

New Jersey's Clean Energy Program - Refrigerator/Freezer Recycling Program

Why Recycle?



- 1 Metals and plastics** – Remove interior metal and plastic (crispers and shelves) and recycle. Approximately 150 lbs. of metal and 25 lbs. of plastic is recycled.
- 2 Glass** – Remove and crush glass shelving and ship to nearby glass recycler. On average, 3 lbs. of glass is contained in each refrigerator. Glass is typically used as aggregate material in concrete as it is tempered and cannot be mixed with typical container glass waste streams.
- 3 Refrigerator unit** – Cut appliance into multiple pieces so metal, plastic and foam can be separated. Ship separated plastics and metals to a local handler for resale in recycled commodities markets. Place foam in large plastic bags and seal to prevent escape of gasses.
- 4 Polyurethane foam insulation** – Bagged polyurethane foam insulation is shipped to nearby waste-to-energy incinerators for complete and safe destruction. Each refrigerator contains approximately 10 lbs. of polyurethane foam and approximately 1 lb. of CFC-II. Therefore each bag incinerated will produce 15 kWh of electricity back to the grid.
- 5 Oils and refrigerant** – Puncture cooling circuit to simultaneously evacuate refrigerant-contaminated (CFC-12 or HFC-134a) compressor oils and refrigerant. Heat oils to distill refrigerant. Refrigerant is shipped to qualified handler while the oils can be recycled for use in other industrial equipment.

- 6 Compressor** – Remove capacitor for recycling. Capacitors suspected of containing PCBs are shipped to qualified handler for proper destruction.
- 7 Mercury-containing devices** – Remove mercury-containing switches and thermostats and ship to a qualified handler for recycling.

Note: Approximately 95 percent of each unit is recycled.

Composition of an Average Refrigerator Manufactured Pre-1994 and Post-1994

Component	Quantity per Refrigerator (lbs.)	
	Pre-1994	Post-1994
Metal	150	150
Plastic	25	25
Glass	3	3
CFC-12 Refrigerant	.5	-
HFC-134a Refrigerant	-	.25
CFC-II Foam Blowing Agent	1	-
HCFC-141b Foam Blowing Agent	-	.8
Oil (which may be contaminated with refrigerant)	.5	.5
Mercury	.002	.002
PCBs	Small quantities in the capacitor manufactured prior to 1980	-

