

# Flammable Gas Release / Outage

---

Flammable gas leaks, with odor in the building(s), may occur and bring danger of explosion. Natural gas leaks will often be outside because most gas lines are outside the buildings. Natural gas is mixed with Mercaptan so it has an odor similar to rotten eggs. Hazards include pressure changes, uncontrolled escaping gas, or fire or explosion near a pipeline or other danger to the gas system.

## **Updated**

August 9, 2011

## **Source**

U-M Plant Operations

MichCon

## **More Information**

<http://www.plantops.umich.edu/>

<http://www.dteenergy.com/>

<http://www.oseh.umich.edu/pdf/PIPP.pdf>

<http://www.oseh.umich.edu/pdf/ContractorSafetyRequirements.pdf>

## **Prevention / Mitigation / Preparedness – Flammable Gas Release / Outage**

Establish a three deep system of personnel located at the building and provide training on how to recognize a release and what action to take.

Establish a building incident response team / floor marshal system and train accordingly.

Determine how information on the event will be obtained and then delivered to building occupants

Contact Plant Operations (734)647-2059 to ensure gas valve and lines are maintained and in good working condition.

Identify and document main gas shut-off valves.

Loading docks should have barriers installed to prevent vehicle collisions with meters and piping.

Identify all systems and equipment supplied with natural gas; document procedures for emergency shutdown and relighting.

Label all natural gas lines

Natural gas is extremely flammable, and easily ignited by heat, sparks or flames.

- It will form explosive mixtures with air.
- Vapors are lighter than air and will migrate up into the atmosphere.
- Vapors may travel to source of ignition and flash back.
- Vapors may cause dizziness or asphyxiation without warning.

Do not store any flammable materials in or near the gas appliances. (Especially, do not use the oven as a storage area for anything.)

Never use your oven or stove top to heat your apartment / office or dry your clothes

Keep the area around the furnace and water heater clear.

Never cover fresh air vents that supply air to your appliances

Designated areas should be identified for employee assembly in order to ensure that all employees can be accounted for following an evacuation

Safety considerations for the gathering areas should anticipate the potential for having to evacuate the facility grounds following an incident involving either an on-site or off-site hazardous material incident.

## **Response – Flammable Gas Release/ Outage**

Activate your building floor marshal system to ensure all persons in the building are in a safe location. Evacuate if needed.

### **If The Gas Leak Is Inside**

Contact 911 for needed assistance. Assess the situation and determine appropriate actions.

Open exterior windows to vent room/building

If the odor is very strong, do not use your telephone-- leave and report it from another telephone.

Do not turn on or off any electric device including light switches (arc prevention)

Utilize campus evacuation procedures to evacuate the area/building upon direction of the fire department or DPS.

Upon their arrival, direct the fire department and gas company to the location of the main and auxiliary gas shutoff valves.

Render first aid to those who need assistance

Do not re-enter the affected area until authorities advise it is safe to do so.

### **If The Gas Leak Is Outside**

Contact 911

Move upwind of gas odor.

If you are outside, return to a safe building.

Keep exterior windows and doors closed as much as possible

Upon their arrival, direct the fire department and gas company to the location of the main and auxiliary gas shutoff valves

To ensure that all first responding agencies are directed to the proper location designated individuals should be assigned to meet them upon their arrival and guide them to the location.

Keep everyone assembled in an orderly manner. Remain in safe location until the authorities give the “all clear” to re-enter the affected area.

## **Recovery – Flammable Gas Release/Outage**

Plant Operations will coordinate the operation of gas restoration to the affected building:

When the supply gas has been cut off to an area, the gas should not be restored to the affected area until the individual gas services in a building have been turned off.

In restoring service on the University campus to an affected area, all gas piping and meters must be purged and appliances re-lighted. Never turn gas on at a meter unless you have access to ALL appliances or equipment on the piping.

A complete record of the incident, including service restoration and drawings, if necessary, must be kept on file.

Continue to ventilate the area if able to do so safely

Do not light matches, lighters, etc, or turn on any device that may cause ignition (i.e., light switch) until authorities give “all clear” to do so.

Work with the University OSEH department (734)647-1143 for needed air monitoring / clearance activity.