

Testimony

Pennsylvania Senate Democratic Policy Committee

Hearing on the Leachate Loophole in Pennsylvania

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Amy Mall, Senior Advocate
Natural Resources Defense Council

Good morning, Senator Muth, Representative Innamorato, and members of the committee. Thank you for inviting me here today to testify on behalf of the Natural Resources Defense Council, or NRDC. NRDC has more than 15,000 members in Pennsylvania, many of whom are very concerned about the dangers of waste associated with oil and gas exploration and production. We are here today to endorse your legislation.

The U.S. has known since at least the 1980s that oil and gas extraction activities generate waste that can be highly toxic and endanger workers, communities, and the environment. Also since the 1980s, this waste, including radioactive material, has been exempt from important provisions of federal law that govern the handling and disposal of hazardous waste.

At that time, the U.S. Environmental Protection Agency determined that federal regulation of exploration and production waste under the hazardous waste provisions of the Resource Conservation and Recovery Act (RCRA) was unwarranted, despite ample evidence that the waste contains substances that endanger both human health and the environment. It justified its decision by saying that it expected states to fill the regulatory gaps. Unfortunately, this loophole continues to exist, along with additional gaps in the Atomic Energy Act, the Clean Water Act, the Clean Air Act, and other federal policies.

While states have taken some actions to strengthen their regulations for oil and gas waste, they haven't come close to filling all the gaps. In July of this year, for example, the Pennsylvania Department of Environmental Protection announced a new requirement that all Pennsylvania landfills conduct quarterly testing of leachate for radiological contaminants. This was a good step, but much more needs to be done to protect workers and communities. Last year, New York State went farther and entirely closed its hazardous waste loophole. Much of the concern in New York that prompted this regulatory change stemmed from the dangers of Pennsylvania oil and gas waste that was crossing its border. Now it's time for Pennsylvania to take stronger action as well.

Earlier this year, NRDC released a report entitled "*A Hot Fracking Mess: How weak regulation of oil and gas production leads to radioactive waste in our water, air and communities.*" While we are concerned about all toxic components in waste associated with oil and gas exploration and production, this report focused specifically on radioactive waste and concluded that gaps in our regulatory structure allow radioactive oil and gas materials to go virtually unregulated.

We are concerned because radium-226 and radium-228, both present in oil and gas waste, can cause bone and connective tissue cancer. In addition, radium decays into radioisotopes that can attach themselves to dust and, if inhaled, cause lung cancer. Radon decay products, including lead-210 and polonium-210, are also present in high levels in some equipment and can further contribute to cancer risk. Along with cancer risk, scientists are currently investigating the potential non-cancer health effects of radioactive particles, such as blood pressure and heart and lung conditions.

Throughout the oil and gas development process, radioactive material can enter the environment both accidentally and intentionally. During production, equipment such as compressors, pumps, and pipes may be exposed to radioactive material; that equipment becomes waste when it is maintained or replaced and materials are transported to storage or disposal sites. Radiation can be present in materials that are spilled or leaked from pits, tanks, or landfills. It is found in drill cuttings, produced water, and tank sludge. And it can be intentionally reintroduced into the environment through methods such as road spreading, where wastewater is sprayed directly onto roads for dust suppression or de-icing. It's important to note that the dangers of radioactive oil and gas waste are not limited to wellpads or tank farms, because the waste can be transported to different storage, handling, and disposal sites.

For example, large amounts of oil and gas waste are taken to landfills, particularly drill cuttings and other solid waste. In Pennsylvania, landfills can accept waste with radioactive material as authorized by their agency-approved waste acceptance plan. Landfill leachate can eventually reach groundwater or surface water if not safely contained. In Pennsylvania, it has also been intentionally discharged into the Monongahela River, even after wastewater treatment facilities were not able to filter out all the radioactive material.

NRDC supports action at the federal and state levels to protect workers, public health, and communities from hazardous substances in oil and gas waste, including radioactive materials. We are encouraged by legislative proposals in Pennsylvania and fully support your bills to close oil and gas loopholes.