

**HB**

**532**

**HOUSE COMMITTEE REPORT**

File

(11)  
Date Referred: March 2, 1990

FURTHER REFERRALS:

Date of Committee Action: 3/20/90

The FINANCE Committee considered:

HB 532

HOUSE BILL NO. 532 PLASTIC CONTAINER/BOTTLE CODING REQUIRED

"An Act requiring the placement of certain coding on certain plastic bottles and containers; and providing for an effective date."

RECOMMENDATIONS:

- [ X ] be replaced with CSHB 532 (FIN) [ X ] the same title
- [ ] a new title
- [ ] have attached amendment(s)
- [ X ] do pass
- [ ] do not pass
- [ ] no recommendation
- [ ] individual recommendations
- [ ] additional referral to the \_\_\_\_\_ Committee

ADOPTS: \_\_\_\_\_ letter of intent

ATTACHES NEW FISCAL NOTE(s):  
(Dept)

APPROVES PREVIOUS: (Date/Dept)

- [ ] fiscal impact \_\_\_\_\_
- [ ] zero fiscal note \_\_\_\_\_
- [ ] zero with analysis \_\_\_\_\_

- [ X ] fiscal note(s) 3/2/90/H.L.C
- [ ] zero fiscal note(s) \_\_\_\_\_
- [ ] zero fn/analysis \_\_\_\_\_

SIGNING DO PASS:

SIGNING:  
(Check approp. column)

Do Not Pass    No Rec    Amend

\_\_\_\_\_  
 \_\_\_\_\_ Larson  
 \_\_\_\_\_ Swackhammer  
 \_\_\_\_\_ Brown  
 \_\_\_\_\_ Keenan  
 \_\_\_\_\_ Uimer  
 \_\_\_\_\_ Barnes  
 \_\_\_\_\_ PHILLIPS  
 \_\_\_\_\_ Rieger

Signature	Do Not Pass	No Rec	Amend
<u>Laura Hoffman</u> Hoffman	X		
<u>Dick Shultz</u> Shultz	X		
<u>Kay Wallis</u> Wallis	✓		

\_\_\_\_\_  
 Chairman's Signature  
Ronald J. Larson Larson

FISCAL NOTE

REQUEST:

Revision Date: \_\_\_\_\_  
Title: An Act requiring the placement  
of certain coding on plastic bottles...  
Sponsor: Rep. Virginia Collins  
Requestor: \_\_\_\_\_

Agency Affected: Environmental Conservation  
BRU: Environmental Quality  
Components: \_\_\_\_\_  
Environmental Quality

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 91	FY 92	FY 93	FY 94	FY 95	FY 96
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL		5.0				
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	0	5.0	0	0	0	0
CAPITAL	0	0	0	0	0	0
REVENUE	0	0	0	0	0	0

FUNDING: (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
TOTAL	0	0	0	0	0	0

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS : (Attach a separate page if necessary)

Copying costs and limited advertising campaign  
\$5,000/FY 92 only

Prepared by: Rep. David Donley  
Division: House Labor and Commerce Committee  
Approved by Commissioner: David Donley  
Agency: House Labor and Commerce Committee

Phone: 465-4954  
Date: 2/27/90  
Date: 2/27/90

Distribution (by preparer):

Legislative Finance  
Legislative Sponsor  
Requestor  
Office of Management and Budget  
Impacted Agency(ies)

Adopted

Original sponsor(s): REP. COLLINS, Koponen, Finkelstein, Navarre, Hanley, Swackhammer, Davidson, Leman, C.Davis, Brown

1 IN THE HOUSE

BY THE FINANCE COMMITTEE

2 CS FOR HOUSE BILL NO. 532 (Finance)

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 SIXTEENTH LEGISLATURE - SECOND SESSION

5 A BILL

6 For an Act entitled: "An Act requiring the placement of certain coding on  
7 certain plastic bottles and containers; and providing  
8 for an effective date."

9 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

10 \* Section 1. AS 46.06 is amended by adding a new section to read:

11 Sec. 46.06.095. CODING REQUIRED. (a) A person may not manufac-  
12 ture, sell, or offer to sell a plastic bottle or a rigid plastic  
13 container unless a code that identifies the type of resin used to  
14 produce the bottle or container and that complies with (b) of this  
15 section is molded into or imprinted on or near the bottom of the  
16 bottle or container.

