Purpose: Establish standard response and course of action for reported natural gas and propane (LPG) exterior investigations.

Natural Gas

- Natural gas in its *natural state* is colorless, tasteless, and odorless.
    - Mercaptan is added to give natural gas a unique odor (rotten eggs)
- Natural gas is composed of approximately 85-95 percent methane gas.
- Natural gas is non-toxic, but it may displace oxygen and can result in asphyxiation in confined spaces.
- Natural gas has a specific gravity of 0.6
    - When contained:
        - Natural gas will rise to the upper levels of a structure
    - When not contained:
        - Natural gas will dissipate into the environment
- Natural Gas has an LEL of 5%.
- Natural Gas has an UEL of 15%.

Propane (LPG)

- Propane is a three-carbon alkane gas.
- Propane is a by-product of natural gas.
- Propane has a specific gravity of 1.50
    - When contained:
        - Propane will pool in lower areas of the structure
    - When not contained:
        - Propane will tend to travel slowly, low to the ground following wind direction and geographic topography.
- Propane has an LEL of 2.1%.
- Propane has an UEL of 10%.

Policy: All reports of an odor of either natural gas or LPG with no apparent source shall receive a "Single Company Assignment" per **SOG #3651** ***Response to Incidents***.

Procedure:

- Notify National Grid Gas
- When possible approach scene from upwind/uphill direction.
- Avoid staging apparatus over manhole covers and storm grates
- Investigate a potential source of the report utilizing gas detection equipment (METER) and any other means deemed appropriate.
- If the presence of natural gas is confirmed:
    - METER
    - Odor
        - Request ETA from National Grid Gas (if not on-scene) and consider:
            - Evacuating the immediate area
- If the presence of LPG is confirmed:
    - METER
    - Odor
        - Try and determine the source and quantity of LPG and secure the leak
        - Notify the owner/supplier of LPG
        - Consider deploying methods to dissipate:
            - Fog stream