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March 8, 2021

Via electronic transmission: ORCRMMeasurement@epa.gov

U.S. Environmental Protection Agency
Office of Resource Conservation and Recovery
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Re: National Recycling Goal: Recycling Rate Measurement
EPA-HQ-OLEM-2020-0443

Dear Sir or Madam:

The National Waste & Recycling Association (NWRA) appreciates the opportunity to provide comments on the Environmental Protection Agency (EPA) on how to measure the recycling rate to validate whether EPA's goal of 50% recycling is achieved by 2030. NWRA is a trade association that represents private-sector waste and recycling companies in the United States, and manufacturers and service providers who do business with those companies. NWRA's members operate in all fifty states and the District of Columbia. NWRA provides leadership, education, research, advocacy, and safety expertise to promote North American waste and recycling industries, serve as their voice, and create a climate where members prosper and provide safe, economically sustainable, and environmentally sound services.

NWRA members are interested in the proposed action as they have hundreds of recycling collection and processing operations across the country. The strategy has identified the right objectives to support making recycling resilient and strong.

Current status

EPA requests comments on a number of different factors including:

- Material sources,
- Material streams,
- Material management pathways; and,
- Material destinations.

Because EPA has made it clear that its goal is to increase the current recycling rate, EPA should consider the current methodology for determining which material sources, streams, management pathways and destinations. This current rate serves as the benchmark for calculating the recycling rate. If a goal of 50% is established, it should be built on the existing rate. However, if any changes are made, we recommend that EPA backcast the numbers so that the old recycling rate is adjusted according to any changed methodology. This will allow accurate comparison between the old recycling and the new. Otherwise, an increased recycling rate may not reflect any true change.

For example, EPA added a significant amount of food waste to the MSW generation¹ numbers in the most recent report for 2018 only without backcasting the values to prior years. The report shows that the generated waste (denominator) increased by 8.8% due to this added food waste. However, the recycled amount (numerator) was not changed resulting in a lower recycling rate. The graphs show that recycling rates dropped from 35.0% in 2017 to 32.1% in 2018. This gives an erroneous impression that recycling dropped significantly when instead it was that the methodology changed for the 2018 numbers.

Sources

NWRA suggests that material should be based on the type of waste rather than source. The recycling rate should be based on the amount of municipal solid waste (MSW) that is recycled. EPA has stated that “MSW consists of everyday items such as product packaging, yard trimmings, furniture, clothing, bottles and cans, food, newspapers, appliances, electronics and batteries. Sources of MSW include residential waste (including waste from multi-family housing) and waste from commercial and institutional locations, such as businesses, schools and hospitals.”

While manufacturing facilities may generate a small amount of MSW, the segregated manufacturing waste they generate are typically not managed as MSW and therefore should not be included. Similarly, hospitals will generate MSW from the cafeteria, offices and patient rooms. However, they also generate regulated medical waste, pharmaceutical waste, and chemotherapy waste that is not MSW.

¹ EPA, Advancing Sustainable Materials Management: 2018 Tables and Figures, https://www.epa.gov/sites/production/files/2021-01/documents/2018_tables_and_figures_dec_2020_fnl_508.pdf, December 2020.

Material streams

EPA estimates that more than 600 million tons of C&D² and 7.6 billion tons of industrial waste³ are generated annually compared to less than 300 million tons of MSW. C&D and industrial waste dwarf the amount of MSW generated. In order for there to be a demonstrable change in traditional recycling rates, the denominator must be limited to MSW. If that is the case, the values in the numerator must be a subset of the denominator, meaning that it must also be limited to MSW.

However, NWRA supports EPA calculating separate recycling rates for C&D and industrial waste. This would provide a better understanding as to how each waste stream is managed.

We have put together a small table with our recommendations on specific materials that EPA requested response on below.

<i>Material</i>	Part of recycling goal?	Additional comment
<i>Appliances</i>	Yes	
<i>Automobiles</i>	No	
<i>Batteries</i>	Some	Batteries are generally MSW and should be considered. Exceptions are when batteries are generated as industrial scrap.
<i>Carpet</i>	Some	Carpeting is generally MSW and should be considered. Exceptions are when carpeting is generated as C&D waste.
<i>Construction and demolition (C&D) debris</i>	No	C&D is not considered MSW so should not be considered.
<i>Electronics/e-waste</i>	Yes	
<i>Food and Organics</i>	Some	Food waste and organics are generally MSW and should be considered. Exceptions include when it never left the farm/orchard; was generated at a processing facility or was disposed through wastewater.
<i>Household Hazardous Waste (HHW)</i>	Yes	
<i>Industrial waste (coal ash, foundry sand, iron and steel slag, etc.)</i>	No	

² EPA, Construction & Demolition Debris: Material Specific Data, <https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/construction-and-demolition-debris-material>, Accessed March 4, 2021.

