

# 'Pipelines blow up and people die'

After a series of deadly accidents, Congress created an office to oversee the nation's oil and gas pipelines. A decade later, it's become the can't-do agency.

By Elana Schor and Andrew Restuccia

4/21/15 5:43 AM EDT

<http://www.politico.com/story/2015/04/the-little-pipeline-agency-that-couldnt-117147.html>

On June 10, 1999, a few days after his high school graduation, Liam Wood unexpectedly got an afternoon off work and decided to go fly-fishing on a creek near his hometown of Bellingham, Washington. About 100 miles away, operators missed the signs of a pressure spike in the 16-inch gasoline pipeline that crossed the stream in Whatcom Falls Park.

The pipe ruptured at a point where, several years before, a backhoe had accidentally struck and weakened the 50-year-old iron. Hundreds of thousands of gallons of gasoline began to spew into the creek near where Liam stood, staining the water pink.

It took an hour for control room computers to register an alert. Police began to evacuate the park, but Liam was already dead. Overcome by fumes, the 18-year-old had fallen unconscious into the water and drowned.

Then two 10-year-old boys playing in the park flicked a lighter they'd been using to set off fireworks, igniting the gasoline. The fireball set dozens of acres ablaze in a towering black cloud that could be seen in Vancouver, more than 50 miles away. The two boys died the next day, succumbing to burns over more than 80 percent of their bodies.

The ensuing public outrage revealed gaping holes in pipeline safety regulations. The pipeline company had failed — but clearly, so had federal authorities who were supposed to be keeping watch. At the time of the Bellingham disaster, pipeline operators were not required to inspect the inside of their pipes or install valves that would automatically shut after a rupture. Government auditors later found that the federal agency in charge of pipeline safety was a dismal failure at implementing more stringent regulations, in part because it deemed the rules “too costly for the pipeline industry compared with the expected benefits.”

Six months after the blast, the head of the National Transportation Safety Board, the independent agency investigating the Bellingham explosion, strode into a meeting of pipeline executives to unleash a brutal critique of the federal regulators and of the industry he believed shared the blame for obstructing reform.

“There is nowhere today the sense that the Office of Pipeline Safety is in charge,” Jim Hall said then, “or that its regulations, its inspections, its assets, its staffing and its spirit are adequate to the task.”

Bellingham was supposed to change that. But more than 15 years later, Hall says he sees little evidence of meaningful improvements. “Unfortunately,” he told POLITICO, “I think I would give the same speech today.”

The story of what happened in those 15 years — or rather, what didn’t happen — is in large part the story of the Pipeline and Hazardous Materials Safety Administration, an obscure agency that was created to oversee the nation’s sprawling network of oil and gas pipelines.

Oil and gas companies like to assure the public that pipelines are a safer way to ship their products than railroads or trucks. But

government data makes clear there is hardly reason to celebrate. Last year, more than 700 pipeline failures killed 19 people, injured 97 and caused more than \$300 million in damage. Two of the past five years have been the worst for combined pipeline-related deaths and injuries since 2000.

To understand the failure revealed by these numbers, POLITICO talked to more than 15 former and current federal pipeline officials and advisers, as well as dozens of safety experts, engineers and state regulators. We reviewed more than a decade of government data on fatalities, injuries, property damage, incident locations, inspections, damages and penalties.

The picture that emerges is of an agency that lacks the manpower to inspect the nation's 2.6 million miles of oil and gas lines, that grants the industry it regulates significant power to influence the rule-making process, and that has stubbornly failed to take a more aggressive regulatory role, even when ordered by Congress to do so.

This is a particularly bad time for a front-line safety agency to take a backseat.

The current boom in fossil fuel production has created intense pressure for massive new pipelines like Keystone XL. Many of the pipes already in the ground are more than half a century old. Tens of thousands of miles of pipeline go completely unregulated by federal officials, who have abandoned the increasingly high-pressure lines to the states.

Meanwhile, fatal incidents continue; a gas explosion in Alabama killed one man in January, and PHMSA reported 10 injuries in the three months it took to report this story.

A senior Capitol Hill aide who has long tracked the agency, speaking

on condition of anonymity, lamented PHMSA's deeply rooted "culture of can't."

