



Senator Todd Kaminsky  
55 Front Street Room 1  
Rockville Centre, NY 11570-4040

February 1, 2021

**Re: Ensuring the exclusion of chemical recycling from “recycling” definition in Bill S1185A**

Dear Senator Kaminsky,

We write to you today concerned that **Bill S1185A Extended Producer Responsibility Act** currently allows for in its definition of “recycling” a group of unproven technologies promoted by the plastics industry under the term “chemical recycling”. GAIA full-heartedly supports and commends your efforts to ensure that producers of packaging and paper products are held responsible for the recycling, reuse, and recovery of those products and we support the much of this bill’s contents. However, **by including the phrase “by means of combustion” the definition of recycling in the bill allows for the inclusion of so-called “chemical recycling”, a group of false solution technologies which poses a concerning level of environmental, technical, and environmental problems.** The promotion of this technology in New York State would cause drastic harm to New York residents and would undermine the intentions of this bill to address the environmental threat of irresponsible end-of-product-life management.

**We, therefore, ask that you remove “by means of combustion” from Point 7 in Definitions (Section 27-3301) of the Bill S1185A.** See here for requested change:

8. "RECYCLING" MEANS TO SEPARATE, DISMANTLE OR PROCESS THE MATERIALS, COMPONENTS OR COMMODITIES CONTAINED IN COVERED PRODUCTS FOR THE PURPOSE OF PREPARING THE MATERIALS, COMPONENTS OR COMMODITIES FOR USE OR REUSE IN NEW PRODUCTS OR COMPONENTS. "RECYCLING" DOES NOT INCLUDE ENERGY RECOVERY OR ENERGY GENERATION **BY MEANS OF COMBUSTION**, OR LANDFILL DISPOSAL OF DISCARDED COVERED PRODUCTS OR DISCARDED PRODUCT COMPONENT MATERIALS.

Furthermore, we identify several problems with the advancement of “chemical recycling” technologies and believe exclusion of this nascent technology from this bill is critical for preserving both the integrity of the efforts of the bill to address the plastics crisis and protecting the health and well-being of New York residents.

“Chemical Recycling” is Plastic-to-fuel:

“Chemical recycling” is an industry greenwash term used to lump together various technologies that turn plastic into liquids or gases which could be used to make new plastic but in practice are usually burned. Despite the clever rephrasing, the end-products are burned, which means that **chemical recycling technologies are not a form of recycling but are instead various forms of plastic-to-fuel technologies.**

As such, “Chemical recycling” does not fit in a circular economy. In a society that urgently needs to transition from an extractive, fossil fuel economy to a circular one, chemical recycling is a distraction, in addition to being a threat to environmental health and justice.

Environmental Dangers of “Chemical Recycling”, a.k.a Plastic-to-Fuel:

1. **“Chemical recycling” releases toxic chemicals into the environment.** Plastic contains a wide range of toxicants, and treating plastic with high temperature creates even more. The toxicants remain in both the products and byproducts, and end up released into the environment as air emissions and toxic residues, especially if outputs are burned.
  - a. CR/PTF facilities place a heavy toxic burden on communities and workers, impacting people at plastic waste processing sites, in the end use of the products they produce, and at the facilities where the waste created by the process is dumped, destroyed, or treated.
  - b. Allowing chemical recycling facilities to be built in the state will further increase the environmental health impacts on communities that are already subject to disproportionate, cumulative environmental burdens. New York State already hosts a number of waste incinerators and cement kilns which are major sources of nitrogen oxides, sulfur dioxide, lead, mercury, and particulate matter among many other pollutants.
2. **“Chemical recycling” has a large carbon footprint.** The processes are energy intensive and rely on external energy. In addition to the direct GHG emissions from the process and burning the outputs, chemical recycling further aggravates climate change by perpetuating continued extraction of fossil fuel for plastic production. We believe the advancement of “chemical recycling” facilities would be in conflict with the goals of the Climate Leadership and Community Protection Act to reduce New York State’s greenhouse gas emissions.
  - a. Gasification loses more than half of the carbon in the plastic feedstock during the gas upgrading phase.

Technical and Economic Shortfalls of “Chemical Recycling”, a.k.a Plastic-to-Fuel:

1. **“Chemical recycling” cannot compete in the market.** The industry has a track record of major failures, and both plastic-to-plastic repolymerization and plastic-to-fuel require costly energy inputs. The final outputs are unable to compete with virgin polymers.
2. **“Chemical recycling” has not yet been proven to work at scale.** Chemical recycling is not equipped for commercial scale-up, nor is it able to take a leading role in tackling the rapidly

growing global plastic waste problem. Commercial operations are rare, and the plants face technological hurdles in each phase of the process, from feedstock processing to cleaning and upgrading the resulting gas and oil. Solvent-based technologies are even less mature compared to pyrolysis and gasification.

- a. Of the 37 plastic “chemical recycling” facilities proposed since the early 2000’s, based on publicly available information, only 3 are currently operational and none are successfully recovering plastic to produce new plastic (as of July 2020).
- b. Even in the industrial sector, some have estimated that it is optimistic to consider that chemical recycling of waste plastics will be viable within the next decade.

## Conclusion

Bill S1185A has the potential to shift the way New York producers operate, radically improving the environmental impact of end-of-product management. However, allowing for the inclusion of toxic, carbon-intensive, cost-prohibitive, and unproven plastic-to-fuel technologies a.k.a. “Chemical recycling” in the definition of recycling would undermine efforts to mitigate environmental impacts and injustices of packaging. **We urge you to preserve the purpose and integrity of your bill and prevent this trojan horse by removing the phrase “by means of combustion” from the definition of recycling.** For more information about chemical recycling and to see a technical analysis of the existing chemical recycling technologies, we submit the attached copy of GAIA’s 2020 reports, “[All Talk and No Recycling](#)” as well as “[Chemical Recycling: Status, Sustainability, and Environmental Impacts](#)”.

Respectfully,



Denise Patel  
US & Canada Program Director  
Global Alliance for Incinerator Alternatives  
1958 University Ave.  
Berkeley, CA 94704  
Email: [denise@no-burn.org](mailto:denise@no-burn.org)