrator
Ashok Garlapati, CSP, QEP, G-IOSH, has been elected by acclamation as the International Practice Specialty’s (IPS) Assistant Administrator for 2008-2010. Garlapati is a professional member of ASSE and a past president of ASSE’s Kuwait Chapter.

IPS Administrator Jack Fearing, CPEA, is delighted that Garlapati has accepted the Advisory Committee’s invitation to join them in providing leadership for the Society’s many multinational companies and international membership. “Ashok has demonstrated time and time again that he is both the consummate SH&E professional and a leader in providing innovative solutions to global SH&E challenges,” says Fearing. “It has not taken him long to identify areas within IPS that he will personally champion during his term. I look forward to what I know will be many contributions from him in the coming months and years.”

Garlapati is an HSE Specialist with the Exploration and Production Development Directorate of Kuwait Oil Company in the State of Kuwait. An environmental engineer, Garlapati holds a master degree in business administration and a post-graduate diploma in industrial pollution management. He has 20 years of experience in HSE consultancy and management within the oil and gas industries. He is a lead auditor of the ISO 14001 and OHSAS 18001 standards and an approved OSHA outreach trainer. He also has extensive experience in the implementation of HSE management systems for process industries.

Garlapati helped establish ASSE’s Kuwait Chapter and served on the Society’s Global Taskforce. He is a 2007 Charles V. Culbertson Award recipient and the first international member to enter the President’s Court of Membership Honor Roll Club by sponsoring more than 160 members. He can be reached at +965 3871587 or at ashokcpl@yahoo.com.

For information on IPS and its 2008-2010 initiatives, please contact IPS Administrator Jack Fearing, CPEA at +1 (973) 463-6240 or at jack_fearing@aon.com.

IPS Assistant Administrator Ashok Garlapati (left) and IPS Administrator Jack Fearing (right) greet each other in the International Lounge at Safety 2008 in Las Vegas, NV.

First International Resource Guide Available on IPS Website
ASSE’s International Practice Specialty has developed an online international resource guide to help SH&E professionals worldwide stay connected in their efforts to improve occupational safety and health. This is especially important as ASSE continues to increase its global outreach and international membership.

This first edition of the guide includes:
- Country profiles & online international SH&E resources
- Articles on labor management, standards enforcement & other timely topics
- Interviews with SH&E professionals from such countries as Nigeria, Taiwan & Kuwait
- Key international issues that ASSE’s practice specialties will address over the next year

To view the International Resource Guide, visit

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We Asked, You Answered

In the last issue of CoPS SH&E Report, we asked readers what areas of SH&E they believe require new or additional standards. Adele L. Abrams, Esq., CMSP (Law Office of Adele L. Abrams P.C.) provides her response below...

“With respect to the updating of MSHA standards, 56/57.5001 (air contaminants/permissible exposure limits—MSHA currently incorporates the 1973 ACGIH Threshold Limit Values!) and completion of its rulemaking on substance abuse prevention in mining. Limited provisions exist for metal/nonmetal mining, and no provisions exist for coal. Provisions for metal/nonmetal mining must also be strengthened.”

Sounding Board

ASSE member Samuel Cahan, P.E., CSP originally submitted the following letter to The New York Times in response to the April 23, 2008 editorial, “Unsafe at Any Height?”

To voice your opinions on this or any other SH&E topic, please e-mail CoPS SH&E Report at jcappello@asse.org. Responses will be published in a future issue of CoPS SH&E Report.

April 29, 2008

Subject: A Vigilant Building Department for New York

Dear Editor:

How can the New York Department of Buildings achieve the long-term goal of vigilance and honesty? It can happen, starting with the building commissioner and his staff, by completely separating themselves from those building industry representatives and middlemen who make every effort to mitigate building code requirements.

The task requires sweeping personnel changes within the department, the hiring of competent enforcement officers and knowledgeable plans examiners who will not be subject to outside pressures to deviate or weaken code requirements.

The linchpin for success requires top management to mandate that each employee will ensure that code compliance is embraced at every level, from the plan review and construction phase, to the final issuance of the certificate of occupancy.

With true management oversight and careful, continuing auditing, a building department safety culture can emerge and be sustained.

Samuel Cahan, P.E., CSP

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Special Educator Issue Takes Inside Look at Safety Professionals Handbook

ASSE’s Academics Practice Specialty has published a special online issue of The Educator to give members an inside look at the Society’s most expansive publishing endeavor, The Safety Professionals Handbook.

This special issue features interviews with Editor-in-Chief, Joel Haight, Ph.D., P.E. and four Handbook section coordinators. Tables of Content for each Handbook volume are also included.

To view this special issue of The Educator, visit http://www.asse.org/practicespecialties/academics/docs/TheEducator_SPHSpecial_0708.pdf.

CoPS Publishes First Key Issues Document

CoPS recently asked its Practice Specialties, Branches and Common Interest Groups to submit key issues they plan to address throughout the next year.

CoPS wanted to know:

• Why these issues are important
• Members’ views of these issues
• Suggested actions

These key issues have been compiled into an online document available at http://www.asse.org/practicespecialties/docs/CoPS%20Key%20Issues%20Document.pdf.

Members who would like to work with CoPS on these issues should contact the Administrators or Chairs listed in the document.
Preparing the Next Generation of Fire Protection Specialists

David White is President of Fire & Safety Specialists, Inc. in College Station, TX. In this interview, White discusses the challenges he has faced throughout his career in fire protection and offers his insights for those new to fire management and emergency services.

Please provide a brief description of your professional background and of your role as President of Fire & Safety Specialists, Inc.

I have worked in fire management and emergency services for 43 years. I started as a volunteer firefighter, career firefighter and training officer, and I also taught at Texas A&M University.

In 1982, I left teaching to pursue private interests and then established Fire & Safety Specialists, Inc. and Industrial Fire World magazine. Our magazine has 26,000 readers and its own website, and the annual Industrial Fire World conference is the largest of its kind. This year marks our 23rd conference.

For the last 25 years, I have participated in investigation, control and management of high-rise, chemical tanker fires, and in fact, I was part of the team that put out the largest tank fire in history. I have also expanded my knowledge of industrial fire protection.

Our company brings its unique experience and education to conferences and training, and we impart our knowledge to those who need it. With so many baby boomers retiring and taking their experience with them, we need fire specialists who know how to handle large-scale fires.