"PHMSA has always said, 'We can't,'" the aide said. "'We can't get it through [the White House budget office], 'We can't get the money,' 'We can't get the resources,' 'We can't submit what we really want,' 'We can't regulate this,' 'We can't get enough inspectors to do this.' ... PHMSA acts like it's been beaten down for decades. Every time you try to offer a hand up, it almost retreats."

\*\*\*\*

About a year after Bellingham came a natural gas explosion in New Mexico that killed 12 people. Members of Congress were rushing to make up for years of inattention, but the families of those killed in Bellingham didn't hesitate to criticize proposed laws they felt were "watered down by those who pay homage to the powerful oil and gas lobbyists."

One of those family members was Bruce Brabec, whose stepson was Liam Wood. Brabec would soon join a private watchdog group as way to deal with his grief. "I didn't want to just be angry," said Brabec, whose short-cropped white beard gives him the look of a college professor. "I wanted to be effective. I wanted to help make changes."

It was 2002 before Congress approved legislation that required companies to create risk-management analyses for pipelines that run through densely populated areas and perform more frequent inspections. That was enough to win the wary support of safety advocates.

The creation of PHMSA, an arm of the Department of Transportation, didn't come for another two years, the result of a bureaucratic reorganization more than a burning desire to bring

pipeline companies to heel. Indeed, the new pipeline safety agency inherited many of its predecessor's flaws — weaknesses entrenched in part by a style that was “a lot more collaborative than traditional rule making,” as one former safety official described it.

PHMSA's regulations tend to be “a bit open-ended” as opposed to “a prescriptive one-size-fits-all,” said Eben Wyman, a former Transportation Department official who is now a lobbyist representing the plastic pipe industry.

The post-Bellingham reforms give operators latitude to write their own safety plans overseen by PHMSA, which makes it harder for regulators to catch violations. Safety advocates worry that approach is tantamount to self-regulation. But PHMSA and its defenders say that no two pipes are the same and that regulators couldn't monitor millions of miles of technically complex line without relying on the companies.

A PHMSA official who declined to speak on the record with POLITICO compared the agency to a traffic cop. PHMSA, the official said, “is not responsible for individuals speeding,” but it does have the “responsibility to enforce the law and pull them over to protect the public.”

But the rules PHMSA enforces get shaped by the pipeline industry — as if lead-footed drivers helped to set highway speed limits.

All rules made by the agency undergo “peer review” by two advisory committees, one for hazardous liquids and one for gas. By law, the 15-member committees — five each from industry, government and the public — have the power to vote on proposed regulations and policy moves. In theory, there is balance, but in practice, industry has an advantage. The committees' current rosters are missing seven members in total on the government and public sides, making it difficult to stop a move backed by pipeline companies. (PHMSA told POLITICO

that it is working on getting the rosters back in balance.)

“With PHMSA, there’s only one wind, and it blows from the industry,” said Paul Blackburn, a consultant who works primarily with environmentalists and landowners.

Advisory committee meetings are largely friendly affairs, a review of thousands of pages of transcripts shows, almost wholly devoid of resistance to industry-driven projects that craft voluntary standards for PHMSA. One high-profile standard that PHMSA and industry plan to tout at a hearing on April 22 covers “safety management systems” that are modeled on practices used for decades in the nuclear and aviation industries. But they are voluntary, like so many of PHMSA’s standards.

“From the get-go, the regulations get watered down,” said Randy Knepper, a top pipeline safety official in New Hampshire. “There’s not a lot of teeth behind them.”

PHMSA’s chief pipeline safety official, Jeffrey Wiese, acknowledged at a 2011 meeting of advisers that the agency has trouble determining “who really speaks for the public,” dismissing “advocacy groups out there with a hard-bent agenda.”

“[T]ruth be told, very little [of the] public is even interested or knows” about pipelines, Wiese said. “It’s the ones who were near a failure, and their view is skewed.”

Stacey Gerard, a 20-year PHMSA veteran who retired as its chief safety officer, said public members of the advisory committees “are not getting paid to do the research and reading” that might empower them to play a more vocal role. “Industry is going to be more dominant in the committee discussions because they’re usually more prepared and better armed.”

The most powerful counterweight to the pipeline industry's sway over its regulators comes, not surprisingly, from Bellingham. Twelve years ago, former environmental educator Carl Weimer created the nonprofit Pipeline Safety Trust to keep an eye on pipeline companies and their regulators in Washington. The judge who awarded \$4 million in criminal penalties to the group likened it to "Bambi taking on Godzilla."

