Summer Fire Safety

Provided by Curt Speck, President
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Nothing says summer like vacations, reunions, picnics, and campfire/bonfires. It can also bring injuries. More than 8,000 American’s are injured annually by fireworks and grill fires with more than half the injuries occurring the first week of July.

United States Fire Administration’s (USFA) National Fire Data Center estimates that improper use of fireworks caused more than 6,000 fires and over $8 million dollars damage. Outside cooking grills cause more than 6,000 fires, 170+ injuries, $35 million in property damage, and more than 5 fatalities annually. Gas grill fires alone caused over 2,700 fires, 80 injuries, and $11 million dollars in damage. Most of the gas grill fires/explosions were caused by gas leaks, blocked tubes, overfilled propane tanks.

Summertime should be filled with fun and making happy memories. There are many ways to protect yourself and your loved ones while you have a good time.

Fireworks Safety
• The best way to enjoy fireworks is to visit public fireworks displays put on by

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Stark County Safety Council Mission Statement: To provide a forum for safety and health information, education and networking in Stark County, through leadership, innovation, facilitation, program, and support, in partnership with other public and private organizations.
• If you plan to use fireworks, make sure they are legal in your area.
• Never light fireworks indoors or near dry grass.
• Always have a bucket of water and/or a fire extinguisher nearby. Know how to operate the fire extinguisher properly.
• Do not wear loose clothing while using fireworks.
• Stand several feet away from lit fireworks. If a devise does not go off, do not stand over it to investigate it. Put it out with water and dispose of it.
• Always read the directions and warning labels on fireworks. If a devise is not marked with the contents, direction and a warning label, do not light it.
• Supervise children around fireworks at all times.

**Barbecue Safety**

• Before using a grill, check the connection between the propane tank and the fuel line. Make sure the venturi tubes - where the air and gas mix - are not blocked.
• Do not overfill the propane tank.
• Do not wear loose clothing while cooking at a barbecue.
• Be careful when using lighter fluid. Do not add fluid to an already lit fire because the flames can flashback up into the container and explode.
• Keep all matches and lighters away from children. Teach your children to report any loose matches or lighters to an adult immediately. Supervise children around outdoor grills.
• Dispose of hot coals properly - douse them with plenty of water, and stir them to ensure that the fire is out. Never place them in plastic, paper or wooden containers.
• Never grill/barbecue in enclosed areas - carbon monoxide could be produced.
• Make sure everyone knows to Stop, Drop and Roll in case a piece of clothing does catch fire. Call 911 or your local emergency number if a burn requires serious medical attention.

**Campfire Safety**

• Build campfires where they will not spread, away from dry grass and leaves.
• Keep campfires small, and don't let them get out of hand.
• Keep plenty of water and a shovel around to douse the fire when you're done. Stir it and douse it again with water.
• Never leave campfires unattended.

Also consider these additional methods of fire prevention:

**HVAC maintenance:** Dust can settle over capacitors and other electrical components and cause tracking faults, which can create fires. Running multiple cooling units together consistently and for long periods of time can result in overloading and overheating, which also presents an opportunity for fires to start.

**Exhaust fan cleaning:** Clean out your exhaust fans regularly and clear debris out of the vents. Avoid running fans consistently for long periods.

**Lawn mower care:** Follow the manufacturer’s recommended maintenance schedule on your mowing equipment. Remember to regularly remove debris and grass clippings from cutting units, mufflers, and engines. Never refuel a lawn mower if it’s overheated.

**Gas storage:** Fire risk is heightened by high ambient temperatures and relief valves that open at too-low pressures. Store gas cylinders upright and never indoors.

**Alarm Inspections:** Your preventive maintenance should include fire alarm testing. Replace any old or burned out batteries regularly. A certified fire protection provider can help you streamline your fire protection program and keep track of required inspections.

Keeping these safety tips in mind and following instructions will help everyone stay safe this summer.
- Severe Weather Awareness -
Check this list & make sure your emergency kit is ready to go!

- First aid kit
- Whistle (to call for help)
- Flashlight & extra batteries
- Cash & credit card
- Battery powered radio & weather radio
- Mobile phone charger (solar/battery powered)
- 3-day supply of water / Non-perishable food
  (for each family member, including your pets)
- A change of clothes & shoes for every family member
- Prescription medicines & other special need items (diapers/formula/etc)
Q: How do I estimate respirator cartridge service life?

A: There’s an App for that!
Whenever you put workers in an air-purifying respirator, it’s vital to know when they need to change their cartridges. Until passive visual end-of-service-life indicators become standard—something that has been a long time coming—employers must calculate, based on employee exposures and workplace factors, just how long a cartridge remains useful.

The National Institute for Occupational Safety and Health (NIOSH) has developed a MultiVapor Tool that you can download to a Windows PC for installation and use. Once that’s done, you can use the tool to estimate breakthrough times and service life for air-purifying respirator cartridges used to remove toxic organic vapors from breathed air.
NIOSH defines breakthrough time as the time following the first and continuous use of a cartridge after which the user of the cartridge could be exposed to a selected concentration of a harmful vapor; this is the consequence of the cartridge being used up. Service life is the breakthrough time with a safety factor applied.

