PROTECTING VIRGINIANS FROM HAZARDOUS CHEMICAL SPILLS

Introduction

Throughout the Commonwealth, thousands of manufacturers and other businesses store potentially hazardous chemicals in above-ground storage tanks. The quantity, location, contents, age, and condition of chemical storage tanks are unknown because tank owners are not required to register their tanks with Virginia’s Department of Environmental Quality (DEQ). Virginia does not have comprehensive safety regulations for these chemical storage tanks, even though strong regulations for certain petroleum storage tanks have been in effect since 1998. This difference in how we regulate tanks containing petroleum and tanks containing hazardous chemicals makes no sense. Spills from both types of tanks pose a substantial risk of harm to public health and natural resources, including sources of drinking water.

Background

There are tens of thousands of above-ground chemical storage tanks in Virginia, and many of them are located within a few feet of water sources because of the concentration of industry along our rivers and inlets. The 2019 Toxic Floodwaters report, released by the Center for Progressive Reform, identified over 1,000 industrial facilities in the James River basin that are exposed to flooding risks from rivers, storm surge, or future sea level rise. The analysis focused exclusively on facilities located in communities that are among the most socially-vulnerable to disaster nationwide. The analysis found that all of the 263 registered underground petroleum storage tanks face risks of flooding. By contrast, the report found major data gaps for unregulated above-ground chemical storage tanks that hindered a full picture of what was being stored at each of these facilities and the risk to the public if there were a spill. Unlike other states, Virginia has no comprehensive inventory of these tanks, and it does not regulate the construction or siting.

In 2015, the General Assembly was sufficiently concerned about these risks from chemical storage tanks that it passed SB 811, a law requiring DEQ to study the risks and the need for regulation. SB 811 passed the Senate 38-0 and the House 97-0. The DEQ study, released in the fall of 2016, found that:

- There is a general lack of siting requirements for chemical storage tanks in proximity to drinking water source areas.
- A first step in a program would be developing a framework for inventorying and registering a defined universe of chemical storage facilities in Virginia.
- A new program should consider information disclosure requirements, such as requiring facilities to provide information to public water systems about emergency response plans and chemical inventories for chemical storage tanks within the same watershed as the water system.

It is now time to implement the DEQ recommendations, moving beyond studying the problem to taking action. The threat to communities is not just from flooding of chemical storage tanks due to rain events or hurricanes. Tanks can corrode or fail for a variety of reasons. In 2017, for example, a small puncture in a container at an agricultural supplier in Botetourt County led to a chemical spill that caused fish kills and water advisories throughout a portion of the Roanoke region. In 2014, a chemical spill in Charleston, WV contaminated the water supply for that city and surrounding counties, leaving more than 300,000 residents in the region without access to municipal drinking water. The tanks had corroded and were located above the water supply intake. That spill caused devastating economic impacts, including closures of hotels and businesses in Charleston for over a week.

The threat to communities is not just from flooding of chemical storage tanks. It should also require DEQ to establish an inventory of all above-ground chemical storage tanks in the Commonwealth.

Conclusion

Both the West Virginia law on chemical storage tanks and Virginia’s existing law on oil storage tanks should serve as models for new legislation in the Commonwealth. A more protective regulation of above-ground chemical storage tanks is needed. The General Assembly should enact new legislation specifying siting, construction, and spill response measures for chemical storage tanks. It should also require DEQ to establish an inventory of all above-ground chemical storage tanks in the Commonwealth.

Policy Recommendations

Establish a program for registration and regulation of above-ground chemical storage tanks. The program should be modeled on the Commonwealth’s existing regulatory program for petroleum storage tanks and include requirements for:

- Registration and reporting;
- Specifications for siting and construction of new tanks; and
- Planning and implementation of measures to prevent and mitigate chemical spills.

Ensure that the program is responsive to findings about the present-day and future flood risk of chemical storage facilities. This could include incorporating spill prevention and mitigation measures into ongoing efforts to reduce flood risks specific to each permittee and implementing phased requirements for siting and design practices that reduce the risk of flood-induced spills.

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