Bambi has learned how to roar in its own way over the years. Weimer sits on one of PHMSA's advisory panels and is a frequent witness at congressional pipeline hearings. He recalls sprinting to a Capitol Hill Starbucks in 2006 to sketch out legislative language at the request of the late Sen. Frank Lautenberg (D-N.J.) that ultimately made it into that year's pipeline safety bill.

But Weimer's influence has not sparked the kind of formal resistance that might stop a weak regulation. During his eight years on a PHMSA advisory committee, he could not remember any formal opposition materializing to a proposed rule. A PHMSA official countered that "tussling" among advisers does happen but downplayed its importance, telling POLITICO that "we consider their input, but are not bound by their input."

PHMSA's longest-serving chief, Cynthia Quarterman, said, in an interview with POLITICO, she was "concerned" about the advisory committee structure when she was appointed in 2009 by President Barack Obama. But Quarterman, a former industry lawyer who led the agency until October, came around to the concept "because, if you could get them to agree across the board that what they're doing makes sense, it makes a better case going forward."

Five years ago this week, the nation was riveted by the underwater blowout of BP's Deepwater Horizon oil rig. But mere days

after that Gulf of Mexico gusher was capped, a pipeline in Marshall, Michigan, — 40 years old and pumping 8.4 million gallons of heavy oil every day — broke open.

The ruptured pipe leaked more than 840,000 gallons of oil sands crude into a creek that fed the Kalamazoo River, ultimately spreading for 35 miles. The operator, Canadian oil giant Enbridge, misread alarms in its control room and twice tried to pump more fuel through the broken line. Seventeen hours passed before oil was shut off for good.

At the time, it was the largest onshore oil spill in U.S. history. But Marshall got scant attention in 2010 as the public and policymakers focused on the Gulf of Mexico.

The Zinn family saw the Michigan disaster up close. The family's land was a few hundred feet from the nearly 7-foot gash in Enbridge's pipeline. Four decades earlier, the family's patriarch, Frank Zinn, had fought in vain to stop the 30-inch-diameter pipe from being laid across his property. He had been assured that a major spill was unlikely.

After the spill, officials from Enbridge and the federal government transformed 45 acres of the Zinns' land into the base of operations for the cleanup. Hundreds of trees were cut down and contaminated soil was piled high for removal. The family abandoned plans to plant a community vineyard. Dredging of the nearby river would drag on for more than two years.

“At a bare minimum,” said Carter Zinn, Frank's grandson, “if you're going to put a pipeline on people's land, then the government has to make sure it's safe.”

An independent investigation later concluded that “weak federal regulations” were partly to blame for the spill. Tests on Enbridge's



pipeline conducted five years earlier had shown warning signs of a future failure. But the company didn't act, in part because of vague PHMSA rules for when to report potential defects, the National Transportation Safety Board said.

“For the regulator to delegate too much authority to the regulated to assess their own system risks and correct them is tantamount to the fox guarding the henhouse,” Deborah Hersman, then the safety board's chairman, said of PHMSA.

While Enbridge did not contest PHMSA's \$3.7 million penalty, it has offered a lengthy rebuttal to some of the charges. “Enbridge believes that its pipeline integrity process and management in 2010 were state of the art and in compliance with all applicable regulatory requirements,” the company said in a 2012 filing.

Yet even as Obama vowed to remake the nation's offshore drilling regulations after the Gulf of Mexico spill, a small band of PHMSA critics lamented that it was hard to trust a pipeline agency whose chief had to step aside from the response to the Marshall spill to avoid a conflict of interest. Cynthia Quarterman had served as outside counsel to Enbridge before she was named to lead PHMSA.

Quarterman rejected the criticism. “To that, I would say, who cares what those folks are going to say?” she said. “You have to focus like a laser on safety.”

But PHMSA tends to turn on the laser beam after the oil is already leaking.

One of the agency's most powerful tools is a “corrective action order” that could shut down a pipeline until the operator addresses violations. PHMSA has used this tool 117 times since 2002 — mostly after an incident has occurred.

