

## Recycling Refrigerators and Freezers - Information for the General Public

### What you need to know

- Large appliances cannot be sent to a landfill and must be recycled.
- Refrigerators and freezers manufactured before 2003 contain the ozone-depleting compounds CFC and HFC (sometimes called Freon).
- Freon from refrigerators and freezers must be removed by a certified technician.

### How to recycle

- Call ahead since some landfills and transfer stations do not take appliances for recycling.
- To locate a certified company to pick up your appliance and remove the Freon, check with scrap dealers, refrigerator repair shops, or your local government (county or city) solid waste department. You can also check with the appropriate DEQ technical staff member listed on the back of this fact sheet.
- This EPA Web site lists recycling centers by zip code.  
<http://www.epa.gov/Ozone/title6/608/disposal/household.html>
- To make sure the refrigerator will be handled properly, ask whomever you arrange to pick up your appliance if they have the certification to remove refrigerant.

### Recycling large appliances

Many materials in refrigerators and freezers can be recycled: metal, plastic, glass, refrigerant, oil and foam insulation. In fact, the federal Environmental Protection Agency (EPA) estimates that approximately 95% of the materials can be recycled. Refrigerators rely on refrigerants that contain ozone-depleting chlorofluorocarbons (CFCs) or hydrofluorocarbons (HFCs). Refrigerators manufactured before 1994 contain CFCs while those manufactured after 1994 contain the less harmful HFC. By 2003, all new refrigerators and freezers were manufactured without ozone-depleting compounds.

When large refrigerators and freezers are disassembled or repaired, the refrigerant can be released into the atmosphere. The federal Clean Air Act prohibits individuals from knowingly venting ozone-depleting compounds.

### Releasing ozone-depleting compounds

Nearly 8 million refrigerators and freezers are thrown away in the U.S. annually. According to the EPA, about 4 million pounds of ozone-depleting chemicals escape from appliances during disposal each year.

### Effects on Earth's atmosphere

The ozone layer is located about 12 to 22 miles above the Earth's surface. This vital shield protects the Earth's surface from ultraviolet radiation. When Freon is vented into the atmosphere, atomic chlorine is released, depleting the protective ozone layer.

Numerous experiments have shown that CFC, HFC and other widely-used chemicals produce roughly 84% of the chlorine in the stratosphere, while natural sources (such as large fires) contribute only 16%. (Source: EPA)

### Effects on people, plants, fish

Ultraviolet radiation can damage DNA. It is a cause of melanoma skin cancer and has been linked to damage to plant growth and the development of fish, shrimp, crab and other animals.

### Recycling saves energy

Recycling materials and capturing Freon are not the only reasons to recycle old, large appliances. The average refrigerator or freezer manufactured before 1990 consumes about five times more energy than newer models.

When you buy a new refrigerator you should recycle the old one in order to secure these energy savings. Do not keep the old one unless you really need it.

If you do store your old refrigerator prior to recycling, remember to remove the door so children don't get trapped inside!



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**For more information**

Inquiries from out of state can be directed to DEQ's Headquarters office in Portland by e-mail at [solwaste@deq.state.or.us](mailto:solwaste@deq.state.or.us) or by phone at 503-229-5913; toll-free in Oregon only, at 1-800-452-4011, x5913

**DEQ Regional Offices:**

- Eastern Region
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- Northwest Region
  - Portland: 503-229-5263
- Western Region
  - Eugene: 541-686-7838
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**EPA Web sites:**

“Complying with the Section 608 Refrigerant Recycling Rule”

<http://www.epa.gov/ozone/title6/608/608fact.htm>

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“Overview of Issues on EPA Certification Test”

<http://www.epa.gov/ozone/title6/608/technicians/certoutl.html>

**Other sources:**

The Alliance for Responsible Atmospheric Policy Web site:

<http://www.arap.org/docs/rrr.html>

**Alternative formats**

*Alternative formats (Braille, large type) of this document can be made available. Contact DEQ's Office of Communications & Outreach, Portland, at (503) 229-5696, or toll-free in Oregon at 1-800-452-4011, ext. 5696.*