

Before the
U.S. Environmental Protection Agency

In the Matter of:		
Standards for Air Curtain Incinerators		
That Only Burn Wood Wastes, Yard		
Wastes and Clean Lumber; Provision		Docket No. EPA-HQ-OAR-2025-0068
for Commercial and Industrial Solid		
Waste Incineration Units: Temporary		
Use Incinerators and Air Curtain		
Incinerators Used in Disaster Recovery		

Comments of Fred Ashton¹

I. Introduction and Summary

The U.S. Environmental Protection Agency issued a request for comment to, among other things, “remove the reference to ‘pyrolysis/combustion units’” in its definition of “municipal waste combustion unit” under the Other Solid Waste Incineration (OSWI) category to clarify that the OSWI rule does not regulate such units.²

While these comments are not an exhaustive analysis, they are intended to clarify how this change would help support solutions that can scale plastic waste effectively and economically and improve plastic waste management.

II. Background

¹ Fred Ashton is the Director of Competition Policy at the American Action Forum. These comments represent the views of Fred Ashton and not the views of the American Action Forum, which takes no formal positions as an organization.

² <https://www.regulations.gov/document/EPA-HQ-OAR-2025-0068-0001>

Plastic remains a critical material because of its strength, versatility, formability, and cost-effectiveness. It is used worldwide for everything from packaging to motor vehicle parts, construction, and medical equipment, making it difficult to replace at scale. Yet there is growing concern that plastic materials are not being recycled but rather ending up in landfills or leaking into the environment. Rather than limiting production, improving how plastic is managed at the end of its lifecycle offers a more practical approach.

Advanced recycling can fill this gap by breaking plastic down into its molecular components and be reused in new manufacturing processes. Current regulations have not kept pace with this technology. The Environmental Protection Agency's classification of chemical recycling as incineration under the Clean Air Act does not reflect how these processes function. Correctly classifying these processes would provide a more accurate regulatory structure that matches the technological advancements.

The EPA's request for comment provides an opportunity to align regulation with current technology and process, which would accelerate investment and expand recycling infrastructure.

III. Economic Importance of the Plastic Industry

My recent research noted that the plastic industry produced \$385 billion in gross output in 2023, employed more than 660,000 workers, paid over \$46 billion in wages, and had 13,500 establishments sprawled across 49 states, the District of Columbia, and Puerto Rico.³

Nearly 460 million metric tons of plastic was used globally in 2019, with China and the United States being the largest consumers, using a combined 178 million metric tons. The packaging and building and construction sectors were the largest users of plastic globally.

Yet the Organisation for Economic Co-operation and Development estimated that 9 percent of the 353 million metric tons of plastic waste was recycled in 2019. Meanwhile, 49 percent of plastic waste ended up in landfills, 22 percent was either mismanaged – plastic waste that is not properly disposed of and can end up in uncontrolled dump sites – or littered, and the remaining 19 percent was incinerated. In

³ <https://www.americanactionforum.org/research/plastics-and-the-economy/>

the United States, only 4 percent of plastic waste was recycled while 73 percent ended up in landfills.⁴

Since 1990, domestic production of plastic products and plastic material and resin has increased nearly 36 percent and 19 percent, respectively.⁵ The growing volume of plastic, specifically single-use plastic, has prompted several state and local governments to implement regulations to curb plastic waste. States and municipalities across the country have imposed taxes on single-use plastic bags while 10 states, including California, Connecticut, and New York, have banned them outright.

Internationally, the United Nations Environment Assembly is negotiating a legally binding treaty focused on ending plastic pollution.⁶

Rather than curbing production, accelerating the adoption of advanced recycling technology could offset the potential environmental and health impacts of increased waste. Advanced recycling technology breaks down plastic at a molecular level and transforms them into raw materials used in future plastic or other production. This process also permits a wider variety of plastic products to be recycled.⁷

Analysis by McKinsey estimated that plastic recycling represents a \$50–\$75 billion economic opportunity by 2035.⁸

Much of this, however, will depend on the federal regulations. The current misclassification of pyrolysis could prevent advanced recycling facilities from operating

IV. Pyrolysis

According to the U.S. Department of Agriculture, pyrolysis is a technology used “to covert biomass to an intermediate liquid product that can be refined to drop-in hydrocarbon biofuels, oxygenated fuel additives and petrochemical replacements.” Pyrolysis is “the heating of an organic material, such as biomass, in the absence of

⁴ https://data-explorer.oecd.org/vis?fs%5b0%5d=Topic%2C1%7CEnvironment%20and%20climate%20change%23ENV%23%7CPlastics%23ENV_PLS%23&pg=0&fc=Topic&bp=true&snb=11&df%5bds%5d=dsDisseminateFinalDMZ&df%5bid%5d=DSD_PW%40DF_PW&df%5bag%5d=OECD.ENV.EEI&df%5bvs%5d=1.0&ly%5brw%5d=REF_AR EA&isAvailabilityDisabled=false&dq=USA%2BCAN%2BOECD%2BEU%2BOECD%2BOECD%2BO6%2BOECD%2BA8%2BEUXO%2BESXO%2BO%2BF98%2BF_O%2BCHN%2BIND%2BS_O.PW_EL_REGION.A.LIT%2BMIS%2BLAN%2BINC%2BREC%2BTOTAL.&pd=2019%2C2019&to%5bTIME_PERIOD%5d=false&vw=ov

⁵ <https://www.federalreserve.gov/releases/g17/current/table1.htm>

⁶ <https://www.globalplasticlaws.org/un-global-plastics-treaty>

⁷ <https://www.mckinsey.com/industries/chemicals/our-insights/advanced-recycling-opportunities-for-growth>

⁸ <https://www.mckinsey.com/industries/energy-and-materials/our-insights/blog/growing-the-circular-economy-in-chemicals>

oxygen.... Because no oxygen is present combustion does not occur, rather the biomass thermally decomposes into combustible gases and bio-char.”⁹ In other words, pyrolysis is a chemical-conversion process, not waste combustion.

V. Removing Regulatory Uncertainty

Pyrolysis’ inclusion in the definition of “municipal waste combustion unit” in the OSWI rules leads to crippling regulatory uncertainty as it creates a regulatory burden unrelated to the process. This has likely slowed investment in advanced recycling capacity.

Revising the definition to distinguish pyrolysis from solid waste incineration by clarifying that pyrolysis is a manufacturing process, not solid waste incineration will provide a more accurate regulatory structure.

VI. Conclusion

The plastic manufacturing sector is vital to the economy. Advanced recycling should be considered as a compliment to the production process to help bridge the gap between increased demand for plastic and the resulting waste.

Removing the classification of pyrolysis from municipal waste combustion unit by the EPA will create a regulatory framework that will foster increased advanced recycling.

⁹ <https://www.ars.usda.gov/northeast-area/wyndmoor-pa/eastern-regional-research-center/docs/biomass-pyrolysis-research-1/what-is-pyrolysis/>