Fire & Safety Specialists, Inc. offers several services, including consulting, training and expert witness testimony. With respect to emergency planning and development, what issues or needs are currently of high importance to your clients?

Unfortunately, fires, explosions and deadly events still occur. As we manufacture explosive and reactive materials, current technology plus every code and standard must be referred to as a minimum level of protection. However, codes and standards are not always interpreted that way. We must go beyond minimum levels of protection in many cases. Remember that all codes and standards are a compromise between people.

David White

David White has a 40+-year history as an industrial and municipal fire protection educator, expert witness and consultant to industrial fire and emergency response managers worldwide. His focus is to learn all he can from emergency incidents and to share his knowledge so others may limit their risk and optimize their performance.

He works closely with industrial fire and emergency response managers to keep abreast of issues impacting their work. He has participated in NFPA committees, Homeland Security planning teams and in planning special events such as the Demystifying LNG Symposium. He has responded to over 16 major tank fires, two ship fires, numerous plant, facility and high-rise fires, training derailments and hazmat incidents.

White’s goal is to continue to work with emergency responders to help them understand what the challenges will be and how they can safely respond to these events and go home.

In very dangerous situations, we look at what codes, business and history have shown us. Recently, I was at a plant in the Middle East that will be the largest of its type in the world. Many plants overseas have the same level of fire protection as they had 30 years ago. We must be ready when things go wrong. What will we do to ensure that the plant survives? Experience must enter the equation when determining a facility’s fire protection capabilities.

You have served on many National Fire Protection Association (NFPA) committees throughout your career. How has this experience helped you in your work with industrial fire and emergency response managers?

Serving on an NFPA committee is critical for those who have the desire to make things better. Fire standards are the blueprints to which fire protection decisions are made. All of these standards are designed by people. Every standard is a compromise, and consensus is reached among members. The blueprint is where it starts and where it goes.

Communication is also important—it helps people network. I know the smartest people in fire services, and I know I can put those who have questions in contact with the right person. It is not how smart you are; it is how smart the people you know are. If you can reach out to them, you have an available tool. No one knows it all.
In light of large-scale events such as the recent Southern California wildfires, what are the greatest safety, health and environmental (SH&E) concerns facing fire protection specialists today?

In addition to wildfires, challenges include sugar mill and refinery fires. We must balance the level of fire protection with the dollars out there and a facility’s capabilities with what they will accept as fire protection.

Fire foams can extinguish large tank fires, as was proved in New Orleans, LA in 2001. However, some believe that firefighting foam can harm the environment. Eighteen storage tanks caught fire in England in 2005 and environmental advocates halted the use of fire foam for 18 hours until a systematic approach was established to capture water runoff. The foam was classified as a potential toxic agent. Without the use of foam, the fire in England burned for 3.5 days, and smoke was seen as far as Paris, France.

I will argue that, compared to the foam, letting a fire burn for that long had a far worse environmental impact. Some will say, “Prevent all fires.” However, we are still burning things up, whether it is plants or houses, and I have a hunch that things will still be burning for as long as I am around.

As part of your consulting work, you research emerging industrial issues such as liquefied natural gas (LNG) fire protection strategies, protective gear for industrial and hazardous materials conditions and fire cause analysis. What new developments have taken place in each of these areas?

Most fire departments and fire services do not realize that almost 100 of the peak-saving LNG terminals are in the U.S. Four LNG-receiving terminals built in the east in the late 1970s are still there as well as 50+ LNG terminals designed to be built on coastal America. A terminal commissioned in Freeport, TX will have one of the largest LNG tanks (one-million barrel capacity). This will require plenty of training opportunities. Trucks carrying LNG will enter and exit the terminal—if an accident occurs, who will they call? What level of training and experience will the emergency responder have?

Volunteer fire departments in the Midwest and in states with ethanol plants, such as Iowa and Kansas, must know how to handle fires at ethanol plants, and with respect to transportation, must be aware of new tactics, foams and training. Fire protection knowledge and experience must be present no matter if a fire occurs in small-town or downtown America. No piece of fire protection equipment is valuable unless people know how to use it.

One of your major projects included developing the first fire protection emergency standards for industry in Saudi Arabia. How did you prepare for and research this project, and to what extent have these standards been implemented in Saudi Arabia industry?

In the late 1970s, I was in Saudi Arabia during the expansion of two refineries. They followed some standards but had no cohesive fire protection standard. Companies must have basic guidelines that say if we build this, this is the level of fire protection we expect the engineer or consultant to put into it.

However, we cannot only rely on standards. Things are changing faster than standards allow. Fireproofing, foam nozzles, fixed systems, hoses—these are just some of the complexities that must be envisioned when developing fire protection engineering standards.

Many schools in the U.S. have good fire protection academic programs, but since new graduates have little “street” experience, retirees must mentor them.

You are involved with the Ethanol Emergency Response Coalition (EERC), which examines emergency response issues associated with bulk distribution and storage of ethanol-blended fuels.

What SH&E challenges or risks are present in ethanol production, transport and storage, and how is EERC working to address them?

This is a perfect example of 21st-century challenges. As little as three years ago, most people did not know about ethanol. Congress has now mandated that ethanol be produced. Plants are springing up everywhere, but in many cases, they are built with little specific guidelines. Many more ethanol plants will be built in the next 3-5 years, long before we have any set standards in place. These plants will most likely be built in small-town America, so if something bad should happen, it will have a big impact on a small community.

Ethanol associations and companies should approach local communities that have plants and offer to work with them and to provide them with equipment. Since ethanol does not flow through pipelines, it is shipped by train from ethanol plants to gas terminals in communities. Trains are parked in rail yards where the ethanol is offloaded into tankers. These tankers deliver the ethanol to the terminals. It is then loaded into tankers as either E-10 (10% ethanol or E-85, which is 85% ethanol) and delivered to your local gas station.

Volunteer fire departments in the Midwest and in states with ethanol plants, such as Iowa and Kansas, must know how to handle fires at ethanol plants, and with respect to transportation, must be aware of new tactics, foams and training. Fire protection knowledge and experience must be present no matter if a fire occurs in small-town or downtown America. No piece of fire protection equipment is valuable unless people know how to use it.
Only AR/AFFF foam extinguishes large ethanol fires (this was determined after 43 tests at a fire and research center). Some fire chiefs say, “We do not have a large terminal, so what is the problem?” If your town has a gas station, you will receive ethanol. Soon every gas station will have ethanol, and we will need to know how to handle ethanol fires. Soon ethanol tankers will move ethanol on almost every major highway in the U.S.

