



# Safety BEACON

www.udel.edu/ehs  
302-831-8475

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## Fire Safety Tips

*It's grilling season!*



With the rapidly approaching summer months, there's often no better way to kick back and enjoy a nice warm afternoon with family than having a cookout on the grill. Shockingly, the number of reported fires from such home grills as well as the number of home grill fire related injuries/deaths are on the rise year after year. In a 2009-2014 study conducted by the National Fire Protection Association (NFPA), 8,900 home grill fires are reported annually, with 3,900 of those fires extending into the operator's home. Of those reported fires, 16,600 patients were sent to the emergency room with 1,600 of those patients being children under the age of five. On average ten people die every year from grill fires; all of these numbers are far too high. It was concluded in the report that failure to clean the grill, having the grill too close to the house or other combustibles, and leaving the grill unattended were the top three causes for these unnecessary fires.

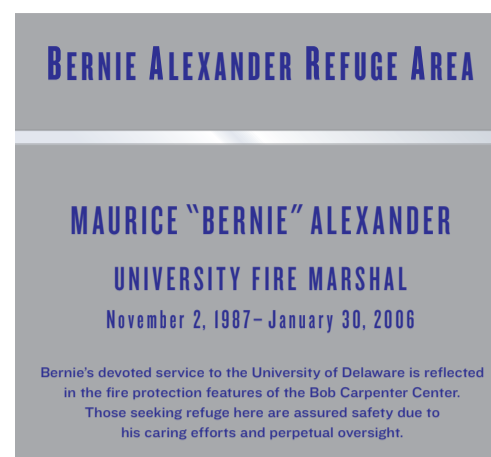
Here are a few helpful tips to ensure a successful grilling experience.

- Propane and charcoal BBQ grills should only be used outdoors.
- Always keep your grill a minimum of 10 feet away from any structure or combustible materials.
- Propane gas grills should be checked for condition of cylinder, hoses and burners; check with gas connections for leaks very carefully.
- Charcoal grills, use only starter fluid (not other flammable liquids) to start the fire; don't apply starter fluid to hot coals.
- Never leave your grill unattended, especially if you have children around.
- Always make sure you thoroughly clean your grill after each use, including the grease catch basin.
- Ensure hot coals are cooled down/soaked in water prior to discarding.

In conclusion, EHS wants to remind everyone to think safety first and to have a great rest of the summer!

# Safety Committee Recognition

*EHS hosts the party of the summer!*



Thank you to everyone who attended this year's Safety Committee Recognition. The event was held in the Carpenter Clubhouse at the Bob Carpenter Center with more than 80 guests in attendance.

Each year we honor former University of Delaware Fire Marshal, Maurice "Bernie" Alexander. The M. Bernie Alexander Fire Safety Memorial Award recognizes a department or group that places a high priority on fire and life safety on campus. This is the 10th anniversary of the award. The recognized department is engraved on a plaque which is proudly displayed at the EHS Office, and the winning department receives a framed certificate of recognition and financial prize. This year, Facilities-Custodial & University Services received the award. This unit, led by Sylvester Johnson, proactively complied with all fire and life safety programs throughout the year and assisted EHS with various emergency responses and building projects campus-wide.

Guest speakers at the recognition included Laure Ergin, Vice President & General Counsel, Alan Brangman, Executive Vice President & Treasurer, and Charlie Riordan, Vice President for Research, Scholarship & Innovation. The speakers focused on the importance of safety on campus and acknowledged the dedicated committee members working together to keep our community safe and compliant with regulatory requirements.

EHS also presented awards to the winners of our Annual Safety Poster contest. Poster submissions had to represent one of the following topics: Lab Safety, Shop Safety or Personal Home Safety. First Place went to Chemical and Biomolecular Engineering whose poster focused on proper personal protective equipment, housekeeping, and chemical hygiene. Second Place went to Dining Services and Third Place went to the Art Department. All three winners received gift cards to restaurants on Main Street. Congratulations to all of our winners! Thank you to everyone who submitted a poster this year- it was a tough competition!

