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OFFICE OF FIRE PREVENTION 319 MAIN STREET/ KETCHIKAN, AK 99901 (907) 225-9617

### CO Detectors are Required By State Law

The Alaska State Legislature passed House Bill 351 in 2004 that requires installation of a Carbon Monoxide Detector in most dwelling units in Alaska as of January 1, 2005 (AS 18.70.095(a)). Specifically, the requirement applies to dwelling units that contain or are serviced by a carbon-based-fueled appliance or a device that produces by-products of combustion; or has an attached garage or carport; or is adjacent to a parking space.

Carbon monoxide (CO) is the most commonly encountered and pervasive poison in our environment. Each year thousands of people seek medical attention or lose days of normal activity and more than 500 people die through unintentional exposure to carbon monoxide. Flu and bad cold symptoms such as headaches, nausea, pains, and mental confusion are sometimes caused by carbon monoxide gas in your home.

You probably know that if you "smell gas", you are not smelling carbon monoxide which is odorless and colorless. If you do smell gas, you should immediately shut down your gas appliances and call for help. Gas that you can smell is usually the gas from your propane tank. There is a special chemical put into propane gas to make it smell like rotten eggs so you will notice it if there is a leak. If propane gas were to build up in your home, it could create a dangerously explosive situation and destroy your home.

Another common dangerous gas, carbon monoxide, can be produced inside a home containing appliances that burn carbon-containing fuels including coal, wood, charcoal, natural or propane gas, kerosene and fuel oil. Carbon monoxide can be produced by incomplete combustion or poor ventilation of fuel-burning appliances such as oil or gas furnaces, gas cooking appliances, water heaters, room heaters (such as Monitor® and Toyo® Heaters), fireplaces, wood stoves, generators and any apparatus that burns fuel. Carbon monoxide is the same toxic gas that comes out of the tail pipe of your car if you leave it in a closed garage with the engine running. Carbon monoxide is an odorless, colorless gas that interferes with the delivery of oxygen by the blood to the rest of the body.

Remember that **smoke detectors** do not detect carbon monoxide, just as carbon monoxide detectors do not detect smoke or other products of combustion (except for CO). There are now combination detectors on the market that do detect both smoke and carbon monoxide but they are specifically advertised as a combination unit.

State law now requires both **smoke and carbon monoxide detectors** installed per the manufacturer's recommendations. Additional specific recommendations are on the reverse side of this handout.

**Minimum Requirements:** (after January 1, 2005) per State Fire Marshall Guidelines

- An A/C or D/C Carbon Monoxide (CO) Alarm is required in each dwelling unit that: a) has or is serviced by a carbon-based fuel appliance; b) is attached to a garage or carport or c) is adjacent to a parking space
- Must be installed per manufacturer's installation instructions
- The number of CO Alarms will depend on the size and layout of your house.
- Place a CO Alarm on story above and story below and adjacent to any room that contains a boiler, water heater, furnace or other carbon-based heating appliance.
- Place CO Alarm inside the dwelling near the door attached to garage, carport, or adjacent parking space.
- If a CO Alarm is required in a dwelling, locate one in the hallway outside of sleeping areas.
- Install a CO Alarm outside the kitchen if a carbon-based fuel appliance is present.

## **Recommended Actions to Protect Your Family from Carbon Monoxide Poisoning**

### **Install Carbon Monoxide Detectors**

1. **Install carbon-monoxide detectors.** Place one within 15 feet of each sleeping area, on each level of the building, in family rooms, near but not closer than 15 feet from each fireplace, furnace, and any other fuel-burning appliance and near but not closer than 15 feet from attached garages, carports and adjacent parking spaces. Place them where there is free airflow, not near corners or behind objects. Do not place them in areas of high humidity such as bathrooms or in unheated areas. Select a detector that has Consumer Product Safety Commission and Underwriters Laboratories' seals of approval and follow the manufacturer's installation and operating instructions.

2. **If you live in or inhabit a cabin, RV, or boat,** installation of a CO alarm is highly recommended if CO-producing appliances or vehicles are nearby.

3. **If a carbon-monoxide detector activates, call the fire department and leave the building.** The fire department has sensing equipment to determine where dangerous levels of carbon monoxide are located. Since home detectors are made to alert before the environment is hazardous, this gives the homeowner a chance to contact appropriate service personnel to "fix" the problem.

4. **Transport to medical care.** If any person in the area when the alarm sounds has an extreme headache, nausea, fatigue, shortness of breath, flu-like symptoms, disorientation, or bright red skin condition, they should be transported to the nearest emergency care facility and checked for carbon monoxide poisoning.

5. **Test and replace your carbon monoxide detectors** as recommended by the manufacturer. These devices rely on chemical reactions and the chemicals have a limited life. Usually this life is no more than 5 years. They should be tested monthly and batteries changed as per manufacturer's recommendation.

### **Inspect and Maintain Your Fuel Burning Appliances**

6. **Check your equipment.** Have your boiler, furnace or room heater checked and adjusted by a professional to be sure the burner and vent systems are operating properly and that the heat exchanger has no cracks. A professional inspection of all fuel burning equipment in your home could save your life and the lives of your loved ones.

7. **Check air supply.** Visually inspect the area around your fuel burning appliances to make sure there is enough airflow for the burner to bring in fresh air. These appliances should not be in a tightly sealed space.

8. **Check chimneys.** Inspect chimneys or flues for internal obstructions or leaks around the joints.

### **Safely Use Fuel Burning Appliances and Equipment**

9. **Open fireplace dampers.** Always burn fireplaces or wood stoves with the damper open so that all combustion gases will flow to the outside.

10. **Never use a gas fueled cooking stove for room heating.**

11. **Don't warm-up gas/diesel engines near homes.** Do not leave an automobile or lawn mower running in a closed building, especially an attached garage or near an open window. CO can drift into the home.

**Follow safety precautions and directions when using combustion equipment in a home. Problems arise as a result of improper installation, maintenance, or inadequate ventilation.**

Reference:

Janie L. Harris, Housing and Environment Specialist, Texas Cooperative Extension, The Texas A&M University System. 1999.