



GLASS PACKAGING INSTITUTE COMMENTS
EPA MSW CHARACTERIZATION REPORT
Docket ID No. EPA-HQ-RCRA-2011-0178

September 30, 2011

The Glass Packaging Institute (GPI) is pleased to provide comments to the EPA in response to the agency's Request for Comments regarding *Materials Measurement; Municipal Solid Waste (MSW), Recycling, and Source Reduction Measurement in the U.S.*

The GPI is the North American trade association representing the glass container industry. Our membership includes 48 active U.S. glass-container manufacturing plants, over 60 glass recycling facilities, raw materials, equipment and other suppliers to our industry. Our primary members manufacture the vast majority of glass containers for food and beverage consumption in the U.S., with approximately 18,000 thousand salaried and hourly employees working in 23 states. We are about a \$5.5 Billion dollar industry in terms of U.S. sales.

We feel that the EPA's public review of its MSW Report is timely given the evolving discussion and debate regarding recycling, collection rates, recovery rates, costs and other considerations. Prior to providing comments on the specific questions the agency has posed, GPI would offer the following on the importance of recycling and recycling data to the glass container industry. At the outset, GPI would like to state that recycling to the glass container industry equates to ensuring that glass containers that are put into the recycling process (collection and recovery) return to the market as glass containers or towards the production of other manufactured products. Glass is endlessly recyclable and a strong market for recycled glass exists in the glass container manufacturing industry.

As an energy intensive / trade exposed industry, the glass container industry views recycling and the ability to have accurate recycling data as, first and foremost, a sustainability issue ... both in terms of jobs and environmental considerations. For example, and as indicated above, the glass container industry directly employs 18,000 thousand Americans in the manufacturing arena and our suppliers employ tens of thousands of additional workers. The availability of recycled glass for use in our 48 U.S. plants is one important factor in making them more competitive, especially in the face of increasing competition from China, India and other less regulated countries.

Accordingly, better data regarding the collection of glass for recycling is critical to our industry efforts to increase the supply of cullet (cullet is the industry term for recycled glass). Better data will help us develop effective initiatives in our own right and with other stakeholders, increase availability of and participation in programs for the collection and recovery of recyclable materials across the country. GPI and our member companies are happy to assist the EPA in improving the current report and look forward to collaborating with all stakeholders on specific metrics moving forward.

The glass container industry like many other packaging and products industries, depends on a consistent and high quality supply of recyclable material to be available as part of the overall materials batch. Recycled glass constitutes a significant portion of some new glass containers but a lack of consistent sources of high quality recycled glass significantly limits our ability to materially increase the overall cullet content in our new glass containers. For example, depending on availability, some of our furnaces regularly utilize more than 85% recycled glass to make new containers. However, many of our furnaces struggle to procure enough quality recycled glass to place into the overall batch mix.

The lack of availability is of particular concern from an environmental perspective given that substantial energy and emissions reductions are achieved when recycled glass is included at higher levels in the manufacturing process. For example, for every 10% of recycled glass that can be included, energy usage at the plants drop 2%-3%, and emissions of criteria pollutants (i.e., NO_x, SO_x and PM) along with greenhouse gases are reduced 4%-8%.

The glass container industry has set out aggressive goals, and is committed to reducing both energy usage and emissions levels. As part of this commitment, in 2008 our Board of Trustees announced a goal of achieving a 50% recycled content rate for glass containers industry-wide, by 2013. The GPI and its member companies support ongoing efforts and programs at the local, state and national levels in order to achieve our ambitious goal, but we must be candid in our evaluation of our likelihood of success: impediments to improving the recovery rate for glass and other commodities are numerous and long standing.

For the reasons outlined above, GPI member companies purchase high quality recycled glass with current demand outstripping supply. Accordingly, it's simply not true that there is no market for glass. Rather, there is not enough high quality cullet to purchase for use in our manufacturing processes.

There are two primary obstacles to significantly improving glass recycling recovery rates. First, the continuing opposition to consumer incentive programs (i.e. container deposits) means that billions and billions of glass containers (and other beverage containers) are not recycled each year but, rather, end up in landfills or are downcycled. It is GPI's and our member companies' position that landfilling and downcycling leads to lower competitiveness for North American based glass plants.

While the debate about the pros and cons associated with consumer incentive programs continues on a number of fronts, there is no disagreement that the ten states with these programs are the source of nearly 80% of all recycled glass utilized by our industry. The opportunity on this front to improve, on a nationwide basis, recovery rates for a wide variety of recyclable commodities (including glass) seems an obvious approach for the many stakeholders in the current MSW discussion / debate.

Secondly, while the movement to “single stream” collection of all recyclables has been pronounced over the past decade, it is clear that this approach reduces the actual recovery of all recyclables because of the difficulty of separating the various recyclables and contaminants after collection. More and better data in this regard would be extremely helpful in understanding the limitations / tradeoffs associated with single stream collection and how it might be improved from the perspective of all stakeholders going forward.

