

# READY - AIM - FIRE!

## Safety Tips for Raku Firing

**Good preparation and communication are the keys to fun and safe raku firing.**



1. **PROPANE IS VERY FLAMMABLE, AND POTENTIALLY EXPLOSIVE.** Propane is heavier than air. If your fuel tank leaks, propane will settle into any lowlying areas or holes in the ground around your kiln. Be aware for any scent of propane in the area around you. We recommend that you do not smoke, and do not permit smoking, around your kiln.

2. Always check (by smell) for leaks around the fuel tank valve and gate valve as you turn on the gas. Make sure the gate valve is OFF while you open the tank valve. If you smell more than a trace of gas or hear a hissing sound from the valves, shut off the gas immediately and check all the connections.

3. If you don't succeed in lighting the flame in the **FIRST FIVE SECONDS** of holding flame to the burner, shut off the gas! Propane may be building up inside the kiln. If gas builds up inside the kiln, it may suddenly ignite or explode in ways harmful to you, your ware and your kiln.

4. Arrange your raku kiln, reduction chamber, water bucket and other materials in a straight line, with the propane tank furthest away from the reduction chamber and combustibles. As your kiln reaches temperature, you'll take hot ceramics out of the kiln **AWAY** from the fuel tank and gas line and into reduction.

5. When working with a partner, talk and coordinate your activities around the kiln at all times.

6. Don't step on the hose from your fuel tank to the kiln any more than absolutely necessary. Don't allow others to step over the hose either. Stepping on or stumbling over the hose may move the burner or bracket, or cause someone to fall onto hot surfaces.

7. **DO NOT OPEN THE KILN** to gauge the temperature maturity of your glazes. Look in through the top or side openings of the kiln to see if the gloss glazes are fluxing (bubbling) or smoothing over (after fluxing). Pieces with gloss glazes are ready to move to reduction when they look glossy and wet in the kiln.

8. When looking into the kiln, protect your eyes with ANSI-approved dark or kiln glasses. Always stand upwind of the kiln, so that the heat moves away from you. If you have long hair, tie it back in a ponytail. If you're wearing a cap or hat with a bill while firing, turn it around backwards when looking into the kiln. This will keep the bill from trapping heat against your face or forehead.

9. Drink lots of water when working around raku kilns for extended periods, especially on hot days.

10. **ALWAYS SHUT OFF THE GAS BEFORE OPENING THE KILN.**

11. Keep track of your combustible materials: do not let them get scattered around your firing area. This can be difficult in windy conditions, but it is important. They may catch fire if blown into contact with the hot kiln.

12. When opening the reduction chamber, watch carefully for blowing scraps and embers. Don't let them get away! Flying embers are a possible ignition source: they could start grass fires or create other problems.

13. When opening the reduction chamber, check the color of the smoke before reaching in. Mustard-colored or brown smoke is combustible. On contact with oxygen, this smoke may suddenly burst into flame. Grey or white smoke is safer. **MUSTARD YELLOW MEANS CAUTION.**

14. The best combustibles for your reduction chamber are natural materials which have not been chemically processed. Do not use slick (coated) paper, whether color or black-&-white. Black-&-white newspaper works well, but also consider wood shavings, leaves, straw, kelp or pine needles. Processed or chemically created materials release toxic substances while burning. Never use any kind of plastic, styrofoam, or petrochemical-based product in your reduction chamber. Do not put anything into your reduction chamber unless you're sure of what it is and where it came from.