Pipeline Safety/Regulatory FAQs

How large is the gas system?
The Charlottesville gas system currently provides service to an area that includes all of Charlottesville and portions of Albemarle County. It consists of 340 miles of main pipelines and 313 miles of service pipelines. Presently, Charlottesville Gas provides natural gas to 22,230 customers.

What materials are Charlottesville pipelines made from?
The vast majority of the gas system consists of high-density polyethylene (HDPE) plastic pipe (approx. 270 miles), with small areas of cathodically protected coated steel pipe (approx. 69 miles) and cast-iron pipe (approx. 1 mile).

What can cause a gas leak?
Gas leaks can occur due to line stress, manufacturer defects, corrosion, or by an excavator. The majority of leaks experienced by Charlottesville Gas are caused by 3rd party excavation damages as a result of not following required digging laws.

Who Regulates Charlottesville Gas?
Charlottesville Gas is regulated by the Pipeline & Hazardous Materials Safety Administration (PHMSA 49 CFR Part 192). Charlottesville Gas' policies and procedures, as well as documentation showing implementation are periodically audited by PHMSA.

What Programs are Audited by the Pipeline & Hazardous Materials Safety Administration (PHMSA)?
Every aspect of Charlottesville Gas' operations is required to be audited on a periodic basis. These programs include but are not limited to: Leak Survey Operations, Distribution Integrity Management Program (DIMP), Corrosion Monitoring (above and below ground), Operator Qualification Program, and Public Awareness. These programs are audited to verify that procedures are in place as well as to verify the continued and effective implementation of these programs.

What is Charlottesville Gas Doing to Monitor and Mitigate Leaks?
Charlottesville Gas proactively conducts leak surveys. The gas system's critical infrastructure is leak surveyed annually, which consists of the high-pressure pipelines between the Charlottesville Gas Transfer Station and the City limits, all gas mains on structures, and all cast iron pipelines. Additionally, an annual survey is conducted in areas with businesses, and where large gatherings occur. Examples of these areas include the Downtown Mall, University Avenue corridor, shopping centers, hospitals, and schools. The entire gas system is leak surveyed every three years, which is more frequent than a five year cycle required by law. Any leak found within the system is evaluated and assigned a level of severity. A leak that poses a threat to life, property, or the environment is immediately repaired.

What tools does Charlottesville Gas use to help detect gas leaks?
Charlottesville Gas uses a vehicle mounted Optical Methane Detector, sensitive to 1 part per million (ppm) at 10,000 measurements per second, that can drive down the street over every gas line. Gas employees also use handheld detectors that check lines from the street to businesses and homes. These detection methods occur on a continual basis of the entire gas system

What is the Charlottesville Gas Distribution Integrity Management Program (DIMP)?
A Distribution Integrity Management Program (DIMP) is required by the Pipeline & Hazardous Materials Safety Administration (PHMSA). This program requires Charlottesville Gas to identify and track all new and existing leak threats to the natural gas system. Examples of these threats include 3rd party excavation damages, aging infrastructure, or manufacturer defects in materials used within the system. These leak threats are then evaluated and ranked in order of severity. Once the threats are ranked, an Implementation Plan must be created to mitigate each threat individually. Additionally, performance measures must be put in place in order to periodically evaluate the effectiveness of the program. PHMSA periodically audits this program to ensure the DIMP, and the associated Implementation Plan, are effectively mitigating new and existing leak threats to the natural gas system.

When was the last time Charlottesville Gas' Distribution Integrity Management Program (DIMP) audited?
The last audit of the DIMP was conducted by the State Corporation Commission (SCC) in March 2019. After a thorough audit, the SCC found that Charlottesville Gas' DIMP, and the associated Implementation Plan, were properly addressing and reducing all leak threats within the gas system.

What is the Charlottesville Gas Operator Qualification Program and why is it important?
Charlottesville Gas is required to have an Operator Qualification Program to properly train gas employees in all aspects of natural gas pipeline installation. The typical Charlottesville Gas employee must satisfactorily pass over 40 Operator Qualification tests prior to being qualified to work on the Charlottesville Gas system. Depending on the type of qualification, these tests can occur annually, every three years, or every five years. These tests are designed to verify that each individual is qualified to work on the natural gas system in a safe and responsible manner.