The New York Times

https://www.nytimes.com/1990/11/18/business/a-setback-for-polystyrene.html

A Setback for Polystyrene

By John Holusha

Nov. 18, 1990


A Setback for Polystyrene

The defection by McDonald's may undo two years of recycling efforts.

How early is too early to start planning for retirement?

Merrill Lynch
A tradition of trust.

About the Archive

This is a digitized version of an article from The Times's print archive, before the start of online publication in 1996. To preserve these articles as they originally appeared, The Times does not alter, edit or update them.

Occasionally the digitization process introduces transcription errors or other problems; we are continuing to work to improve these archived versions.

MANUFACTURERS of polystyrene, the lightweight plastic packaging material, have been struggling for two years to improve their environmental image by establishing a recycling program. But all of their efforts may have been undone by

the decision earlier this month by the McDonald's Corporation to switch from plastic foam to paper packaging for its hamburgers.

Leaders of the polystyrene recycling effort, which is backed by some of the biggest petrochemical companies in the nation, vow they will press on despite the defection of McDonald's. The fast-food chain, the biggest in the nation, was the most prominent participant in pilot recycling programs based in New York and Massachusetts and was to have been part of a planned nationwide program.

"What McDonald's did was give us another quarter of red ink," said Russ Welton, vice president of the National Polystyrene Recycling Company, which is building four recycling plants across the country. Without McDonald's, company executives are scrambling to line up school and industrial cafeterias, big users of foam cups and plates, as new sources of supply.

But some industry observers say the switch by McDonald's will have much bigger repercussions for the $2.5 billion industry.

"Food manufacturers will think twice about continuing to use polystyrene and other plastic packaging," said Peter Coombes, the editor of Chemical Week magazine.

"McDonald's was the engine driving this program," said Nancy Wolf, executive director of the Environmental Action Coalition in New York. "Without them, the whole polystyrene recycling system may collapse."

Some environmentalists have questioned the value of the recycling effort, saying it puts a mantle of respectability on a material whose manufacture generates pollution and which is particularly troublesome as litter. They say the foam is so light it is difficult to collect and transport economically. And they argue that if the chemical industry withdraws the subsidies it has used to start recycling, the effort may end.

"THUS far, polystyrene recycling is more a problem-ridden theory than a proven option," said Frederic D. Krupp, executive director of the Environmental Defense Fund, which is helping McDonald's improve its environmental performance and

influenced the company's decision to drop the foam box. "There is a lot of pressure on the companies that make polystyrene to say they are recycling, but saying it does not mean it will really happen."

Mr. Krupp noted that the recycling program does not even address the approximately 50 percent of the packaging that leaves fast-food restaurants with takeout orders.

Leaders of the foam recycling effort concede that early efforts to re-use the material have not been profitable and have been hampered by contamination with paper and food waste. But they say four new, much larger plants in the Chicago, Philadelphia, Oakland, Calif., and Los Angeles areas will be able to stand on their own financially .

"Startups always lose money initially," said Mr. Welton of National Polystyrene. "But we are not saying to the industry, 'Subsidize us for 10 years.' I think we can get to a positive cash flow by the end of 1991."

The polystyrene industry began the recycling effort late in 1988 after some areas, including Suffolk County on Long Island, banned the material as part of their response to the solid-waste crisis. Although foam plastic is a small part of all solid waste, hamburger boxes have been singled out by environmental groups because of their very short useful life and prominence as litter.

However, most of these bans include exceptions for materials that are, or can be, recycled. To keep the enacted bans from taking effect, as well as to deter new ones, the polystyrene producers must keep the recycling program alive.

In November 1988, Mobil Chemical and the Genpak Corporation set up a recycling operation in Leominster, Mass., called Plastics Again, which has since been absorbed by National Polystyrene. Early last year, the Amoco Foam Products Company established Polystyrene Recycling Inc. in the Greenpoint section of Brooklyn in association with McDonald's.

Since then, the industry has united behind National Polystyrene and pledged to recycle 250 million pounds of the material by 1995. Company executives said this represents about one-quarter of the billion pounds of plastic foam used in various food packaging applications, and thus is responsive to the Environmental Protection Agency's goal of reaching a 25 percent recycling goal by that date.

