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HEALTH & SAFETY NEWSLETTER
OCTOBER 2013

Focus – Fire Safety

5 Most Common Causes of Electrical Fires

Proper Handling and Storage of Flammables

Deadline GHS

Are You a Coach or an Enforcer

OSHA I2P2 Standard

Work Safe. Live Safe. Stay Safe.

Focus – Fire Safety

Fire Prevention is Everyone's Job. Is your staff prepared for a fire, an evacuation, or a major emergency? According to OSHA, workplace fires and explosions killed more than 200 and injured more than 5,000 workers each year. Don't become another statistic. Get informed, prepare, and train employees to prevent and react to emergencies.

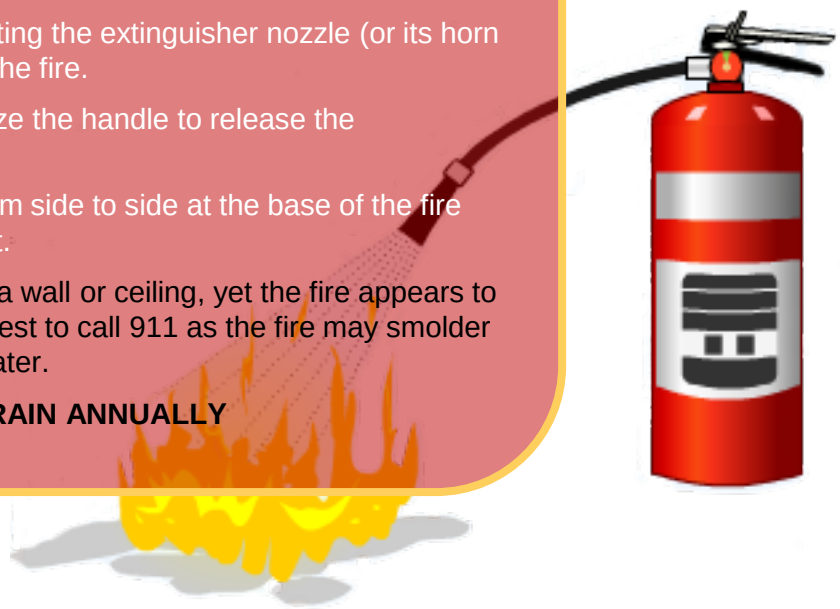
P.A.S.S. Fire Extinguisher System Can Save Your Life!

The best way to train your personnel to remember how to use a fire extinguisher is the acronym **P.A.S.S.** Most fire extinguishers operate using this technique:

1. **PULL** … Pull the pin. This will also break the tamper seal.
2. **AIM** … Aim low, pointing the extinguisher nozzle (or its horn or hose) at the base of the fire.
3. **SQUEEZE** … Squeeze the handle to release the extinguishing agent.
4. **SWEEP**… Sweep from side to side at the base of the fire until it appears to be out.

If the fire has spread to a wall or ceiling, yet the fire appears to be extinguished – It is best to call 911 as the fire may smolder inside walls and ignite later.

TRAIN ANNUALLY



Look for fire safety tips throughout this months newsletter

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5 Most Common Causes of Electrical Fires

Some electrical fires happen because of problems within house wiring or appliance failure, but many occur due to mistakes that homeowners make like overloading electrical outlets or extension cords.

In order to prevent yourself or someone you love from becoming an electrical fire statistic, it is important to be aware of the common causes of electrical fires, in offices and at home.

Here are the 5 most common causes of electrical fires:

1. Most electrical fires are caused by faulty electrical outlets and old, outdated appliances. Other fires are started by faults in cords, receptacles, and switches. Never use an appliance with a worn or frayed cord which can send heat onto combustible surfaces like floors, curtains, and rugs that can start a fire.

   Running cords under rugs is another cause of electrical fires. Removing the grounding plug from a cord so it can be used in a two-prong electrical outlet can also cause a fire. The reason appliances have the extra prong is so they can be only used in outlets that can handle the extra amount of electricity that these appliances draw.

2. Light fixtures, lamps, and light bulbs are another common reason for electrical fires. Installing a bulb with a wattage that is too high for the lamps and light fixtures is a leading cause of electrical fires. Always check the maximum recommended bulb wattage on any lighting fixture or lamp and never go over the recommended amount.

   Another cause of fire is placing materials like cloth or paper over a lampshade. The material can easily ignite. Faulty lamps and light fixtures also frequently result in fires.

According to the U.S. Fire Administration (USFA), there are 28,600 electrical fires per year. These fires cause $1.1 billion in property damage and loss and are responsible for 310 deaths and 1,100 injuries each year.

