

# U.S. Environmental Protection Agency's Responsible Appliance Disposal (RAD) Program

## What is RAD?

RAD is a voluntary partnership program that works with utilities, retailers, manufacturers, state and local government agencies, and others to collect and dispose of refrigerated appliances using best environmental practices. RAD Partners work to protect the environment and health of communities by going beyond federal requirements to **protect Earth's climate and ozone layer**. As a result of their commitments, RAD Partners **prevent emissions** that are harmful to the environment, **avert the release of hazardous substances**, save landfill space through **recycling**, and **reduce energy** consumption.

## Benefits of RAD In Your Community

- RAD Partners protect the environment and the health of neighboring communities by keeping recyclable materials out of landfills and ensuring the proper handling and disposal of hazardous waste.
- Permanent retirement of old, inefficient units saves energy. The removal of an old refrigerator could save you up to \$50 a year in energy costs!
- The proper recycling of refrigerated appliances and the handling of insulation foam protects the Earth's ozone layer – and you – by preventing the release of ozone depleting substances into the atmosphere.
- The RAD Program also helps mitigate climate change by reducing emissions of potent greenhouse gases.

## Properly Disposing of...

**1 Refrigerator**

(0.92 MT CO<sub>2</sub> Eq.)



**35 incandescent  
lamps switched  
to LEDs**



**100 Refrigerators**

(92 MT CO<sub>2</sub> Eq.)



**Charging  
11,691,430  
phones**



**1000 Refrigerators**

(917 MT CO<sub>2</sub> Eq.)



**110 homes'  
energy use for  
one year**





# Before you get rid of that old refrigerator in your house...

## Environmental Benefits of RAD For You and Your Community

Ever wondered what all the components in your refrigerator are made of? Are they harmful? The graphic below explains the different components of a refrigerated appliance and why environmentally responsible recycling, done the RAD way, is so important.

### Did You Know...?

The proper recovery of refrigerant and insulation foam helps to **protect Earth's climate and ozone layer**. Older refrigerators<sup>1</sup> contain refrigerants and foam blowing agents that are both potent ozone depleting substances (ODS) and greenhouse gases (GHGs)!

Recovering and disposing of the foam from **1,000 refrigerators** is equivalent to avoiding the GHG emissions from **115 cars driven in one year**.

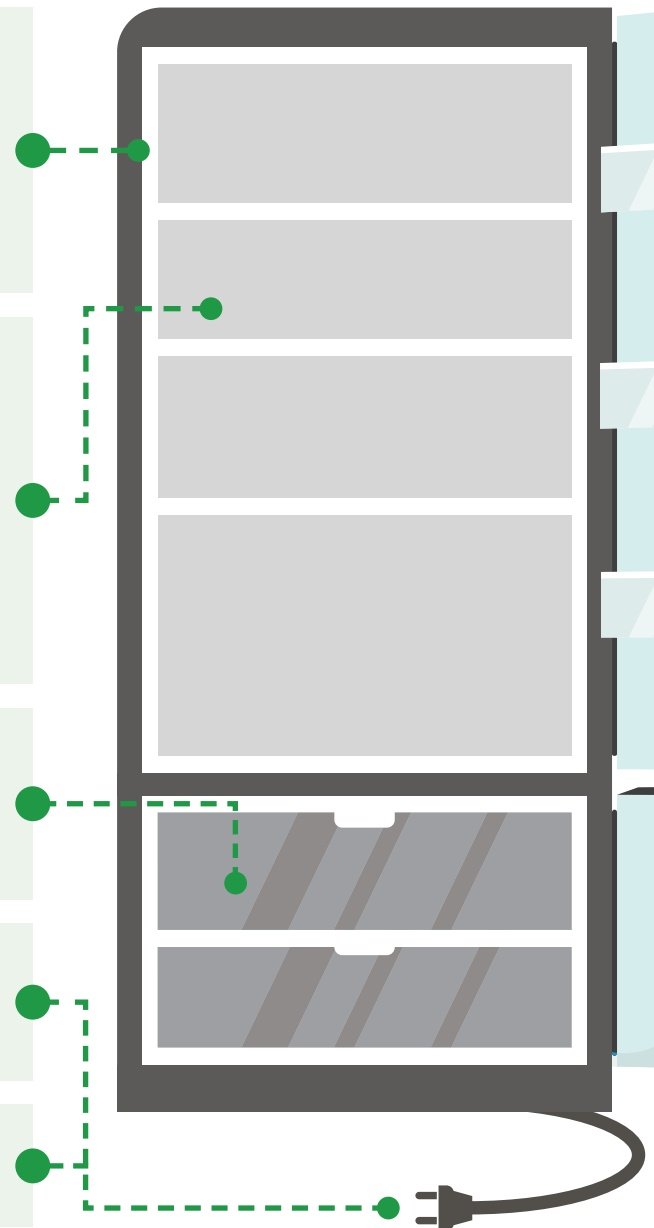
Properly recovering and disposing of **used oil, polychlorinated biphenyls (PCBs), and mercury-containing components** in old appliances helps avoid risks to human health, including:

- Carcinogenic and other effects from exposure to **PCBs**<sup>2</sup>
- Impaired neurological development and other problems with the nervous system from exposure to **mercury**<sup>3</sup>
- Damage to the liver, brain, and immune and reproductive systems from exposure to **used oil**

Nearly all the durable materials that make up a refrigerator can be **recycled**. Recovering and recycling these materials **protects the environment and the health of communities** by keeping materials out of landfills and ensuring the proper handling and disposal of hazardous waste.

The energy savings associated with the permanent retirement of **1,000 old refrigerators** is equivalent to avoiding the GHG emissions from charging more than **63 million smartphones**.

The removal of an old, inefficient refrigerator could save you up to **\$50 a year** in energy costs!



<sup>1</sup> Circa 1998 or earlier

<sup>2</sup> Appliances manufactured before 1979 may contain PCB capacitors

<sup>3</sup> Appliances manufactured before 2000 may have mercury-containing components