

# STICO / STIR

## Emergency responses

---



---



---



---



---



---

1

### Carbon Monoxide alarm

DOMESTIC CO ALARM INDICATES 40 PPM



CO IS CAUSED BY INCOMPLETE COMBUSTION OF FOSSIL FUELS

- Sources of CO**
- Gas Appliances
  - Car in garage
  - Oil burner
  - Exterior gas heaters
  - Fireplaces
  - Wood burning stoves

---



---



---



---



---



---

2

### Carbon Monoxide alarm

**Investigate**



- Ask the occupants:**
- Is anyone feeling sick
  - Where is the detector
  - What appliances were running?
  - Was the car on in the garage?

---



---



---



---



---



---

3



### Do you smell gas?



---

---

---

---

---

---

---

---

7

### Gas Odor

Multi - gas Meter



TIFF



---

---

---

---

---

---

---

---

8

### Properties of natural gas

- Odorless
- Odorized for domestic use
- 2/3 the weight of air
- Flammability range = 5-15 %
- Odor can be scrubbed out by sand and dirt



---

---

---

---

---

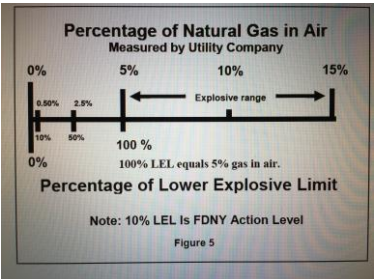
---

---

---

9

### Flammability Range




---

---

---

---

---

---

---

---

---

---

10

### Actions



- Locate the source of the leak
- Eliminate sources of ignition
- Shut off the source
- Meter for flammability range
- Vent if necessary
- Always use two meters

---

---

---

---

---

---

---

---

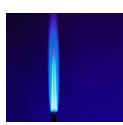
---

---

11

### Ignition sources

- Phones
- Door bells
- Pilot lights
- Electrical switches
- Open flames
- ?????




---

---

---

---

---

---

---

---

---

---

12

### Don't be the ignition source



Is your radio and flashlight safe to use in an explosive atmosphere?



---

---

---

---

---

---

---

---

13

### Location of shut offs



- At the appliance
- At the meter
- In a multiple dwelling where it enters the building
- Curb valve
- Street valve



---

---

---

---

---

---

---

---

14

### Electrical odor

- Possible sources**
- Defective outlet
  - Defective appliance
  - Computer equipment
  - Florescent lights
  - Fish tank



---

---

---

---

---

---

---

---

15

### Electrical odor

**Investigation**

Use TIC and your nose  
Ask the homeowner questions  
to assist in the investigation  
Take your time and find the  
source

**Good starting point**



Look for tripped breakers  
or blown fuses

---

---

---

---

---

---

---

---

16

### Electrical odor



How do you determine which ballast is bad?

---

---

---

---

---

---

---

---

17

### Puff back



- Shut down burner
- Location of shut offs
- Shut down fuel supply
- Vent the building
- **Monitor for Carbon Monoxide**



---

---

---

---

---

---

---

---

18

### Signal 13 Automatic alarm



- Read the panel
- Investigate at the location indicated
- Look for the steady red light on the detector
- Reset the alarm
- Ensure it holds
- Listen to employees

---

---

---

---

---

---

---

---

19

### High pressure gas leak




---

---

---

---

---

---

---

---

20

### High pressure gas leak



- Notify gas company
- Notify PD
- Eliminate sources of ignition
- Evacuate the area
- Meter readings in surrounding structures

---

---

---

---

---

---

---

---

21

Low pressure gas line



- Do not touch or bend a leaking plastic gas line
- Static electricity
- Possible ignition source

---

---

---

---

---

---

---

---

22

WIRES BURNING IN STREET




---

---

---

---

---

---

---

---

23

WIRES BURNING IN STREET



- Notifications:
- Gas
- Electric
- PD
- Secure the area
- Check effected structures

Would you leave PD @ the scene?

---

---

---

---

---

---

---

---

24



Metallic paint?



Seven horizontal lines for writing notes.

25

Electrical manholes and Transformers



Seven horizontal lines for writing notes.

26



Seven horizontal lines for writing notes.

27

### Manhole fire

**Engine**

- Hook up to hydrant
- Precautionary lines?
- Fog nozzle?
- Do not operate into man hole unless requested by utility

**Truck**

- Check adjoining manholes
- Check surrounding properties for:
- Extension
- **Carbon monoxide**
- Secure the area

**Maintain situational awareness !!!!**

28

---

---

---

---

---

---

---

---

---

---

### Water main Break



29

---

---

---

---

---

---

---

---

---

---

### Water main Break

**Actions**

- Isolate the area
- Check surrounding structures

**Notifications**

- **Water company**
- **Gas**
- **Electric**
- **Steam ?**
- **PD**

30

---

---

---

---

---

---

---

---

---

---

### SELF CLEANING OVEN FIRE



- *Has the fire extended from the oven?*
- *Normally an expensive appliance*
- *You will not be able to unlock the oven door*
- *Can you shut off the gas or electric to the appliance?*
- *Vent the house*

---

---

---

---

---

---

---

---

31

### Sprinkler activation




---

---

---

---

---

---

---

---

32

### Sprinkler activation

**Notifications**

- *Fire marshals*
- *Building owner*
- *Police for security*

**Actions**

- Shut down system
- Check exposures for damage (floor below)
- Shut down effected electrical
- Change the head????
- Issue violation to restore system & maintain fire watch




---

---

---

---

---

---

---

---

33

### Control valves

OS & Y



Butterfly



34

---



---



---



---



---



---



---

### Oddball Odors

- Rotten Eggs
- Baby nipples
- Food on the stove
- Sewer gas



35

---



---



---



---



---



---



---

### Questions, Doubts or Comments



36

---



---



---



---



---



---



---