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5 Most Common Causes of Electrical Fires - *continued*

The months with the most electrical fires are December and January due to increased use of heating appliances and lights. Most electrical fires start in the bedroom, but the highest number of fatalities occur with fires located in the living room, family room and den.

3. Misuse of extension cords is another electrical fire cause. Appliances should be plugged directly into outlet and not plugged into an extension cord for any length of time. Only use extension cords as a temporary measure. If you do not have the appropriate type of outlets, hire an electrician to install new ones.

4. Space heaters are a major cause of electrical fires. Because these types of heaters are portable, many times people put them too close to combustible surfaces such as curtains, beds, clothing, chairs, couches, and rugs. If a space heater is needed, use the radiator-type that diffuse heat over the entire surface of the appliance. These are less likely to ignite flammable items, but should still be kept at a distance.

5. Outdated wiring often causes electrical fires. If a home is over twenty years old, it may not have the wiring capacity to handle the increased amounts of electrical appliances in today's average home, such as computers, wide screen televisions, DVD players, microwaves, and air conditioners.

Breakers should be triggered when circuits get overloaded by too much electricity, but outdated breaker boxes often have worn connectors that do not work, causing the system to overload and start an electrical fire.

References:
www.VancouverElectricianBlog.com
www.USFA.FEMA.gov

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Who's Ensuring the Proper Handling and Storage of Your Flammables and Combustibles?

Gasoline, diesel fuel, and many common products like solvents, thinners, cleaners, adhesives, paints, and polishes may be flammable or combustible. These flammable and combustible liquids play a part in our everyday activities. However, if used or stored improperly, serious fires and death may occur. This article is divided into 3 sections: **Definitions, Container and Portable Tank Storage, and Handling Liquids at Point of Final Use**.

The applicable OSHA standard is 29 CFR 1910.106 – Flammable Liquids, which is based upon the 1969 version of NFPA® 30 Flammable and Combustible Liquids Code. However, it is important to note that in 2012, in response to OSHA's revised Hazard Communication standard (due to incorporation of the Globally Harmonized System [GHS]), OSHA revised 29 CFR OSHA 1910.106. The title of 29 CFR 1910.106 has been changed from "Flammable and Combustible Liquids" to "Flammable Liquids." One significant change is the revised regulation lists liquids as "categories" rather than "classes." However, the 2012 Edition of NFPA® 30 has not been revised to reflect GHS guidelines. For instance, NFPA® 30 continues to use the term flammable and combustible liquid and refers to "classes" of liquids.

If you are covered by OSHA, you must comply with 29 CFR OSHA 1910.106 – Flammable Liquids. As a best practice, however, it is recommended that you review both OSHA 1910.106 as well as NFPA® 30 and comply with the standard providing the highest level of protection.

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DEFINITIONS

Combustible Liquid (*per NFPA® 30*): A combustible liquid has a flashpoint at or above 100˚ F. Combustible liquids are subdivided into Class II or Class III liquids:

Class	Flashpoint	Examples
Class II	≥ 100˚ F and ≤ 140˚ F	Diesel fuel, fuel oil, kerosene, motor oil
Class IIIA	≥ 140˚ F and ≤ 200˚ F	Furfural, linseed oil, mineral oil, oil-based paints
Class IIIB	≥ 200˚ F	Ethylene glycol, glycerine, neatsfoot oil

Flammable liquid (*per NFPA® 30*)**:** A flammable liquid is a liquid with a flashpoint below 100˚ F. Flammable liquids are subdivided into Class IA, IB, or 1C liquids:

Class	Flashpoint	Boiling Point	Examples
Class IA	<73˚ F	<100˚ F	Ethyl ether, heptane, pentane, propylene oxide, vinyl chloride
Class IB	<73˚ F	≥ 100˚ F	Acetone, ethanol, gasoline, isopropyl alcohol, methanol, methyl ethyl ketone, octane, toluene
Class IC	≥ 73˚ F and <100˚ F	All boiling points	Isobutyl alcohol, mineral spirits, styrene monomer, turpentine, xylene

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Flammable Liquid (*per OSHA 1910.106*): A liquid with a flashpoint at or below 199.4˚ F. (93˚ C). Flammable liquids are divided into four categories:

Category	Flashpoint	Boiling Point
1	< 73.4˚ F (23˚ C)	≤ 95˚ F (35˚ C)
2	< 73.4˚ F (23˚ C)	> 95˚ F (35˚ C)
3	≥ 73.4˚ F (23˚ C) and ≤ 140˚ F (60˚ C)	
4	> 140˚ F (60˚ C) and ≤ 199.4˚ F (93˚ C)	

Grounding and Bonding: When flammable and combustible liquids travel through a pipe or through the air, static charges are accumulated. Grounding and bonding is necessary during the transfer of flammable liquids that have a flashpoint below 100˚ F to prevent a static spark from igniting the flammable vapors. An example of grounding and bonding is illustrated in the photograph below.

