



Sustainability Newsletter

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Using Nature's Bounty

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Chairman's Letter

By **A. George Staniulis, Chair, Sustainability Division, Society of Plastics Engineers**

As that famous American philosopher Yogi Berra once said, "it's like déjà-vu all over again."

Once again, the plastic industry is in the environmental spotlight, and again, not in a good way. The primary culprits this time are discarded single-use plastics packaging polluting our oceans and landscape.

Perhaps we can recall a little bit of history. Back in 1987, the infamous Long Island garbage barge, the Mobro 4000, was traveling from port to port looking for a friendly locale to unload its cargo of 3,200 tons of municipal waste, much of it plastic.

What sparked this episode was that landfill space was at a premium in the north-east, thus expensive, and municipalities were exporting their trash to lower-cost destinations. First the barge went to North Carolina. After it was turned away, the barge went to Mexico with the same results, then to Belize, then back to Long Island where the garbage was finally incinerated.

Naturally this activity generated a lot of press, and the cry was raised that we were running out of landfill capacity. Landfills were reaching their maximum capacity and closing faster than new facilities were being commissioned. What was needed was to reduce the amount of waste going into landfills. Not a bad thing under any circumstance.

What became the bad boy in all of this was plastic. The poster child for this problem was single use EPS clam-shell containers utilized by the fast food industry. Sound familiar?

The plastics industry jumped in to protect itself by presenting loads of data showing that plastics packaging was the best packaging material environmentally, technically, and in every other way. However, once a public issue gets to this point, facts matter little. The populace just wants the problem to go away.

From the interactions that I had with a major packaging

manufacturer, they thought that the economic and technical benefits of the clam-shell container, notably a longer shelf life of the hamburgers, a cleaner product, it kept the food hot for take outs, etc. would carry the day with their customers. Boy, were they wrong.

As the landfill crises festered, loud voices were raised vilifying plastic's role in this situation. The hamburger sellers became concerned that the clam-shell was negatively impacting their ability to sell their product. It wasn't long before the clam-shell was discontinued irrespective of its economic and technological benefits.

One of the positive aspects of this situation was that it gave plastic recycling a big boost. Unfortunately this was not enough to save the clam-shell, which was a better product than what they ended up with, coated paper.

Now, 30 years later, we have a world-wide plastic pollution problem. The culprit again is single use packaging. Even though we went through this problem before, it seems to me that we are repeating the same mistakes in how we are addressing this issue: 1) by focusing too much on technological arguments favoring plastic packaging; and 2) by trying to deflect blame by positioning this issue as a disposal and littering problem. In my view, since the material we are talking about is plastic, it is our problem.

We need to make the problem go away - and quickly - otherwise many of our packaging products might end up like the clam-shell: obsolete. Developing collection and sortation technologies takes time. Converting the mindset of the populace to stop littering will take generations. As I am blessed with 20/20 hindsight, we should have considered these back-end issues when we started making these products. But then, who would have listened?

Looking Forward

What can we do now? One way is to ban single-use plastic packaging - period. This will be effective, but it would not be my first option. Last year in Kenya, however, a law was enacted banning single use plastics bags with penalties of 4 years in jail and up to \$31,000 in fines for manufacturing, selling, or even using this product. This draconian approach seems to be working with a noticeable reduction of plastic pollution, thus encouraging a number of other African countries to consider similar legislation.

The European Union is also making noises to ban single-use packaging products.

Another option is to expand the bottle deposit programs to require a deposit on all plastic bottles, soda, water, milk, detergent, mouth wash, etc. The bottles, and, if need be, other plastic recyclables, would be returned to satellite redemption centers operated under the auspices of the resin and packaging companies. After all, following the cradle-to-grave model, this is their product and their responsibility. This approach would go a long way to address the collection, sortation, challenges. A little cumbersome, but very doable.

Finally, the packaging manufacturers themselves can mitigate this pollution problem by utilizing recycled plastics in their products or elsewhere in their operations. They can establish standards for cleanliness and consistency, and convey to the recyclers that if they meet these standards, they will buy their material. In doing so, they will create value for a problematic waste material.

We all know that nothing happens until someone sells something. I have confidence in our economic system that if there is a well-defined market for recycled plastic packaging, some bright entrepreneur will solve the problems necessary to satisfy that demand.

One last thought for the packaging companies: stating that your goal is make your packages recyclable, reusable, or compostable is not enough. No matter how recyclable you make your package, if it is not being recycled, it is not recyclable. The best thing that you can do to drive recycling is to buy recycled resin to manufacture your products where ever you can. |

Cover Image:

“Tree-Based Console Substrate”. From the SPE Global Parts Competition, submitted by Ford Motor Company. The hybridization of cellulose fiber with long glass fibers in PP composites reduced the use of inorganic fibers in console substrate, leading to robust properties and significant weight savings.

Photo courtesy of SPE.

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“why join?” but ...

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