Raffle prizes were also awarded throughout the Recognition. Attendees went home with some great prizes: a fire extinguisher donated by Hoopes Fire Prevention, Inc., UDairy Creamery gift certificates, and UD apparel from the National 5&10.

To close the Recognition, UD Fire Marshal Kevin McSweeney unveiled a memorial plaque dedicated to Bernie Alexander. It designates the southwest Area of Refuge on the second floor of the Bob Carpenter Center as the Bernie Alexander Refuge Area. An Area of Refuge is a safe location for individuals requiring additional assistance evacuating a building in the event of an emergency. The plaque reads as follows "Bernie's devoted service to the University of Delaware is reflected in the fire protection features of the Bob Carpenter Center. Those seeking refuge here are assured safety due to his caring efforts and perpetual oversight."

We hope all of the attendees enjoyed the Recognition, delicious food, friendship and raffle prizes! Thank you to each of our committee members for all that you do every day to keep our campus safe!



Kevin McSweeney presents Sylvester Johnson with the Bernie Alexander Fire Safety Award



Francis Karani, Gerry Poirier, Judi Free and Jerry Hendricks



Krista Murray shakes hands with Yamaira Gonzalez from CBE, the First Place Safety Poster Contest winners



Bob Pekala won a fire extinguisher during the raffle



EHS Director Mike Gladle presents retiree Jerry Hendricks with a framed UD photograph signed by EHS Staff thanking him for his many years of service on safety committees



Michael Davidson won some beach essentials



Executive VP Alan Brangman calls out the name of a raffle winner



Kevin McSweeney unveils the Bernie Alexander memorial plaque closing out the Recognition



Bernie Alexander's family attended the recognition and unveiling. Pictured above is Bernie's daughter Kristen Wolanski, Bernie's wife Susan Alexander and Bernie's son Shawn Alexander

**LAB SAFETY**

Personal Protective Equipment (PPE)  
Housekeeping & Hygiene

Callouts: Hair back, No contacts, Safety glasses, Fume hood, Lab coats, No obstructions, Closed toe shoes, Gloves, Long pants, No clutter.

Can you pass the PPE Safety Quiz?  
Scoring 10 out of 10 is everyone's biz!

1st Place Safety Poster winners: Chemical & Biomolecular Engineering

**UTILITY KNIFE SAFETY BASICS**

**PAY ATTENTION**

**CUT AWAY FROM YOUR BODY**

**& KNOW WHERE YOUR NON-SLICING HAND IS**

**TIPS:**

- ALWAYS USE A SHARP BLADE
- METAL RULERS WORK BEST
- ALWAYS HOLD STRIGHT EDGE FIRMLY
- USE MULTIPLE SLICES WITH LESS FORCE
- DON'T CUT WHEN TIRED OR DISTRACTED
- KNOW WHERE THE FIRST AID KIT IS

3rd Place Safety Poster winners: Art Department

Dining Services  
Commitment to a SAFE Working Environment

**CAUTION**  
BEFORE CLEANING OR SERVICING  
DISCONNECT POWER SUPPLIES

**NOBODY GETS HURT TODAY!**

2nd Place Safety Poster winners: Dining Services

## Chemical Waste Disposal

### *EHS to the rescue!*



Do you have peroxide forming chemicals in your lab?  
Ever wonder when or how to get rid of these and other chemicals?  
EHS can help you with these questions.

There are approximately 170 different peroxide forming chemicals, including acetal, acetaldehyde, benzyl alcohol, isopropyl ether, cyclohexanol, dioxanes, furan, methacrylate, styrene, and the two most commonly seen, diethyl ether and tetrahydrofuran. The easiest way to mitigate the risk of forming shock-sensitive peroxides in these solvents is to remove unneeded chemicals before the peroxides form.

