

## 4/24/2009 Safety Project Policy

### **Stove and Lantern Safety Policy**

**Purpose:** For Scouts and adults to know how to properly operate the Troop Coleman 2-burner white gas stoves, Coleman 2-burner propane stoves, backpacking stoves (troop and personal), and both types of lanterns. This policy also applies to any chemical fuel equipment used by T1000.

**Background:** This policy is established

1. To provide a safer environment for both Scouts and adults when using the equipment.
2. Because Troop 1000 will be camping where ground fires are not allowed or are not an option.
3. To meet certain 2<sup>nd</sup> Class requirements (see goals)

### **Goals**

1. To provide a means for training the members of T1000 in the safe operation of chemical fuel equipment.
2. To provide a structure for Scout to complete 2nd class requirements 2e, and 2f
3. For Scouts to be able to use and maintain the stoves and lanterns in troop activities..

### **General**

1. All Scouts and adults lighting stoves or lanterns on troop activities are required to be certified and must have their Stove/Lantern Safety Card with them. Certification is obtained by taking the T1000 Stove/Lantern Safety Class from a Scoutmaster certified instructor and receiving a 90% on the Stove/Lantern Safety Test. This applies to all chemical fuel equipment (ie white gas or propane stoves and lanterns). Upon completion of the class and test the Stove/Lantern Safety Card will be awarded by the instructor.
2. Violations would will be handled on a case by cases basis and may include decertification and returning the card to the troop. All violations will be immediately referred to the Scoutmaster and the Committee Safety Chairman. Those observing a violation and allowing it to continue are also in violation.
3. Scout instructors will be trained and certified to teach this class to adults and Scouts who will use the equipment. Adults will be trainers also, but only be used as backup. This training will be overseen by the Committee Safety Chairman. The Committee Safety Chairman will provide the Scoutmaster with recommended names of those instructors (Scout & Scouter) who can certify new card holders. Records will be maintained with the other troop records.

## **Stove/Lantern Safety Class**

### **Class Outline**

1. The instructor will discuss when to and when not to use the two burner stoves, the backpacking stoves, and lanterns.

#### **1.1 When to use stoves and/or lanterns**

- \* Only after specific approval of the Scoutmaster or acting Scoutmaster at the activity who will use the following considerations.
- \* In an area that doesn't allow ground fires
- \* In an area that a open fire ban has been issued or when open fires are not safe!
- \* There is insufficient wood or charcoal for cooking fires.
- \* When expedient to the program *PLC and SM* approved

#### **When not to use stoves and/or lanterns**

- \* Inside tents or vehicles. The Scoutmaster must approve use in buildings (cabins).
- \* Without supervision and certification.
- \* When weather conditions (extreme winds) make it unreasonable

#### **1.2 Safety Rules**

- \* 1. Chemical stoves and lanterns may only operated by trained and certified Scouts and adults. Any one can cook on a stove if supervised by a card holder.
- \* 2. All propane and white gas will be stored in original containers or specific containers designed for that purpose (ie attached fuel containers, backpacking fuel containers)..
- \* 3. All propane cylinders and white gas cans not in use will be kept away from all stoves or fires a minimum of 20 ft. Preferably stored in the rear of the trailer in the designated place (see the QM).
- \* 4. No propane cylinders or white gas cans will be stored in heat above 100 deg F or in direct sunlight
- \* 5. All stoves and lanterns will be cooled down before they are refilled or stored or packed except as noted for continued use of propane equipment.
- \* 6. All white gas stoves and lanterns will be filled at least 50 ft from any fire or potential fire (ie unused fire ring).
- \* 7. No lit stoves or lanterns will be left unattended at any time.
- \* 8. All stoves and lanterns will be placed on a stable and level surface during use and in such a position as not to be knocked over or be a hazard in any way.
- \* 9. ALL empty propane cylinders and gas cans will immediately be placed in the trailer as designated by the Quartermaster.
- \* 10. NO stoves, lanterns, or any fire within 10 feet of tents.
- \* 11. All damage must be reported immediately to the QM and the SM.
- \* 12. If a uncontrolled fire starts on a stove or lantern use on of a fire extinguishers is the preferred method of extinguishing fire. Dirt or sand is a secondary alternative. Do not use water.
- \* 13. No running or 'horseplay' is allowed within 50 ft on any stove or lantern, lit or unlit.
- \* 14. Gasoline will NEVER be used outside of vehicles. Any fuel other then white gas or propane must have SM approval before TAKEN on an activity.
- \* 15. Chemical fuels will not be used to start fires!
- \* 14. READ in detail the Guide to Safe Scouting, 2009 Edition, Policy on Use of Chemical Fuels: Liquid, Gaseous or jellied.