To summarize, access to recyclable glass is now and has been a concern for the glass container industry. Like all recyclables, glass must first be separated from other recyclables and materials prior to use in the manufacturing process. It requires no processing other than color separation and size specification. Once the required specifications are met, the recyclable glass is ready to go back into the furnaces to be melted with other raw materials towards the production of new glass containers.

It is a simple process that can be repeated again and again - as glass-containers are 100% and endlessly recyclable, experiencing no loss in quality for the new containers produced.

While there are many ways that recyclables in the MSW stream are collected, the most effective way for glass and other commodities to have the best opportunity to be reused in the manufacturing process is to be separated at the point of collection. This can be achieved through consumer incentive programs; dual separation at the curb; bar, restaurant and other commercial programs; and drop-off programs, typically located in more rural areas of the country. Each of these programs, while different in many respects, provides the best opportunity to return glass to the consumer as a new container.

Citing the avenues outlined above for glass collection, the GPI supports a variety of policies at the local, state and national levels that assist our industry in securing recyclables for use in the production and manufacture of new glass containers.

Currently, the most prevalent process of gathering recyclables is what the industry refers to as single-stream or “one-bin” collection. Glass experiences what the industry estimates to be 40/20/40, with 40% of the glass collected in this manner going to landfills, 20% downcycled into one time applications, such as roadbed aggregate and the remaining 40% used to make new glass containers. The loss of

approximately 60% of all glass for our industry is due primarily to the difficulty in sorting out the recyclables collected in the single stream manner.

As we explain in our comments below, much of this glass is often counted as being “recovered or recycled” by states in their respective MSW reports that the EPA often relies upon for its data needs. However, broken glass that is mixed with other materials is often discarded after collection and never reaches glass container manufacturers. GPI believes that better information about the ultimate disposition of materials that are collected for recycling will lead policy-makers to redesign their collection programs to improve recovery rates.

Below are GPI’s comments with respect to the three topics outlined in the EPA’s request -

TOPIC 1: Usage of EPA's Characterization Report

First, GPI would like to acknowledge the effort placed into the development of the EPA MSW Report. For the glass section, over 60 sources are cited for gathering the generation, recovery rates, and other information meant to clarify the data presented. These sources include state and local MSW data, industry and government reports, along with various articles, news media and conversations with industry representatives.

We agree with the EPA that data gathering is crucial to any characterization report. A major issue for the collection of recovery data is the consistency of reporting across the country. While some states that have financial incentives tied into their recycling rates and reporting (for example, those with consumer incentive programs), may provide more accurate data, other states simply do not have the data necessary to provide the EPA with an accurate “recovery” rate for glass containers.

Additionally, what is reported to the EPA in terms of glass recovery is not always accurate. As we explain in ***TOPIC 2***, the ultimate disposition of material that is collected in recycling programs must be considered when examining and improving the current recovery rates. A significant amount of glass containers that are reported as recovered by local and state governments end up in landfills or are used as substitute in roadbed aggregate.

There is also a chance that some states are over-reporting to their state Department of the Environment or (for example, two counties or cities counting the same recyclables, as they make their way through the process), or that the state itself may not require recycling rates to be submitted. For these reasons, we respectfully submit that that much of the data submitted by the state and utilized by the EPA is of limited value.

In order to provide the most accurate data to the EPA, with respect to glass

recycling information, the GPI is considering submittal of its Cullet Report, which details the amount of recycled glass utilized on a monthly basis for over 90% of the U.S. glass container industry. These data have been collected in a confidential manner via a third party since January of 2010. As individual glass companies submit data to the GPI Cullet Report on a voluntary basis, we believe that any subsequent submission of data on an industry-wide basis to the EPA also be done on a voluntary basis.

The GPI Cullet Report may be prove helpful towards improving the overall EPA MSW report. First and foremost, the public can be assured that the recycled glass included in the report's data set is being used to make new glass containers. We contend that this form of recycling for glass containers is not only better for the environment, but also greatly assists our industry in terms of energy, efficiency and jobs. *In TOPIC 2, we further explain the importance of ensuring accurate glass recycling data, specific definitions and consumer expectations.*

Second, this information may be compared to consumer incentive programs that collect recycling information. Out of the state data considered by the EPA in development of the MSW Report, we believe that data collected from states with these programs are the most accurate, as the vast majority of the glass collected through their programs is actually re-used to manufacture high-value and similar use products, including the production of new glass containers and fiberglass (over 90%). In order for the recovery rate to be considered legitimate by both the industry and the public, the resulting end product must be considered.

