

**Testimony to the Maryland House of Delegates
Environment & Transportation Committee
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Global Anti-Incinerator Alliance

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I'd like to thank the committee and in particular Chairman Barve for this opportunity to speak. My name is Neil Tangri, and I'm the Science and Policy Director at GAIA. We are advocates for Zero Waste and are always excited by the prospect of new recycling techniques and technologies. So we have done a deep dive into chemical recycling, publishing several technical reports; I'll just give you the highlights here.

As you all know, plastic recycling rates are very low – between 2-8%. Although mechanical recycling has technical challenges, the primary problem is economics: collecting, sorting, and cleaning plastic is expensive; virgin plastic is extremely cheap.

Industry proposes that chemical recycling can solve these issues. Our research indicates that it cannot. CR does not work well on mixed plastics; instead, it competes with mechanical recycling for clean, sorted, single-polymer materials. CR is very energy-intensive which translates into high costs. It's carbon intensive – emitting almost 9 lbs of CO₂ to produce 1 lb. of monomer. It's inefficient – more than 60% of the plastic mass is lost in processing. That means it primarily turns plastic into CO₂, not into anything useful. And it still has troubles with the additives and contaminants that bedevil mechanical recycling.

At the end of all that, it still has to compete with extremely cheap virgin plastic. This is why, of the 37 facilities announced in the US since 2000, only 3 are operational, and none turn plastic back into plastic at a commercial scale.

In my opinion, chemical recycling is a distraction. The petrochemical industry is desperate to head off effective policy that would actually tackle the plastic crisis, and they want us to believe that the same companies and same technologies that created the problem will now solve it.

This is nothing new – I have been working in waste management for more than 20 years, and industry always has a shiny, new technology that they claim will solve all our woes. In the 90s, it was incineration; then it was pyrolysis; then gasification. Plasma arc was bandied around at one point. Now it's chemical recycling. Industry would keep us on a hamster wheel of broken promises when the real solutions lie in front of us: reduce the amount and toxicity of plastic we use.

Thank you, Chairman Barve and the entire committee, for your time.