17 (b) The department shall establish by regulation the content and  
18 design for the code required under (a) of this section. The regula-  
19 tions must be consistent with federal provisions on plastic product  
20 labeling. In developing the regulations the department is encouraged  
21 to use, to the extent consistent with the federal provisions, the  
22 codification system designed by the Society of the Plastic Industries,  
23 Inc., including the following features:

24 (1) a code number placed within an equilateral triangle of  
25 arrows, and code letters placed below the triangle of arrows, in which

26 (A) the triangle is formed by three arrows with the  
27 apex of the point of each triangle at the midpoint of each arrow,  
28 rounded with a short radius;

29 (B) the arrowhead of each arrow is at the midpoint of

1 each side of the triangle with a short gap separating the arrow-  
2 head from the base of the adjacent arrow; and

3 (C) the triangle formed by the arrows depicts a clock-  
4 wise path around the number;

5 (2) the following code numbers and letters to be used in  
6 (1) of this subsection to identify types of resin:

7 (A) 1 and PETE, representing polyethylene terephthal-  
8 ate;

9 (B) 2 and HDPE, representing high density polyethy-  
10 lene;

11 (C) 3 and V, representing vinyl;

12 (D) 4 and LDPE, representing low density polyethylene;

13 (E) 5 and PP, representing polypropylene;

14 (F) 6 and PS, representing polystyrene; and

15 (G) 7 and OTHER, representing all other plastic res-  
16 ins.

17 (c) The department shall maintain a list of the codes estab-  
18 lished under (b) of this section and provide a copy of the list upon  
19 request.

20 (d) A person who violates (a) of this section is guilty of a  
21 violation.

22 (e) In this section,

23 (1) "plastic" means a material made of polymeric organic  
24 compounds and additives that can be shaped by flow;

25 (2) "plastic bottle" means a plastic container that is  
26 intended for single use and that

27 (A) has a neck smaller than the body of the container;

28 (B) accepts a screw-top, snap-cap, or other closure;

29 and

1 (C) has a capacity of not less than 16 fluid ounces or  
2 more than five gallons;

3 (3) "rigid plastic container" means a formed or molded  
4 container that is intended for single use, that is composed predomi-  
5 nately of plastic resin, and that has a relatively inflexible finite  
6 shape or form having a capacity of not less than eight ounces or more  
7 than five gallons; "rigid plastic container" does not include a plas-  
8 tic bottle.

9 \* Sec. 2. This Act takes effect July 1, 1991.  
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Adopted  
U.C

A M E N D M E N T #1

OFFERED IN THE HOUSE

BY REP. BROWN

TO: HB 532

Page 1, line 17, through page 2, line 5:

Delete all material.

Insert the following subsection to read:

"(b) The department shall establish by regulation the content and design for the code required under (a) of this section. The regulations must be consistent with federal provisions on plastic product labeling. In developing the regulations the department is encouraged to use, to the extent consistent with the federal provisions, the codification system designed by the Society of the Plastic Industries, Inc., including the following features:

(1) a code number placed within an equilateral triangle of arrows, and code letters placed below the triangle of arrows, in which

(A) the triangle is formed by three arrows with the apex of the point of each triangle at the midpoint of each arrow, rounded with a short radius;

(B) the arrowhead of each arrow is at the midpoint of each side of the triangle with a short gap separating the arrowhead from the base of the adjacent arrow; and

(C) the triangle formed by the arrows depicts a clockwise path around the number;

(2) the following code numbers and letters to be used in

(1) of this subsection to identify types of resin:

- (A) 1 and PETE, representing polyethylene terephthalate;
- (B) 2 and HDPE, representing high density polyethylene;
- (C) 3 and V, representing vinyl;
- (D) 4 and LDPE, representing low density polyethylene;
- (E) 5 and PP, representing polypropylene;
- (F) 6 and PS, representing polystyrene; and
- (G) 7 and OTHER, representing all other plastic resins."

Reletter the following subsections accordingly.

Page 2, line 6:

Delete "in (c)"

Insert "established under (b)"

# Alaska State Legislature

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Juneau, Alaska 99811  
(907) 465-2828

Anchorage \* District 10



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(907) 561-2040

Member  
Alaska Legislative  
Council  
Labor & Commerce  
Committee  
Special Committee  
on Foreign Trade  
Finance Sub-Committee  
for Labor

## Representative Virginia Collins

HOUSE BILL 532

### SPONSOR STATEMENT

House Bill 532 would require a code on certain plastic bottles and containers. A person could not manufacture, sell, or offer to sell certain plastic bottles or containers without this code. The code would identify the type of resin used to produce the bottle or container.