Our organization gives fire departments a manual and CD on how to handle ethanol emergencies. We must create technologies and methods to help emergency responders address ethanol spills. Special absorbent pads, new techniques and research are needed now because spills have already occurred, and the U.S. Environmental Protection Agency and U.S. Coast Guard do not have any good recommendations in place right now.

A standards manual for ethanol plants should cover plant design, level of fire protection, foam and how to handle ethanol emergencies as quickly as possible. (EERC is developing this.)

The challenge for those in fire protection is to attend conferences and classes and to obtain certifications. Otherwise, you will never make it or be current on trends in fire protection. The day you quit pursuing education is the day you quit being effective. Network with others in fire protection and make the most of conferences by asking questions—how can I best obtain the needed knowledge, training and experience?

What are Fire & Safety Specialists, Inc.’s and EERC’s plans and goals for this year?

EERC plans to produce a manual and standards system, and it will address spill control issues. Fire & Safety Specialists, Inc. will be involved in the development of this manual.

Our organization finds activity in new plants and reaches out to them. Plants realize that they need someone who can talk the talk and walk the walk, someone who can show what can happen when fires occur and can demonstrate new technologies to prevent them. We do not have many new ways to fight fire beyond standards. Systems must be scaled to the scale of problems, and technology must stand up to the extent of the fire or explosion.

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- Would you like to see your name in print?
- Do you have fresh and exciting news items or technical articles that you want to submit to the Practice Specialty/Branch newsletters or to CoPS SH&E Report?
- Do you know someone who would make a compelling interview candidate? Is that someone you?

**CoPS Wants Your Content!**

For information on submitting editorial content to any of the CoPS publications, e-mail Jolinda Cappello at jcappello@asse.org.
News You Can Use

CSB Concludes Investigation of 2006 CAI Explosion

The U.S. Chemical Safety Board (CSB) determined that a November 2006 explosion and fire at the CAI/Arnel ink and paint products manufacturing facility in Danvers, MA occurred because CAI lacked safeguards, such as alarms and automatic shutoffs, that would have prevented a 10,000-lb. mixture of flammable solvents from overheating in the unattended building.

Steam heat to the mixing tank was most likely left on by an operator before he left for the day. As the temperature increased, vapor escaped from the mixing tank, built up in the unventilated building, ignited and exploded.

CSB investigators say that ink manufacturer CAI did not follow regulations or appropriate good practices for the handling of flammable solvents. CSB’s report proposes changes to national fire codes and to state licensing and inspection procedures to improve the safety and oversight of facilities handling hazardous materials.

Investigators say that on the night of the accident, ink base materials, including a volatile mixture of heptane and propyl alcohol, continued to heat and then boil after all employees left late in the afternoon. The heating was controlled by a single, manual valve that an operator needed to close to prevent the 3,000-gallon tank from overheating.

The building ventilation system was turned off at the end of the workday, a routine procedure. Vapor from the unsealed tank spread throughout the production area and then ignited from an undetermined source, possibly a spark from an electrical device. The explosion occurred at approximately 2:46 a.m. on November 22, 2006.

The blast damaged homes and businesses in the adjacent Danversport neighborhood. Approximately ten residents required hospital treatment for cuts and bruises, and the fire department ordered the evacuation of more than 300 residents within a half-mile radius of the facility.

The facility, shared by ink manufacturer CAI and paint manufacturer Arnel, was completely destroyed by the explosion and ensuing fire and has not been rebuilt. Arnel ceased operations, while CAI continues to produce water-based inks at a facility in Georgetown, MA.

The fire department last inspected the CAI/Arnel facility in 2002, but the inspection focused on a newly installed fire suppression system and did not identify fire code or permitting violations. In addition to the inadequate ventilation that contributed to the accident, non-causal fire code violations included improper venting of flammable storage containers, use of improper hoses for flammable service and lack of fire walls.

Under the General Laws of Massachusetts, the CAI/Arnel property was required to have land-use licenses for flammable materials. The only license, first issued to a predecessor company in 1944 and reregistered annually thereafter, initially authorized the presence of 250 gallons of “lacquer.” In 1955, the property owners were granted an amended license by the Danvers Board of Selectmen to store and use 6,000 gallons of “miscellaneous” flammable materials.

By the time of the 2006 accident, the registration record on file with the Town of Danvers referenced a “license” to store and handle up to 11,500 gallons of “miscellaneous” flammable materials. However, CSB found no record of such a license in the Danvers town files. CSB concluded that the current licensed amount was 6,000 gallons, well below the more than 20,000 gallons of flammable liquid and more than 50,000 pounds of flammable solid nitrocellulose stored onsite.

CSB found Massachusetts law to be unclear on the requirements and procedures for towns to approve requests for increasing the amounts of flammables to be stored at industrial sites, including whether or how adjacent property owners should be notified of intended increases. The investigation also indicated that the state’s licensing and registration forms do not require information on the specific types and quantities of materials stored.

A CSB survey of six Massachusetts municipalities found significant variability in how state licensing and registration laws are applied. Although the six municipalities issued a total of more than 400 flammable materials licenses, only two reported ever having denied a license application.

In addition to a license, Massachusetts regulations require companies to obtain separate permits from the local fire department for the storage of flammable liquids, gases and solids. However, at the time of the explosion in Danvers, no permits had been obtained by or issued to CAI or Arnel, except an expired permit for underground storage tanks. The fire department had not previously identified the lack of permits.
Based on the quantities of flammable materials used, CAI, but not Arnel, was required to comply with the U.S. Occupational Safety and Health Administration’s (OSHA) process safety management standard, which would have required the company to conduct a process hazard analysis. Such a review could have identified the need for more sophisticated process control equipment, operator checklists and continuous building ventilation. The standard also requires the use of written operating procedures, which can reduce the occurrence of human errors.

However, CAI management stated the company was not aware of the process safety management standard's existence and had not implemented its requirements. OSHA had not inspected the facility prior to the accident.

Finally, the report states that national model fire codes developed by the National Fire Protection Association (NFPA) and the International Code Council (ICC) do not provide sufficient safeguards for flammable liquids heated inside buildings. The standards, which are voluntary unless specifically adopted by states and localities, contain ambiguous language concerning process vessels and do not explicitly require automatic shutdown or cooling systems to prevent accidental overheating and the uncontrolled release of flammable vapor.

