Leaky Pipelines and Hidden Figures: How the District's Lack of Gas Leak Transparency is a Safety Concern

While gas pipeline leak repairs are on the rise, advocacy groups say not enough progress is being done to prevent potential gas explosions in D.C. neighborhoods before it's too late.

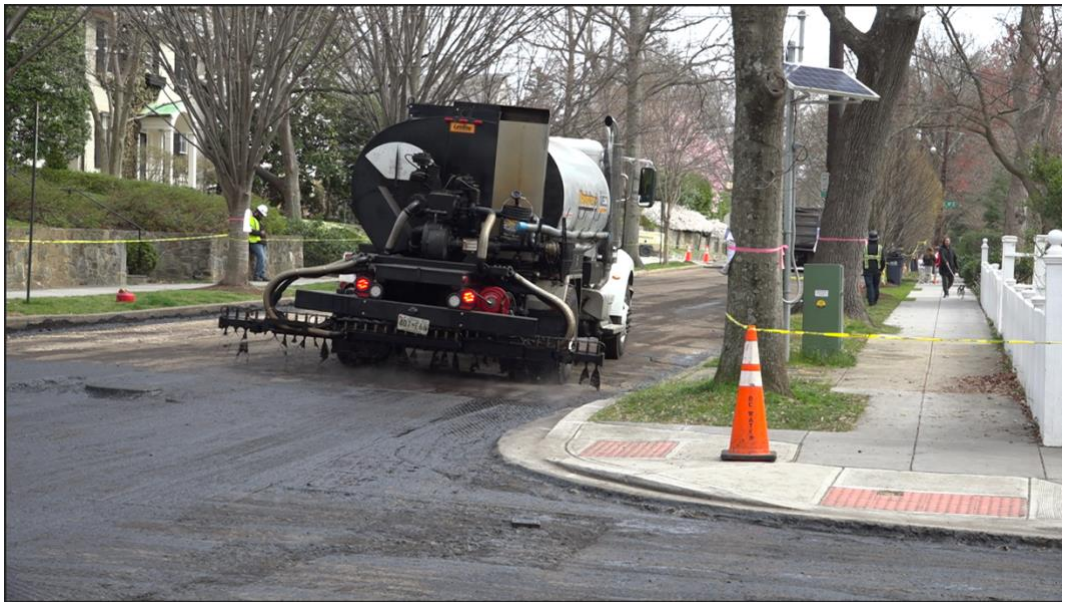
Pipeline replacement work in progress at the intersection of Hawthorne street NW and 45th street. The work is being done by Washington Gas as part of their PROJECTpipes program

At the intersection of Hawthorne street NW and 45th street, Washington Gas pipeline replacement is underway. It is one of many construction sites set up as the company works to replace 22 miles and 8,274 service lines in the D.C. area over the next four years.

To some residents in the area, including Susan Orlins, the concern is that the work is too loud. Orlins says she has become used to the commotion but, "The biggest effect, and this is always the case, is the noise," she says. She also said she was not aware of the start of construction until the work began.

Resident Richard Harris also notices the loud construction. But he believes the work is important. "The project seems like something we need to do. We need to tighten the gas lines in order to keep natural gas from being admitted into the air," he says.

What Orlins and Harris may not know is just how old and dangerous the gas pipelines running under their neighborhood could potentially be.



Sidewalks are roads are closed off for construction, while members of the community continue their lives around the roadblocks

Potential dangers of old pipelines

The pipelines running under D.C. pose a special danger to the community due to their status as distribution lines. Rebecca Craven, the Program Director of pipeline safety nonprofit, the Pipeline Safety Trust, says these lines are more likely to leak than rupture. And if the leaks find an ignition source right away or migrates through a pipeline to an enclosed space, like someone's basement, the gas can concentrate and become explosive.

Some of D.C.'s pipelines are over 60-years old and made of degrading cast-iron. Craven says cast-iron pipelines are dangerous because they are one kind of distribution line that can actually break in half, causing gas to escape at a faster rate.

"It is a safety concern both because of the explosive ability and also because it is pretty much everywhere in urban areas. Having an explosive medium in the middle of urban areas—it's a fairly obvious danger," says Craven.

