



Concerning the Proposed Pyrolysis Plant in Greeley, Colorado

A plastic pyrolysis plant is in the development stages in Greeley, Colorado. Although there's limited information on the exact details of the proposed project, the established concerns related to plastic pyrolysis, also known as “chemical recycling” are numerous.

Health Concerns Related to Chemical Recycling

Pyrolysis uses high heat to break down materials into their chemical components, which can sometimes be recycled into new products but is most often burned for fuel. Incineration and other related waste-to-energy technologies are harmful to the environment and human health. Pyrolysis of plastics, as proposed in Greeley, can “result in the release of toxic metals, such as lead and mercury, organic substances (dioxins and furans), acid gasses, and other toxic substances to the air, water, and soils.”¹

Chemical recycling processing can impact human health not only for workers at the plant, but also for nearby communities. Exposure to toxic substances used in chemical recycling can occur by inhaling air pollution from the facility, or by coming into contact with contaminated water or soil. People can be indirectly exposed to toxins that persist in the surrounding environment.²

¹ Center for International Environmental Law. Plastic and Human Health: A Lifecycle Approach to Plastic Pollution. <https://www.ciel.org/project-update/plastic-and-human-health-a-lifecycle-approach-to-plastic-pollution>

² Ibid.

Health risks related to the release of toxins released from chemical recycling facilities include “cancer and cancer-related mortality, neurological damage, growth defects, DNA damage, endometriosis, and disruption to reproductive, immune, and respiratory systems.”³

Nearly 500,000 pounds of hazardous waste were reported in 2019 from one “chemical recycling” facility alone.

National Resources Defense Council, regarding the Agilyx polystyrene pyrolysis plant in Tigard, Oregon

Social Concerns

Chemical recycling facilities are almost always located in communities that are disproportionately low-income, people of color, or both. The proposed project site is in northeast Greeley, a predominantly Latinx community, which would be directly exposed to the industrial pollution of a chemical recycling facility and associated health risks.

³ Global Alliance for Incineration Alternatives (GAIA). https://www.no-burn.org/wp-content/uploads/Pollution-Health_final-Nov-14-2019.pdf

A Safer, More Economical Alternative to Chemical Recycling

The project has already been approved by the Colorado Economic Development Commission to be supported by \$1.3 million in taxpayer dollars. However, Greeley recently received almost \$150,000 from the Front Range Waste Diversion enterprise grant fund to “carry out the Greeley Residential Waste Diversion Study, including public surveys, diversion rate estimates, best practice recommendations, and policy options.” We feel that the City of Greeley should wait until this study is complete to better understand its residents’ perspectives and alternatives to chemical recycling (such as traditional recycling where materials are remanufactured into other products rather than burned) before proceeding with a costly, polluting project.

In 2022, Colorado passed the Producer Responsibility Act, which will provide free recycling for all Colorado residents beginning in 2026. While Greeley is struggling now to recycle plastics and other materials, that won’t be the case after 2026, when the collection and processing of its residential recyclable materials will be paid for by the producers. Rather than burning materials (chemical recycling), traditional recycling creates a local supply chain for manufacturers to reuse materials to produce their products. In 2026, when the Producer Responsibility Act is in full effect, traditional recycling collection will be free (paid for by producers like Coca-Cola, Amazon, etc.).

Support Our Work!

Eco-Cycle has been working hard on this project for the past several months, engaging both decision makers and the public on the environmental and economic challenges of these types of plants.

Over the next 4 months (May-August 2023), Catherine and the Eco-Cycle team will conduct research on the chemical recycling plant planned for Greeley and share that research with local electeds and the public. We will also provide public education through community events, presentations to local organizations, and media to help residents and businesses advocate for the community’s best interests.



Our lead staff on this work is Catherine Carreras, CCLARO Capitol Fellow. Being bilingual in Spanish and English, Catherine will be able to reach a diverse population of residents, especially those most affected in the Latinx neighborhoods located next to the proposed project area. Her multicultural background will enable her to provide a cultural context and understanding to the campaign.

At the end of the next four months (August 2023), we will have organized a campaign that will be built with partners from the Greeley area, including Mi Familia Vota and Green Latinos. We will expand upon the public outreach and education that we’ve already been doing while developing various ways for Greeley residents to contact their elected officials.