The code would consist of a number placed within a specific triangle of arrows and a letter or letters placed below the triangle of arrows. There would be 7 different numbers and corresponding letters to identify the types of resins. The department would be required to maintain a list of the codes and to supply the list upon request.

A person found in violation of this act would be guilty of a violation. The effective date of this bill is July 1, 1991.

The model for this proposed legislation was drafted by the Society of the Plastic Industries, Inc. in response to legislators and environmentalists who asked the plastics industry for a code to expedite plastics recycling. Similar legislation has been passed in 19 states and 11 other states have legislation pending.

It is estimated that Americans currently discard over 158 million tons of municipal solid waste each year. We have entered into an era in which landfilling will no longer be the primary method of garbage disposal. Recycling in the U.S. has steadily increased since the mid-1960's.

The sorting of plastics by resin provides for more expeditious recycling. Aside from those 19 states which have passed plastic coding legislation, a total of 32 states are currently involved in the plastic recycling industry. Their involvement consists of negotiating to buy from collectors, recycling the plastic, producing the recycled plastic product, or manufacturing equipment for the recycling process.

In addition to establishing a more efficient plastic recycling system, this legislation would enable recyclers to obtain a higher level of "pure" material for resale markets. Public awareness is a prime ingredient to a successful recycling program and the coding system would help to increase the public's awareness of the recycling potential for plastics.



1275 K Street, NW, Suite 400  
Washington, DC 20005  
202 371 5319  
FAX 202 371 5679

# Plastic Codes Help Recyclers.

Plastics recyclers are finding it easier to sort containers, thanks to the plastics industry's new voluntary coding system. The system, developed by The Society of the Plastics Industry, Inc., helps recyclers to identify the types of plastic used in making individual bottles and other containers.

Already, more than 20% of all polyethylene terephthalate (PET) 2-liter soft drink bottles are being recycled in the U.S., in part because the containers are so easily identifiable. Milk and juice jugs made from high density polyethylene (HDPE) are also relatively easy for recyclers to identify. The coding system, though, makes it easier to separate other, less easily identified, types of plastic containers as well as vinyl, low density polyethylene, polypropylene and polystyrene. As new recycling technologies emerge, recyclers will be able to sort the various plastics to earn the highest price for their reclaimed materials.

The coding system is based on responses to a survey of recycling industry workers and officials. The codes are easy to read and easy to distinguish from other marks placed on plastic containers by manufacturers for use in processing and identification.

The code on each container consists of a triangle formed by three arrows, with a number in the center and distinguishing letters under the triangle. In size, the codes range from approximately 1/2 to 1 inch in diameter. They can be applied by molding or imprinting the bottom of the container.



## Plastics Coding System

- 1: PETE (polyethylene terephthalate)
- 2: HDPE (high density polyethylene)
- 3: V (vinyl)
- 4: LDPE (low density polyethylene)
- 5: PP (polypropylene)
- 6: PS (polystyrene)
- 7: Other

The coding system is being phased in over a three-year period, and many bottles and other plastic containers on store shelves are already carrying them. In at least 15/9 states, laws have been passed which will require coding of plastic containers.

The plastics industry recognizes that future sorting systems will be more mechanized than they are today. The coding system is an interim solution until technology is developed that allows for the automatic identification and sorting of different types of plastics.

For more information about plastics recycling, contact *The Council for Solid Waste Solutions*.

## STATES REQUIRING PLASTIC CONTAINER CODING

Prepared by the Council For Solid Waste Solutions January 7, 1990

The following states require the coding of plastics bottles of 16 ounces or more and other rigid plastic containers of 8 ounces or more following the Society of the Plastics Industry voluntary coding program.

### DEADLINE FOR CODING

January 1, 1990	Connecticut
July 1, 1990	Florida
January 1, 1991	Wisconsin - regulations pending Illinois Minnesota - proposed regulations Missouri Louisiana Ohio New Jersey
July 1, 1991	Texas Massachusetts Maine North Carolina
December 31, 1991	North Dakota
January 1, 1992	Michigan California Indiana
July 1, 1992	Iowa Colorado

Note: New Hampshire has enacted legislation to establish a state recycling emblem program which recognizes and protects the SPI voluntary coding program as a distinct material identification system.