It starts with dating the bottle when you receive it and also when the bottle is opened. Once the bottle has been opened, you have six (6) months to use the contents before the material must be disposed of, which can be as easy as requesting a pickup from EHS using the online webform. Additionally, any unopened bottles older than one year must be disposed of through EHS.

Properly storing peroxide forming chemicals is also very important, and reviewing the manufacturer's recommendations is encouraged. This usually consists of storing the solvents, with a secure cap, out of direct sunlight, and in a cool dark area, as heat and direct sunlight will catalyze the autoxidation process.

Further tips to reduce the probability of peroxides forming are using solvents with stabilizing agents, buying limited quantities and frequently checking for peroxide formation.

Peroxides can be detected easily since the shock-sensitive crystals form around the cap of bottles, as a visible precipitate, or as an oily viscous layer present in the material. You should be very careful when checking for peroxides since they can also form under caps, or even more frequently they can be present in the solution and can be difficult to see. Thus it is important to check these solvents for peroxides using certain methods regularly. First, you can use test strips, very similar to pH paper; peroxide test strips turn blue in the presence of peroxides.

A more involved method consists of adding a sample of the solvent to a glacial acetic acid solution containing sodium iodide or potassium iodide, where the solution turns yellow or dark brown in the presence of peroxides. If you do come across a container with peroxides present, use extreme caution and care, and contact EHS immediately! Peroxide formers can be utilized and used safely, but what you don't know can hurt you and others around you.

Keeping chemicals for an extended period, especially those that form shock-sensitive peroxides can be hazardous in the lab and pose unnecessary threats that may lead to injury or death. If you see peroxides form on the bottle (pictured above), please do not touch, move, or open! Contact EHS immediately.

Remember that preventable accidents can be prevented!

If you have any questions regarding how to properly dispose of a certain chemical or how to submit a waste pickup form, please feel free to contact the Environmental Health & Safety office at 302-831-8475 or email our office at [dehsafety@udel.edu](mailto:dehsafety@udel.edu).

## Sun Safety Tips

*UV rays can cause some serious damage!*



With summer's sunny weather upon us, it is important to be mindful that, although some exposure to sunlight is essential for healthy living, over-exposure to the ultraviolet (UV) component of sunlight presents some risks.

Below are UV facts and recommendations from the Centers for Disease Control and Prevention (CDC).

Ultraviolet (UV) rays in sunlight are an invisible form of radiation. UV rays can penetrate and change the structure of skin cells. UV radiation can cause damage to connective tissue and increase a person's risk for developing skin cancer.

Sunlight exposure is highest during the summer and between 10:00 a.m. and 4:00 p.m. Being outdoors during these times increases the chances of getting sunburned. There is a risk of UV radiation over-exposure even on cloudy days.

Follow these recommendations to protect yourself from UV damage:

- Wear sunscreen with a minimum of SPF 15. SPF is a measure of protection. An SPF of 15 will allow a person to stay out in the sun 15 times longer than they normally would be able to stay without burning.
- Old sunscreens should be thrown away because they lose their potency after 1-2 years.
- Sunscreens should be liberally applied (a minimum of 1 ounce) at least 20 minutes before sun exposure. Special attention should be given to covering the ears, scalp, lips, neck, tops of feet, and backs of hands.
- Sunscreens should be reapplied at least every 2 hours and each time a person gets out of the water or perspires heavily.
- Another effective way to prevent sunburn is by wearing appropriate clothing. Dark clothing with a tight weave is more protective than light-colored, loosely woven clothing.
- Wear wide-brimmed hats and sunglasses with almost 100% UV protection and with side panels to prevent excessive sun exposure to the eyes.
- Indoor tanning (tanning beds) should be avoided, especially by youths.
- Perform occasional skin cancer checks and consult with your doctor if you see something suspicious.

For more information follow this link <https://www.cdc.gov/niosh/topics/sunexposure/skincancer.html>

## Cook, Learn and Eat!

*Excerpt from an article submitted by Samantha Lampert*



Thanks to a collaboration between Residence Life and Housing, Environmental Health and Safety, and the Food and Nutrition Lab at UD, free cooking classes were made available to University of Delaware students in an effort to encourage safe cooking.

