

## **Safe Operating Procedure for gas stove (SOP)**

There is a separate risk assessment for cookers, cooking and campsites. This SOP covers not just cooking, but also cleaning, checking, storing, training & supervising teams on all events.

Most of the notes are aimed at reducing risk to individuals. But please appreciate the other important aspects that improve our ability to supervise numerous teams when less staff are on-site (e.g. siting of cooking area). Or reduce the loss of or damage to parts, e.g. by daily checks. Or improve consistency of skill by all staff doing the same process, every day, on every event, with every team.

Remember, that whatever you demo, they will repeat, but less well, especially when there is no one around correcting them. And the consequences of them deciding to use a picnic table or kicking over a pot onto socked feet are serious.

Fire is very rare, burns & scalds rare (if trained well), but dropped pots and spills of hot water and food are still common!

### **Emergency drinks? – Yes! / Cooking at lunch? – No!**

We allow teams to carry gas as the cannisters are very safe. And we need to provide them with the means to make hot drinks in emergency. Staff must promote this idea when carrying out emergency scenarios with teams.

However, we must make very clear to teams that they are not to plan to use the cooker during the day. They must be clear that the cooker is only for emergency use (hypothermia). Main reasons for not using cooker on routes: Very time consuming / no water available where they need it / untreated water / cleaning pots afterwards / illegal – risk of fire.

Please do not suggest teams cook extra rice or pasta at night or morning. This takes too long to supervise (by staff) and assumes it will not be raining and dark. Or results in teams taking too long in the morning or not cleaning pots fully.

### **Issuing cookers and gas**

Team kit boxes contain 2 stove sets and 2 gas cannisters, 2 lighters, scrubber & soap, daily bin bags to be given to teams to carry. Please leave nothing in kit box. So that they don't have to ask for things on camp.

Please have teams open each set, check the number of parts and agree they have received everything.

Then small items are packed inside the set, every day, so that they consistently know where to look.

### **Packing and carrying**

Mention that cookers are a soft aluminium and don't sit on rucksack as it deforms the pots.

Teams should not split a Trangia set to carry it as it is weaker and pieces get lost. Instead a second student can carry something else from the other's rucksack e.g. wash bag.

## **Supervising cookers on expeditions**

This is one of the more dangerous activities on expedition. It is easy to reduce risk through training, briefing & monitoring. So we never assume participants will 'do exactly what we've shown them' or 'remember from last time'. And so:

We teach students how to choose and make easy cook options to make cooker use simple and safer. (or avoid it).

We demo cooker use on the first day of every event. Never assume prior knowledge. Even on Qualifiers, even on Gold.

For Qualifiers, especially on Silver and Gold, this demo can be students volunteering to do the 'walk-through' or the leader doing the demo and asking 'What's the next step? What are the safety points for this step? For assessors this makes a great assessment tool and allows you to gauge the capabilities and knowledge of team members.

### **Check the pots every morning – please, please, please.**

On every event and every level we expect to see staff check pots, **windshield & burner** are clean before the team leave the campsite. As clean as your own would be.

If they have lost any parts, this is the place they will be, not on the next campsite or at the end. Don't assume a lost part is in their bag or another team has it.

Don't skip this daily check just to get a team walking off camp, even if they are late.

The campsite is where you have cleaning facilities to sort out issues. And this greatly reduces the risk of getting dirty pots back to kit box. Or missing parts, and having arguments.

If we all do it daily, teams get to expect it and understand that they won't just get to walk off without pots being checked and properly clean.

### **Safe cooking area - well away from tents – ON THE GROUND - field boundary?**

Never inside a tent porch or in the middle of a ring of tents or near the front doors.

We ask that teams tents are pitched in a row (not semi-circles). If possible, near edge of field. Then cooking area is right up against field boundary (wall, fence, hedge). There should be no room on the other side of the cookers for someone to step over it. Thus avoiding it being kicked over, and giving them somewhere to dispose of waste water.

