



## **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,

### 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@safestates.org](mailto:info@safestates.org)

### References

Natural Resources Defense Council. 2022. Recycling Lies: "Chemical Recycling" of Plastic is Just Greenwashing Incineration. <https://www.nrdc.org/resources/recycling-lies-chemical-recycling-plastic-just-greenwashing-incineration>

Greenpeace. 2020. Deception by the Numbers: American Chemistry Council claims about chemical recycling investments fail to hold up to scrutiny. [https://www.greenpeace.org/usa/wp-content/uploads/2020/09/GP\\_Deception-by-the-Numbers.pdf](https://www.greenpeace.org/usa/wp-content/uploads/2020/09/GP_Deception-by-the-Numbers.pdf)

Global Alliance for Incinerator Alternatives. 2020. All Talk and No Recycling: An Investigation of the U.S. "Chemical Recycling" Industry. [https://www.no-burn.org/wp-content/uploads/All-Talk-and-No-Recycling\\_July-28.pdf](https://www.no-burn.org/wp-content/uploads/All-Talk-and-No-Recycling_July-28.pdf)