The report calls on NFPA and ICC to revise the national fire codes to prohibit the heating of flammable liquids inside buildings in unsealed tanks that do not vent outside and to require automatic safeguards to prevent overheating.

The report calls on the Massachusetts legislature to require companies to certify compliance with state fire codes and safety regulations, to require public input before allowing companies to increase the quantities of licensed flammable materials and to require the Office of the State Fire Marshal to audit localities’ compliance with licensing and permitting requirements.

Other proposed recommendations call on the state’s Office of Public Safety to adopt current national fire codes for handling flammable liquids (NFPA 30) and manufacturing of coatings (NFPA 35), to develop standards and a mandatory frequency for fire department inspections of manufacturing facilities and to require license and registration forms to specifically list the type and quantity of each hazardous material.

The report calls for the Town of Danvers to undertake similar initiatives for certification, licensing and inspection. Additional specific safety recommendations are directed to CAI in the event the company resumes solvent-based processing at another location.

—Adapted from CSB news release, “CSB Investigation into Massive 2006 CAI Explosion in Danvers, MA Concludes Lack of Company Safeguards Allowed Solvent Vapor to Accumulate When Ink-Mixing Tank was Left Heating Overnight,” May 13, 2008.

CSB Issues Final Report on Barton Solvents Explosion

CSB has released a case study and safety video on the July 2007 explosion and fire at the Barton Solvents distribution facility in Valley Center, KS. CSB determined that the most likely cause of the explosion was a static spark resulting from a loosely linked level-measuring float within the tank. The spark ignited the air-vapor mixture inside the tank as it was filled.

Nonconductive flammable liquids can accumulate and maintain static electrical energy, which discharges more slowly than from more conductive liquids. In addition, some of these liquids can form ignitable vapor-air mixtures inside storage tanks, which can explode if a spark occurs.

The July 17, 2007 explosion and fire led to the evacuation of 6,000 residents. Eleven residents and one firefighter sought medical attention. Fire destroyed the facility. CSB investigators found that on the day of the accident, a tanker-trailer arrived to transfer Varnish Maker’s and Painter’s Naphtha (VM&P Naphtha) into a storage tank. CSB determined that the transfer equipment from the truck tanker to the storage tank likely was properly bonded and grounded to prevent the generation of static electricity. However, the float device inside the 15,000-gallon storage tank presented a hidden danger.

Inside the tank was a device used for measuring the liquid level, a metal float linked to a metal tape measure. CSB determined that a static electrical charge in the liquid was generated by the flow of the solvent pumped from the trailer into the storage tank and by stop-and-start filling, which introduced air into the liquid, resulting in bubbles and turbulence.

At the same time, the space above the liquid was filled with an explosive mixture of vapor and air. CSB determined that the liquid flow and turbulence created by the filling of the tank likely resulted in the metal float accumulating a static electrical charge. As the float moved, a gap is believed to have formed within the linkage of the tape and float. CSB investigators say a spark likely jumped between the metal parts and ignited the explosive mixture of vapor and air that had accumulated above the liquid.
The explosion blew the tank 130 ft into the air, and within moments, two more tanks ruptured and released their contents. As the fire burned, the contents of nearby tanks were released and ignited, launching debris into the air.

Material safety data sheets (MSDSs) communicate hazard information on chemical products. CSB determined that the MSDS for the VM&P Naphtha did not adequately describe the explosive hazard or the precautions necessary to prevent ignition from static electricity. Most of the MSDSs for the flammable solvents supplied to Barton indicated that the solvent could accumulate a static charge, which could spark and ignite vapor, but the MSDSs did not warn that the solvent could form a highly explosive vapor-air mixture inside a storage tank.

CSB reviewed 62 MSDSs for some of the most widely used nonconductive flammable liquids in industry, such as VM&P Naphtha, hexane and toluene. Most failed to recommend specific precautions beyond bonding and grounding.

CSB issued recommendations to OSHA and others to improve required information contained in MSDSs to include nonconductive flammable liquids, which are routinely shipped to distributors such as Barton. CSB also recommended that six major oil and chemical industry associations ask their member companies to improve the warnings on the MSDSs of flammable liquids because these materials can accumulate static electricity.

CSB recommends that companies handling the liquids take additional safety measures, such as:

- Obtain more detailed technical information on the liquids from manufacturers that may not be found on MSDSs
- Purge storage tanks with an inert gas to remove oxygen
- Add anti-static agents to the liquids
- Pump liquids more slowly
- Verify that storage tank level floats are effectively bonded


CSB Determines Cause of Refinery Fire

CSB has determined that a February 2007 fire at the Valero McKee Refinery in Sunray, TX likely occurred after water leaked through a valve, froze and cracked an out-of-service section of piping, causing a release of high-pressure liquid propane.

CSB’s final report outlines the following root causes of the accident:

- The refinery did not have an effective program to identify and freeze-protect piping and equipment that was out of service or infrequently used
- The refinery did not apply the company’s policies on emergency isolation valves to control fires
- Current industry and company standards do not recommend sufficient fireproofing of structural steel against jet fires

The fire occurred in the refinery’s propane deasphalting unit, which uses high-pressure propane as a solvent to separate gas oil from asphalt. Gas oil is used as a feedstock in other gasoline-producing refinery processes. The propane leaked from an ice-damaged piping elbow that is believed to have been out of service since the early 1990s. Unknown to refinery personnel, a metal object had wedged under the gate of a manual valve above the piping elbow, allowing liquid to flow through the valve. Piping above the valve contained liquid propane at high pressure, and small amounts of water were entrained in the propane.

Over time, water seeped past the leaking valve and built up inside the low point of the piping elbow. A period of cold weather in early February 2007 likely caused the water to freeze, expand and crack the piping. On February 16, the daytime temperature increased and the ice began to melt. At 2:09 p.m., high-pressure liquid propane flowed through the leaking valve and was released through the fractured elbow. Investigators estimated that propane escaped from the pipe at an initial rate of 4,500 pounds per minute, quickly creating a huge flammable vapor cloud, which drifted toward a boiler house where CSB investigators believe it contacted an ignition source.