In some cases, there may be a risk of fire from very dry grass or hedgerow. Good practice to have extra bottle of water available. In some instances (wild camping?) cooking area may need to be on dirt/gravel path.

Having multiple teams all sited in a line along a fence makes it easier for a campsite supervisor to see if those teams are behaving sensibly.

On the ground. Never allow cooking on a picnic table – it is flammable and it is very common for pots of boiling water to be dropped or spilt. If they are sitting with their legs trapped under the table, this would result in serious scalding of abdomen, groin and legs. For the same reason we avoid cooking

on walls. On some campsites there are cooking areas with stone ledges. These must be supervised at all times. Students briefed on footwear and standing back.

### **Brief teams on what to do in case of: fire / scald / burn**

Most campsites have fire bell, and procedure for evacuation to muster points – brief them. In absence of a set muster point, direct team to muster to the area where staff vehicles are parked.

Have a bottle of water and first aid kit handy to drench, wash, treat a burn.

All burns or scalds bigger than 10 pence piece need to be reported to staff and dressing checked regularly. Incident completed and submitted to event manager. Smaller burns will be treated by the team.

### **Spills & scalding**

Spills are by far the most common cooking incident and pose the greatest risk of scalds from the spilt or splashed water and food.

Normally caused by poor use of the handle on the rim, or poor grip, and changing position of grip as pot is lifted and moved or wrist is twisted to pour or drain. They may have a good grip as they pick up but this can change as they pour or drain.

Pots of boiling water falling from waist level and bouncing will splash water over wide area (legs and feet). Risk is greatly reduced if:

- Cooker is on the ground
- Pots are lifted immediately to the grass and never higher than the cooker.
- The ground is used to support the pot as it is drained – it has nowhere to go but flat. (so food is not lost)
- Pots are not passed around.

### **Other safety points:**

Wear shoes or boots near cookers – never sandals, crocs or flip flops (show blistered foot photos)

Hair is flammable – tie back or tuck inside top or wear beanie.

Lighting gas stove – take wind shield off first!!!! So you don't have to put hand down into it. NOTE: if lighting a second time the shield cools down very quickly but must be checked before grabbing – touch it lightly first.

Lid – Show that lid goes on 'upside down' (with rim facing upwards) so that you can use the handle effectively – stops them burning their fingers.

Aluminium pots are flammable and can catch fire if they boil dry – show photo

**Other useful points:**

Trangia strap – put it around gas canister to make sure it does not get lost in the grass (or bottom of a bag).

Stacking pots – add other saucepan of cold water on top of first pan to get it heating at the same time.

Saving water – try never to throw any water out, even pasta or rice water. Use it for soup or just drink it. It's more useful inside you than in the ground. Pouring water on the grass on your cooking area just makes a mess.

**Brief teams on.... 'The limitations of a Trangia'**

Aim of this demonstration is primarily to show them the cooker they will use and how it severely limits the types of meals they might choose to prepare easily as a group.

Common problems on expeditions are:

Group all decide to cook individually – takes too long.

I've seen students heat one boil in the bag at a time, then throw away the water, then boil more water for their hot chocolate, or give the pan to the next student to start again with cold water.

Or students over-filling pans with sauce that needs stirring – it bubbles over or is stirred over the sides and the pot has burnt food on the bottom and sides. Stirring with a metal spoon will not stop food sticking to bottom in the same way a wooden spoon/spatula can.

Need to show them how to put numerous boil in the bags in together, and use the water for soup.

How to use sachets for porridge or soups that can be put in a mug and boiling water added. So pots do not need to be cleaned in the morning.

Food easily burns - talk about hot spots and burnt food – happens when food is not watery – if it needs stirring at all it will probably stick and burn. So don't bring food that needs stirring. That way you don't need to do any washing up.

Options:

watery foods – pasta/noodle/rice then pour sauce on and turn off.