2. Demonstrate how to fill and light both types of 2-burner stoves, the backpacking stove, and both types of lanterns. Allow hands on activities from the students.

- \* First, check ALL safety factors and the Stove/Lantern Cards of the non-student users!
- \* Fire buckets and the chemical fire extinguisher are required to be readily available before demonstrating.

### **2.1 How to fill the stoves and lanterns**

- \* First, check ALL safety factors and the Stove/Lantern Cards of the users!

#### **2.1.1 Refilling white gas fuel containers**

- \* Do so in an open area 50 ft away from camp.
- \* Use a funnel to avoid have fuel spill on the ground.
- \* Fill 3/4 full, then close the cap "finger" tight.
- \* Clean up any fuel that was spilled. Paper towels may be used if available and properly disposed of.
- \* Replace the fuel container on the stove or lantern and follow the rules of lighting the equipment.

#### **2.1.2 Replacing propane cylinders during use or not in use**

- \* When a cylinders is empty, the stove or lantern will be shut off (even if the fire has gone out) and the cylinder will be removed and immediately put in the designated trailer location.
- \* A new cylinder will be attached and use can resume

#### **2.1.3 Refilling white gas stoves and lanterns during use**

- \* Shut down the stove/lantern and then follow 2.1.1 to refill the fuel container
- \* For backpacking stoves, refill just before use or well before packing to avoid pack contamination by spilled fuel.

### **2.2 How to light the stoves and lanterns**

#### **2.2.1 To light stoves and lanterns**

Once certified, you may use wooden matches, propane lighters, flint and steel, a welder's striker or a piezo-electric fire. Paper matches will not be used.

- \* In all cases, first, check ALL safety factors and the Stove/Lantern Cards of the users!
- \* Reread the instruction on the stove or discuss with the owner and be sure you know the equipment before proceeding. Follow the instructions.

#### **2.2.2 Coleman white gas 2-burner stoves**

- \* Make sure the fuel container is 2/3 full.
- \* Pump the container till fully pressurized
- \* Have your match lit and at the burner, then turn on the valve full.
- \* Let the stove warm up (till the flame is blue) before using.

### **2.2.3 Coleman propane 2-burner stoves**

- \* Before turning on stove make sure all connections to the stove are tight.
- \* Have your match lit and at the burner, then turn on the valve full.
- \* The stove is ready to use..

### **2.2.4 Backpacking stoves**

- \* When in doubt read the instructions (all new stoves have instructions printed on them) or ask before leaving on the trip.
- \* Ensure the fuel container is 3/4 full and properly pumped
- \* Spare fuel MUST be 20 ft away from the any fire.
- \* Allow a small amount of gas to enter the burner (some must be primed)
- \* Then immediately light and control the fuel supply
- \* Primer fuel (tubes) may be used. If fuel is used it MUST be used sparingly.

### **2.2.5 Lanterns**

- \* Check the fuel level to see if it is at least 2/3 full or that the propane bottle is firmly attached..
- \* For white gas the fuel container must be pumped till fully pressurized.
- \* Place your flame inside the lantern's globe near but not touching the
- \* Open valve full and keep the flame until the lantern is lit
- \* Adjust the fuel feed as needed.

**2.2.5.1.** Mantles will be replaced by the PL, SPL, ASPL, QM, or an adult. All must have their Stove/Lantern Cards when working with stoves or lanterns!

