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OPINION // OUTLOOK

What's the safe level of benzene in the air? None. Absolutely none. [Opinion]

By **Elena Craft**

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Workers work to clean out the shoreline in the Galveston Bay Foundation's property in Kemah, Friday, May 17, 2019, after the Houston Ship Channel collision May 10.

Karen Warren, Houston Chronicle / Staff photographer

It passed with little notice when a state contractor detected extraordinarily high levels of the carcinogen benzene in a Seabrook neighborhood hours after two tankers collided in the Houston Ship Channel.

It passed, as these things do in a state that accepts some 4,000 illegal pollution releases by industry every year, because the protection of people's health is not the top priority of elected leaders and the Texas Commission on Environmental Quality.

Despite the heavy stench of chemicals in the air, officials told people that no measurements exceeded "actionable levels" — just like they frequently said during the Intercontinental Terminals Co. and KMCO fires in March and April. The language neutralizes when it should provide clarity.

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It makes you wonder how much toxic air pollution it takes to order neighborhoods to shelter in place or evacuate — or even to warrant an alert.

In Texas, it takes an absurd level. It is appalling, really.

I am a toxicologist, and let me be clear: Any exposure to benzene is too much.

Benzene is a key ingredient in gasoline — a compound so potent that even the American Petroleum Institute, a trade group for the oil and gas industry, acknowledged in 1948 “the only absolutely safe concentration ... is zero.” It can cause cancer. Breathing high doses also can affect the nervous system, causing dizziness and headaches, and result in suppression of the immune system.

The Texas threshold for benzene exposure is 180 parts per billion (ppb) for one hour.

That far exceeds California's guidelines, which is 8 ppb over six hours.

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In response to the Ship Channel collision, Unified Command set the action level at 1 part per million, or 1,000 ppb — the federal government's limit for workplace exposure, but hardly suitable to protect pregnant mothers, children and older adults.

On the night of the collision, a state contractor measured benzene levels up to 2,600 ppb in Seabrook. They measured again about an hour later and detected nothing, TCEQ said.

To put that in perspective, Houston officials considered evacuation after preliminary air sampling showed benzene concentrations up to 324 ppb in Manchester in the days after Hurricane Harvey. Yet TCEQ did not say anything to acknowledge the public risk in Seabrook. The agency provided data to Unified Command then moved on.

The state has not been tough on benzene because there is no safe threshold. That is why industry has spent decades trying to fight stronger protections in the workplace and for communities near oil refineries and petrochemical plants. That is why the guidelines developed by TCEQ are not enforceable.

That is why the agency looks the other way rather than penalize polluters.

Enough is enough.

Over the past two months, communities along the ship channel have experienced possibly the worst series of benzene exposures in an urban setting seen in the United States. If state leaders and TCEQ are serious about protecting public health, then they must adopt more stringent and legally enforceable standards for the most harmful pollutants, starting with benzene. The agency also must force polluters to follow laws intended to reduce air pollution through a serious commitment to enforcement and frequent inspections.

At the local level, we need detailed action plans in place that provide clarity and certainty during major releases of benzene. We also need additional sophisticated equipment in Houston and surrounding counties to measure for benzene in real time.

Benzene is not visible to the naked eye, but the threat is real. It is time for elected officials and regulators to take notice and do something about it.

Craft, Ph.D., is senior director for climate and health at Environmental Defense Fund.

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By Elena Craft

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