Washington Gas has been in charge of gas pipelines in the D.C. area for 170 years. The company has created a program, titled PROJECT*pipes*, to systematically solve the cast-iron pipe issue for the next 40 years. But Craven is critical of their progress.

"Honestly, they are not replacing them very fast. Other jurisdictions and other operators have replaced many more miles in the last 20 years than Washington Gas," she says.

The company did not want to be interviewed on camera, but in a statement stated in part:

“Washington Gas work is prioritized based on risk models, and diagnostic and analytic tools that look at several factors, including the number of leaks on a section of pipe, as well as the material and age of the pipe, among others.

As far as the length of time it takes to complete a project in a particular area, a number of factors go into determining this, such as: length of project, size of pipe, location, customer availability, weather and possible permit restrictions.”

Gas reports and leaks

According to the law, Washington Gas is not required to disclose leaks to the public, only to government agencies. The Pipeline and Hazardous Materials Safety Administration, an agency part of the Department of Transportation, keeps track of the most serious pipeline incidents which “. . .involves a release of gas that results in one or more consequences: death or injury, estimated property damage of $50,000, gas loss of three million cubic feet or more, or an event that results in the emergency shut down of a gas shortage facility.”

11 gas leak incidents were reported to PHMSA from 2000-2019, excluding other leaks such as the 2019 gas leak near the Navy Yard Metro and another across from the White House because they did not reach any of the criteria to be referred to as an “incident”.

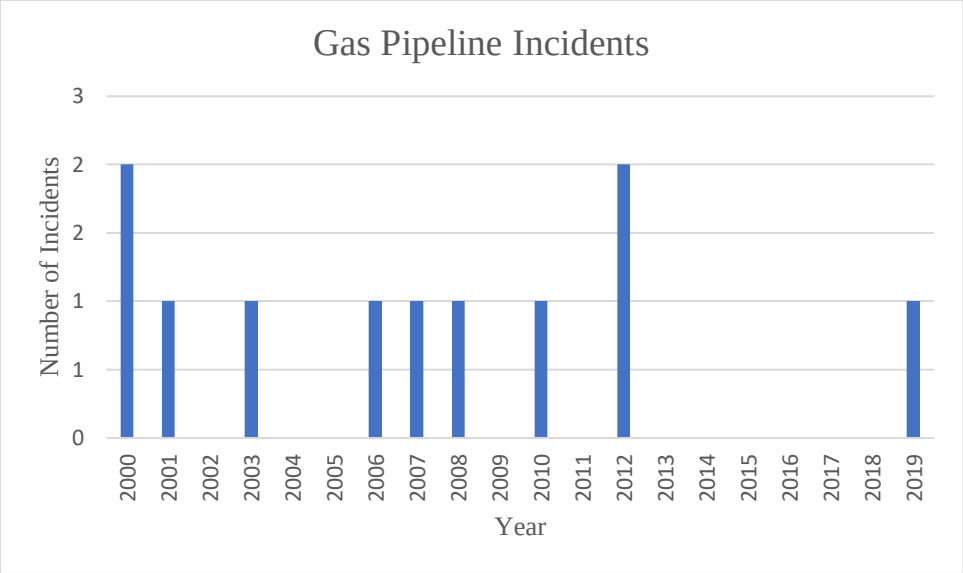


Figure 1: Gas pipeline incidents in D.C. from 2000-20019. Data obtained from PHMSA database

Another document by PHMSA detailing gas leak management in D.C. showed the number of gas distribution safety leaks and repairs is increasing. In 2010, 434 leaks were repaired and in 2019, there were 776.