**1990 Proposed Legislation:** Alaska, Arizona, Georgia, Kentucky, Oklahoma, Rhode Island, South Carolina, Tennessee, Utah, Vermont, Virginia



# Alaska Environmental Lobby, Inc.

P.O. Box 22151 Juneau, Alaska 99802

907-586-2345

Mar 1971

Representative Ron Larson  
Chairman, House Finance Committee  
P.O. Box V  
Juneau AK 99811

Dear Representative Larson:

The Alaska Environmental Lobby stands in support of H.R. 12, recently introduced by Representatives Collins, Koronen, Finkelstein, Navarre, Hanley, Swackhammer, and Davidson. As you know, the coding of plastic bottles and containers called for in this bill was developed and recommended by the plastics industry, and will allow sorting and recycling of these containers as soon as facilities are available.

Often anti-environmentalists respond to environmental legislation with suspicion born of fear that their quality of life will be diminished. We are confident that there are enough resources for all the world, if only we will conserve and share them. This bill is a small step in that process. We compliment the sponsors and urge a speedy hearing on this legislation.

Sincerely,

Annie McKenzie

ALASKA CENTER FOR THE ENVIRONMENT • ALASKA CHAPTER, SIERRA CLUB • JUNEAU GROUP, SIERRA CLUB • SITKA GROUP, SIERRA CLUB •  
KNIK GROUP, SIERRA CLUB • DENALI GROUP, SIERRA CLUB • ANCHORAGE AUDUBON SOCIETY • ARCTIC AUDUBON SOCIETY  
DENALI CITIZENS' COUNCIL • ALASKA FRIENDS OF THE EARTH • JUNEAU AUDUBON SOCIETY • KACHEMAK BAY CONSERVATION SOCIETY  
KENAI PENINSULA AUDUBON SOCIETY • KODIAK AUDUBON SOCIETY • LYNN CANAL CONSERVATION • ALASKA WILDLIFE ALLIANCE  
SITKA CONSERVATION SOCIETY • NORTHERN ALASKA ENVIRONMENTAL CENTER • SOUTHEAST ALASKA CONSERVATION COUNCIL  
KNIK KANOERS AND KAYAKERS

Table

POTENTIAL MARKETS FOR RECYCLED PET AND HDPE PLASTICS SCRAP

PET (PETE)

- Strapping
- Scouring Pads
- Fence Posts
- Industrial Paints
- Paint Brushes

FIBERFILL

- Pillows
- Ski Jackets
- Cushions
- Sleeping Bags

FIBER

- Twine
- Filter Material
- Apparel
- Rope
- Carpet Backing

TEXTILES

- Belts
- Webbing
- Sails
- Woven Bags
- Tire Cord

POLYOL

- Laminated board stocks for both wall and roof housing insulation
- Refrigeration truck paneling
- Home and commercial freezer insulation
- Storage tank insulation
- Automobile bumpers
- Furniture
- Sporting Goods, e.g., skis and surfboards.

UNSATURATED POLYESTER

- Bath Tubs
- Sinks
- Boat Hulls
- Shower Stalls
- Corrugated Awnings
- Marbleized Material
- Automobile Exterior Panels

ENGINEERING PLASTICS

- Appliance Handles, Housings & Cases
- Automotive Applications

THERMOFORMED SHEET

- Six-pack Carriers
- Nonfood Containers
- Audio & Video Cassette Cases

CHEMICAL CONVERSION Back to Original PET Building Blocks

- DMT (dimethylterephthalate)
- TPA (terephthalic acid)
- Ethylene glycol

HDPE

- Boat Piers
- Calf and Pig Stalls
- Garden Furniture
- Pipe
- Base Cups
- 1-Qt. Oil Containers

FUEL SOURCE

- Coal Replacement

Source: SPI

### Unsaturated Polyester

There is a significant market for unsaturated polyester, estimated in excess of 250 million-pounds-per-year. A whole host of applications fit this category of fabricated fiberglass products. PET bottles have been recycled into bath tubs, shower stalls and corrugated awnings. AMF Corporation has even experimentally produced Sunfish sailboat hulls from used PET.

### Rigid Urethane and High Temperature Foams

Another market opportunity receiving considerable attention at the present time is rigid urethane foam and polyester foams. Predicasts\* forecasts that in the next ten years there will be a 77 percent increase in the demand for foam products with applications in construction, transportation and protective material in packaging. The method for making urethane foam is generally polyol technology and is not affected by color of input feed stock; but like fiberfill, inexpensive, low IV scrap is very competitive with bottle scrap. However, this application could be a good one for the more contaminated green bottle-grade PET scrap. This is approximately a 50 million-pound-per-year market.