The growing fire caused the failure of a pipe flange on a large extractor tower filled with propane, igniting a powerful jet fire that was aimed directly at a major pipe bridge carrying liquid products throughout the refinery. Since the pipe bridge supports were not fireproofed, they quickly collapsed, severing process pipes that were essential to the refinery’s operation.
The fire also caused the release of an estimated 5,300 pounds of toxic chlorine from three one-ton cylinders stored 100 ft from the fire. The chlorine, used to disinfect cooling water, could have posed a serious threat to emergency responders had they not already been evacuated. In addition, the fire threatened a large spherical tank that contained up to 151,000 gallons of highly flammable liquid butane. As a result of the growing fire, the valves controlling a water deluge system designed to cool the sphere became inaccessible to operators and could not be opened.

CSB called on the American Petroleum Institute (API) to develop a new recommended practice for freeze-protection of refinery equipment and to improve existing practices related to fireproofing, emergency isolation valves and water deluge systems. The report also called on Valero Energy Corporation to improve freeze protection, fireproofing, hazard analysis and emergency isolation procedures at its 16 North American refineries.

CSB urged Valero to implement its strategic plan to eliminate the use of chlorine for water treatment in favor of inherently safer alternatives such as bleach. The Board also recommended that McKee refinery staff work with the United Steelworkers, which represents employees at the plant, to upgrade hazard analysis procedures.

—Adapted from CSB news release, “CSB Determines Massive Propane Fire at Valero Refinery in Sunray, TX Resulted from Water Freezing and Cracking Idle Section of Process Piping; New Safety Video Released,” July 9, 2008.

**CSB Calls on OSHA to Adopt Combustible Dust Standard**

John Bresland, CSB Chair and CEO, has called on OSHA to act on a November 2006 CSB recommendation to adopt a comprehensive standard regulating combustible dust in the workplace.

Bresland says the recent tragedy that killed 13 workers at Imperial Sugar’s Georgia refinery, caused when sugar dust was ignited and exploded, demonstrates the need for a new OSHA standard that covers a range of industries exposed to this hazard. Such industries include food, chemicals, plastics, automotive parts, pharmaceuticals, coal-generated electrical power and others.

CSB’s 2006 Combustible Dust Study identified 281 dust fires and explosions in the U.S. between 1980 and 2005, which killed 119 workers and injured 718. Since this study was released, media reports have indicated that approximately 82 additional dust fires and explosions have occurred.

CSB recommends improved training of OSHA inspectors to recognize dust hazards, better communication of dust hazards to workers through MSDSs and instituting a national emphasis program to better enforce existing standards.

Bresland notes that good engineering and safety practices to prevent dust explosions have existed for decades and that current good practices are contained in many NFPA standards.

He also says many witnesses have told CSB investigators that large accumulations of sugar were present at many locations in the Imperial Sugar packaging plant. Near the powder mills, powdered sugar accumulated on the floor to a “mid-leg” height. Airborne sugar in this room made it difficult for workers to see each other.

On elevated surfaces, witnesses described dust buildups of around one inch. NFPA literature indicates accumulations of just 1/32 of an inch of dust covering 5% of the available surface area should be considered hazardous. An initial explosion in a plant can shake loose accumulations of dust elsewhere, suspending the particles, which are then ignited, causing a powerful secondary explosion.

CSB’s investigation has determined that a 2007 Imperial Sugar incident investigation report of a worker’s skin injury stated that powdered sugar was piled up below the mill approximately 18 inches high.

Furthermore, much of the electrical equipment in the sugar packaging plant was not dust-tight and was not appropriate for use in plant areas where combustible dust could form an explosive atmosphere. CSB has also found that the half-century-old packaging building on the south side of the silos had equipment that did not incorporate effective design features to prevent the spread and accumulation of dust.


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**EU-OSHA Launches Risk Assessment Campaign**

The European Agency for Safety and Health at Work (EU-OSHA) has launched “Healthy Workplaces. Good for you. Good for business,” a Europe-wide information campaign on risk assessment. The campaign focuses on high-risk sectors, such as construction, healthcare and agriculture, and on the needs of small and medium-sized enterprises. It will run from 2008-2009.

Under European Union (EU) law, all employers in the EU are required to conduct risk assessments. Risk assessment helps employers understand the actions they must take to improve workplace health and safety.

The Healthy Workplaces campaign highlights the need for risk assessment in line with the Community Strategy for Health and Safety at Work (2007-2012), which aims to cut work-related accidents over this period by one quarter across the EU.


**FAA Holds First Aviation Fatigue Management Symposium**

The Federal Aviation Administration’s (FAA) first Aviation Fatigue Management Symposium produced agreement on two major points: fatigue can be a genuine factor affecting aviation operations and now is the time to do something about it.

The symposium, held from June 17-19, 2008, brought together 325 experts from industry, government and academia to share the most current information on fatigue and discuss possible fatigue management strategies and best practices. Participants examined issues affecting flight and cabin crews, air traffic controllers, technicians, mechanics, dispatchers and ramp workers.

The first day of the conference featured a comprehensive review of the factors contributing to fatigue in flight operations and air traffic control by researchers from the National Transportation Safety Board. Other sessions covered evidence for fatigue in flight, air traffic, maintenance and ramp operations and scientifically based fatigue risk management systems.

The second day included presentations on the current state of fatigue management from organizations as varied as the FAA, airlines, NAVCANADA and university scientists. Evidence and scientific research presented at the symposium served as background for continuing discussion groups that covered international long-haul operations, domestic operations (transcontinental, multi-leg and short haul), air traffic control and technical operations and maintenance. The discussion groups presented their findings on the third day of the symposium.

Conference attendees generally agreed that fatigue mitigation must be based on scientific principles developed through enhanced data collection. They also emphasized the necessity for government and industry to develop a culture that does not penalize employees who excuse themselves from duty due to fatigue. Conference attendees recognized that incorporating fatigue risk management systems into everyday operations is the ultimate goal but doing so will take innovation in addressing a myriad of regulatory issues.

FAA hopes the participating individuals and organizations will use the information and concepts shared during the symposium as a springboard to develop effective fatigue management strategies.


**FM Global Risk Prevention Data Available Online**

Commercial and industrial property insurer FM Global’s property loss prevention engineering guidelines are now available for free on its website. FM Global’s Property Loss Prevention Data Sheets help large-scale businesses, facility and risk managers, as well as the architects, consultants and contractors who work for them, prevent property damage and maintain business continuity due to threats posed by fire, weather conditions and failure of electrical or mechanical equipment.

