



# LafargeHolcim

**Testimony of Paolo Carollo, Director Geocycle, a Subsidiary of LafargeHolcim  
Maryland House Committee on Environment and Transportation  
“Solid Waste Management – Refuse Disposal Systems – Incinerators, Scrap Tires, and Local Authority”  
Wednesday, February 26, 2020**

## **Introduction**

Dear Chairman Barve and members of the Environment and Transportation Committee:

Thank you for the opportunity to provide written testimony in opposition to HB 1032, and to provide information on tire-derived fuel (TDF) and technologies that work toward a zero-waste future.

LafargeHolcim is the largest manufacturer of building materials (primarily cement, aggregates and concrete) in the world. We have a presence in 80 countries and have over 75,000 employees. In Maryland, our combined workforce totals over 650 employees and includes Geocycle which is a subsidiary of LafargeHolcim that specializes in sourcing and managing alternative fuels and alternative raw materials.

Our cement plant in Hagerstown has been operating since 1903. In 2016 the plant completed a \$100 million modernization investment. The investment focused on constructing a new kiln line to meet the current National Emission Standards for Hazardous Air Pollutants (NESHAP) emission limits, improve operations performance and increase capacity to meet market growth. As a result, the Hagerstown cement plant now has an annual production capacity of 600,000 metric tons of cement – enough to create over two million cubic yards of concrete – and contributes more than \$30 million dollars to the local economy annually. Its products have been used in major projects throughout the region, including the Inter-County Connector, a major east-west commuter route that runs between I-370 and I-95; the Dulles Airport taxiway “Y” rehabilitation, and the Lincoln Memorial and Reflecting Pool.

The plant has been a leader in the field of alternative fuels and raw materials, providing the State of Maryland with sustainable waste management options for scrap tires and other materials. TDF supplies approximately 4% of the plant’s thermal energy needs. As a result, nearly 350,000 used tires (approximately 5% of the tires generated in state annually) are diverted from landfills every year while enabling the plant to decrease its reliance on traditional fossil fuels and to utilize the iron contained in the tires as alternative raw materials in its manufacturing process.

Recycling and recovery is an integral part of reducing the environmental footprint of human activity and of providing a sustainable end of life solution for tires. Every year approximately 250 million tires are disposed of

in the US with many of them (approximately 30%) dumped in stockpiles, landfills, or shipped to poorer developing countries, where they will take hundreds of years to decompose, creating a substantial environmental liability for future generations. These waste piles in fact take away valuable space in overcrowded landfills, are difficult to manage as they are not a stable landfill substrate, act as ideal breeding sites for mosquitoes that can carry diseases, and can be a catalyst for underground fires that are hard to extinguish and pollute the air, soil, and water for the surrounding communities, usually exacerbating issues of social justice.

The manufacturing industry however has developed solutions that can help address the issue of used tires. Out of the 249.4 million used tires generated in 2017, 106 million were diverted from landfills and used as TDF. More specifically co-processing TDF in cement facilities is internationally recognized as safe, sustainable and a circular solution for material recycling and energy recovery that allows reducing approximately 30% of carbon dioxide (CO<sub>2</sub>) emissions if compared to Coal.

According to US EPA: *"There are several benefits to using tires as fuel:*

- *Use of TDF reduces the amount of fossil fuels that would otherwise be consumed.*
- *TDF is less expensive than fossil fuels.*
- *Diversion of tires from landfills reserves landfill capacity for other municipal waste and helps prevent scrap tire piles. Scrap tire piles pose risks because they provide habitat for disease vectors (such as mosquitoes and rodents), and because they can catch fire, creating large amounts of toxic smoke and hazardous liquids that can contaminate air, water and soils.*
- *Some state agencies suggest that cement kilns add TDF to their coal fuel in order to decrease emissions of oxides of nitrogen (NO<sub>x</sub>).*
- *TDF offers the potential advantage of decreasing emissions of oxides of sulfur (SO<sub>x</sub>) when used to replace high sulfur coal in cement kiln applications.*
- *In cement kiln applications, the ash resulting from TDF and coal combustion becomes an integral component of the product, eliminating the landfilling of ash."*\*

Additionally, the American Society for Testing and Materials (ASTM) developed TDF standards in 2001, providing an industry-accepted strategy and acknowledging the importance of its proven and continuous use.

In closing, I strongly oppose HB 1032 because recovering and recycling material and energy from scrap tires has proven to be one of the most promising and sustainable solutions providing to local communities a safe and efficient alternative to dumping of used tires and at the same time providing a safe, low carbon alternative to the use of traditional fossil fuels.

\*<https://archive.epa.gov/epawaste/conserve/materials/tires/web/html/faq-tdf.html>

Sincerely,

Paolo Carollo