High temperature resistance foams can be converted from PET scrap. This product is ideally suited for such applications as aerospace, electrical wiring insulation and automotive applications. It is also useful in the packaging and construction industries. There is at least one manufacturer currently producing foam from recycled PET bottles.

\*Predicasts, Inc. is a market research firm located at Cleveland, Oh.

### Polyol

The lowest value end-use application is polyols for unsaturated polyesters. Some contaminants are acceptable in the PET scrap since they are removed by the manufacturer in the process. A number of processes have been developed, such as methanolysis or depolymerization (hydrolysis and glycolysis). This technology reverses the PET formation process and reverts PET resin back into some of the original building block chemicals (i.e., ethylene glycol, terephthalic acid (TPA) and dimethyl terephthalate (DMT)). Hoechst has a process that will reduce PET to TPA and ethylene glycol, but it is not cost-effective at the present time. Eastman Chemicals has a particle methanolysis process which permits conversion into unsaturated polyesters for reinforced plastics and polyols for rigid foam.

The one big advantage of polyol technology is that some green recycled PET is acceptable. The main deterrent is that the technology is not high IV-dependent. The IV value for bottle-grade PET is much higher than other grades of PET available but this application can use the inexpensive, low IV scrap instead. In view of this competitive environment, polyols do not appear to be a long-term market opportunity for recycled PET bottle scrap. The companies operating in this market include Ruco Polymer, Ciba-Geigy, Inolex, Reichhold, Witco and Polyurethane Specialties Company. This is considered to be a 100 million pounds-per-year market.

### Thermoformed Sheet Scrap

PET thermoformable sheet can be processed into a variety of products for non-food use - for example, appliances (interior and exterior liners), transportation (cars, trucks, recreation vehicles, mobil homes, buses, trains, planes), building products (bathtubs, spas, liners for whirlpools and swimming pools), taking advantage of the high IV of PET bottle grade polymer and its excellent temperature and electrical properties. This application represents over 225 million pounds per year.

## Engineering Plastics

### Compounding

One of the most attractive applications for the higher IV PET from bottle grade recycle is the compounding market. Some have estimated that "It costs five to ten billion dollars to make a new resin, while it only costs a fraction of that to come up with an alloy or blend." PET scrap compounded in this manner is generally used for extruded and molded plastics. Compounders can utilize either colorless or green scrap, and mix it with additional flow additives, impact modifiers, etc., before being used in extrusion and injection molding. Several companies have learned how to do this and other companies have learned how to blend recycled PET with other engineering plastics. For example, Wellman recently announced the introduction of six new polyester molding compounds processed from recycled soft-drink bottles. Some of these "engineering" resins are 20-30 percent glass-filled, flame-retardant, low-modulus, general purpose resins. General Electric is very much interested in this technology.

Successive use of the same plastic used for packaging that has a life of only a few months could come about by reprocessing and blending into engineering thermoplastics for the automotive industry where the life is extended to several years. When discarded after their usefulness in the automobile, they could be finally compounded into products used for construction where they would last for a life-time, thus virtually eliminating it from solid waste. The field of blending and alloying is a rapidly expanding area of research in the engineering resin development.

We estimate that reprocessed PET soft drink bottles could be compounded into as many as 20-30 new engineering polymers during the next five years. As these new resins are developed they will compete with PBT (Polybutylene Terephthalate) and nylon, and the demand for

recycled PET could increase. Recycled PET compounds are usable for automotive under-the-hood applications such as distributor caps, electrical fittings, and fuse boxes that need high-temperature resistance. In the electronics industry, they can be used for internal parts of TV sets, and connectors, plugs, and sockets used in integrated computer circuit chips. This market could exceed 550 million-pounds-per-year.

### Strapping

Plastic strapping for carton and pallet binding presently utilizes over 20 million-pounds-per-year of recycled PET, and has a potential of over 100 million pounds per year. In contrast to those applications mentioned above, strapping requires the high IV inherent with bottle-grade PET scrap. Color is not a problem, so this is an ideal application for recycled PET.

### Coextrusion

Another potential area is in coextruded plastics packaging. Coextrusion multi-layer technology has advanced to the state-of-the-art where recycled PET bottle scrap can be incorporated as the core or external layer for a whole host of food and beverage containers of the future. We estimate that the total market potential for coextruded packaging (bottles and flexible films) exceeds 400 million pounds per year.