Boil in the bags – can also be opened and hot water added.

Food in a cup then add water – porridge / soups / hot choc / cous cous.

Camping stove scald – next day. Unable to walk

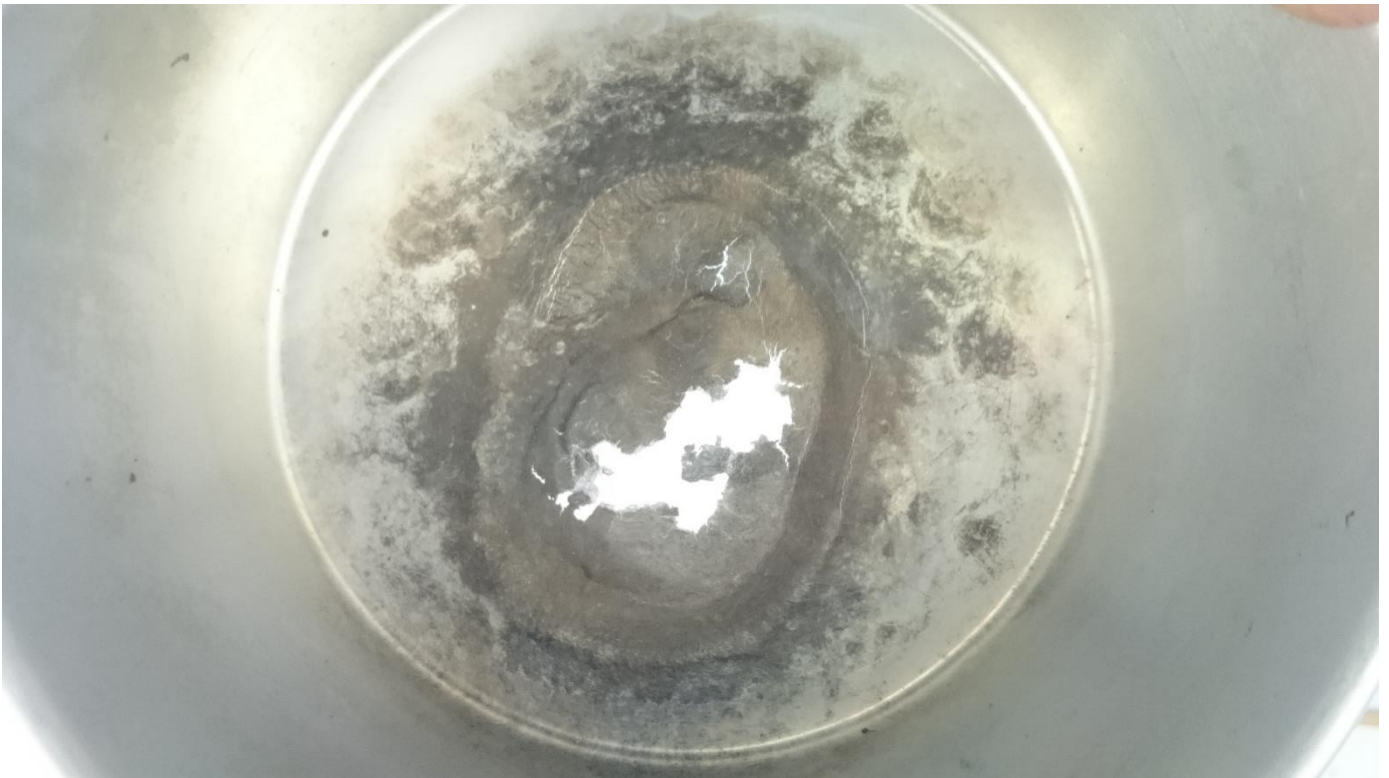


Days later





**Unsupervised pot boils dry – aluminium burns**



**Food that needs to be stirred will stick and burn – boil the noodles without sauce. Turn off gas then add sauce. Noodles are not enough to heat the sauce.**