Of course, the output you get is only going to be as good as the input you use. To properly calculate breakthrough times and service life, you’ll need to know:

- **What cartridge you’re using.** The MultiVapor tool will ask you for eight different parameters that apply to the activated carbon used in the cartridge. The program does come equipped with generic, preprogrammed values that you can use as estimates, but cartridge-specific values will give you better estimates of breakthrough time and service life.
- **What workers are exposed to.** You’ll have to enter the organic vapors workers are expected to encounter. Most of the data will be prepopulated, but you’ll need to know the average vapor concentration in parts per million (ppm). The program will let you enter up to five different vapors.
- **What conditions of use apply.** Temperature, relative humidity, the number of cartridges on the respirator and workers’ breathing rate are all important parts of the calculation. The program offers suggestions for breathing rates based on the physical demands of the work.

Given the information above, the program will calculate in minutes an estimated minimum and maximum breakthrough time for each contaminant. These can be included in your written respiratory protection program and change schedule documentation.
As summer hits its peak of heat and humidity, it is so important to revisit heat illness and how to prevent it. Heat illness does not just impact people working jobs that expose them to high heat and humidity; it can also impact our families as we engage in normal summer activities; activities that may lead to overexertion or impair our natural cooling system from releasing our internal heat should be keenly monitored for adults and children. These activities could include working on a manufacturing floor with repetitive motion, working outside in the heat, hiking, bike riding, and spending a day at the pool with your family.

Heat illness can be triggered in any case where our bodies cannot radiate our internal body heat through our skin. In very hot weather, often coupled with high humidity and increased physical activity, our natural cooling system may fail to mitigate the rising internal heat and fail. Without a means of escape our internal temperature will rise to dangerous levels. This may result in heat cramps, heat exhaustion, or heat stroke.

**Heat Cramps**
Heat cramps are painful muscle cramps that affect the legs, arms, or abdomen that may occur after intense physical activity in extreme heat. During intensive activities the body loses valuable sodium and fluids, and these decreased levels of salt cause the cramping of the muscles. Heat cramps can be very painful, but are not serious on their own, unless coupled by other physical issues.

**What to do:** Be mindful of when you will perform high intensity activities and the heat and humidity of the environment. Drink a lot of fluids and rest often in a cool place. Consider drinking any fluids with sodium, like sports drinks and gently stretching or rubbing the cramped muscles.

**Heat Exhaustion**
Heat exhaustion is the result of someone being in a hot climate or environment that has not maintained the proper intake of fluids. This is a more severe heat illness and symptoms may include: increase in thirst, weakness, fainting, muscle cramps, nausea and/or vomiting, cool, clammy skin, headache, increased sweating, spike in body temperature.

**What to do:** Move to a cooler place, shade or air conditioning; remove any excess clothing; drink water or fluids with sodium; seek medical advice.

**Heat Stroke**
Heat stroke is the most severe of the heat illnesses. **HEAT STROKE IS A LIFE THREATENING MEDICAL EMERGENCY.** During heat stroke the body cannot regulate its own temperature. What increase your chances of heat stroke? Extreme physical activity in hot weather without adequate fluids.

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Symptoms to watch for include: severe headache, weakness/dizziness, no sweating, flushed hot skin, rapid breathing and heartbeat, nausea, and confusion.

**What to do:** get indoors, remove excess clothing or drench victim in cool water, call 911.

There are so many preventative measures we can all take to make sure our summer season for work and our summer activities do not put us at risk. Make sure to drink plenty of fluids; wear light colored, loose clothing; always protect your skin with sunscreen; monitor and limit exposure time in order to be safe at work or play.

### Upcoming Events

**Thursday, September 12—2019**
Stark County Safety Council Safety, Health and Human Resources Fair

**Thursday, September 19th** – Drug Free Workplace Training - Local 33 Sheet Metal Workers Union Hall, Massillon – details coming soon

**Wednesday, October 9th** - Stark County Firefighters Recognition and Fire Prevention Week Kickoff Breakfast – First Christian Church – details to follow

For info on Stark County Safety Council events go to http://starkcountysc.com/
FREE BWC SAFETY CLASSES
Free BWC safety classes available at North Canton Service office. See the BWC catalog for class descriptions.

Behavior-based Safety Systems Half-day Program—Aug. 7—8:30-Noon
Bloodborne Pathogens—Aug. 7—1-4:30 p.m.
Job Safety Analysis—Aug. 22—8:30-Noon
Personal Protective Equipment Selection Criteria—Aug. 22—1-4:30 pm
Lockout/Tagout & Safety-related Work Practices—Aug. 27—8:30-Noon
Machine Guarding Basics—Aug. 27—1-4:30 pm

Resources

- The BWC Library creates a monthly ‘Safety Update’ available at www.bwc.ohio.gov

September 12, 2019

“Stark County Safety Council Safety Health & Human Resources Fair”

Vendor Tables Still Available—More info on page 6

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Stark County Safety Council
July 2019 Photos

July Speaker
Sergeant Michael N. Powell (Ret.)
Franklin County Sheriff’s Office

July Spotlight Company
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