“The only time they’re doing a lot of enforcement is after something hasn’t performed. I think if something occurs, it’s a failure,” said Knepper, the New Hampshire pipeline regulator.

While federal spending on pipeline safety has grown by more than 50 percent since 2010, at \$145.5 million for 2015 the agency’s pipeline safety budget is still less than what the Pentagon spent on a single jet engine maintenance contract last year.

To boost its inspection capacity, PHMSA doles out grants to states to monitor pipelines that don’t cross state lines. But even when state and federal rosters are combined, the total number of inspectors is about 460 — roughly one person for every 5,830 miles of pipeline.

The federal pipeline safety budget for 2015 includes \$11.9 million for hiring 109 new employees largely for inspections and enforcement, but PHMSA officials expect it will take as many as three years to hire and train the new staffers. And the ones they do hire are unlikely to be as highly trained as the engineers that private companies lure away with six-figure salaries.

Ed Ondak, a regional director for federal pipeline safety in the pre-PHMSA days, is now a consultant and frequent expert witness for pipeline companies. Ondak recalled in an interview that “I find violations within the first five minutes I’m there” on the job. “I say, ‘Aren’t you inspected by PHMSA?’ They don’t find the violations.”

Less than six weeks after the Enbridge spill, in September 2010, tragedy struck again in the Northern California suburb of San Bruno. Pressure built in a natural gas pipeline installed more than half a century earlier, resulting in a massive explosion that killed eight people, injured more than 60 and destroyed 38 homes.

Independent investigators later found that the pipeline's operator, Pacific Gas and Electric, kept inaccurate records about faulty welds on the pipe and resorted to unorthodox strategies to get around PHMSA's rules for pressure testing. State regulators failed to hold the company accountable until after the disaster. PHMSA, which had the power to sanction the state regulator, gave it the equivalent of an A rating in 2009.

\*\*\*\*

It took more than a year after San Bruno for lawmakers to send Obama a new bipartisan pipeline safety bill that imposed dozens of new mandates on PHMSA. But more than three years later, the agency has yet to finish many of the biggest tasks.

"They only seem to act when confronted by and forced by Congress to act," Rep. Peter DeFazio, the House Transportation and Infrastructure Committee's top Democrat, said of PHMSA. "And even then, they don't act."

Congress gave PHMSA two years to consider requiring excess flow valves — which shut off the flow of gas in the event of a leak to prevent an explosion — in multi-family residences and other facilities. The safety board has for years recommended expanded use of the valves, which only cost a few hundred dollars. A 2012 Associated Press investigation identified at least 270 gas pipeline accidents since 1968, causing 67 deaths, that the valves could have prevented.

But three years after Congress urged PHMSA to take action, the agency has yet to propose any rule for adding the valves to multifamily buildings, amid resistance from industry. A regulation requiring the valves on new single-family homes was finalized the year before the San Bruno blast.

Congress also gave PHMSA 18 months to write a regulation that would require pipeline operators to notify the National Response Center of an accident within an hour. During the Michigan spill, Enbridge waited more than three hours to alert federal responders. More than three years later, PHMSA's rules only refer to notification at "the earliest practicable moment."

Congress also sought to eliminate the so-called grandfather clause, which exempts lines built before federal safety regulations first took effect from current rules for record-keeping and pressure tests. Because the San Bruno pipeline was built before 1970, it didn't undergo the kind of testing that could have alerted regulators to its potential defects.

Lawmakers gave PHMSA 18 months to close that loophole by requiring that previously untested larger gas lines in sensitive areas undergo strength testing. But the agency has not even proposed a rule.

Rep. Jackie Speier, the California Democrat who represents San Bruno, slammed the agency for an "appalling" failure to move "on this simple, noncontroversial regulatory fix that could save untold lives."

Speier counted "at least 10 more explosions" on gas pipelines since the 2010 disaster, including one in Manhattan last year that killed eight people. "PHMSA knew what it had to do to fix the problem," she said in a statement.

"Instead, in defiance of the law, it is endangering people by refusing to act. How many more explosions are enough?"

Brabec, who serves with Weimer on the Pipeline Safety Trust, is so unhappy with PHMSA's sluggishness that he wrote last year to Democratic power broker, John Podesta, his roommate after college. "You grow weary of the reasons why rule making isn't happening," he said. He accepts some of the agency's explanations, but wonders:

“Where’s the part that untrue? Where are they holding themselves back?”