Safety Can: A safety can is a listed container with a capacity of no more than 5 gallons that has a spring-closing lid and spout cover and is designed to safely relieve internal pressure when exposed to fire.

Flammable Storage Cabinet: A "flammable storage cabinet" is a listed storage cabinet designed in accordance with NFPA® 30: 9.5.3 (1). Such a cabinet is designed and constructed to limit the internal temperature to no more than 325˚ F from the center of the cabinet to within 1 inch of the top of the cabinet when subjected to a 10-minute fire test.

Check out next month's issue where we will discuss *Container and Portable Tank Storage* and *Handling Liquids at Point of Final Use*.

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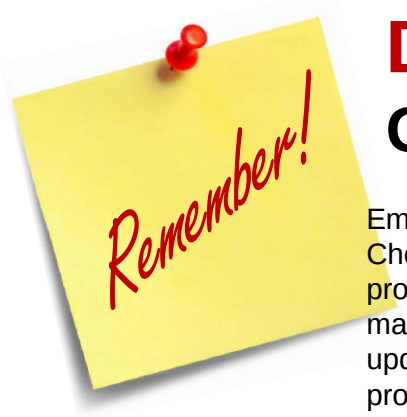

DEADLINE

Globally Harmonized System (GHS)

Employers must train workers on the new label elements and SDS format by December 1, 2013. Chemical manufacturers, importers, distributors, and employers must comply with all modified provisions of the final rule by June 1, 2015. However, distributors may ship products labeled by manufacturers under the old system until December 1, 2015. By June 1, 2016, employers must update alternative workplace labeling and hazard communication programs as necessary, and provide additional worker training for new identified physical and health hazards.

The table below summarizes the phase-in dates required under the revised Hazard Communication Standard (HCS):

Effective Completion Date	Requirement(s)	Who
December 1, 2013	Train employees on the new label elements and safety data sheet (SDS) format.	Employers
June 1, 2015* December 1, 2015	Compliance with all modified provisions of this final rule, except: The Distributor shall not ship containers labeled by the chemical manufacturer or importer unless it is a GHS label	Chemical manufacturers, importers, distributors and employers
June 1, 2016	Update alternative workplace labeling and hazard communication program as necessary, and provide additional employee training for newly identified physical or health hazards.	Employers

September and October are peak months for fires in college housing.

If you have not yet provided personnel with this recently-mandated OSHA training on GHS, contact EHS Support to assist you with this obligation.

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Are You a Coach or an Enforcer?

- **How do you, or your managers, deal with an incident repeater or one who does not follow specific procedures?**
- **How would your personnel rate you on addressing problems or problematic personnel?**

Let us provide some insight on coaching sessions and tell us what you think! Click here for our "Are you a coach or enforcer?" podcast.

According to the National Fire Protection Association, Fire Prevention Week (Oct. 6-12) was established to commemorate the Great Chicago Fire of 1871, a conflagration causing widespread devastation that claimed more than 250 lives, left 100,000 homeless and destroyed more than 17,400 structures.

Never put flammable products (solvents, some cleaners, gasoline, etc.) into spray bottles. The fumes and vapors from these types of products cannot be seen, but they are extremely flammable. When they are atomized, the possibility of explosion greatly increases. For more see OSHA # 1910.106

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OSHA I2P2 STANDARD

Are You Ready?

For those of you wondering what is going on with OSHA's I2P2 regulation: it is still in the pre-rule stage. There are 3 stages to regulatory promulgation: Pre-Rule, Proposed Rule, and Final Rule. The rule is scheduled to have a "Small Business Regulatory Enforcement Fairness Act" study completed and a Notice of Proposed Rulemaking issued by December of 2013. That's when we would likely switch to the Proposed Rule stage. With that schedule we might see a final regulation sometime in 2014, but more likely in 2015.

If you are not familiar with I2P2, here is a brief summary. I2P2 stands for Injury and Illness Prevention Program. The stated goal of I2P2 is to help employers reduce workplace injuries and illnesses through a systematic process that proactively addresses workplace safety and health hazards. Currently, OSHA is proposing I2P2 include the following six components:

1. Management Leadership
2. Worker Participation
3. Hazard Identification
4. Hazard Prevention and Control
5. Education and Training
6. Program Evaluation and Improvement.