The engineering guidelines contain risk prevention information on topics ranging from building construction and fire prevention to industrial equipment maintenance and natural disaster preparedness. Users who download the content also receive automatic e-mail notification when data sheets are updated.


ISO Establishes Sustainability Principles for Building Construction Sector

The new International Organization for Standardization (ISO) standard, “Sustainability in Building Construction—General Principles” (ISO 15392:2008), establishes internationally recognized principles for sustainability in building construction. It provides a common basis for communication between stakeholders, such as builders and architects, product manufacturers and designers, building owners, policymakers and regulators, housing authorities and consumers.

ISO 15392:2008 is based on the concept of sustainable development as it applies to buildings and other construction work, from “cradle to grave.” Over its lifecycle, construction work absorbs considerable resources and contributes to the transformation of the environment. As a result, it can have considerable economic consequences and impact on both the environment and human health.

The foundations presented in ISO 15392:2008 form the basis for a suite of standards intended to address specific issues and aspects of sustainability. They apply to buildings and other construction work individually and collectively as well as to building materials, products, services and processes.

Addressing sustainability in buildings and other construction work includes the interpretation and consideration of sustainable development in terms of its three primary aspects—economic, environmental and social aspects—while meeting the requirements for technical and functional performance.

Principles elaborated in ISO 15392:2008 take into account that while the challenge of sustainable development is global, the strategies for addressing sustainability in building construction are essentially local and differ in context and content from region to region.

The standard acknowledges that these strategies will reflect the context, preconditions, priorities and needs, not only in the built environment, but also in the social environment. This social environment includes social equity, culture, traditions, heritage, health and comfort, social infrastructure and safe and healthy environments. It may also, particularly in developing countries, include poverty reduction and job creation.


New ISO Standard Helps Manage Risk in Cold Workplaces

A new ISO standard provides a comprehensive methodology for assessing risk and managing work in cold environments.

“Ergonomics of the Thermal Environment—Cold Workplaces—Risk Assessment and Management” (ISO 15743:2008) has been developed to describe the methods and practices for assessing and managing occupational health and performance risks in cold workplaces.

The standard gives practical instructions for risk analysis and management in cold working conditions. It describes:

- A model and methods for risk assessment practices in cold work
- A model and method for occupational healthcare professionals to identify individuals with symptoms that increase their cold sensitivity, plus optimal guidance and instructions for individual cold protection
- Guidelines on how to apply different international thermal standards and other validated scientific methods when assessing cold-related risks
- A model and methods for cold risk management practices
- Practical examples of working in cold conditions

Working in a cold environment can lead to thermal discomfort, increased strain, decreased performance and cold-related diseases and injuries. Cold can also interfere with other factors in the workplace, modifying or aggravating the risk of common hazards and increasing the risk of cold-associated injuries.

The standard applies to those who work outdoors or indoors. This includes those working inside vehicles and inland and offshore, but it does not apply to diving or other types of work performed underwater.

ISO 15743:2008 was developed by ISO Technical Committee ISO/TC 159, Ergonomics, Subcommittee SC 5, Ergonomics of the Physical Environment.

NMA Says Mine Safety Advances with New Investments & Onsite Safety Programs

A safety official for the National Mining Association (NMA) testified before the Senate Subcommittee on Employment and Workplace Safety Underground that coal mine operators are moving to comply with the Mine Improvement and New Emergency Response (MINER) Act of 2006 at the same time as they voluntarily push to formalize new risk management practices designed to help the industry identify, eliminate and manage conditions and practices that have the greatest potential to cause injury.

Survey data of NMA members indicate actual and planned investments in the following areas for 2007-2008:

- $70 million to purchase 150,000 additional self-contained self-rescuers (SCSRs) and training units
- $55 million to purchase communication and tracking systems
- $53 million for facilities to maintain trapped miners (752 facilities in total)
- $70 million to enhance the integrity of seals
- $19 million to establish and equip 45 new mine rescue teams
- $60 million for safety equipment, training and manpower beyond the mandates of the MINER Act

These investments are part of an estimated investment in safety enhancement that exceeds $500 million.

In addition, the industry is implementing recommendations from the Mine Safety Technology and Training Commission. Among them is the development of risk-based management plans based on a risk assessment conducted at each mine. This cooperative effort with the National Institute for Occupational Safety and Health (NIOSH) will result in operational tools that will help every company identify and address significant hazards before they evolve into situations that threaten lives and property.


OSHA Again Cites United Airlines at O’Hare for Workplace Health & Safety Violations

The U.S. Occupational Safety and Health Administration (OSHA) has again cited United Airlines Inc. in Chicago, IL for alleged multiple serious, willful and repeat violations of federal workplace safety and health standards and has proposed $192,500 in fines.

As a result of its latest inspection, initiated in November 2007, OSHA has issued citations for 39 serious violations with proposed penalties totaling $112,000. OSHA also has cited United Airlines for one willful violation with a proposed $70,000 fine, one repeat violation with a $7,500 fine and three other-than-serious violations totaling $3,000 in penalties.

OSHA selected United Airlines for this inspection after reviewing occupational injury and illness data, which included ramp services, customer service, air freight, aircraft and ground equipment maintenance, building/facility maintenance, business operations, strategic procurement, medical facilities and flight attendant operations.

Some of the serious violations address health hazards associated with the design of flammable liquid storage cabinets and rooms, an open-sided tank containing corrosive liquid, respiratory protection program deficiencies and failure to conduct an asbestos survey to determine the presence and quantity of materials containing asbestos. OSHA issues a serious citation when death or serious physical harm is likely to result from a hazard about which the employer knew or should have known.

The willful violation addresses health hazards associated with United Airlines failing to provide awareness training to employees who work in areas where asbestos is known to be present. OSHA defines a willful violation as one committed with plain indifference to or intentional disregard for employee safety and health.

The repeat violation addresses hazards associated with containers of hazardous chemicals not appropriately labeled. A repeat violation is defined as a violation that was previously cited where, upon reinspection, a substantially similar violation is found.

An other-than-serious violation is a hazardous condition that would probably not cause death or serious physical harm but would have an immediate relationship to the safety and health of employees.

Since 2004, OSHA has inspected United Airlines 23 times at various locations nationwide. United Airlines operations at O’Hare International Airport have been inspected nine times since 2000 with four of those inspections resulting in citations.