On-campus and off-campus cooking fires happen often, are very dangerous, and can easily be avoided with the correct precautions. These two-week sessions were offered during March and April, and provided a thorough education on kitchen safety as well as free cooking classes to allow students the opportunity to cook and eat, safely!

Fire safety presentations centered around the stove, oven, and microwave were given before every cooking session. These presentations were created and presented by UD's own Fire Marshall, Kevin McSweeney. From his many years of protecting students, Mr. McSweeney used numerous firsthand experiences to emphasize how important it is to take preventative measures when cooking in the dorms, to ensure the safety of yourself and those around you.

Some of these included the many fires that have occurred due to microwaving Easy Mac without adding water, or putting popcorn in for 20 minutes instead of 2! Many students were able to relate, since they have experienced or been guilty of these accidents within their residence halls. Mr. McSweeney's presentations included many common mistakes, tips, fun facts and directions as to how to cook safely. The students then got to put what they learned into action! The sessions were split into two parts; oven and microwave safety and stove top safety. The recipes were chosen accordingly, so that the students could apply what they learned from the specific presentations. All the ingredients, recipes, and cooking tools were provided by the food lab, and ready to go when the students arrived.

Stove top cooking required attention to the gas and flame, using the right size pot and pan covers, and to continuously monitor the foods as they were cooking. After attending the stove top safety session, Electrical Engineering student Brandon Stacy said, "I didn't know that oils had different temperatures that they should be cooked with, or that using a burner that matches the size of the pot is important. Learning these things will help me cook better in the future." The students were taught about proper cooking skills such as always setting a timer, correct pan placement, and what to do in case of an oven fire.

Once all the recipes were complete, they were put out on a main table for everyone to try. It was a collective agreement among the students that knowing you cooked food safely makes eating it a lot better! The Cook, Learn, Eat classes supported active learning by providing the students with free cooking session to practice what they learned. Keep an eye out for next semester's classes!

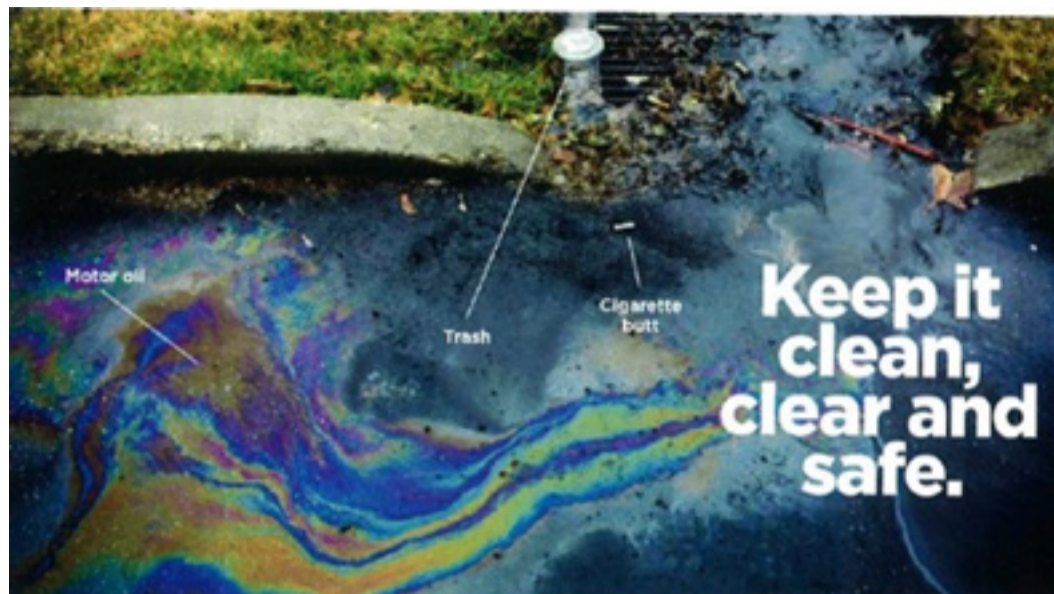
## Clean Water, Our Choices Matter

*Are you doing your part to preserve our local waterways?*

When it rains, storm water runoff washes over our landscape and carries pollutants such as oils, fertilizers, automotive fluids, bacteria and other chemicals to our streams. These materials are not filtered out and can pollute the streams that we use for recreational purposes and for drinking water.

