



Beware: So-called “Chemical recycling” is Toxic and Won't Solve the Plastic Crisis

Don't believe the industry hype. Plastics are toxic through their entire lifecycle and the technologies that the plastic industry misleadingly calls “chemical recycling” or “advanced recycling” tend to be nothing more than incineration in disguise. These technologies won't solve the plastic crisis but will create new public health and environmental justice problems.

So-called “chemical recycling” is mostly not recycling at all

A Natural Resources Defense Council [review](#) of eight currently operating facilities in the US found that most of these so-called “chemical recycling” facilities were not actually recycling any plastic. Rather, they are almost always creating materials that are later burned—a practice that is neither recycling nor environmentally sound.

The technologies are toxic and produce hazardous waste

Whether the industry is using pyrolysis, gasification, solvolysis, depolymerization, or a similar process, the fact is that these toxic technologies generate large amounts of hazardous waste and emit hazardous air pollutants. Data from the Environmental Protection Agency shows that in 2019 one facility alone generated nearly [500,000 pounds of hazardous waste](#) that was then burned in six communities in the US. The main component of this waste was benzene, a known carcinogen which harms reproduction and the developing fetus, as well as other harmful chemicals such as lead, cadmium and chromium.

Low-income and communities of color are the most impacted

The facilities using these toxic technologies are often [sited in communities](#) that are disproportionately low-income, people of color, or both, exposing these populations to toxic emissions. In addition, much of the hazardous waste generated is later shipped to be burned, in facilities that also tend to be located in communities of color or low-income communities.

Be aware of industry efforts to avoid regulation and fund toxic technologies with state resources

The chemical and plastic industry is advancing state legislation across the U.S. to increase the development and use of these polluting technologies. Be aware of how definition changes, tax credits,

exemptions and other approaches are being used to accomplish this and thwart real solutions to the plastics crisis. Problematic language is being added to extended producer responsibility (EPR), recycled content or solid waste management bills. Specific recommendations on how to handle these concerns in legislation include:

1. Don't allow toxic technologies or any products that result from them to be included in definitions of recycling or recycled products.

- Established federal and state definitions of recycling recognize that recycling returns discarded materials to the production cycle to make new products, and does not include processes that destroy materials, such as creating fuels or incinerating materials for 'energy recovery.'
- Creating fuels and incineration aren't considered recycling because destroying materials by burning them means they can't be used to make new products. In addition, you have to extract more petrochemicals to create new products. Industry is trying to rewrite the rules so that turning plastic into fuel is falsely considered recycling (and getting access to [tax credits and exemptions](#) in the process). Scrutinize any bill that is changing the definition of recycling or recycled content and don't allow toxic technologies to be included.
- Problematic language may include opaque statements such as: "Recycling means...products which can be used as a substitute for products not derived by such processes," as was enacted in a [Georgia](#) law; or "The recycled products produced at advanced recycling facilities shall include, but are not limited to, monomers, oligomers, plastics, chemical feedstocks, basic and unfinished chemicals, crude oil, naptha... and basic hydrocarbons," as was proposed in a [New York](#) bill.

2. Don't reclassify so-called "chemical recycling" from solid waste management to manufacturing

- The plastic industry is promoting state legislation that would ensure that facilities using toxic technologies (particularly those using pyrolysis and gasification) are not regulated as solid waste facilities and are instead considered manufacturing facilities. This may be accomplished by direct reclassification or recategorizing plastic trash so it is considered "feedstock" rather than solid waste.
- Solid waste management facilities are currently subject to more environmental oversight and reporting than manufacturing facilities. Reclassification would allow facilities to operate under looser air and water emission restrictions and have weaker requirements for community care such as not having to set aside money for cleanup after closure. Reclassified facilities could also be sited in more locations and be subject to less public input during siting debates.
- The reclassification can also help the industry to gain access to additional funding and tax credits available to manufacturing facilities as well as to greenwash polluting technologies.

3. Don't incentivize investments in technologies that are expensive, toxic distractions

- More than [\\$500 million](#) taxpayer dollars have already been channeled to fund projects that portray themselves as "chemical recycling," but are almost entirely waste-to-dirty-fuel enterprises.
- Just say no to any policies that provide bonds, loans, grants, tax credits, or other incentives to subsidize designing, building or operating facilities that claim to be "chemical recycling," including those using pyrolysis, gasification, solvolysis, or depolymerization.
- Also say no to providing taxpayer funds for research and development for these technologies that have a [history of technical failure](#). We need to invest in real solutions to the plastic crisis instead.

Focus on real solutions to the plastic crisis instead

The most effective approach to managing waste is to not make it in the first place. Policies that will effectively address the plastic crisis include:

- Banning single-use plastics
- Mandating a rapid transition to non-toxic reuse and refill models
- Eliminating the most toxic plastics, including PVC and polystyrene
- Requiring reduction and ultimate elimination of unnecessary packaging
- Prohibiting the construction of so-called "chemical recycling" facilities
- Ensuring that recycling definitions don't include any toxic technologies
- Incentivizing the development of nontoxic materials to replace fossil fuel-derived plastics
- Creating government procurement standards mandating purchasing of non-toxic reusables

For more information and resources on policy language, please contact: info@saferstates.org

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