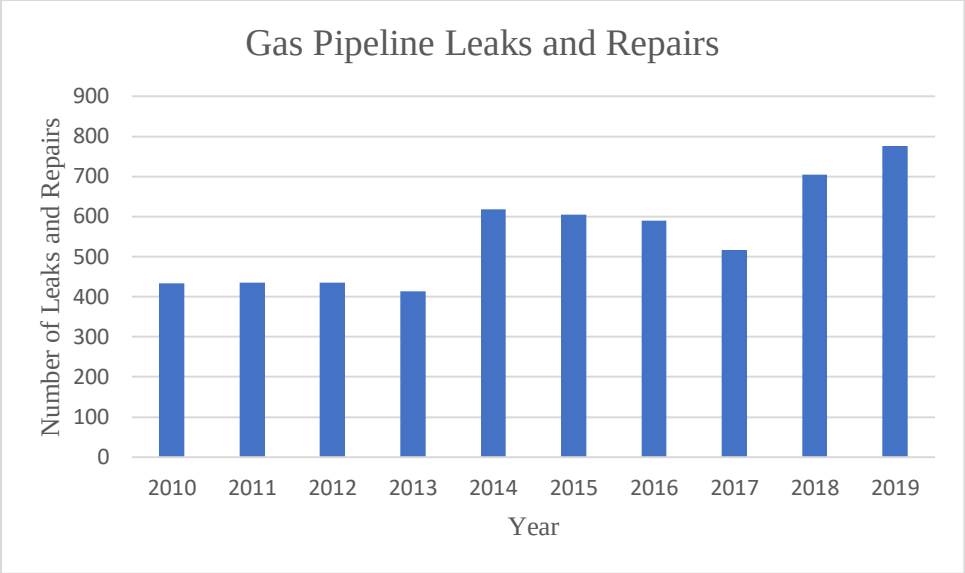


Figure 2: Gas pipeline leaks and repairs from 2010-2019. Data obtained from PHMSA database

While the number of leaks and repairs are increasing, another PHMSA document about probable violations occurred on pipeline sites documented how D.C. had only 50 probable violations in total from 2001 to 2014, until 2015 when the number spiked to 163.

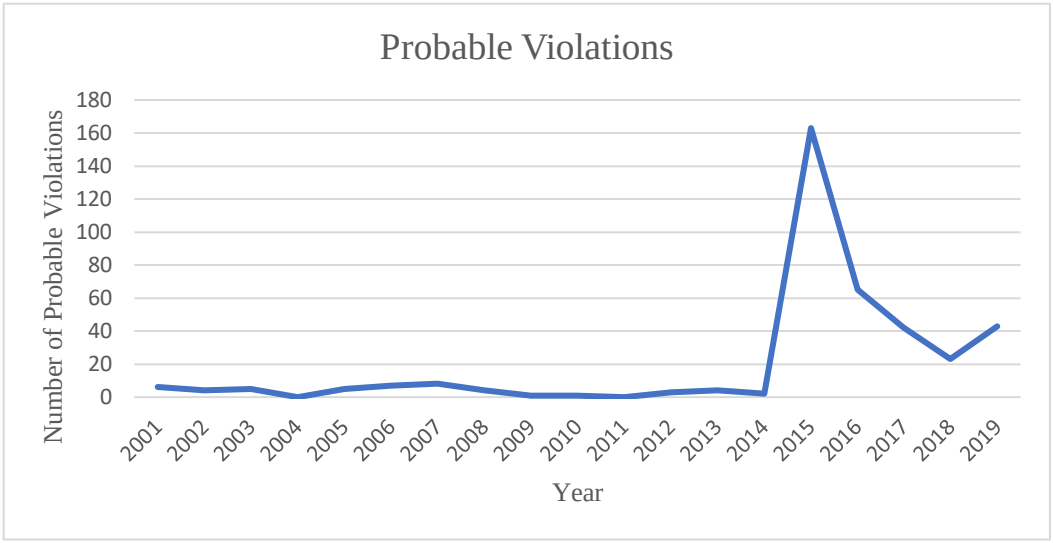


Figure 3: Probable violations from 2001-2019. Data obtained from PHMSA database

Accountability and vigilance

Washington Gas is not forthcoming with their gas leak information, besides for a map on their website marking down areas where gas pipeline repair work is being done. Craven reveals that this behavior is unusual, as other operators in the Northeast, such as National Grid, provide maps of all active leaks in their service areas, whether they are considered to be hazardous or not.

Considering how other gas operators are forthcoming with their information, Craven says, “It can be done. The operator clearly has those geographic locations because they have to keep track of them, so I don’t see a reason why they wouldn’t make those public. It helps in turn of accountability and making the public aware that yes, they know about it, yes, it is on a list, it will get fixed at some point.”

No one has been injured by a gas pipeline incident in D.C. since an injury caused by excavation damage in 2003, but Craven says how everyone should still be concerned about pipeline prevention and safety.

“Even though no one has been hurt lately—I mean that is obviously a great thing, but it is one of those constant vigilance things. It has to be sustained,” says Craven.