### Textiles and Geotextiles

A relatively new area for fiber use in the U.S. is geotextiles for erosion control and roadbed stabilization where the long term stability of plastics is a distinct advantage. This market is an attractive growing industry that could utilize carbon-black pigmented fiber, an application that could use green bottle PET resin.

Textima, a German textile machinery manufacturer, has developed a process for utilizing existing "underlay" technology to manufacture film and fabric from recycled PET bottle scrap.

Both clear and green bottles can be used to convert a monoaxially oriented film which in turn can be split and used as yarn in stitch-bonding technology. Applications could also be found within the traditional textile industry, industrial fabrics, and carpet backings. The size of these markets are not too well-defined and would require development, but we estimate at least 100 million pounds per year.

#### Fuel Source

A special process has been developed by Montville Plastics & Rubber, Inc. (Parkman, Ohio) for converting PET soft drink bottles into fuel products for the steel industry, local power-generating facilities, and for in-plant process heating. MP&R calculates that one pound of bottles nets about one pound of fuel (7 two-liter PET soft drink bottles weighs one pound). Shipping costs for the PET bottles from the States of Connecticut and New York averages about 2¢ per pound or \$40 per ton. By comparison, coal costs range from \$40 to \$50 per ton. However PET fuel has twice as many BTU's per pound as compared to coal. MP&R has the capacity to process an estimated 4 million pounds per year and has sold several million pounds as a fuel enhancer to regional steel mills for use in oxygen furnaces. Other areas MP&R is exploring include fireplace logs and large-volume producers of PET products, particularly films, where the MP&R system could help a converter use the internally generated scrap as fuel pellets to heat their own plants, since on-site conversion would be more cost-effective. Quantifying the size of this market would be very difficult at this time, but published data on coal consumed by electric generating utilities indicate that over 664 million short tons were used in 1986, and in the process creating 4 - 10 pounds of ash that must be landfilled, for each ton of coal burned. On an equivalent BTU basis this market potential for used plastics amounts to over 41 million tons per year with a negligible amount of ash residue remaining after combustion.

Look for this symbol as you shop for products that are Earth Friendly.



Imagine for a moment that every item you buy could help, or could hurt, the environment. How would you know which products to choose? Where would you find answers to questions like these:

- Is the product made by processes harmful to our protective ozone layer, the air we breathe or the water we drink?
- Can the product or package be recycled after you've used it?
- Can nature break down the product or package easily?

Freddy's presents a way to help you make responsible choices.

We've looked at each product category to determine which products and packages are the best for our environment. You'll find these brands highlighted by our Earth Friendly symbol. Now, if you want to choose the most environmentally safe product within a category, look for this symbol. Many times, the package tells you specifics about what makes the product better for our environment.

Here's what Freddy's Earth Friendly symbols tell you:



**Earth Friendly Product.** This means the product was made by an environmentally safe process, made from recycled materials, can be recycled, is degradable or is biodegradable.



**Earth Friendly Package.** This means the package was made by an environmentally safe process, made from recycled materials, can be recycled, is degradable or is biodegradable.



**Earth Friendly Product and Package.** This means both the product and package were made by an environmentally safe process, made from recycled materials, can be recycled, are degradable or are biodegradable.

### Some definitions:

- **Earth Friendly Process** The product or package is made without the use of processes or materials (such as fluorocarbons) that are harmful to our environment.
- **Made From Recycled Materials** The product or package is made from previously used materials.
- **Can Be Recycled** The product or package can be turned in to be reused.
- **Degradable** The product or package will break down to smaller pieces.
- **Biodegradable** Micro-organisms will break down the product or package naturally, and it will decompose.

Look at the package for more details on why a product is Earth Friendly.

The package will often tell you what makes the product, package, or both environmentally responsible. You might also see one of these common international symbols on the package:



This symbol means **Recycled**. It indicates:

- a package or product is made entirely or predominantly from recycled materials.
- a magazine, newspaper or other publication is printed on recycled paper.



This symbol means **Recyclable**. It indicates:

- products or packages made from materials which, after use, can be turned in for recycling.

More symbols you'll be seeing...these help you recycle many plastics.

You can spot recyclable plastics by looking for these symbols. They're molded to or imprinted as close to the bottom of the containers as possible.