## **3. After Usage of Stoves and lanterns**

### **3.1 What to do after shutting down the stoves and lanterns**

- \* Let them cool down so that they are cool to your touch
- \* Depressurize the white gas lanterns and remove the fuel from the propane lanterns.
- \* Clean the equipment as needed, stoves will always need to be cleaned after EACH use.
- \* Immediately make sure the equipment is in a safe location (if to be used again soon) or replaced in the specified containers and returned to the chuckbox or trailer (lanterns forward/upper storage Shelf).
- \* **ALL Stoves and lanterns will be inspect by the QM prior to return to the trailer or storage area.**

### **3.1.2 Cleaning stoves**

- \* All food particles and dirt will be removed from the stove
- \* Any spilled or splattered grease or other items will be removed (a rag with hot water and mild soap followed by a 'wiping rinse' will clean the stove).

# Policy on Use of Chemical Fuels: Liquid, Gaseous, or Jellied

Guide to Safe Scouting 2009

## PURPOSE

To share the policy and guidelines on the use of chemical fuels by the membership of the Boy Scouts of America

## BACKGROUND

There are three factors that influence the establishment of Scouting's policy on the use of fuel other than natural wood: (1) the basic purpose of Scouting and its camping program, (2) the protection from hazards of chemical fuels, and (3) the necessity of safely adapting to local conditions and practices.

First, it is essential to Scouting's purpose that a boy learn and practice the skills of primitive living. A boy develops a personal confidence, initiative and preparation for life as he advances through the Scouting program.

In building a fire, a boy needs to learn the care and use of tools; he must know about tinder, types of fuel and how to prepare the fire. The correct principles of building a fire to cook his food and warm his body, containing fire and putting it out are essential for his training in campcraft, self-reliance and preparedness.

The need for adapting to special circumstances, such as lack of natural wood for fuel or the regulations of specific areas where open fires are prohibited for safety or environmental reasons, makes it necessary for Scouts and Scout leaders to learn the skills and safety procedures in using chemical fuel stoves.

Convenience is one of the joys of modern life, but with it goes the necessity of precaution against many hazards.

When any chemical fuel is used for cooking and lighting, it is the fuel that is dangerous - not the stove and lanterns.

## POLICY AND GUIDELINES

*For safety reasons, knowledgeable adult supervision must be provided when Scouts are involved in the storage of chemical fuels, the handling of chemical fuels in the filling of stoves and lanterns, or the lighting of chemical fuels.*

Battery-operated lanterns and flashlights should be used by Scouts in camping activities, particularly in and around canvas tents. No chemical-fueled lantern or stove is to be used inside a tent.

Kerosene, gasoline, or liquefied petroleum fuel lanterns may, when necessary, be used inside permanent buildings or for outdoor lighting. When used indoors, there should be adequate ventilation. Strict adherence to the safety standards and instructions of the manufacturers in fueling and lighting such stoves and lanterns must be carried out under the supervision of a responsible and knowledgeable adult.

Both gasoline and kerosene shall be kept in well-marked approved containers (never in a glass container) and stored in a ventilated locked box at a safe distance (minimum 20 feet) from buildings and tents.

Empty liquid petroleum cylinders for portable stoves and lanterns should be returned home or to base camp. They may explode when heated and therefore must never be put in fireplaces or with burnable trash.

The use of liquid fuels for starting any type of fire is prohibited, including lighting damp wood, charcoal and ceremonial campfires. Solid-type starters are just as effective, easier to store and carry, and much safer to use for this purpose.

All types of space heaters that use chemical fuels consume oxygen and must be used only in well-ventilated areas. When used in cabins, camper-trucks and recreational vehicles, there is not only a fire danger, but also lives can be lost from asphyxiation if not well ventilated. Use of charcoal burners indoors can be lethal by causing carbon monoxide poisoning.