There is frustration even within PHMSA’s ranks. John Gale, director of the agency’s Office of Standards and Rulemaking, told PHMSA advisors in October that “I’m not just professionally disappointed, but I’m personally disappointed that we’re not getting these rules to you.”

Former safety board Chairman Jim Hall, who now consults for San Bruno operator Pacific Gas and Electric, said agency officials are “underfunded and understaffed and do not really have the political culture to be effective at what they’re doing.”

“They’re understaffed to provide adequate oversight of the industry, but I don’t believe they’re understaffed to move a regulatory framework,” he added. “They’ve just lacked the will to do so.”

The risk of inaction is real. Older pipelines, particularly those made out of cast or wrought iron, and steel pipelines without protective coatings are considered at most risk of bursting.

At least 1,984 pipeline incidents from 2002 to early this year — or about a quarter of all reported incidents — involved failed parts installed before 1970, according to a POLITICO analysis of federal data. Ninety-one incidents since 2002 involved failed parts that were at least 80 years old, including a 2011 blast that killed five people in Allentown, Pennsylvania.

Incidents caused by equipment failure, including the welds on aging pipelines that the safety board has warned about for decades, have risen by more than 60 percent since their low point in 2007.

PHMSA has stopped short of comprehensive binding regulations that would mandate the replacement of aging pipelines, issuing only a

“call to action” encouraging states to move quickly.

“It’s a failure of government, sad as it is,” Lois Epstein, the Wilderness Society’s Arctic program director, said of the agency’s inability to function. “Especially when you’re talking about a Democratic administration that’s out there saying ‘Government can do what’s needed, government is a force for good.’”

But perhaps the biggest unfinished business before PHMSA is the tens of thousands of miles of pipelines connecting oil and gas extraction sites to transmission and distribution lines that are now going almost completely unregulated.

These “gathering” pipelines, once seen as lower priority because of their smaller size and lower pressure, are growing in size and number, thanks to the U.S. shale drilling boom — and states are starting to move on their own to rein in the pipes’ potential dangers while PHMSA stays stalled.

“PHMSA should at least know what’s out there: how many gathering lines, what the pressure is, how old they are and what the risks are,” said Susan Fleming, director of the physical infrastructure program at the Government Accountability Office.

\*\*\*\*

Most of Congress’ mandates to PHMSA were still awaiting completion in March 2013 when a ruptured pipeline sent more than 200,000 gallons of heavy crude gushing through the streets of Mayflower, Arkansas.

The Little Rock suburb’s congressman at the time was Tim Griffin, a staunch Republican and former Karl Rove aide who is skeptical of federal regulations and strongly in favor of pipelines. But after the Pegasus pipe burst, forcing the evacuation of 21 homes, Griffin

challenged PHMSA's secrecy in a way that few others have.

When ExxonMobil, the owner of the 65-year-old pipeline, refused to release the full engineering analysis conducted after the leak, PHMSA deferred to the oil company's decision.

So Griffin obtained a copy of the massive report and posted it on his congressional website. Weeks later, he released three more reports on the failed pipeline's condition that ExxonMobil and PHMSA had tried to keep under wraps.

"They politely requested that I not" share the data, Griffin recalled in an interview. "And I did."

Environmentalists played up TV images of Canadian crude spilling across sidewalks and lapping at backyard playsets to help their fight against Keystone, which would carry the same heavy oil through some of the Plains states' most environmentally sensitive areas.

Few policymakers or advocates other than Griffin paid attention to PHMSA's agreement with ExxonMobil to shield information regarding the spill. A review of PHMSA's post-accident violation notice to the oil company, however, illustrates the pitfalls of letting pipeline operators police themselves.

Because the pipeline's Arkansas leg runs through a "high-consequence area" close to drinking water sources, federal rules required ExxonMobil to test it every five years. The company flushed the pipe with water in 2005 and 2006 to gauge the aging steel's strength under stress, and found what PHMSA later called "susceptibility to seam failures."

ExxonMobil wasn't forced to act right away, though PHMSA did require it to test the doomed line again within five years. The company waited seven years instead, without telling its regulators or requesting

an extension to comply with federal rules, according to PHMSA's post-spill violation notice.

