SYSTEMIZATION METHOD FOR RECYCLING PLASTIC BAGS AND OTHER ITEMS

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ABSTRACT

A recycling method whereby a plastic bag or other recyclable item that satisfies applicable manufacturing specifications and is part of a recycling program is marked with a logo and a recycling bag that is part of the same recycling program is marked with a matching logo. Consumers discard plastic bags or the other recyclable items bearing the logo by depositing them in recycling bags bearing the matching logo. The filled recycling bags are subsequently collected for recycling. The system enables consumers to identify qualifying plastic bags and other qualifying recyclables instantaneously and reliably and provides a simple and easily learnable method for their disposal. The system also keeps qualifying plastic bags and other qualifying recyclables segregated from the rest of the waste and recycling streams and protects them from becoming contaminated.
SYSTEMIZATION METHOD FOR RECYCLING PLASTIC BAGS AND OTHER ITEMS

[0001] This application claims priority from U.S. Provisional Patent Application Ser. No. 60/922,245 filed Apr. 5, 2007, the contents of which are incorporated herein by reference in their entirety.

BACKGROUND OF THE INVENTION

[0002] 1. Field of the Invention
[0003] This invention is in the field of environmental processes and pertains particularly to recycling methods.

[0004] 2. Background
[0005] Only a small percentage of discarded empty plastic bags are actually recycled into new products such as new plastic bags or plastic decking. The invention provides an advantageous system to increase the percentage of plastic bags that are recycled into new plastic products.
[0006] At the present time, plastic bags are manufactured without regard to their recyclability. For example, some plastic bags are specially designed to degrade when exposed to light or air over a period of time. Such degradable materials when recycled and incorporated into new products may cause the new products to degrade and decrease their useful lifespan. Another example is the use of string handles or cardboard components in plastic bags. Such non-plastic materials compromise the recyclability of such bags as such materials need to be separated from the plastic in the recycling process.

[0007] No manufacturing specifications currently exist to enhance the recyclability of plastic bags. However, the plastic bag industry, a government agency, a product stewardship organization, or another entity may in the future create such manufacturing specifications as part of a recycling program.

[0008] For example, such manufacturing specifications could include requirements that plastic bags must be comprised only of polyethylene, including high density polyethylene (HDPE), low density polyethylene (LDPE), or linear low density polyethylene (LLDPE), and that certain materials must be excluded to enhance recyclability. Examples of materials that might be excluded are degradable, biodegradable, photodegradable, or compostable materials; string; cardboard; polypropylene cinch ties; polyvinylidene dichloride (PVDC); additives; or fillers.

[0009] There could also be a manufacturing specification that plastic bags must not be designed or intended for a purpose that is likely to bring them into contact with wet food, liquids, oil, grease, dirt, or other contaminants. Such contaminants can reduce recyclability.

[0010] The above manufacturing specifications are illustrative only.

[0011] If manufacturing specifications are established or adopted to enhance the recyclability of plastic bags as part of a recycling program, there will be a need for a logo on such bags that will indicate that they are part of that recycling program. Such a logo would enable consumers and others to identify such bags easily and reliably.

[0012] It will be necessary to (i) keep plastic bags bearing the logo segregated from other items in the waste and recycling streams; and (ii) protect plastic bags bearing the logo from becoming covered with wet food, liquids, oil, grease, dirt, or other contaminants. As plastic bags become more contaminated, they become less recyclable.

[0013] Plastic bags and other plastic products are currently labeled on the bottom with the Society of the Plastics Industry (SPI) code, consisting of a design of arrows in a triangular shape containing a number and abbreviation, such as 2 and HDPE or 4 and LDPE. It is important to note that the use of the SPI symbol and the numbers and abbreviations do not constitute a claim that the product meets any manufacturing specifications or indicate that the product or material is recyclable or part of any recycling program. As the Federal Trade Commission has confirmed, the symbol with the number and abbreviation merely identifies the component plastic resin. See “Example 2” in 16 CFR §260.7(d).

SUMMARY OF THE INVENTION

[0014] The invention provides a method of recycling empty plastic bags using a system of matching logos on plastic bags and disposing receptacles.

[0015] In one embodiment, a logo is printed on plastic bags to indicate that they are part of a particular recycling program.

[0016] In another embodiment, a matching logo is printed on recycling bags into which such plastic bags are deposited as part of that recycling program.

DETAILED DESCRIPTION OF THE INVENTION

[0017] The term “plastic bag(s)” means all kinds of plastic bags or containers made of plastic film, including but not limited to grocery bags, produce bags, retail or merchandise bags, carrier bags, newspaper bags, dry cleaning bags, plastic wrapping for containing bathroom tissue, plastic wrapping for containing kitchen paper towels, plastic wrapping for containing bottled water, and stretch film used to contain or wrap items.

[0018] The term “qualifying bag(s)” means all plastic bags that (i) meet any and all applicable manufacturing specifications established or adopted by a recycling program and (ii) are part of that recycling program.

[0019] The term “recycling bag(s)” means a receptacle into which a qualifying bag is discarded as part of a recycling program.

[0020] The invention enables consumers to identify qualifying bags that are part of a recycling program instantaneously and reliably by marking them with a logo.

[0021] In one embodiment, the logo on qualifying bags would be three diagonal stripes at the bottom right hand corner. On plastic wrapping or stretch film, the logo would be the same or similar but not placed in a corner.