**1-PET: Polyethylene Terephthalate.** Includes beverage bottles (like 2-liter pop bottles), frozen food boil-in-the-bag pouches and microwave food trays.



**2-HDPE: High Density Polyethylene.** Includes milk jugs, trash bags, detergent bottles, bleach bottles and aspirin bottles.



**3-V: Vinyl.** Includes cooking oil bottles and packaging around meat.



**4-LDPE: Low Density Polyethylene.** Includes grocery store produce bags, bread bags and food wrap.



**5-PP: Polypropylene.** Includes yogurt containers, shampoo bottles, straws, syrup bottles and margarine tubs.



**6-PS: Polystyrene: Better known as Styrofoam™.** Includes hot beverage cups, fast food clamshell containers, egg cartons and meat trays.



**7-OTHER: All other materials.**

Here are a few tips for recycling plastics:

- **Make sure they're clean.** A simple rinsing will take care of most containers.
- **Take all paper labels off.** Most containers have paper labels that can be removed by soaking or cutting out.
- **Remove lids.** Many can be recycled separately.
- **Flatten or nest.** All containers should be flattened (simply stomp on them) or nested to reduce space.

Every day, each American creates about 3.5 pounds of garbage. Here's what you can do to reduce the waste.

## Recycling...

All it takes is about half an hour once a month to take newspapers, can, glass and other material to a recycling center. Or check with local charities. Many pick up recyclables to raise money. What an easy way to help them out. Also talk to your garbage hauler. Many are now required to offer you curbside recycling services.

It's easy to set up a recycling area in your home. Start by designating a space in your utility closet or garage for recyclables. Then set up bins to separate and store the materials you wish to recycle. (Rubbermaid bins from our Housewares Department are ideal for holding and moving recyclables....they're colorful, lightweight, durable and come in a variety of sizes).

Or use our grocery bags to hold your recyclables. They're coded so you can quickly see which recyclable material goes in which bag. Each week, we put a different code on our bags to designate newspapers, cans, glass and other recyclables.

Here are some common materials and containers you can recycle easily:

- **Newspapers:** Stack in a bin, tie with string or bundle in our grocery bags.

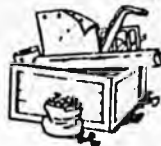
- **Glass Jars or Bottles:** Rinse and sort by color of glass. Labels don't need to be removed (metal lids can be recycled with tin cans).



- **Tin Cans:** Remove labels, rinse and remove both ends. Flatten for easier handling and storage.

- **Corrugated Boxes and Brown Paper Bags:** Break down boxes, flatten and tie with string to hold them in a stack. Stack paper bags together inside another paper bag.

- **Aluminum:** No-deposit aluminum cans, aluminum foil, pie plates and TV dinner trays can be recycled. They should all be clean.



- **Scrap Metal:** Old nails, bolts, screws and other metals can be recycled. If you have large pieces, call your recycler for preparation instructions.

## Composting...

You can save money on trash bags and garbage service by composting. It's easy to turn leaves, grass clippings, wood chips, sawdust and wood ashes into rich, crumbly garden compost.

Your garden soil and plants will love the natural aerating, moisture-retaining and weed-controlling qualities of compost. You'll love saving money on lawn bags and garbage service. And our environment will be saved from unnecessary waste!

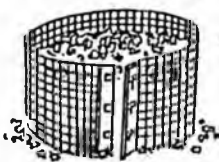
What type of composting should you do? Successful composting requires a commitment. So you should choose the method that's easiest for you to maintain and use:

### The 3-Step Windrow Composting Process.

This is the simplest system to create and maintain:

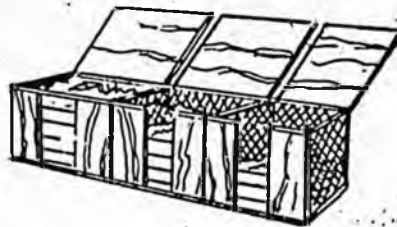
- Pick a cleared area and pile leaves, grass and shredded yard debris about 2' to 5' high.
- Add a handful of organic fertilizer (available at Fred Meyer). Keep the pile moist with water to speed up the composting process.
- Turn the pile over every 3 weeks or so to add oxygen. When the pile becomes crumbly, cover it with plastic to protect it from excess moisture until you're ready to use it.

The Cylindrical Pen: This system is good for producing small amounts of compost. Its advantage is that the enclosure used is easy to move and allows free circulation of air through the pile. Here's how to do it:



- Build a disconnectable round pen about 3' to 5' in diameter and 4' high.
- Turn the pile every week or so. To do this, disconnect the cylinder and move it to the side. Turn the pile back into the cylinder.

