








Mr. Howard Moore
56 Cross Path Road
Northhampton, MA 01060

Dear Mr. Moore:

Thank you for your May 17, 2001 letter to President Bush in which you suggested a new color sorting system for plastic containers. Due to the environmental nature of your letter, it was forwarded to us at the United States Environmental Protection Agency (EPA).

In your letter you mentioned that your friend who ran an injection molding business would be able to use more recycled plastic if contamination from different resins were reduced or eliminated. Your idea to achieve this goal would be to introduce a new type of color coding system for different resin types. This could potentially help consumers and collection and sortation facilities to more easily provide a clean supply of specific resin types to industries that use recycled resins. As you noted, increased recycling of plastics would reduce consumption of fossil fuels (and additionally would have the benefit of reducing greenhouse gas emissions associated with the production of virgin resins – see www.epa.gov/mswclimate).

The existing sortation system in the U.S. relies on recycling symbols that have been placed on the bottom of plastic containers beginning in 1988, due to a voluntary effort by the Society of the Plastics Industry (SPI). Commonly referred to as SPI codes, the numbers within the recycling “chasing arrows” symbol refer to seven different plastic resin categories:  Polyethylene Terephthalate (PET);  High Density Polyethylene (HDPE);  Vinyl/Polyvinyl Chloride (PVC);  Low Density Polyethylene (LDPE);  Polypropylene (PP);  Polystyrene (PS); and,  Other. This system was introduced to make separation of the many similar-appearing plastic resin types easier for recycling centers across the country. There was no federal legislation to mandate these symbols, though many states have now adopted legislation that mandate its use.

Currently, the most valuable recyclable plastic resins coming out of municipal collection and sortation systems are clear PET and HDPE. Since they are clear they can be used in a much broader suite of final applications than colored recovered resins. Colored HDPE and PET thus have a lower value—making it harder for municipalities to recoup their expenses in collecting, sorting and processing these resins (or any of the other resin types that have little to no value). If we were to mandate color coding, it could worsen this situation, thus making it even harder on

struggling municipal recycling programs. For a more in-depth discussion on the costs associated with plastics recycling, and the effects that design of bottles have on these costs – see <www.plasticredesign.org>. This website includes a number of publications, partially financed by EPA, that discuss the dynamics of plastic recycling costs and analysis of the effects of color on the price of the recycled resin.

In general, plastics are one of the most difficult commodity types to recycle. In EPA's most recent characterization study of Municipal Solid Waste, we found that in 1998 plastics were recycled at a rate of 5.4 percent, well below the 28.2 percent national average for all commodity types. States have attempted to improve the plastics recycling rate by using their legislative authority in a variety of ways. Ten states (including the state of California) now have bottle bills, which typically require a deposit upon plastic and aluminum beverage containers. Other states, such as Oregon, have passed packaging recycling laws which require all packaging to be recycled at a certain minimum percentage. It is interesting to note that the plastic bottle recovery rates in states with bottle bills average 80 percent while they are below 40 percent in other states. The cost of achieving these recycling rates are still in debate – but are another very important factor to consider when thinking about implementation of color mandates for specific plastic resins.

EPA does not anticipate any changes in federal legislative authority for recycling labels (or colors) in the near-term. We will continue to encourage the plastics industry in their voluntary efforts to increase the recycling rates of plastics. If you have additional questions about the SPI codes or about the industry's efforts to increase recycling, please call the American Plastics Council at 1-800-243-5490 .

Thank you for your creative idea for improving plastics recycling – and for expressing your concern for the environment.

Sincerely,

Elizabeth A. Cotsworth, Director
Office of Solid Waste

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