³ EPA, Guide for Industrial Waste Management, <https://www.epa.gov/sites/production/files/2016-03/documents/industrial-waste-guide.pdf>, March 4, 2021.

<i>Mattresses</i>	Yes	
<i>Paint</i>	Some	Paint is generally MSW and should be considered. Exceptions are when paint is generated as C&D waste.
<i>Renewable energy equipment (wind turbines, solar panels, etc.)</i>	No	
<i>Textiles</i>	Some	Textiles is generally MSW and should be considered. Exceptions is at manufacturing facilities.
<i>Tires</i>	Some	Tires are generally MSW. Exceptions are tires from commercial vehicles.
<i>Yard waste</i>	Yes	

Material Management Pathways

As stated above, materials should be limited to MSW. Some of the management pathways below are generally used for non-MSW. However, NWRA has responded to the pathway assuming that the materials would be limited to MSW.

NWRA supports efforts to quantify diversion activities that are not recycling. This would include the first two of the three “R’s,” reduce and reuse. For example, reduction efforts such as lightweighting have significantly reduced the material in containers. These efforts have impacted the amount of waste generated. Yet, it is not recycling.

In addition to mechanical recycling, we recommend the following:

Pathway	Should be included	Additional comments
Reuse	Sometimes	Reuse should be encouraged as it is part of the three “R’s” – reduce, reuse, recycle. However, reuse is not recycling and should generally not be considered. Exceptions include when the reuse substantially changes the original material and making a new product – sometimes referred to as “downcycling.” This could include making doormats out of tires or drinking glasses out of wine bottles.
Repair, Refurbishment, & Remanufacturing	No	EPA should make an effort to quantify “diversion”

Donation	No	
Composting	Yes	
Anaerobic Digestion	Yes	
Bio-based Materials / Biochemical Processing	Yes	
Animal feed	Yes	
Land application	No	
Sewer/wastewater treatment	No	However, it should not be considered MSW either
Landfill cover (ADC)	Yes	Although not preferred, ADC displaces virgin materials
Beneficial use	Yes	
Pyrolysis	Sometimes	When used as feedstock to make a new product.
Solvolyis	Sometimes	When used as feedstock to make a new product.
Depolymerization	Sometimes	When used as feedstock to make a new product.
Gasification	Sometimes	When used as feedstock to make a new product.
Waste-to-energy	No	

Material Destinations

NWRA supports including exported recycled commodities in the calculation of recycling rate. However, this should not preclude any efforts to increasing domestic markets. In addition, regardless of destination, EPA should be prepared to discuss whether materials are suspected of being subject to sham recycling efforts or result in unintended pollution.

Other

While NWRA suggests that the recycling rate should be limited to mechanical recycling, chemical recycling, composting and anaerobic digestion, we support diverting material through reduction, reuse, repair, refurbishment and remanufacturing. We recommend that EPA quantify the amount of material that is diverted through waste reduction and reuse efforts. These diversion numbers should be reported annually when the recycling rate is released.

Further, we recommend that in addition to the recycling rate, EPA also report a total capture rate. The capture rate should show the percent of recyclables that are recycled; rather than the recycling rate which shows the amount of MSW that is recycled. Recyclables should be limited to materials that meet the FTC definition of recyclable. The capture rate will naturally be higher than the recycling rate.

Finally, we recommend that EPA develop recycling rates for C&D and industrial waste but not combine those numbers with the MSW recycling rate.

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NWRA appreciates the opportunity to comment on the proposed options for recycling goals and we look forward to continuing to work with your office on this matter. Should you have any questions, please call Anne Germain at 202-364-3724 or e-mail at agermain@wasterecycling.org.

Very truly yours,

A handwritten signature in black ink that reads "Darrell K. Smith". The signature is written in a cursive style with a large, prominent "D" and "S".

Darrell K. Smith, PhD
President & CEO