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Policy Position in Opposition to Degradable Additives in Plastic Packaging
Adopted by the NERC Board of Directors on January 20, 2012

The Northeast Recycling Council, (NERC) hereby adopts a policy position in opposition to the use of degradable additives in plastic packaging. This practice has a negative impact on plastics recycling markets and the effectiveness of plastics recycling in general.

NERC maintains the following understandings:

The use of degradable additives currently renders the material un-recyclable. NERC supports the recycling of recyclable materials. Plastic bottles, film, and containers have strong recycling markets that depend on sources of clean, recyclable material. The use of degradable additives removes the reliability of the resin and may jeopardize its ability to be recycled and remanufactured into a new product.

Recycling is a steady and viable industry with positive economic impacts. In the Northeast United States, thousands of people are employed in jobs that are dependent upon recycled plastic for feedstock in the production of consumer-ready goods. Working in more than 150 facilities across the region, these businesses annually contribute in excess of a billion dollars in added value to the domestic economy.

Plastic packaging's environmental sustainability lies in its ability to be recycled. No plastic polymer is so sustainable that it should be used only once and thrown away. Over 1,440 million pounds of postconsumer PET and 981 million pounds of postconsumer HDPE were recycled in 2009. Domestic PET processing capacity will increase by 50% in 2011 alone. [1]

Disposal of these plastics in landfills contributes to greenhouse gas emissions. The degradation of these materials in landfills contributes to greenhouse gas emission. A recent North Carolina State University study concluded that the more rapid rate of degradation sought through degradable additives may exacerbate methane emissions, based on the fact that many potential methane collection programs are not yet in place.[2]

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[1] Based on published recycling rate reports: PET- http://www.napcor.com/PET/pet_reports.html, and HDPE - http://www.americanchemistry.com/Media/PressReleasesTranscripts/RelatedPDF/PDF-2009-United-States-National-Post-Consumer-Plastics-Bottle-Recycling-Report.pdf.

[2] Dr. Morton Barlaz, N. Carolina State University study (5/27/11), http://news.ncsu.edu/releases/wms-barlaz-biodegradable/ http://pubs.acs.org/doi/abs/10.1021/es200721s

There is inadequate information about the lifecycle of plastic packaging with degradable additives. Data from degradable additive manufacturers has been limited in its scope, not affording the various concerned constituencies a full understanding of the potential risk to plastics recycling. As such, a variety of diverse organizations have either discouraged use of degradable additives until more data is forthcoming, or urged prudent consideration of the environmental harm/benefit ratio.[3]

Plastic packaging with degradable additives may, in fact, present a danger. Degradable additives potentially endanger post-consumer plastic recycling since it remains unclear how these additives might affect the many next-life products made from recycled materials in terms of quality, performance, safety, and lifespan.

The use of degradable additives in plastic packaging is not helpful in the reducing the generation of marine debris. Plastic packaging is a serious and key component of the marine debris problem. While the addition of degradable additives could be thought to increase the speed in which that material breaks into pieces, those pieces do not biodegrade into a natural component and cannot be appropriately assimilated into the food chain. By reducing particle size, risk of ingestion by marine life may not be reduced and are possibly exacerbated**.**

The application of degradable additives in plastic packaging is not a viable solution to litter control. Littering is neither an acceptable nor a legal material management method. To intentionally design consumer packaging for litter compatibility is illogical and counterproductive. NERC supports efforts to reduce litter through education and enforcement.

THEREFORE, because the environmental benefit of degradable additives is at best unclear, as is their potential effect on plastics recycling, NERC opposes the use of degradable additives in plastic packaging at this time. NERC does, however, fully support additional research into the both the: effects and impacts of degradable additives on the recyclability or composting of plastic packaging; and, the development of fully recyclable or compostable plastic packaging.

[3] These include: NAPCOR: http://www.napcor.com/pdf/NAPCOR_DegradblAdds2FINAL.pdf; APR: http://www.plasticsrecycling.org/images/stories/doc/DegradableAdditivesStatement120308.pdf; EPA: http://www.epa.gov/osw/wycd/catbook/debate.htm; and SERDC: http://www.serdc.org/blog?mode=PostView&bmi=719461.