The companies that each put up $2 million last fall to start National Polystyrene are Amoco Chemical, Arco Chemical, Chevron Chemical, Dow Chemical, Fina Oil and Chemical, Huntsman Chemical, Mobil Chemical and Polysar.

But the amount to be recycled is a small fraction of the more than 5 billion pounds of polystyrene used in this country each year. Sometimes referred to by the Dow Chemical trade name Styrofoam, polystyrene is also used as molded packaging blocks for shipment of electronic devices, loose packing materials and in the construction and home furnishing industries. Most of these products end up in landfills, where they break down very slowly. But a huge amount simply becomes litter.

"WHEN we did a cleanup of the Merrimack River, the biggest single item we found was Styrofoam," said Pat Scanlan, the director of recycling at Wheelabrator Technologies Inc., recounting a cleanup effort he was part of in Massachusetts with a group of friends. "A lot of it was packaging. People threw boxes in the river after buying appliances. The cardboard dissolved, but the Styrofoam floated on to the shore."

Foam plastic's light weight is the major obstacle to recycling, environmentalists and industry executives agree. Although re-using the material simply involves remelting and forming into a new shape, the obstacles posed by collection, shipment and decontamination remain formidable.

"The people who run curbside collection programs don't want to have anything to do with it," Mr. Scanlan said. "They are paid by the ton of material delivered, but the polystyrene takes up space without adding much weight."

"The big cost is transportation," said Tom Tomaszek, the former manager of the Plastics Again plant who now heads a plastics recycling company in Fort Edward, N.Y. "You have to go after other materials in addition to polystyrene to get favorable economics."

Ollie Ligon, an executive at Amoco Foam Products and president of the Brooklyn operation, conceded that "the cost of collection and processing exceeded the value of the resin." The Brooklyn plant paid nothing for the material it received; the shippers benefited by not having to pay the cost of disposal.

MR. WELTON said new methods of compressing the foam are being developed, allowing economical truckloads. But the manager of a recycling program in Fitchburg, Wis., said it took all night in a baling machine to compress 275 pounds of foam. A bale made quickly, she noted, only weighs 75 pounds.

In addition, foam that has been used in connection with food has to be washed before it can be remelted, or the resulting contamination will weaken the mechanical properties of the plastic. Executives at National Polystyrene said McDonald's was unable to persuade its customers to separate the plastic foam hamburger boxes from paper wrappings and food waste. As a result, the material arrived at the Leominster facility heavily contaminated and yielded low-quality plastic.

For that reason, Rubbermaid Inc., which said it was eager to use recycled plastic in its household and office products, has only accepted one shipment that was remelted at Plastics Again. "The quality of the material we were getting from McDonald's was terrible," said Mr. Welton of National Polystyrene, the current owner of Plastics Again. "And the material we were producing at the plant was not sufficient to meet the needs of customers like Rubbermaid."

Charles J. Lancelot, materials manager for Rubbermaid Commercial Products, said the company had used only "modest" amounts of recycled plastic foam. But he said Rubbermaid was prepared to use more "if it is consistently available in the right quantity and quality."

Mr. Welton said the new plants, the first of which will open later this year in the Los Angeles area, will each be capable of recycling 13 million pounds of plastic a year, compared with 3 million at Leominster. "At 2 to 3 million, I'm marginal," he said. "At 13 million, I can be profitable."

But McDonald's isn't the only fast-food chain to turn away from foam. Burger King, the second-biggest chain, has used paper-based packaging all along except for coffee cups, which it plans to replace as well. Other chains say they may soon follow suit.

To make up for the loss, the polystyrene recyclers say they are focusing on school and industrial cafeterias. Schools, they note, do not have the carryout problem of fast-food restaurants and students are more dutiful in separating foam trays from other wastes.

National Polystyrene has signed up the Los Angeles school system, and executives say this is typical of the types of supply arrangements the company will use to replace McDonald's. The company's plant in Corona, Calif., will pay 4 cents a pound for foam delivered to its doors.

Beth Lauargand, a business manager for the school system, said it already hauls its own garbage, so it has trucks and a collection system in place. Recycling the foam, she said, "would be very difficult to do unless you are fortunate enough to be in our circumstances."