EPA's Clean Water Act initially addressed point source pollution from specific discharge locations such as industrial sites and factories. Following that, farms and other areas have been targeted for pollution prevention from storm water runoff.

Targeted most recently are sources of water pollution from non-point or diffuse sources such as housing developments, shopping centers, commercial businesses, etc.



What can we do as homeowners, apartment dwellers, or tenants to improve the quality of our local waterways?

- Use fertilizers sparingly. Test your soil since lawns and plants may not need fertilizer. Don't fertilize before a rain storm. Fertilizers that reach waterways contain nutrients that can cause algae blooms and reduce oxygen in the waterways which can lead to fish kills.
- Carry a plastic bag to pick up pet waste from your lawn and from other pet walking areas and dispose of it in the trash. Never put pet waste down a storm drain. Bacteria from pet waste and human waste that washes into the waterways are a health hazard and can cause disease or illnesses.
- Service your car regularly to prevent oils and automotive fluids from leaking onto the pavement. Clean up any leaks or spills immediately with oil-dry and properly dispose of cleanup materials. Do not hose down oil leaks or dump any automotive fluids down a storm drain. Recycle used motor oil at DSWA recycle locations <http://dswa.com/programs/oil-oil-filters/>
- Wash your car at a car wash where the water is filtered and re-used several times before sending it to the waste water treatment plant. Alternatively, wash your car on a grassy area so the ground can filter the water and soap naturally instead of running to the storm drain. Doing this prevents grime and soap suds from reaching the creek. Use soap sparingly and use a hose with a nozzle to conserve water.
- Minimize the use of toxic substances such as moth balls, insect sprays, drain cleaners, and oven cleaners. Properly dispose of household hazardous waste and consider buying products labeled as non-toxic or that use natural ingredients. The Delaware Solid Waste Authority lists drop-off locations for household hazardous waste <http://dswa.com/programs/household-hazardous/>
- Keep litter off the street. Put trash in trash cans, pick up litter and recycle whenever possible so that trash doesn't end up in our streams and rivers.

For pollution prevention tips, visit: <http://www.udel.edu/ehs/environmental/storm-water-practice.html>



## Summer Safety Tips!

*Don't let outdoor fun bug you!*

As Summer approaches, we begin to think about vacations, BBQs, and fun in the sun. However, it also brings with it dangerous insects and sweltering heat. Some of these tips can keep you and your family safe while enjoying the summer months:

### Insects

- Protect yourself from bug bites by wearing at least a 10% DEET bug spray. Be sure to follow the instructions on the product.
- Cover yourself as much as possible if you will be in a tick-infested area. Wear long pants, with the bottoms tucked into socks, long sleeve light colored shirts, and hats.
- Check yourself and your children when you come in from outside for any ticks.

See the link below for more info on tick removal, should you find one on your skin.

[https://www.cdc.gov/ticks/removing\\_a\\_tick.html](https://www.cdc.gov/ticks/removing_a_tick.html)



Mosquito close up



Deer tick close up

### Heat

- Drink plenty of fluids!
- When working outside, be sure to take plenty of rest breaks, especially if you begin to feel lightheaded or weak.
- NEVER leave anyone in a hot vehicle!! If you see children or pets who are alone in a vehicle, call 911 immediately.

For additional information, and heat stroke signs, see the link below:

<http://www.redcross.org/news/article/Red-Cross-How-to-Stay-Safe-in-Hot-Weather>



Staying hydrated is key during the hot summer months in Delaware