

# PROTECTING VIRGINIANS FROM HAZARDOUS CHEMICAL SPILLS

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## EXECUTIVE SUMMARY

Throughout the Commonwealth, thousands of manufacturers and other businesses store hazardous chemicals in aboveground storage tanks. The quantity, location, contents, age, and condition of these tanks are unknown because owners are not required to register their tanks with the state's Department of Environmental Quality (DEQ). Nor does Virginia impose comprehensive safety regulations for these hazardous chemical storage tanks, even though petroleum storage tanks have been regulated since 1998. As a result, communities at the fenceline of industry in Virginia face the risk of exposure to uncontained hazardous chemical spills, exacerbated by the growing risk of flooding and extreme weather.

## CHALLENGE

There are likely thousands of aboveground chemical storage tanks in Virginia, but regulators know little about their quantity, location, condition, and contents because the state does not register them.

In Virginia and nationwide, hazardous chemical facilities, many of which may have aboveground tanks, are disproportionately located near low-wealth communities of color, potentially exposing them to chemicals that increase the risk of cancer and respiratory disease.<sup>1</sup> With more intense and frequent flooding in coastal communities, the hazards only worsen. A 2019 report found that over 2,700 flood-prone facilities in the James River watershed are located in the region's most socially vulnerable census tracts.<sup>2</sup> One tract in the City of Chesapeake has 131 flood-exposed facilities and higher rates of poverty than the city overall. A failure of any of these facilities' tanks could send toxic floodwaters into communities less equipped to recover.

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Catastrophic spills from chemical tanks have already occurred in Virginia. In 2008, a tank collapsed in Chesapeake, releasing 200,000 gallons of liquid fertilizer, which exposed nearby residents to toxic ammonia vapor and contaminated the Elizabeth River.<sup>3</sup> After the spill, Virginia adopted rules for only the largest aboveground fertilizer storage tanks.

Other states are ahead. In 2014, a spill from a tank in Charleston, West Virginia caused devastating economic impacts and 300,000 residents to lose their drinking water.<sup>4</sup> The corroded tanks were unregulated and had not been inspected in 23 years. West Virginia quickly enacted a comprehensive chemical tank law, imposing standards on over 42,000 aboveground storage tanks.

## SOLUTION

In 2015, the General Assembly unanimously passed SB811, a law requiring DEQ to study gaps in Virginia's chemical tank regulations. The study, jointly published with the Departments of Emergency Management and Health, found a concerning lack of siting and public disclosure requirements and recommended a framework for a new tank registration and spill prevention program.

It is past time to close this dangerous regulatory gap and safeguard Virginians against chemical spills that threaten our water resources and the fenceline communities already overburdened by industrial pollution.

At a minimum, Virginia should establish an aboveground chemical storage tank program that requires registration and reporting on the quantity, condition, and contents of tanks. With this inventory, regulators and emergency managers can better plan for the flooding and other environmental hazards facing nearby communities. Additional spill response resources and public engagement are also needed to mitigate harm when spills occur, particularly for communities that face multiple disaster hazards from industrial pollution, climate impacts, and other social and environmental stressors.

Virginia should also adopt siting and construction standards to ensure that new tanks are installed in low-risk areas away from flood zones, overburdened communities, and drinking water sources. For new and existing tanks, the state should impose requirements for maintenance, inspections by qualified engineers, and reporting to ensure that tanks remain safe as they age and to minimize the resource burden on DEQ. And when the worst happens, mandatory comprehensive spill prevention planning and practices will provide another essential layer of safeguards for human health and the environment.

## POLICY RECOMMENDATIONS

Direct DEQ to establish a regulatory program for aboveground chemical storage tanks, modeled on the Commonwealth's existing program for petroleum storage tanks and including registration, reporting, inspections, siting and construction standards, and spill prevention.

Direct DEQ to ensure that all of the Commonwealth's hazardous chemical regulatory programs, including aboveground chemical storage tanks, petroleum, and underground tanks, address climate and natural disaster risks through siting, construction, spill prevention, and response requirements.

Direct DEQ to assess the cumulative impacts of ongoing and disaster-driven hazards to communities and workers affected by unregulated tanks.

Fishing on the Chick, Chickahominy Riverfront  
Image credit: Owen Flannery

