



# Combustion Safety, Inc.

The Fuel-Fired Equipment Experts

## Natural Gas Line Purging Safety is Not an Accident!

Natural gas accidents related to purging and equipment start-up are a common cause of death and injuries. These kinds of accidents cost tens of millions of dollars annually.

Our firm has representation on three national code committees where we help to write the rules for combustion equipment safety. We have many years of experience in purging natural gas systems and safely starting up equipment.

### When to Call

**Design:** Our licensed professional engineers can provide expertise on the design and layout of the gas lines from the size of the lines, how to hang them, where blinds and valves would be located, purge points, and even pressure control and regulation.

**Pressure Testing:** Our staff identifies the proper pressure to hold, how long its to be held, how the system is to be configured (the needs for blanks, where valves should be, etc.), and then we certify that the system did or did not hold. Our staff will work with insurance brokers, mechanical contractors, large clients, large engineering firms and owners trades to find leaks using a variety of high tech tools. Our efforts usually cut the time that the project would take while providing a safe work environment.

**Gas Reintroduction:** Many different techniques are used to assist in displacing the nitrogen with natural gas. This process can be very tricky since LEL meters max out when the gas is at 4.3% by volume. This is where gas will first ignite in most cases but not necessarily in a burner. Our firm understands what concentrations are required for smooth safe light offs and how to make these happen. Besides issues surrounding natural gas hazards they also don't understand how dangerous some inert gasses can be.

**Start-up:** The start-up of equipment after repairs can be an especially treacherous time and is in fact when most accidents happen. Many contractors do this so infrequently that they don't understand the unique challenges and techniques associated with a post piping alteration equipment start-up.

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### How We Can Help

Our firm provides the materials, resources and expertise to start up natural gas piping systems and equipment in a safe manner. We offer a turn key service that focuses on this one part (the natural gas systems) and makes sure that this work is done safely, meets the project objectives, and is well documented.

### We Provide Peace of Mind

#### For more info contact:

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[www.combustionsafety.com](http://www.combustionsafety.com)

[www.PurgeSafe.com](http://www.PurgeSafe.com)



### We have many ways to help

#### Training

Webcast

On site

#### Equipment and Tools

Testing trees

Gauges

Hoses

Fittings

Purge point assemblies

Blanks and blinds

Flange spreaders

Gaskets and bolt sets

Flanges

LEL meters

Pipe labels

Pipe markers

Documentation forms

Chart recorders, pens, paper

Gas valves (plugs/ball)

Locking handled gas valves

Locking fixtures

Plug valve sealant guns

Leak checking

(electronic and liquid based)

#### Support/Start-up Services

How much nitrogen?

Where to get nitrogen

Check state & local codes

Gas "as built drawings"

Site supervision

What pressure to test at?

Turn key project certification

Third party validation

Leak finding/documentation

Equipment start-up

