

US gas pipeline accidents pose big, unreported climate threat



Last October, an Idaho farmer using a backhoe punched a hole into a 22-inch pipeline buried under a field, sending more than 51mn cubic feet of natural gas hissing into the air.

While the incident on Williams Companies' Northwest Pipeline was big, it was no anomaly along the roughly 3mn miles of natural gas pipelines crisscrossing the US.

Accidental pipeline leaks – caused by things like punctures, corrosion, severe weather and faulty equipment – happen routinely and are a climate menace that is not currently counted in the official US tally of greenhouse gas emissions, according to a Reuters examination of public data and regulatory documents.

Pipeline mishaps unintentionally released nearly 9.7bn cubic feet of gas into the atmosphere between 2019 and late 2023,

according to a Reuters examination of incident report data maintained by the US Pipeline and Hazardous Materials Safety Administration (PHMSA).

That is the climate equivalent of running four average-sized coal-fired power plants for a year, according to an Environmental Defence Fund (EDF) online calculator.

Those emissions are currently not included in the nation's official greenhouse gas count because federal rules exempt large, unexpected leaks, and mainly only capture emissions from regular operations, according to the US Environmental Protection Agency (EPA).

The Biden administration aims to change that as early as next year under a set of rules proposed by the EPA to crack down on methane emissions from the oil and gas sector, and which would punish emitters with fees of \$900 to \$1,500 per metric tonne when they exceed a certain threshold.

Reuters relied on PHMSA data and interviews with researchers, company officials and regulators to provide new detail on the scale of greenhouse gas emissions from accidental pipeline leaks that could soon be added to the official greenhouse gas tally, as well as the potential cost to companies under the looming fees.

"I don't think the public or regulators have realised just how much methane has been lost from pipeline infrastructure," said Kenneth Clarkson, a spokesperson for the Pipeline Safety Trust, a non-profit watchdog. "Newer studies have come closer to capturing the true amount of emissions and this has started catching the attention of policymakers."

Accidental leaks reported from PHMSA by the five biggest US pipelines between 2018 and 2022 showed that those incidents could have significantly increased the facilities' overall reported emissions, potentially resulting in fees of up to \$40mn under the proposal.

The operators of the five biggest pipelines include Berkshire Hathaway, TC Energy and Kinder Morgan.

Berkshire Hathaway's 14,000-mile Northern Natural Gas pipeline, for instance, reported unintended releases of

natural gas to PHMSA during the five year period that were the equivalent of about 30% of the methane the facility reported to EPA during the period.

Williams, the owner of the pipeline that leaked in Idaho in October, reported unintended gas releases that amounted to about 15% of the methane it reported to EPA.

Berkshire Hathaway and Williams did not respond to requests for comment on Reuters' analysis or the EPA proposal.

TC Energy said reducing its methane emissions was a critical part of its business, but did not comment directly on the EPA proposal or Reuters' analysis.

Kinder Morgan said it does not exclude unintended emissions from its reports to EPA, even though it is not required to include them.

The Biden administration unveiled its batch of final rules aimed at cracking down on US oil and gas industry releases of methane at the United Nations COP28 climate change conference in Dubai in December, part of international efforts to curb releases of the gas.

Piped natural gas is typically around 90% methane, a greenhouse gas which is several times more potent in warming the planet than carbon dioxide during the relatively short time it remains in the atmosphere.

The new policies would ban routine flaring of natural gas produced by newly drilled oil wells, require oil companies to monitor for leaks from well sites and compressor stations and establishes a program to use third party remote sensing to detect large methane releases.

The new reporting requirements for large leaks, meanwhile, are likely to be finalised later this year and take effect in 2025, the EPA told Reuters.

Under the proposal, companies will be required to report abnormal leaks of about 500,000 cubic feet of pipeline gas or more starting next year, a threshold significantly lower than what PHMSA requires.

The new reporting rules would also apply to big, unplanned emissions from other parts of the oil and gas industry, such

as drilling operations, EPA said.

The fact that some large methane leaks have never been accounted for in US greenhouse gas inventories underscore concerns among environmental groups and scientific researchers that emissions from the fossil fuel sector have been vastly understated.

An Environmental Defense Fund analysis last year, for instance, estimated US pipelines leak between 1.2mn and 2.6mn tons of methane per year, or 3.75 to 8 times more than EPA estimates.

The EDF figure includes not just large mishaps but also pervasive smaller leaks on tiny distribution lines.

“The failure of EPA to account for these large events is a big driver of that discrepancy,” Edwin LaMair, an EDF attorney who focuses on oil and gas regulations, said in an interview.

The Interstate Natural Gas Association of America, a pipeline industry trade group, said most incidents reported to PHMSA relate to safety systems operating as intended.

The group also pointed to an EPA analysis showing that most transmission and storage facilities may not meet the 25,000 metric tonnes of carbon dioxide equivalent per year emissions threshold required to pay the methane fee.

The EPA analysis said, however, that it was not yet possible to accurately estimate “the magnitude of emissions that will be reported and which facilities will report those emissions.”

The pipeline industry has also said in public comments to the EPA about the new reporting rules that they could lead to double-counting of some emissions. – Reuters