

Operations and Maintenance Procedures

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O&M Section # 18.4	SCUD Task # 230
Section: Emergency	Revision Date: 09/06/16

Blowing Gas Investigation

SCOPE AND PURPOSE

This procedure is to provide personnel performing blowing gas investigations with the necessary procedures for prompt and effective response and to protect life and property as required by §192.615.

DEFINITION

Blowing gas is defined as a broken gas line that is blowing or a relief valve that is relieving. A gas odor or leak call where digging or grading is being performed will be investigated the same as a blowing gas call.

RESPONSIBILITY

The Service Department Supervisor, Underground Maintenance Supervisor, Measurement Supervisor or other designee, is responsible to ensure that blowing gas investigations are performed as soon as possible and as described in this procedure. Employees with emergency lights and a siren may be required to drive emergency traffic in response to a blowing gas call.

PERSONNEL SAFETY

- During emergency driving, drivers have a higher standard of care to provide to the general motoring public and must make every attempt possible to provide due regard for the safety of themselves and others. Follow SCUD Procedure #EMER005 - Driving Emergency Traffic
- *While approaching the scene*; park far enough away so you do not enter a hazardous gas atmosphere with your vehicle.
- Observe the area for possible ignition sources.
- Extinguish ignition sources if possible.
- Establish a safety perimeter to prevent bystanders and unauthorized personnel from entering the area.
- Use the required PPE (personal protection equipment) and safety equipment.
- When in a gaseous atmosphere above 2% or near blowing gas, turnout gear must be worn.
- Fire extinguisher/s must be off the truck and readily accessible or the fire department on site.
- Prevent welding or cutting on a pipeline containing a combustible mixture.

EQUIPMENT AND MATERIALS

- Combination - Combustible Gas Indicator (CGI)/Electronic Gas Detector (EGD)/Carbon Monoxide Detector
- Combustible Gas Indicator (CGI) - Shows gas readings in percent (%) gas, LEL or UEL
- Communication method (Radio, Cell Phone, etc.)
- Valve and pipe wrenches.
- Squeeze off tools
- Static suppression
- Other equipment, tools and materials as needed

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OPERATOR QUALIFICATION

This activity is a covered task under the Operator Qualification Plan and may only be performed by or directed and observed by an individual who is currently qualified to perform blowing gas investigations. Refer to the OQ Plan for specific qualification requirements.

MAINTENANCE & OPERATION OF INSTRUMENTS

Each instrument used for gas detection and evaluation shall be operated in accordance with the manufacturer's recommended operating instructions.

CALIBRATION OF INSTRUMENTS

Each instrument used for gas detection and evaluation shall be calibrated in accordance with the manufacturers recommend calibration instructions.

INSTRUCTIONS

I. Relief Valve Relieving

- Contact the Measurement Department supervisor and or the measurement department.
- **Do Not** turn off the relief stack (unless directly instructed to by the measurement department). ***This could over pressure the system downstream.***
- Secure and monitor the scene and wait for the measurement department to arrive.
- Use a CGI (Combustible Gas Indicator), when available, to determine a gas free area and keep everyone back approximately 50 ft. from the gas free area if possible.

II. Broke Gas Line

A. During Working Hours

- Caller or Dispatch will call 911
- All Service Department, Underground Maintenance and Measurement & Control employees must call in, over the radio, there location and whether or not they are responding. When available, 4 employees need to respond, with at least 3 employees having turnout gear.
- The closest available outside operations employee will call in, over the radio, their location and respond if possible, to the incident to secure the scene, observe for potential ignition sources and assess the situation.
- Use a CGI (Combustible Gas Indicator), when available, to determine a gas free area and keep everyone back approximately 50 ft. from the gas free area if possible.
- **Do Not** suit up until the scene is secure and backup has arrived. The supervisor, foreman, or senior employee will not suit up, if possible, and will monitor, secure and coordinate the scene. The Fire Department may assist in securing and monitoring the scene.
- **Do Not** work the broke line alone. The scene must be kept secure. Sufficient Fire or SCUD personnel must be present before attempting to stop the gas flow.

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B. After Working Hours

- The SCUD On-Call employee should verify that 911 has been called. If not, call 911 and request that the Fire Department respond.
- Verify that either the Underground Maintenance Supervisor, Service Department Supervisor, Measurement & Maintenance Supervisor, Director of Operations or one of the personnel in the Service Department have been notified. If available, 4 employees need to respond with at least 3 having turnout gear with them.
- The first one on the scene must secure the scene and observe for potential ignition sources.
- Use a CGI (Combustible Gas Indicator), when available, to determine a gas free area and keep everyone back approximately 50 feet from the gas free area.
- **Do Not** suit up until backup arrives. The supervisor, foreman, or senior employee will not suit up, if possible, and will monitor, secure and coordinate the scene. The Fire Department may assist in securing and monitoring the scene.
- **Do Not** work the broke line alone. The scene must be kept secure. Sufficient Fire or SCUD personnel must be present before attempting to stop the gas flow.

C. Options For Stopping Gas Flow

Before turning any valves, consult either the Underground Maintenance Supervisor, Measurement & Maintenance Supervisor, Service Department Supervisor, Director of Operations or Service Department Personnel.

Before getting into a ditch or hole with blowing gas, you must get approval from either the Underground Maintenance Supervisor, Service Department Supervisor, Measurement & Maintenance Supervisor, Director of Operations or SR. VP of Engineering & Operations.

- **Option A:** - Isolate the break using valves, if loop fed.
- **Option B:** - Valve or squeeze off the feed to the break in a gas free area.
- **Option C:** - Build a bypass around the break and valve or squeeze off both sides of the break in a gas free area.
- **Option D:** Last Option – Stop the gas flow in the hole or ditch at the point of the break.

D. Gas Meters

See SCUD Procedure #EMER006 – Turn Off & Turn On Service

- All gas meters, that lost gas service due to the broke gas line or gas leak, must be turned off before the gas service can be restored.
- If the customer is not home after the gas line has been repaired and gas service restored, the meter must be locked off and a door hanger left explaining why the meter is off.

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- The location and meter numbers, (and address if available), must be written down and turned in to the SCUD dispatcher.

ABNORMAL OPERATING CONDITIONS

Below are a few possible AOCs:

- Ignition
- Traffic Accident
- Pedestrian and vehicle traffic
- Gas detection equipment failure
- A valve or meter stop that will not turn
- A valve or meter stop that is leaking.
- A valve that has no stops.
- A meter stop that is unable to be locked off.
- A valve or meter stop that is inaccessible.

REPORTING/NOTIFICATION

1. During working hours, the SCUD dispatcher must be notified when the gas is off. After hours, the available SCUD supervisor/management must be notified.
2. The location and meter numbers, (and address if available), must be written down and turned in to the SCUD dispatcher.
3. A Safety Checklist must be used and completed, when working with a SCUD gas line with gas on it, to make sure correct procedures and equipment are being used. The Safety Checklist must be attached to paperwork for the job.
4. Depending on what the call is, either a Damaged Pipe Report or Odor Report must be filled out and turned in to the SCUD dispatcher.

RELATED PROCEDURES

EMER003 - Outside Gas Leak Investigation
 EMER009 - Driving Emergency Traffic
 EMER006 – Turn Off & Turn On Service