Exxon didn't act despite what PHMSA called "more than adequate information" to deem the line at risk for a rupture. After the leak, the agency proposed a \$2.7 million fine that the company is now challenging. Exxon has long maintained that PHMSA's analysis of the Mayflower incident is flawed and it disputes the agency's assertion that the company violated federal regulations.

Fines are meant to be one of PHMSA's most powerful tools. Congress sharpened that weapon in 2011 by doubling the maximum civil penalties the agency can impose to \$200,000 per day for each violation or \$2 million for a related series of violations.

But over the past 12 years, a POLITICO review of PHMSA data shows, the agency has levied just \$44.2 million in fines against pipeline operators that caused more than \$5.5 billion in damage.

PHMSA started fewer civil penalty cases in 2014 than it had in almost a decade and proposed 73 percent fewer fines than a year earlier, even as the number of total pipeline incidents increased, agency records show.

The Federal Energy Regulatory Commission, which supervises interstate oil, gas and electricity transmission, imposes much steeper fines for a range of violations including market manipulation. A decade ago, Congress gave FERC authority to impose civil penalties of \$1 million per day for every day that a violation continues, and FERC has proceeded to smack companies with more than \$626 million in civil penalties since 2007.

Companies often fight PHMSA's penalties in proceedings that are closed to the public. In addition to appealing its proposed fine for the Arkansas spill in 2013, ExxonMobil is challenging a fine of about \$1



million for a leak that dumped an estimated 63,000 gallons of oil in Montana's Yellowstone River in 2011. The company had already argued that down from the \$1.7 million PHMSA first proposed.

"They fine people \$1 million and they go into a closed room and they come out and it's \$250,000," Weimer of the Pipeline Safety Trust said. "What happened in that room? We don't know."

PHMSA countered that its hearings are "informal" and shouldn't be compared with court proceedings. It says the hearings may include discussions about "confidential business information and critical infrastructure security information" that can't be disclosed to the public.

Former PHMSA officials and industry representatives say the agency does in fact inspire fear. Any civil penalty — even a low one — can hurt a company's reputation and prevent it from securing permits for future projects, they say.

After the 2010 Michigan oil spill that destroyed the Zinns' land, PHMSA hit Enbridge with a \$3.7 million fine — the biggest civil penalty in the agency's history. Enbridge did not challenge that penalty and paid up in 2012, during a quarter when its net profit was more than 70 times the size of the fine.

\*\*\*\*

The myriad problems facing PHMSA — from aging, untested pipes to its frozen rule-making process — might seem ripe for congressional attention in the agency's next authorization bill. But new pipeline safety legislation, technically due for passage by this fall, is widely expected to slip to next year and to stop short of any serious remodeling of the agency.

Part of the reason for that, as House Energy and Commerce Chairman Fred Upton explained, is PHMSA's lack of progress on the mandates lawmakers gave it in 2011.

"Pipeline safety has been and will continue to be a top priority," the Michigan Republican said in a statement, but "it remains to be seen what needs to be accomplished" in a new authorization bill.

"About half of the new safety procedures and requirements are still stuck in the rule-making process," Upton added. "My fear is that further delays and regulatory uncertainty will discourage development of much-needed infrastructure."

Despite PHMSA's lengthy to-do list, the agency hasn't had a permanent leader since Quarterman, its former administrator, stepped down in October. Timothy Butters, the former assistant chief of operations for the Fairfax, Virginia, fire department, has served as acting administrator since then and Obama has not nominated a permanent administrator.

PHMSA took a first step last year toward requiring testing and oversight of hazardous liquid pipelines that were installed before federal regulation began to kick in around 1970. But the road from the agency's initial outline to formal rule making will be long and arduous, not least because the oil industry slammed the effort in February as costly, unnecessary and problematic.

The agency is also working on two highly anticipated rules that could reform existing regulations for both major types of pipelines, making good on many unmet mandates. Or not; their specifics, for now, remain largely a mystery.

DeFazio, the Democratic PHMSA critic, plans to press for reforms in the next federal pipeline bill regardless of the hurdles. He suggested

that lawmakers “look at a major reorganization of the industry,” similar to what the airlines underwent after the 1998 ValuJet crash.

“You don’t screw around with this stuff politically,” DeFazio added. “This is life or death. Pipelines blow up and people die.”

Bob King contributed to this report.