



DESERT BREEZE

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Summer Fire Safety Tips

Every year Americans look forward to summer vacations, camping, family reunions, picnics, and the Fourth of July. Summertime, however, also brings fires and injuries due to outdoor cooking, campfires, and fireworks. Knowing a few fire safety tips and following instructions will help everyone have a safe summer.

Outdoor Cooking Safety



Annual grill fires on residential properties result in an estimated average of 10 deaths, 100 injuries, and \$37 million in property loss. 57 percent of grill fires on residential properties occur in the 4 months of May, June, July, and August. 79 percent of outdoor cooking is done using equipment powered by gas fuel. Following these grilling safety tips can substantially reduce the risk of accidents.

- ◆ 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 flame can flashback up into the container and explode.
- ◆ Keep all matches and lighters away from children.
- ◆ 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 warrants serious medical attention.

Campfire Safety

Campfires can be a great addition to a campout. It is your responsibility to burn wisely. The following



ing campfire safety tips can help avoid fires from becoming out of control and substantially reduce the risk of accidents:

- ◆ Always check with the campground manager or the local forest service about possible restrictions due to forest fire hazards.
- ◆ Use existing fire ring or fire pit if available.
- ◆ Build campfires where they will not spread, away from dry grass and leaves. Also beware of low-hanging branches overhead.
- ◆ 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 a campfire unattended.

Fireworks Safety

A special study by the U.S. Consumer Product Safety Commission (CPSC) shows that fireworks are involved in an estimated 9,600 injuries treated in U.S. hospital emergency rooms annually. Two out of five fires reported on the Fourth of July are started by fireworks. The best way to protect your family is not to use fireworks at home.

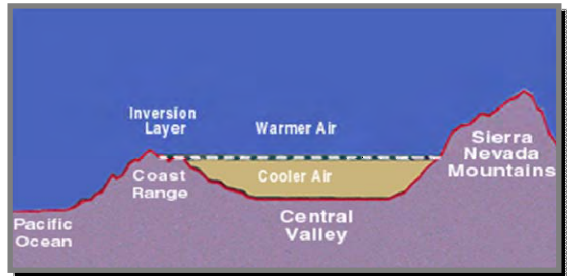
WHAT ABOUT THAT INVERSION LAYER!?



Have you ever seen a thick brown haze in the air, looks like a blanket sitting over head? Well, that is called an inversion layer. An inversion layer occurs when cold air is trapped below a “blanket” of warm air. In normal conditions the air closer to the Earth is warmer, and the temperature decreases as the altitude increases. Inversion layers create a stable atmosphere which doesn’t allow pollutants to disperse easily, they are trapped close to the Earth where it can cause respiratory problems for the people of the affected areas. Topography can have an effect on creat-

ing inversion layers as well. The cold, dense air can flow from the mountains into the valleys, and can make its way under the warm air in the valley and become trapped.

The sun’s rays warm the Earth during the day and the Earth radiates that heat at night. During the winter, the sun’s angle is low which allows the earth to release more heat than it is receiving, and results in cooler air near the surface of the Earth. In the winter you may notice more inversion layer occurrences than in other seasons. Inversion layers cause many weather events such as freezing rain, tornadoes, thunderstorms and smog. Smog can consists of dust, exhaust from industrial manufacturing and automobiles and can pose many health risks to the community. The longer the inversion layer lasts, the higher the concentration of pollutants collect underneath.



Even though inversion layers are natural occurrences there are some things that you can do to decrease the severity of these events. Driving less, decreasing your usage of your fireplace, not burning leaves and other yard waste, and conserving energy at home can all help to spare the air.

CURRENT EVENTS

The District welcomes Wunna Aung. He is our new Air Quality Engineer with Eastern Kern Air Pollution Control District. He is from the Bay Area and holds a Bachelor of Science Degree in Mechanical Engineering from San Jose State University. He is also certified by the state in Engineer-in-Training (EIT). Wunna looks forward to applying his educational background to tackle air quality challenges that the county is facing and improving the quality of life for people residing in Eastern Kern County.