Three-bin Wooden Box System. This system is good for larger scale composting projects. Its advantage is that three piles of material can be maintained in varying degrees of decomposition at the same time.



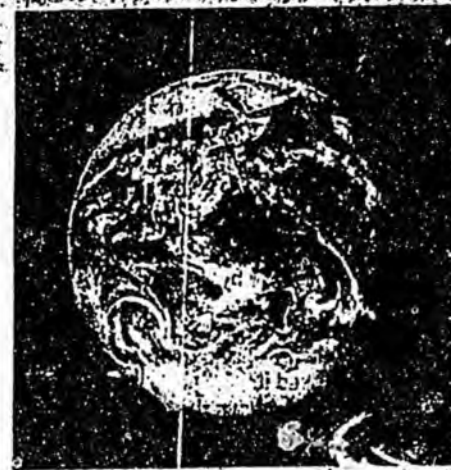
- Build a structure about 3' wide by 4' high by 10' long. Make sure the bins have removable lids and fronts to make moving material easy.
- Put the first batch of compost in the first bin and leave it there 3 to 5 days.
- Turn that pile into the second box for another 4 to 7 days. Meanwhile, start a new pile in the first box.
- Empty the second box into the third bin. Maintain the compost there until you're ready to use it. At the same time, empty the first box into the second and start a new pile in the first box.

For both the Cylindrical Pen and Wooden Box systems, you'll find the pressure treated wood, galvanized nails, galvanized chicken wire, hinges and other materials you need to build them at Freddy's.

## To find out more about recycling in your area:

- Check your phone book under recycling
- Contact your garbage hauler and ask about curbside recycling services.
- Call your city, county or state offices to ask about present or planned recycling programs.

# You can help make a difference!



Protect our earth and help create a brighter future for your family... choose products that are Earth Friendly.



STATE OF ALASKA  
1990 LEGISLATIVE SESSION

BILL VERSION : HB 532  
PUBLISH DATE : 2/12/90

FISCAL NOTE

REQUEST:

Revision Date: \_\_\_\_\_ Agency Affected: Environ. Conservation  
 Title: An Act requiring the placement of BRU: Environmental Quality  
certain coding on certain plastic bottles and containers ...  
 Sponsor: Rep. Collins, et al Components: Environmental  
 Requestor: House Labor and Commerce Committee Quality Projects

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 91	FY 92	FY 93	FY 94	FY 95	FY 96
PERSONAL SERVICES	0.0	0.0	0.0	0.0	0.0	0.0
TRAVEL	0.0	0.0	0.0	0.0	0.0	0.0
CONTRACTUAL	15.0	0.0	0.0	0.0	0.0	0.0
SUPPLIES	0.0	0.0	0.0	0.0	0.0	0.0
EQUIPMENT	0.0	0.0	0.0	0.0	0.0	0.0
LAND&STRUCTURES	0.0	0.0	0.0	0.0	0.0	0.0
GRANTS,CLAIMS	0.0	0.0	0.0	0.0	0.0	0.0
MISCELLANEOUS	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL OPERATING	15.0	0.0	0.0	0.0	0.0	0.0
CAPITAL	0.0	0.0	0.0	0.0	0.0	0.0
REVENUE	0.0	0.0	0.0	0.0	0.0	0.0

FUNDING: (Thousands of Dollars)

GENERAL FUND	15.0	0.0	0.0	0.0	0.0	0.0
FEDERAL FUNDS	0.0	0.0	0.0	0.0	0.0	0.0
OTHER	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	15.0	0.0	0.0	0.0	0.0	0.0

POSITIONS:

FULL-TIME	0.0	0.0	0.0	0.0	0.0	0.0
PART-TIME	0.0	0.0	0.0	0.0	0.0	0.0
TEMPORARY	0.0	0.0	0.0	0.0	0.0	0.0

ANALYSIS: (Attach a separate page if necessary)

The Department will use the FY91 contractual funds to produce materials and advise manufacturers, wholesale distributors, retail sellers, and the public of the plastic container coding requirements and the Act's effective date.

Prepared by: Jeff Mach  
 Division: Environmental Quality

Phone: 465-2671  
 Date: 2/26/90

Approved by Commissioner: A. D. Hill  
 Agency: Environmental Conservation

Date: 3/1/90

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