# GUIDELINES FOR SAFELY USING CHEMICAL STOVES AND LANTERNS

1. Use compressed or liquid-gas stoves and/or lanterns only with knowledgeable adult supervision, and in Scouting facilities only where and when permitted.
2. Operate and maintain them regularly according to the manufacturer's instructions included with the stove or lantern.
3. Store fuel in approved containers and in storage under adult supervision. Keep all chemical fuel containers away from hot stoves and campfires, and store them below 100 degrees Fahrenheit.
4. Let hot stoves and lanterns cool before changing cylinders of compressed gas or refilling from bottles of liquid gas.
5. Refill liquid-gas stoves and lanterns a safe distance from any flames, including other stoves, campfires and personal smoking substances. A commercial camp stove fuel should be used for safety and performance. Pour through a filter funnel. Recap both the device and the fuel container before igniting.
6. Never fuel a stove or lantern inside a cabin; always do this outdoors. Do not operate a stove or lantern in an unventilated structure. Provide at least two ventilation openings, one high and one low, to provide oxygen and exhaust for lethal gases. Never fuel, ignite, or operate a stove or lantern in a tent.
7. Place the stove on a level, secure surface before operating. On snow, place insulated support under the stove to prevent melting and tipping.
8. With soap solution, periodically check fittings for leakage on compressed-gas stoves and on pressurized liquid-gas stoves before lighting.
9. When lighting a stove keep fuel bottles and extra canisters well away. Do not hover over the stove when lighting it. Keep your head and body to one side. Open the stove valve quickly for two full turns and light carefully, with head, fingers and hands to the side of the burner. Then adjust down.
10. Do not leave a lighted stove or lantern unattended.
11. Do not overload the stovetop with extra-heavy pots or large frying pans. If pots over 2 quarts are necessary, set up a freestanding grill to hold the pots and place the stove under the grill.
12. Bring empty fuel containers home for disposal. Do not place them in or near fires. Empty fuel containers will explode if heated.

## **BULK STORAGE AND PRACTICES**

Storage of bulk supplies of any chemical fuels (especially volatile fuels) is a camp maintenance function. Storage and issue of such fuel must be controlled by a responsible adult. It must be kept under lock and key in Scout camps. Quantities of gasoline in long-term camps must be stored in a properly installed underground tank with pump and/or must be in compliance with local safety standards and regulations. Camp officials must be especially alert to prevent violation of these principles by Scout leaders and their units.

Filling tanks for motor vehicles, outboard and inboard motors, and gasoline-powered saws and motors shall always be handled by someone qualified by age and training for the responsibility. All motors are turned off during filling. Enclosed bilges on boats equipped with inboard motors in enclosed spaces must be ventilated by blower for not less than four minutes (federal law) to remove fumes before engines are started. All hatches and ports should be closed during fueling and the boat re-ventilated when fueling is completed. No smoking or open flames are permitted while filling any fuel tanks.

Liquid petroleum storage tanks at permanent camps should be installed by experienced technicians and changed only by the gas distributors. These installations must conform to local regulations. Fuel containers should be surrounded by a chain-link fence in a cleared area.

## **ACTION**

Local councils through round tables and volunteer training courses should make every effort to train unit leaders and assistants in the proper techniques and procedures necessary to safely operate chemical-fueled stoves and lanterns. These leaders, in turn, train and supervise youth members in these same skills and procedures.

## Stove Safety Test with answers

Questions 1-25 are worth 4 points each. Failure of any of Questions 26-30 results in minus 20 points.  
Passing is 90% or better.