OSHA Renews Alliance with ASSE

An Alliance between OSHA and the American Society of Safety Engineers (ASSE) was extended with the continued goal of fostering a culture of prevention for safety and health hazards at U.S. jobsites. The alliance will remain focused on ergonomic hazards, musculoskeletal disorders (MSDs) and motor vehicle safety. OSHA and ASSE will also address issues impacting non-English speaking and youth employees and will continue to promote the annual North American Occupational Safety and Health (NAOSH) Week.

Through this alliance, OSHA and ASSE work together to develop and disseminate information that helps protect the health and safety of employees through outreach and communication. OSHA and ASSE have also worked together to sponsor many events and exhibits aimed at fostering safe and healthful working environments. In addition, many local ASSE chapters have established cooperative agreements with local OSHA offices.

—Adapted from OSHA news release, “OSHA Renews Alliance with American Society of Safety Engineers,” June 13, 2008.

OSHA Takes Steps to Combat NYC Construction Hazards

OSHA is taking new steps to combat the rise in construction fatalities in New York City, where 20 employees have died in construction-related accidents since January.

OSHA has brought a dozen additional inspectors into the city to conduct proactive inspections of high-rise construction sites, cranes and other places where fatalities and serious accidents have occurred. Additionally, ongoing inspections will continue under existing local emphasis programs or as a result of complaints, referrals or accidents.

OSHA will review its findings to gauge the impact of these additional inspections and determine what other steps might need to be taken.

OSHA will continue its ongoing alliance with the New York City Department of Buildings (DOB), under which OSHA and DOB cross-train their inspectors and managers on each agency’s construction safety standards, regulations and procedures with a focus on the most common construction hazards likely to harm employees. OSHA also plans to hold outreach meetings with unions and the construction industry to gain feedback on construction safety issues and to elicit their support in reporting hazards and encouraging compliance with safety standards.


OSHA Issues Third Largest Fine in History Following Sugar Refinery Explosion

OSHA has issued citations proposing penalties totaling $8,777,500 against the Imperial Sugar Company and its two affiliates alleging violations at their plants in Port Wentworth, GA and Gramercy, LA. OSHA initiated the inspections following an explosion and fire on February 7, 2008 at the Port Wentworth refinery that claimed the lives of 13 employees and hospitalized 40 others. Proposed penalties against Imperial Sugar represent the third largest fine in OSHA’s history.

OSHA’s inspections of both facilities found large accumulations of combustible sugar dust in workrooms, on electrical motors and on other equipment. The investigation also determined that officials at the company were well aware of these conditions but took no action reasonably directed at reducing the obvious hazards.

OSHA proposed $5,062,000 in penalties for safety violations at the Port Wentworth refinery and $3,715,500 for safety violations found at the Gramercy refinery. The citations include 108 instances of willful violations related to the combustible dust hazard, including failure to clean up dust and not using appropriate equipment or safeguards where combustible dust is present. OSHA also has issued ten citations for other willful violations, 100 citations for serious violations and four citations for other-than-serious safety and health violations.


ANSI/ASSE Z359 Fall Protection Code

Links:

CSB Concludes Investigation of 2006 CAI Explosion

CSB Issues Final Report on Barton Solvents Explosion

CSB Determines Cause of Refinery Fire

CSB Calls on OSHA to Adopt Combustible Dust Standard

EU-OSHA Launches Risk Assessment Campaign

FAA Holds First Aviation Fatigue Management Symposium

FM Global Risk Prevention Data Available Online

ISO Establishes Sustainability Principles for Building Construction Sector
http://www.iso.org/iso/pressrelease.htm?refid=Ref1131

New ISO Standard Helps Manage Risk in Cold Workplaces
http://www.iso.org/iso/pressrelease.htm?refid=Ref1132

NMA Says Mine Safety Advances with New Investments & Onsite Safety Programs
http://www.nma.org/newsroom/latest_pop/releases08/061908_watzman_safety.htm

OSHA Again Cites United Airlines at O'Hare for Workplace Health & Safety Violations

OSHA Renews Alliance with ASSE

OSHA Takes Steps to Combat NYC Construction Hazards

OSHA Issues Third Largest Fine in History Following Sugar Refinery Explosion
Standards Update

A10.40 Standard Available
The voluntary consensus standard, “Reduction of Musculoskeletal Problems in Construction” (ANSI/ASSE A10.40-2007), is now available through ASSE at:


The A10.40 standard applies to construction work where there may be risk factors, which could lead to musculoskeletal problems for construction workers, but it does not apply to office or administrative work performed by construction companies.

Potential solutions in the standard aimed at reducing incidence of musculoskeletal problems include risk elimination, substitution, use of engineering controls, administrative changes, training, use of protective equipment and assessment of individuals’ physical capabilities. The standard also includes a risk assessment guide, a construction musculoskeletal problem checklist, a return-to-work checklist, a list of resources, key terms and definitions and a list of non-occupational risk factors such as age, strength and gender.


A10.19 Standard Available
The standard, “Safety Requirements for Pile Installation and Extraction Operations” (ANSI/ASSE A10.19-2008), is now available through ASSE at:


The A10.19 standard applies to employment and places of employment where workers may be exposed to pile installation and extraction operation hazards during construction and demolition operations. The piles referred to in the standard include piles made of hot and cold rolled steel, concrete, wood and composite materials. This standard does not apply to structural steel erection covered in the A10.13 or A10.16 voluntary consensus standards.

Confined Spaces Standard Up for Review
The Z117 Accredited Standards Committee will host a public review of the proposed/revised draft standard, “Safety Requirements for Confined Spaces” (ANSI/ASSE Z117.1-2003) until October 6, 2008.

The Z117.1 public review package costs $65 and includes:

- Proposed/revised Z117 standard with annotated changes
- Current ANSI/ASSE Z117.1-2003 standard
- ANSI Z117.1-1995 standard (historical document)
- ANSI Z117.1-1989 (historical document)
- ANSI Z117.1-1977 (historical document)
- Comments template

For more information, visit:

Compendium of Slip, Trip & Fall Prevention Standards Available
ASSE, in conjunction with ASTM, has created a compendium, which includes the following slip, trip and fall prevention standards:

- ANSI/ASSE A1264.1-2007: Safety Requirements for Workplace Walking/Working Surfaces and Their Access; Workplace, Floor, Wall and Roof Openings; Stairs and Guardrails Systems
- ANSI/ASSE A10.18-2007: Safety Requirements for Temporary Roof and Floor Holes, Wall Openings, Stairways and Other Unprotected Edges in Construction and Demolition Operations
- ASTM F1637-07: Standard Practice for Safe Walking Surfaces

Slips, trips and falls due to preventable conditions continue to occur in workplaces across the country. To reverse this trend, ASSE and ASTM decided to select slip, trip and fall prevention standards from their own catalogues that in combination would best help employers reduce and ultimately eliminate these incidents.