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SAFETY

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The U.S. Fire Administration recommends attending public fireworks displays and leaving the lighting to the professionals. However, should you decide to use fireworks at home please follow these safety tips:

- ◆ Purchase and ignite only legal fireworks.
- ◆ Store fireworks in a secure location to prohibit access by children.
- ◆ Place pets indoors; they may become frightened.
- ◆ Keep a bucket of water nearby in which to place all used fireworks.
- ◆ Have a water hose or fire extinguisher nearby to put out stray sparks.
- ◆ Know the emergency number to call for your area, your address location, and basic first aid.
- ◆ Have a designated adult light all fireworks.
- ◆ Light one at a time, move away quickly, and keep at a safe distance until the display is finished.
- ◆ Use only outdoors, away from anything that can burn.

MERCURY

Mercury is a naturally occurring element. Mercury has atomic (chemical) symbol of Hg; this symbol originates from the word hydrargyrum, which means “liquid silver.” Mercury is silvery in color and is the only metal that is a liquid at room temperature; thereby, giving it the nickname



“quicksilver.” Mercury is not usually found free in nature, and is primarily obtained from the mineral cinnabar (HgS, mercuric sulfide). Mercury easily forms alloys with other elements such as gold, silver, zinc, and cadmium.

Additionally, mercury can be found naturally in deposits of coal and limestone. Mercury is toxic. Historically (17th century), mercuric nitrate was used to treat fur of small animals for the manufacture of felt hats. Many hat makers inhaled mercury vapors over an extended period of time causing a syndrome called “Mad Hatters Disease.” Use of mercuric nitrate for treatment of furs was eliminated centuries ago. More recently, mercury is used in dental fillings in the form amalgam (an alloy with mercury and silver). Additionally, mercury is used in thermometers, barometers, sphygmomanometers (instrument used to measure blood pressure), streetlights (bluish green tint), and fluorescent lights. Now, most equipment utilizing mercury (e.g. meters and lighting), the mercury is sealed and not exposed to the atmosphere.

Mercury can enter the human body by different pathways: liver absorption through methylmercury (organic) from aquatic systems (fish consumption); skin (dermal) absorption from household and consumer products (broken thermometers, school laboratories, batteries, novelty jewelry, etc.); and inhalation of mercury vapors in the atmosphere. For the Eastern Kern Air Pollution Control District (District), we are primarily concerned with mercury emitted into the atmosphere; mercury vapor.

For the District, there are three main sources of mercury vapor: cement plants, crematoriums, and gold refining operations. Currently, there are no gold refining operation within the District jurisdiction. However, for new gold refining operation, the District requires the refining process be controlled with activated carbon that reduces mercury emissions by 90% to 99%. Given the remote location of gold refining facilities, the mercury emissions are expected to be insignificant.

For cement plants, mercury emissions can be significantly higher than a gold refining operation. However, cement manufacturing facilities are implementing new technology to reduce mercury emissions. Like gold refining operations, some of the facilities will utilize activated carbon to reduce mercury emissions into the atmosphere.

For crematoriums, when people with amalgam dental fillings are cremated, the mercury in the amalgam vaporizes and is emitted into the atmosphere. This source of mercury emissions has gone unnoticed, until recently. Steps are being developed to minimize mercury emissions from crematoriums.

The Environmental Protection Agency (EPA) states: the most common way that people in the U.S. are exposed to mercury is by eating fish and shellfish that contain methylmercury. See EPA’s Fish Consumption Advice website for



more information (<http://www.epa.gov/mercury/advisories.htm>). EPA encourages the recycling of mercury-containing products rather than disposing of them in regular household trash. Recycling of mercury-containing products is one of the best ways to help prevent mercury releases to the environment by keeping these products out of landfills and incinerators.



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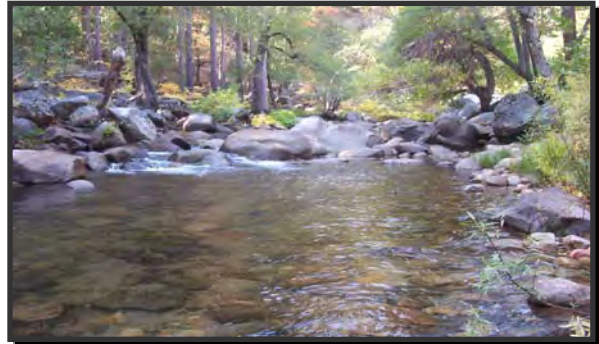
Board of Directors usually meet once every two months starting in January at various locations.

Air Pollution Control Officer

Glen E. Stephens, P.E.

Hearing Board

- Bill Deaver
- Herb Roraback
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For news updates and other information, please visit the Eastern Kern APCD website at www.kernair.org

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