### True or False Section

- |  |       |
|--|-------|
| 1. Any Scout can replace mantles in the lanterns.                                | False |
| 2. Coleman stoves can be used 20 feet from tents.                                | True  |
| 3. Lantern and stoves can be put up right after being used.                      | False |
| 4. Fuel containers can be filled and stored by a hot stove.                      | False |
| 5. You should fill a backpacking stove just before packing.                      | False |
| 6. You can lose the lighting privilege for braking a safety rule.                | True  |
| 7. Water is good for putting out gas fires.                                      | False |
| 8. You can refill a fuel container 20 feet away from the campsite.               | False |
| 9. Propane and white gas cans can be left in direct sunlight for a few minutes.  | False |
| 10. It is all right to leave food cooking unattended.                            | False |
| 11. Any 1 <sup>st</sup> Class Scout or adult can light a lantern.                | False |
| 12. Only white gas can be used to start wet campfires.                           | False |
| 13. Report any damage to the ASPL.   | False |
| 14. Dirt can be used to put out a white gas fire.                                | True  |
| 15. You should top off all stoves and lanterns before leaving camp to save room. | False |
| 16. Propane stoves need to be pumped to operate correctly.                       | False |
| 17. When priming a backpacking stove you can use primer ribbon.                  | True  |
| 18. All caps should be tightened with a wrench to avoid spills.                  | False |
| 19. When lighting a lantern put your match and flame on the mantel.              | False |
| 20. I know what I'm doing and I listened in class.                               | True. |

### Write the answer Section

21. Where are empty propane cylinders and white gas can put?

In the back of the in the trailer as directed by the QM

22. How do you light a Coleman 2-burner propane stove?

See instructions in the lesson outline.

23. Explain how to refill a white gas fuel Container?

See instructions in the lesson outline.

24. How far should your tents be away from any fire?

At least 10 ft.

25. Who is responsible for my safety?

I am!



Demonstrations - failure of any of the follow is minus 20 points!

26. Fueling and Lighting a propane stove.
27. Fueling and lighting a white gas stove
28. Fueling and lighting a backpacking stove.
29. Fueling and lighting a propane lantern
30. Fueling and lighting a white gas lantern.

**T1000**  
**Stove and Lantern Safety Card Test**

NAME : \_\_\_\_\_  
DATE: \_\_\_\_\_  
INSTRUCTOR: \_\_\_\_\_

GRADE: \_\_\_\_\_ -  
(90% or better is passing)

True or False Section

- |  |        |
|--|--------|
| 1. Any Scout can replace mantles in the lanterns.                                | T or F |
| 2. Coleman stoves can be used 20 feet from tents.                                | T or F |
| 3. Lantern and stoves can be put up right after being used.                      | T or F |
| 4. Fuel containers can be filled and stored by a hot stove.                      | T or F |
| 5. You should fill a backpacking stove just before packing.                      | T or F |
| 6. You can lose the lighting privilege for braking a safety rule.                | T or F |
| 7. Water is good for putting out gas fires.                                      | T or F |
| 8. You can refill a fuel container 20 feet away from the campsite.               | T or F |
| 9. Propane and white gas cans can be left in direct sunlight for a few minutes.  | T or F |
| 10. It is all right to leave food cooking unattended.                            | T or F |
| 11. Any 1 <sup>st</sup> Class Scout or adult can light a lantern.                | T or F |
| 12. Only white gas can be used to start wet campfires.                           | T or F |
| 13. Report any damage to the ASPL.   | T or F |
| 14. Dirt can be used to put out a white gas fire.                                | T or F |
| 15. You should top off all stoves and lanterns before leaving camp to save room. | T or F |
| 16. Propane stoves need to be pumped to operate correctly.                       | T or F |
| 17. When priming a backpacking stove you can use primer ribbon.                  | T or F |
| 18. All caps should be tightened with a wrench to avoid spills.                  | T or F |
| 19. When lighting a lantern put your match and flame on the mantel.              | T or F |
| 20. I know what I'm doing and I listened in class.                               | T or F |

**T1000**  
**Stove and Lantern Safety Card Test**  
**page 2**

NAME : \_\_\_\_\_

Write the answer Section

21. Where are empty propane cylinders and white gas can put?

\_\_\_\_\_

22. How do you light a Coleman 2-burner propane stove?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

23. Explain how to refill a white gas fuel Container?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

24. How far should your tents be away from any fire?

\_\_\_\_\_

25. Who is responsible for my safety?

\_\_\_\_\_

Demonstrations - failure of any of the follow is minus 20 points!

26. Fueling and Lighting a propane stove.

27. Fueling and lighting a white gas stove

28. Fueling and lighting a backpacking stove.

29. Fueling and lighting a propane lantern

30. Fueling and lighting a white gas lantern.