If your company needs assistance developing health and safety programs and preparing for the expected regulatory changes of I2P2, our health and safety experts have experience in the following:

- **Reviewing existing injury and illness prevention measures and their effectiveness**
- **Introducing effective risk assessment methodology, tailored for your specific business operations, to identify areas of susceptibility in your occupational health and safety programs**
- **Establishing goals and benchmarks for injury and illness prevention**
- **Developing and implementing programs to meet health and safety goals**
- **Conducting on-site training for the prevention of injury and illness and to establish a culture of safety**
- **Providing specific information regarding possible changes in OSHA regulations to better understand their impact on your company and how to be prepared.**

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Keep an Eye Out – OSHA Proposes Rule to Reduce Silica Exposure

Since OSHA has announced a proposed rule to reduce silica expose, companies are pondering how to prepare to meet the new requirements. OSHA says the proposal will save some 700 lives and prevent 1,600 new cases of silicosis each year. The changes would replace 40-year-old permissible exposure limits (PELs) OSHA says are dangerously out of date.

As stated in our previous newsletter articles, exposure to airborne silica dust affects those in a wide array of occupations involving cutting, sawing, drilling, and crushing of concrete and stone products. Construction workers in particular are often exposed to silica on the job as well as workers in operations that use sand, like glass manufacturing, foundries, and sand blasting. Silica exposure is a main issues at the booming oil and natural gas hydraulic fracturing (fracking) sites. Here a mixture of silica, water and chemicals helps keep the underground fractures open so that oil and natural gas can easily flow.

Proposed Reduction

The current PEL is 100 micrograms per cubic meter of air for general and maritime workers, and 250 micrograms for construction. The proposal would reduce the limit across all of these industries to 50 micrograms.

The benefits and cost estimates of the proposed rule are still under development. Therefore, it may be many months before a final rule is in place. EHS Support will keep you informed and help you prepare.

Fire extinguishers must be easily accessible, with a clearance of 18" on both sides and 36" in front of the extinguisher. OSHA can fine up to $7,000 for a blocked extinguisher. For more, see OSHA 29 CFR 19

EHS Support will keep you informed of OSHA's silica proposal. We can assist you in protecting your workers from the hazards of silica exposure via training sessions, audits and air monitoring. Contact us today!

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As Halloween is quickly approaching, we would like to offer following SAFETY TIPS to ensure a safe and fun event!

CHILD SAFETY

- Never go alone!
- Never enter the house or car of a stranger.
- Stay on streets that are well lit and only cross the street at the corners.
- Carry a flashlight.
- Wear reflective tape so drivers can see you.
- Trick or treat at houses that are well lit and visit houses that your family knows the owners.

ADULT SAFETY

- Welcome trick-or-treaters with your porch lights and any exterior lights on.
- Patrol your street occasionally to discourage speeding motorists, acts of malicious mischief and crimes against children.
- Candlelit jock-o-lanterns should be kept clear of paths where children will walk.
- Keep pets away from doors so children will not become frightened.
- Set a time limit for trick-or-treating and designate a specific route to take.
- Feed children before they go so they will be less likely to eat the treats before they get home.
- Inspect treats for small children. For older children, teach them how to inspect their treats.

PET SAFETY

- Don't leave your pet in the yard on Halloween.
- Candies are not for pets. Chocolate can be harmful to many animals. Tin foil and candy wrappers can be hazardous if swallowed.
- Keep pets away from jack-o-lanterns.
- If you dress your pet, ensure the costume isn't constricting, annoying or unsafe. Be sure to not obstruct their vision.
- Walk your pet early in the evening, before it gets dark.

MAXIMIZE THE USE OF WIRELESS PHONES!

- **Program emergency contact numbers**. Program numbers for nearby family and close friends to the speed-dial list on your and your children's cell phones.
- **Create a "Trick-or-Treat" patrol**. Have a group of adults monitoring Halloween activities by posting people with wireless phones throughout the neighborhood. It's a great way to keep neighborhoods safe and builds camaraderie.
- **Make sure your wireless phone has a fully charged battery.** That way, you can be assured the phone is working while out and around the neighborhood.
- **Raise the volume**. With all the noise of a group, it can be hard to hear the phone ring, so be sure to put the volume on high and select a clearly audible ring tone.
- **Make sure kids can easily access their wireless phone**. Costumes and candy can get cumbersome -- use a belt clip or other accessory that leaves hands free but keeps the phone within easy reach.
- **Establish a periodic check-in time**. For older children who may venture out with less supervision, set a periodic check-in time to call or text home through the evening to ensure they are OK.
- **Keep a list of adults' contact information**. Trade phone numbers will all adults who are in your party, especially if you can't physically be with your kids.
- **Be a Wireless Samaritan**. If you see anything suspicious or out of place, use your wireless phone to call 9-1-1 or notify local law enforcement authorities.
- **Drive responsibly**. Don't let phone conversations or texting be a distraction as you cruise the neighborhood.

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Contact Monica Meyer at Monica.Meyer@ehs-support.com today to learn more about how we can help you manage your health and safety risks.