[0022] In another embodiment, consumers are provided with recycling bags bearing the same or similar logo to the logo on qualifying bags, identifying them as part of the same recycling program.

[0023] In yet another embodiment, consumers would be instructed that empty qualifying bags bearing the logo must be discarded by depositing them in recycling bags bearing a matching logo. The key is to match the logos.

[0024] In an exemplary embodiment, the logo on recycling bags would be horizontal green stripes.

[0025] The logos on the qualifying bags and the recycling bags do not have to be identical in order to match. To the extent that they are different, consumers would be instructed that they match for the purpose of a particular recycling program. For example, they could be instructed that a three
corner stripes logo on qualifying bags matches a horizontal green stripes logo on recycling bags.

0026 The matching logo system would simplify consumer education and increase consumer participation and compliance.

0027 The use of the recycling bags would (i) keep qualifying bags segregated from other parts of the waste and recycling streams; and (ii) protect qualifying bags inside the recycling bags from becoming covered with wet food, liquids, oil, grease, dirt, or other contaminants.

0028 Filled recycling bags could be identified by the logo by manual sorters or sorting equipment at materials recovery facilities. The filled recycling bags could be separately baled and sold to recyclers.

0029 In one embodiment, the system could be applied to recyclables other than plastic bags such as polystyrene products, glass or plastic bottles, or batteries.

DESCRIPTION OF THE DRAWINGS

0030 The foregoing and other features and advantages of the invention will be apparent from the description of exemplary embodiments herein and as illustrated in the accompanying drawings.

0031 FIG. 1 shows a qualifying bag 1 and a recycling bag 3. On the qualifying bag 1, there is a printed logo in the form of three stripes in the bottom right hand corner 2 that indicates to consumers that the bag is a qualifying bag that is part of a recycling program. On the recycling bag 3, there is a logo in the form of horizontal stripes printed on the bag 4 that indicates to consumers that the bag is a recycling bag that is part of the same recycling program. On the recycling bag, there are one or more boxes 5 containing instructions to consumers including that empty qualifying bags 1 bearing the logo 2 must be discarded by depositing them in recycling bags 3 bearing the logo 4 and that no other plastic bags or any other items may be deposited therein.

0032 FIG. 2 shows a consumer discarding a qualifying bag bearing a logo (6) by depositing it into a recycling bag bearing a matching logo (7).

0033 The striped logos in the figures are exemplary only. Other logos may be used instead.

0034 The drawings are in no way intended as a limitation to the scope of the claims.

EXAMPLE 1

0035 A plastic bag recycling program is established.

0036 Plastic bags qualify for the recycling program provided that (i) the manufacturer certifies that they satisfy any and all applicable manufacturing specifications established or adopted by the program; and (ii) the manufacturer satisfies other program requirements such as payment of a program participation fee. The manufacturer would be permitted to print a logo on such plastic bags, such as the three corner stripes logo shown in FIG. 1, to identify the bags as qualifying bags under the recycling program.

0037 When consumers shop at a supermarket or other store, they may be provided with a qualifying bag to carry the groceries or other items being purchased.

0038 Consumers would be provided with recycling bags as shown in FIG. 1. They may be given to consumers at supermarket checkouts, distributed by municipalities or waste haulers to households and places of business, or provided by other means. The recycling bags would have a logo printed on them, such as the horizontal green stripes shown in FIG. 1, that would indicate to consumers that they are part of the recycling program.

0039 As in FIG. 1, consumers are instructed that the logo 2 on the qualifying bag 1 matches the logo 4 on the recycling bag 3 for the purpose of the recycling program.

0040 Consumers would be instructed that empty plastic bags bearing an exemplary striped logo 6 must be discarded by depositing them into an exemplary matching striped recycling bag 7, as shown in FIG. 2. Further, consumers could be instructed that no other plastic bags or other items may be deposited in the exemplary striped recycling bag.

0041 Consumers would keep the exemplary striped recycling bags at their homes, workplaces, or other locations and fill them over time with discarded qualifying bags. They would be instructed that when the exemplary striped recycling bags have been filled and tied off, they must place them in their recycling bins for curbside pickup, in their trash or recycling chutes, in receptacles bearing a matching logo located in stores or other places, or according to other instructions that may be given to them.

0042 Exemplary embodiments of the invention have been discussed in detail above. While specific embodiments are discussed, it should be understood that this is done for illustrative purposes only. The skilled artisan will recognize that other components, configurations, or combinations can be used without parting from the spirit and scope of the invention. Thus, the breadth and scope of the present invention is defined in accordance with the appended claims and their equivalents.

1. A method for systematizing the collection of plastic bags for recycling comprising:
(a) providing one or more first plastic bags having a visible logo thereon;
(b) providing one or more second recycling bags having a visible logo thereon that matches the logo on the first plastic bag;
(c) discarding at least one first plastic bag by depositing it into a second recycling bag;
(d) placing one such second recycling bag containing therein one or more such first plastic bags in a place suitable for collection for recycling.

2. The method of claim 1 wherein said first plastic bag is part of a recycling program.

3. The method of claim 2 wherein the logo on the first plastic bag and the logo on the second recycling bag indicate that they are part of the same recycling program.

4. The method of claim 1 further comprising placing an item to be recycled into a second recycling bag.

5. The method of claim 4 wherein said item is not a plastic bag.

6. The method of claim 5 wherein said item is polystyrene, glass or plastic bottles, or batteries.

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