Testimony Of
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Before The
Senate Democratic Policy Committee
Hearing On
Spreading Oil & Gas Wastewater On Roads
April 17, 2024



(Photos of road dumping in March and April, 2024)

Sen. Muth, Sen. Comitta, members of the Senate Democratic Policy Committee, thank you for the opportunity to provide comments on the critical issue of the indiscriminate and unnecessary disposal of conventional oil and gas wastewater on Pennsylvania's public roads.

I served as Secretary of DEP under Governors Ridge and Schweiker and have been working on environmental and energy policy issues in various positions, including working in the Senate, for nearly 50 years.

I have one recommendation to offer at this hearing-- It is clear an immediate and total ban on road dumping conventional oil and gas wastewater is the only effective option for preventing millions of gallons of wastewater from polluting our environment.

It's Waste

First, let's be clear-- we are talking about a waste.

It's waste that's generated from the time a conventional oil and gas well is drilled through its entire life, which is decades.

The only way to stop this waste from being produced is to plug the well.

The industry uses benign terms to describe their waste.

It isn't "ancient sea water"-- no fish ever swam in it-- or "brine"-- no one ever made pickles with it-- it's waste that must be disposed of safely without doing harm to people or the environment.

If it wasn't for oil and gas drilling, we wouldn't be dealing with it. It would be trapped in shale and other rocks far below ground.

It's Contaminated

As we now know from studies by Penn State and others, testing shows conventional wastewater includes more than 31 chemicals-- like barium, strontium, lithium, iron, manganese-- as well as radioactive radium. Read more here.

It can also include fracking chemicals added by companies during the drilling process.

Yes, conventional drillers now routinely frack just like the shale gas companies.

Penn State found the amounts of at least 25 of the chemicals they tested for exceeded environmental and health standards and radioactive radium exceeded industrial waste discharge standards. Read more here.

Penn State also found from 2008 to 2014, "spreading O&G PW [oil and gas wastewater] on roads released over 4 times more radium to the environment than O&G [oil and gas] wastewater treatment facilities, and 200 times more radium than spill events," according to Dr. William Burgos. Read more here.

The bottom line of their research--

"The ineffectiveness and potential pollution of wastewater spreading make the practice an unsuitable alternative for dust suppression on Pennsylvania roads." Read more here.

Could Burst Into Flames

This waste also has to be stored in tanks and transported in trucks with warnings that include "flammability" hazard because it can catch fire or explode.

That's why waste storage tanks have to be vented and why many have tank lids that are open all the time to let the fumes vent to the atmosphere.

I don't know of any ancient sea water that does that.

Municipalities Are Waste Disposal Facilities

DEP considers municipalities where conventional oil and gas well owners road dump their waste as "waste facilities" in its waste disposal recordkeeping. Read more here.

So far, 84 townships have this designation in DEP's waste disposal database. There's a list. Read more here.

But those are only the ones DEP knows about.

DEP has also taken the step of advising municipalities in writing that road dumping conventional oil and gas drilling wastewater is illegal and considered waste disposal-- since it doesn't meet Residual Waste Regulation requirements. Read more here.

Is It Useful? Experts Say No

The experts on dirt and gravel road construction and maintenance-- the Penn State Center for Dirt and Gravel Road Studies-- call the road dumping of conventional wastewater an "environmentally unsound practice" that can cause water pollution and even damage roads. Read more here.

The Department of Conservation and Natural Resources bans road dumping oil and gas wastewater for any purpose on its over 6,500 miles of state forest roads. DCNR is the largest owner of dirt and gravel roads in the Commonwealth. Read more here.

The Allegheny National Forest says "commercial dust suppressants now available render the practice of spreading oil and gas wastewater on roads unnecessary" within the National Forest in Elk, Forest, McKean and Warren counties. Read more here.

Penn State's Dr. William Burgos, who has extensively studied oil and gas wastewater and road dumping and its environmental and health risks says, "Pennsylvania should ban road spreading of O&G PW [oil and gas wastewater]. Read more here.

He continues, “There is no public benefit to road spreading O&G PWs…. It is all risk, no reward. The only beneficiaries are the O&G [oil and gas] operators who choose this disposal option.” Read more here.

How Much Is There? We Don’t Know

How much of this conventional wastewater is there?

We don’t know.

In March, DEP reported 86% of conventional oil and gas well owners did not comply with waste disposal reporting for 33,505 wells in 2023. Read more here.

That means DEP has no idea where at least 32% of all waste generated by conventional oil and gas wells is being disposed, but probably much more. Read more here.

DEP data shows over 8 million gallons of conventional wastewater was road dumped in 2017, but that’s only what well owners reported. Read more here.

The same DEP data showed from 1991 to 2017, over 240.4 million gallons of conventional wastewater was road dumped. Read more here.

This is a huge issue and conventional well owners continue to dump.

There is no system in place to track this waste from where it is generated to where it is disposed, recycled or treated.

Even for the amounts that have been reported by well owners, DEP does not have the staff to do audits of what they report to see if it is accurate.

In my view, all the numbers are suspect-- and low.