GPI requests that EPA include in the MSW report the recovery rate achieved for each category of recyclable material, broken down by type of collection system. We also ask that the volume of each type of material that is recovered be compared to the volume of each type of material that is collected, broken down by type of collection system. These data will allow policy makers who are designing and implementing systems for collecting recyclable materials to evaluate the relative effectiveness of the collection system in achieving recovery of recyclable materials.

Additionally, the GPI would suggest that the MSW report be annual, rather than issued every two years. This would allow our industry, and others, to access national data in a timely manner, more quickly identify trends and highlight where improvements can be made.

TOPIC 2 - Scope of EPA's MSW Characterization Report

In its request for comments, the EPA asked stakeholders which materials should be included in the MSW Report moving forward (C&D, Automotive, Industrial, etc.) who should be supplying data to the EPA for use in the report, and assistance in

defining specific terminology.

With respect to the EPA's consideration of expanding the report to include C&D materials and other non-hazardous industrial materials..while we have no objection to the collection and reporting of these materials, we would note that given the great differences in the materials themselves and resulting collection systems, that these be evaluated in a separate report.

With respect to the terminology utilized throughout the EPA report, the most important term for our industry's purposes is "recycling" (cited as "recovery" in the report)

The EPA MSW Report currently relies on the term "Recovery" for the establishment of the glass container recycling rate and is defined as such - *"Recovered glass containers (bottles) are used to make new glass containers and other uses such as fiberglass insulation, aggregate, and glasphalt for road construction."* - Chapter 2 Page 46

The GPI recommends that the current "recovery" category be broken into two specific and more helpful categories.

The first would be designated as "closed loop recycling" (CLR). The CLR category would refer to recyclables collected and used in the manufacture of a new product. We strongly contend that one-time uses for glass and other recyclables collected, such as substitute for roadbed aggregate and daily landfill cover are not products, but are instead applications.

Further, we strongly contend that these one-time applications for glass are of no benefit to the environment with respect to emissions and energy, require industry to expend additional energy to gather raw materials for use in the manufacture of new containers, and place undue pressures on already limited landfill space.

In an attempt to better understand the volume of glass being recovered for reuse in the manufacture of new products versus other one-time applications, we propose that the second category be labeled as "diversion". Currently, diversion is vaguely defined in Appendix A on Page 186 of the report.

An example currently used in the report to provide clarification for "diversion" describes non-reuse activity, such as tissue paper being processed in the sewer system, rather than going back to the MSW stream.

The GPI believes that "diversion" should be expanded from the current definition to include one-time applications for glass, including alternative daily cover (ADC) for landfills and as part of roadbed aggregate. This will enable the glass industry and other stakeholders to better understand the

accuracy of the data being collected, and importantly, provide a better understanding of the end markets for recyclables.

The development and accurate reporting of these two categories would allow our industry to better understand what the true recovery/recycling rate is for glass containers, and would also assist in the development of initiatives to improve glass recycling.

Consumer expectations should also be considered when examining the definition of recycling or recovery. Those who take the time to recycle their beverage containers have an expectation that they will be reused in a manner that is truly beneficial to the environment. The GPI has conducted surveys on consumer expectations with respect to recycling and there is a strong belief that recycling means products are returning to them in a similar form.

TOPIC 3 – Measurement Methodology

The EPA has also requested comments with respect to data gathering, web-based data collection tools and the possible inclusion of an LCA moving forward.

With respect to web-based tools to collect information, we believe that question is likely directed at the municipalities and states. GPI member companies at large would not be supportive of individually submitting data to the EPA for use in the report, for confidentiality, competitive and antitrust reasons. As we mentioned in TOPIC 1, our industry is considering submittal of data to the EPA from GPI on an industry wide, confidential and voluntary basis.

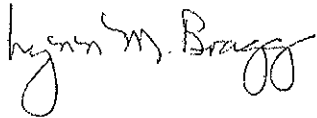
Many states and communities already issue reports on the outcomes of their recycling initiatives. However, most of these entities report on collection rates, not recovery rates. It would be very useful for EPA to use existing data on collection of recyclable materials that is already being reported by states and communities and compare it to the data on recovery of those same materials, broken down by type of collection system, to allow states and communities to determine the true effectiveness of their recycling programs.

This section also asks about the usefulness of including an LCA as part of the overall report. While most of the packaging industries, including the GPI, have developed and publicly made available an LCA for their respective industries, we believe that attempting to include such analyses as part of the MSW report may confuse the issue and overall report improvement goal. Each industry's LCA is calculated in a manner, which while consistent with their industry, may not be with others, creating a classic "apples to oranges" scenario.

Thank you again for your consideration of our comments regarding the MSW Report. We look forward to continuing and strengthening our partnership with the EPA.

Please do not hesitate to contact us with any questions you may have.

Best regards,

A handwritten signature in black ink that reads "Lynn M. Bragg". The signature is written in a cursive style with a large initial "L" and "B".

Lynn M. Bragg
President