COVENTRY — Sixth-grader Olivia Murphy eagerly awaits the time when her social studies class turns to the Revolutionary War. 

"She's ready to share what she has learned," said Angela Murphy, her mother, who taught Olivia the period with her parents, Angela and Edward Murphy of Sandown, New Hampshire. "Already, at her peers learn about the family's travels, such as this weekend's trip to embark on a path of social justice." 

Richards, Class of 1986, recalled arriving in Providence having bought a huge suitcase of A-line woolen skirts, which her mother thought would suit her for a New England Ivy League university. But this was the late 1970s, an era of bell-bottom jeans. 

"The potential investors were advised to invest sooner rather than later to take advantage of visa rules that were right under the Trump administration," said Abdul, one speaker. "Invest early, and you will invest under the old rules, and if you invest in Kushner properties, so can you."
How gas became R.I.'s natural choice

As of 2016, there were 133 miles of gas mains installed in Rhode Island that were installed before 1900. The majority of Providence.

Pipes

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Vintage natural gas mains

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Gas pipes installed before 1970

Providence Gas Co. incorporated in 1847, It built a coal gasification plant on Pike Street, most on the southern edge of Benefit Street, and the next year, Providence became the 25th city in the U.S. to be illuminated by gas.

Pipelines

Although wells that tapped natural gas were in operation in Rhode Island in the 18th century, there were no big transmission lines built to carry it. By 1848, some small companies in other parts of the state — Newport Gas Light, Valley Gas, Bristol and Warren Gas and others. It wasn't until 1851 that Rhode Island's first gas company was formed.

As the demand for gas increased, the delivery methods also evolved. By 1862, the Providence Gas Co. had more than 100,000 customers.

The modern natural gas supply system is divided into three parts:

1. The interstate transmission system that runs over long distances and brings gas from points of extraction in one part of the country to areas of demand in other parts.

2. The medium-sized distribution mains that can serve a single line in small communities.

3. The small service lines that connect individual homes and businesses.

Two major pipelines bring gas to Rhode Island:

1. The Algonquin Gas Transmission, which was acquired by Eversource after its merger with Spectra Energy.

2. The Tennessee Gas Pipeline, which supplies gas to the state's 350,000 and 2,447 miles of service lines that connect individual homes and businesses.

Steel gas mains

Pipes were typically made of cast iron, steel, or concrete. Today, plastic and coating are common.

Gas leaks aren't just a safety hazard. They also contribute to climate change and global warming.

How much do they cost consumers?

A report from the office of U.S. Sen. Edward Markey, a Massachusetts Democrat, found that the amount of money that American households pay for gas that leaks into the atmosphere could be as high as $100 million. The report, which was released in 2012 at a cost of $28 billion.

In 2010, according to the report, 17% of the nation's gas mains were made of cast iron, 28% of steel and 55% of pipe.

That's the equivalent of 950 cities and towns. An estimated 650 miles of bare steel pipeline are in use, according to a study conducted by the National Resources Defense Council.

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Fatal Colorado blast leads to call to map gas lines

By Dan Elliott and Kristen Wyatt   

Two were killed April 17 in explosion caused by leak in severed pipeline

DENVER — Colorado Gov. John Hickenlooper said Wednesday that the state should have comprehensive maps of all gas lines to help prevent a repeat of a deadly April blast caused by a leak on an old, severed gas line.

Hickenlooper said more work needs to be done, and the legislature is unlikely to pass this year because the session is almost over.

“[But] I don’t think it’s unreasonable for that to be public information,” he said.

Hickenlooper spoke a day after investigators announced that an April 17 explosion that killed two people was caused by odorless, unrefined gas leaking from the severed underground pipeline.

“The line was believed to be abandoned but was still connected to a gas well with valve turned to the open position, investigators said.

“The underground flow line was 1 inch in diameter and had been severed within 10 feet of the home, officials said.

Investigators said they do not know when or how the leak was cut.

State regulations require abandoned lines to be disconnected and capped. Investigators have said they do not know why that was not done.

With 14,000 active oil and gas wells, Colorado has thousands of similar lines, known as flow lines. They carry gas from a well to a storage tank or other collection point.

The Colorado Oil and Gas Conservation Commission, which regulates the industry, said it does not have complete records of the locations.

“Some of these old wells that are abandoned, I’m not sure if people even know where these pipes are,” said Hickenlooper, a Democrat and former petroleum geologist.

“[We’ll try to] go to every data source we can,” he said.

He said it could take two years to compile the data.

Immediately after investigators announced their findings about the explosion, Hickenlooper ordered inspections of all flow lines within 1,000 feet of occupied buildings.

The order, issued by the Oil and Gas Conservation Commission, requires energy companies to give the state the GPS location data on their flow lines. A commission spokesman did not immediately respond to questions about whether Hickenlooper would be able to compile the data.

A 2007 survey by the federal pipeline safety administration found that Rhode Island had the highest percentage of leak-prone pipes in the nation, with 52 percent made of cast-iron or unlined steel. Leaks were widespread, and now, they’re on the rise. From 2005 to 2008, the system averaged 1,400 leaks per year, 50 percent higher than the average of 900 per year between 1991 and 2004, according to a National Grid filing to the Public Utilities Commission in 2008.

The number of leaks caused by corrosion has dropped by more than a third. (Both the rate of leaks per pipeline mile and the number of hazardous leaks have dropped since 2005.)

But the number of leaks in National Grid’s system has dropped slowly, replacing 25 miles of pipeline on average in each of the first three years, but in the last five years, the annual average has been 15 miles.

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To put those numbers in perspective, under a 2001 filing with the commission, Providence Gas Company committed to replacing seven miles of pipes annually. National Grid’s work has concentrated on the oldest parts of the system, in Providence, Woonsocket, Pawtucket and Newport.

 материал с сайта providencejournal.com:

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