Attempts To Regulate Disposal Before Failed

There have been attempts to regulate the road dumping of conventional wastewater before to reduce its environmental and health impacts.

Starting in 1996, during the Ridge Administration, we looked at road dumping and the environmental impacts of this disposal method. Read more here.

The result was a set of guidelines in 1998 that limited how much could be dumped on roads and where so it wouldn’t run off and pollute. Read more here.

The industry failed to comply with the limits on how they dumped or required reporting.

They just kept dumping.

The DEP Oil and Gas Program process for approving road dumping ended in 2018 with the settlement of Siri Lawson’s appeal before the Environmental Hearing Board. Read more here.

But, that did not stop the conventional well owners.

Well owners turned to DEP’s Residual Waste Program and the “beneficial use” process to get their waste approved for road dumping.

But, DEP said the industry didn’t meet those requirements either. Read more here.

Road dumping remains illegal as a result, but the industry keeps dumping. Read more here.

This dumping incident illustrates the voracity of the conventional industry.

Siri Lawson did not have oil and gas wastewater dumped on her road in Farmington Township, Warren County for more than six years after the Environmental Hearing Board case.

On April 4-- less than two weeks ago-- conventional well owners dumped wastewater on the road in front of her house.

Attorney General Investigation

The fact conventional well owners continue to road dump hasn’t gone unnoticed.

According to a consultant for conventional oil and gas well owners, the state Office of Attorney General has been investigating the illegal disposal of conventional drilling wastewater by road dumping under DEP's Residual Waste Regulations Read more here.

No charges have been announced, yet.

Non-Compliance A Norm

Non-compliance with regulations and the law is not an isolated event with conventional well owners.

In December 2022, DEP issued a first-ever assessment of compliance by conventional well owners that found "non-compliance" is an "acceptable norm in the conventional oil and gas industry." Read more here.

As a widespread business practice, conventional well owners also routinely abandon more oil and gas wells annually than Pennsylvania is plugging with taxpayer money in the new federal well plugging program. Read more here.

In 2023, DEP issued notices of violation to 271 conventional oil and gas wells for abandoning and not plugging those wells. Read more here.

So far in 2024, conventional well owners received 420 violations for abandoning and not plugging wells. Read more here.

They also pass conventional wells off to other owners with less financial capacity to actually manage them, setting them on the path to abandonment. Read more here.

In 2023, DEP reported 89% of conventional oil and gas well owners failed to submit annual well integrity reports for 34,455 wells to ensure they aren't leaking oil or venting gas. Read more here.

DEP issued a record 6,860 notices of violations to conventional well owners for breaking all kinds of regulations and laws in 2023. Read more here.

That's 51.9% more than in 2021 and 569.9% more than in 2015.

Kurt Klapkowski, DEP Deputy Secretary for Oil and Gas Management, told the House Environmental Resources and Energy Committee in March--

"Unfortunately, reviewing inspection and compliance data developed since 2017, DEP has identified widespread non-compliance with laws and regulations in the conventional oil and gas industry, particularly regarding improper abandonment of oil and gas wells but also not reporting hydrocarbon and waste production and conducting mechanical integrity assessments."

Immediate, Total Ban

When you design environmental programs you look at the problem you're trying to solve, the science, potential benefits, the ability of the industry to comply and the enforceability of the rule.

In the case of road dumping--

-- **Indiscriminate Dumping:** Conventional wastewater is now being illegally road dumped indiscriminately and unnecessarily anywhere the industry wants with no limits. We don't know exactly how much because the industry fails to report;

-- **Decades Of Non-Compliance:** The conventional oil and gas industry has demonstrated over decades that "non-compliance" is an "acceptable norm in the conventional oil and gas industry," according to DEP;

-- Doesn't Work Better Than Water: Penn State research has shown conventional wastewater has no greater value than water as a dust suppressant and has the potential to cause environmental harm;

-- Pollutants Exceed Standards: The science says 25 pollutants in conventional wastewater exceed standards to protect public health and the environment, including radioactive radium;
-- Preventing Millions Of Gallons Of Pollution: The potential benefits include preventing millions of gallons of conventional wastewater a year from being illegally dumped contaminating our environment and threatening public health;
-- Preventing Damage To Roads, Saving Taxpayers Money: Dirt and gravel road experts now know road dumping damages and destabilizes dirt and gravel roads and imposes additional costs on taxpayers;
-- Shale Gas Road Dumping Already Banned: DEP banned road dumping shale gas drilling wastewater in 2016 because it presents a threat to the environment and health, and conventional wastewater is very similar and presents the same threats, according to Penn State research; and
-- Enforceable: A total ban on road dumping wastewater would be a tool DEP could enforce.

These facts argue for a bright line-- so conventional operators, DEP and citizens can tell right from wrong.

It is clear an immediate and total ban on road dumping conventional oil and gas wastewater is the only effective option for preventing millions of gallons of waste from polluting our environment.

Resource Links:
-- Photos Of Typical Road Dumping: See Photos Here + See Photos Here
-- Spring Road Dumping Season Underway As Conventional Oil & Gas Well Owners Get Rid Of Their Wastewater [PaEN]