While the standards included in this compendium are effective as standalone documents, both ASSE and ASTM believe that employers will appreciate having these standards, plus a technical report, right at their fingertips.

For more information on the compendium, visit:

https://www.asse.org/cartpage.php?link=STP408

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**Z359 ASC to Meet in October 2008**

The Z359 Accredited Standards Committee (ASC) for Fall Arrest/Protection will meet at ASSE headquarters in Des Plaines, IL from October 7-9, 2008.

Subgroup meetings will take place during October 7 and 8. The full committee will meet on October 9.

Meetings will run from 8:00 a.m.-4:00 p.m. the first two days. On October 9, the meeting will start at 7:30 a.m. and will conclude no later than 2:30 p.m.

Due to space limitations and safety concerns, attendance is limited to no more than 55 members and observers.


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**CoPS Wants to Know...**

What advice do you have for SH&E students or for those just entering the field?

E-mail your responses to jcappello@asse.org by **October 17, 2008**.

Responses will be published in the next issue of *CoPS SH&E Report*.
**Rules & Regulations**

**Environmental Protection Agency (EPA)**

40 CFR Part 60
[EPA-HQ-OAR-2007-0011; FRL-8563-2]  
RIN 2060-AN72

**EPA Issues Final Amendments**  
EPA has issued final amendments to the current “Standards of Performance for Petroleum Refineries.” This action also promulgates separate standards of performance for new, modified or reconstructed process units at petroleum refineries. The final standards for new process units include emissions limitations and work practice standards for fluid catalytic cracking units, fluid coking units, delayed coking units, fuel gas combustion devices and sulfur recovery plants. These final standards reflect demonstrated improvements in emissions control technologies and work practices that have occurred since promulgation of the current standards.

**Mine Safety & Health Administration (MSHA)**

30 CFR Part 57  
RIN 1219-AB55

**MSHA Implements DPM Final Limit**  
MSHA has decided to implement the diesel particulate matter (DPM) final permissible exposure limit (PEL) of 160 micrograms of total carbon (TC) per cubic meter of air (160 TC g/m³). MSHA has developed a practical sampling strategy to account for interferences from non-diesel exhaust sources when TC is used as a surrogate for measuring a miner’s exposure to DPM. MSHA began enforcement of the 160 TC limit under existing 30 CFR 57.5060(b)(3) on May 20, 2008. MSHA’s sampling strategy is based on the best available scientific evidence and is specific to each mine.

**MSHA Proposes New Standards**  
This proposal addresses the recommendations of the Technical Study Panel on the Utilization of Belt Air and the Composition and Fire-Retardant Properties of Belt Materials in Underground Coal Mining. Section 11 of the Mine Improvement and New Emergency Response (MINER) Act of 2006 requires that this panel be established. MSHA proposes new standards for:

- Conveyor belt flammability
- Qualifying atmospheric monitoring system operators
- Levels of methane and respirable dust in belt entries
- Airlocks between air courses
- Minimum and maximum air velocities
- Approval for the use of air from the belt entry to ventilate working sections
- Monitoring and remotely closing point-feed regulators
- Smoke sensors
- Standardized tactile signals on lifelines
- Replacing point-type heat sensors with carbon monoxide sensors
- Belt conveyor and belt entry maintenance

Consistent with the MINER Act, the proposal includes MSHA’s response to the panel’s report.

**MSHA Proposes Requirements for Refuge Alternatives**  
MSHA has proposed requirements for refuge alternatives in underground coal mines and the training of miners in their use. The proposed rule also includes requirements for testing and approval of refuge alternatives. The proposal would implement Section 13 of the MINER Act of 2006. Consistent with the MINER Act, it includes MSHA’s response to the National Institute for Occupational Safety and Health’s “Report on Refuge Alternatives.”
Occupational Safety & Health Administration (OSHA)

29 CFR Parts 1910, 1915, 1917, 1918 & 1926
[Docket No. OSHA-2008-0031]
RIN 1218-AC42

OSHA Proposes Amendments to Regulations
OSHA has proposed to amend its regulations to add language clarifying that noncompliance with the personal protective equipment (PPE) and training requirements in safety and health standards in these parts may expose the employer to liability on a per-employee basis. The amendments consist of new paragraphs added to the introductory sections of the listed parts and changes to the language of some existing respirator and training requirements. This action, which is in accord with OSHA's longstanding position, is proposed in response to recent decisions of the Occupational Safety and Health Review Commission indicating that differences in wording among the various PPE and training provisions in OSHA safety and health standards affect the agency’s ability to treat an employer’s failure to provide PPE or training to each covered employee as a separate violation. The amendments add no new compliance obligations. Employers are not required to provide any new type of PPE or training, to provide PPE or training to any employee not already covered by the existing requirements or to provide PPE or training in a different manner than that already required. The amendments clarify the remedy for violations of these requirements.

Links:

EPA Issues Final Amendments
http://edocket.access.gpo.gov/2008/E8-13498.htm

MSHA Implements DPM Final Limit
http://edocket.access.gpo.gov/2008/E8-11329.htm

MSHA Proposes New Standards
http://edocket.access.gpo.gov/2008/E8-13631.htm

MSHA Proposes Requirements for Refuge Alternatives
http://edocket.access.gpo.gov/2008/E8-13565.htm

OSHA Proposes Amendments to Regulations
http://edocket.access.gpo.gov/2008/E8-18991.htm

Electronic Delivery of All Practice Specialty Technical Publications as of January 2009

As of January 2009, all practice specialty technical publications will be available in electronic format only and accessible through a secured website. All practice specialty members will receive directions for accessing these publications shortly before the transition takes place.

Please note that ASSE will need to have your valid e-mail address on file by November 30, 2008. If you change your e-mail address, visit ASSE's homepage at http://www.asse.org/about/address_change.php to update your information or contact Customer Service at (847) 699-2929.

CoPS is pleased to be able to offer you its publications in a more efficient and environmentally sound manner. We appreciate your continued support.