

Oil Tank Terminal Emissions In Maine

THE ISSUE

Toxic chemicals in tank farm emissions that are contaminating our air and making people sick are not monitored or controlled adequately. Regulators have repeatedly failed to address the problem in a way that protects public health.

People living in the neighborhoods surrounding the tanks are exposed to cumulative toxic substances that are known to cause cancer, respiratory problems such as asthma, neurological problems that particularly affect fetuses and young children, and damage to the liver and kidney. Air pollution also has been identified as making people more vulnerable to Covid-19. The tanks are merely feet away from homes, schools, businesses, daycares and senior housing. In South Portland, the tank farms are located close to one another and collectively are licensed to emit about 600 tons of volatile organic compounds (VOCs) and 104 tons of hazardous air pollutants (HAPs) every year. That is the equivalent of having a mid-sized oil refinery sitting here on the bank of the Fore River, between the two most densely populated communities in the state.

This is clearly a social and environmental justice issue. The oil industry maximizes profits at the expense of the public health of our community. Technology exists that can monitor and control these emissions up to 95 percent. What is needed is the will to do it. The Maine State Legislature must act to ensure that the oil industry conducts its business responsibly and in consideration of the health and welfare of all Mainers, including those who live near the 120 tanks in South Portland and the tanks in Searsport, Bucksport and Hampden.

BACKGROUND

The legislature last year directed the Department of Environmental Protection to study the best methods to measure and control emissions on all tanks in Maine, including reviewing what other states and regulatory bodies require of tank operators (LD1915). The department did not fulfill the mandate of the resolve, instead dismissing the need for more comprehensive monitoring; entirely excluding the efforts of Massachusetts to address the same issue; focusing more on odor than on the risk to public health; and recommending little more than the status quo.

Currently, no actual testing of emissions is conducted at any of the tanks as a requirement of the operators' state licenses. Instead, the DEP relies on oil companies to report their own estimated emissions, using formulas developed by the American Petroleum Institute, an industry trade group. The DEP, in its report, defended its practice of taking those estimates at face value despite the fact that the U.S. Environmental Protection Agency found that the companies were grossly underestimating their emissions and there is no accountability regarding the data employed or auditing of calculations.

In 2012 and 2013, the EPA required actual emissions to be tested at heated storage tanks in South Portland and Searsport. Those tests revealed that Global and Sprague were in violation of their state permits and the Clean Air Act. The companies failed to remedy those violations for years, and the federal government ultimately filed lawsuits against them. Those lawsuits ended in consent decrees in 2019 that did not mandate controls or transparency at the tanks. Nor did they ease residents' concerns.

The people of South Portland have been vocal about the need for action, filling the room during in-person and virtual meetings at the city level, and flooding the federal court with comments on the consent decrees. Many of those comments have come from people who live near or operate a business close to the tanks, and who worry about the health effects the often overwhelming stench of oil has on their loved ones, their neighbors and their customers. The South Portland City Council created a Clean Air Advisory Committee to study what can be done to make our air safer to breathe. That group has worked tirelessly for two years to vet this issue and to push for more transparency from regulators and the industry.

Twelve health advocacy and environmental groups have joined together to call for monitoring and control of emissions at all aboveground oil terminal tanks in Maine, including those classified as major and minor emitters. The Tank Emission Coalition includes Protect South Portland, the American Lung Association, Physicians for Social Responsibility Maine, Defend Our Health, Maine Association of Naturopathic Doctors, Conservation Law Foundation, Sierra Club, Natural Resources Council of Maine, 350Maine, Community Action Works Portland Climate Action and Elders for Future Generations.

THE DEP REPORT

There are a few things in the DEP report that were encouraging. They include a recommendation that fixed roof heated tanks should be insulated and have temperature monitoring; a recommendation to require vapor recovery equipment during switch-loading, which involves changing the contents of a truck from one substance to another; and the suggestion that the companies be required to use infrared cameras to detect equipment leaks.

There are many things that the DEP left out or got wrong:

- The department continues to represent this problem as being about odors, which cannot be monitored or regulated. The real concern is the serious toxic VOCs and HAPs these communities are exposed to, which can be monitored and controlled. And, if they were properly controlled, the odor issue would be moot.
- The department dismisses the possibility of stack monitoring to accurately assess direct output, despite the fact that this method is low-cost and effective. The report claims that it requires use of a fan that would create excessive emissions. Yet, the DEP in this report also validates methods that have used just such a fan, including a DEP-approved carbon bed installation at that facility that would require a fan about 10 times as strong.

- The report dismisses the need for any monitoring and control of gasoline tanks, claiming existing federal and state regulations are adequate. The gasoline tanks are responsible for 70 percent of tank emissions in South Portland, yet the DEP does not require even those classified as major emitters to conduct monitoring or install control technology beyond floating roofs. Vapor recovery units, similar to those being installed on some of the heated tanks, should be required on the gasoline tanks. They are referred to by the DEP as “odor control equipment” but their more important function can be control of VOC and HAP emissions.
- The report dismisses the requirement of carbon absorption equipment for emissions control due to the maintenance and operation required. Yet the DEP is permitting this equipment for Global and potentially requiring it for Sprague. Requirements for Operations & Management can be written into licenses.
- The DEP failed to include an assessment of efforts by state regulators in Massachusetts to grapple with exactly this issue of tank farm emissions.

ACTION NEEDED

A. Emissions testing is the critical first step. Actual emissions must be measured to define the problem and provide a basis for assessing mitigation efforts.

1. Develop a plan with the DEP to require stack testing to be incorporated at every facility on all tanks, heated and non-heated at the time of their next license renewal, or before.
2. Require tank operators to install fence-line monitoring around the perimeter of their facilities, to provide continuous testing and to make the data available to the public. This would provide information about the effects on the adjacent community. Both fence-line monitoring and stack testing represent reasonable expenses that should be borne by the companies as part of their permit to operate in these communities.

B. Direct the DEP to require all emissions to be treated in order to protect the community from the effects of their toxic chemicals. The preferred type of equipment for treating emissions are vapor recovery units (VRUs) as recommended by the EPA. Requirements for operation and maintenance of equipment should be included in their licenses.

Thank you for your time and consideration. Please find additional documents and background materials attached, and feel free to reach out to us with any questions:

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