

GOOD NEWS ON EMISSIONS FROM ADVANCED RECYCLING FOR PLASTIC

Advanced recycling technologies convert used plastic into its building block materials that can be remade into new plastic. Again and again.

These technologies can significantly increase the types and amounts of plastic that can be recycled, helping us recover more of the 90% of valuable plastic materials that do not get recycled today.

Low Air Emissions

Like other manufacturers, advanced recycling facilities must comply with multiple, stringent **requirements** to operate, such as the Clean Air Act and state and local regulations.

A 2021 study by **Good Company** found air emissions from typical pyrolysis facilities were very low. (Pyrolysis is the most common advanced recycling technology.)

- Emissions were lower than or similar to many other common, well-regulated facilities like food manufacturers, universities and hospitals.
- Facilities employ quality controls designed to prevent creation of pollutants (such as dioxin).

These results demonstrate that advanced recycling facilities can operate efficiently under existing air quality regulations designed to protect the air we breathe.

Drives Down Greenhouse Gas Emissions

Like other recycling operations, advanced recycling can lower the environmental footprint of plastic manufacturing, particularly related to greenhouse gas emissions.

The U.S. Department of Energy's **Argonne National Laboratory** looked at 2017-2021 data from eight operating advanced recycling facilities. Argonne researchers found that making plastic from used plastic through advanced recycling/pyrolysis can help drive down greenhouse gas emissions from plastic manufacturing... significantly.

- Substituting 5% of feedstock made from advanced recycling in place of conventional feedstock reduces greenhouse gas emissions by up to 23%.
- Plus: reduces fossil energy use by up to 70%.

In addition, by diverting used plastic from incinerators, advanced recycling can reduce greenhouse gas emissions even further.

Read the Good Company Report

Read the Argonne National Labs Report



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Advanced recycling can help drive down greenhouse gas emissions from plastic manufacturing.