Disposing of White Goods -- City or Rural?

Homeowner Options

This all depends on where you live throughout Manitoba…

Large urban centres, such as Winnipeg, have a fee-for-service pick-up of appliances by calling 311. There are requirements to this system as to where they can be picked-up. In other locations, such as Steinbach, Dauphin, Portage la Prairie, Brandon, and other cities or towns, residents should call their municipal waste or recycling department for options. In most cases, there may be a fee to dispose of the unit. Another option is that Manitoba Hydro will pick-up your working white good (fridge/freezer) and have it properly recycled for free.
Visit:
www.hydro.mb.ca/your_home/appliances_electronics/refrigerator_retirement/index.shtml

Only one company in Manitoba fully recycles white goods from refrigerant recovery to foams and all metals, glass and plastics. This company is called PureSphera and it operates in Winnipeg. See: http://puresphera.com/a-propos-de-puresphera/

You can also hire or contract a certified appliance or A/C technician to properly recover the refrigerant from your white goods prior to disposal. While this option may cost you between $25-75, it's the right thing to do. Leaving a white good in your shed or backyard leaves it exposed to the weather elements and will likely rust out the refrigerant lines allowing the gas to be released to the atmosphere.

Rural Manitoba - Landfill/Waste Options

Waste disposal grounds in rural municipalities across Manitoba have different requirements for accepting white goods. Many charge a flat fee per unit while others do not. The purpose of the fee is that it helps pay for the proper decommissioning or process to recover and reuse or recycle the refrigerant, which is mandatory by law.

The unit also has to be labelled as decommissioned when the refrigerant gas has been recovered. Then it may be sent to a scrap metal processor or related recycling facility. Metal (some plastic and glass) is considered a commodity on the open market and therefore scrap prices vary according to the prevailing markets.

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White Goods Management

A Quick Overview on White Goods and their Proper Disposal

White Goods: More than plastic, glass & steel

White goods are typically heavy and all of them contain refrigerant gases, oils, some may have PCBs, mercury and various metals and plastics that left to the elements are potentially harmful to our environment. Ensure that they are properly recycled.

this issue

White Goods Defined

White goods include any 115-230 volt self-contained plug-in unit that requires the use of a refrigerant (CFC, HCFC or HFC) substance for its operation. These include:

- HOUSEHOLD REFRIGERATORS
- FREEZERS
- WATER COOLERS
- DEHUMIDIFIERS
- WINDOW AIR CONDITIONERS
- PNEUMATIC AIR DRYER

Regulated to-do's: Responsible end-of-life white goods management

DISPOSAL OF EQUIPMENT MEANS
Under Manitoba Ozone Depleting Substances and Other Halocarbons Regulation 103/94, white goods must have their refrigerant recovered before final disposal (i.e. crushing, scrapped, recycled) and labelled properly.

- ***The refrigerant from the unit must be properly recovered before scrapping.***
- ***The unit must have a label affixed identifying it as decommissioned including the service technicians certification MB #. Contact MOPIA for details.***

Did you know: An estimated 11,000+ white goods are purchased/replaced in Manitoba each year. This estimate is based on 1000 units/100,000 population.

Pictured above: foam bundled and ready to ship for processing - capturing the HCFCs. Compressors from units dripping oil into a safe recovery tub.

MOPIA

EASY. SAFE. FREE.
THERMOSTAT RECYCLING

MERCURY SWITCHES POSE HARM TO THE ENVIRONMENT

Many appliances use mercury switches for the purposes of activating lights, temperature or other mechanisms. If your white good has a mercury switch, there is a national stewardship program that will accept it for free and properly dispose of the switch. The thermostat recovery program and its details are available at the website and link below. MOPIA is one of many venues across Manitoba that accepts mercury switches for proper disposal. See the complete list of depot sites at:

http://www.switchthestat.ca/eng/participants.php

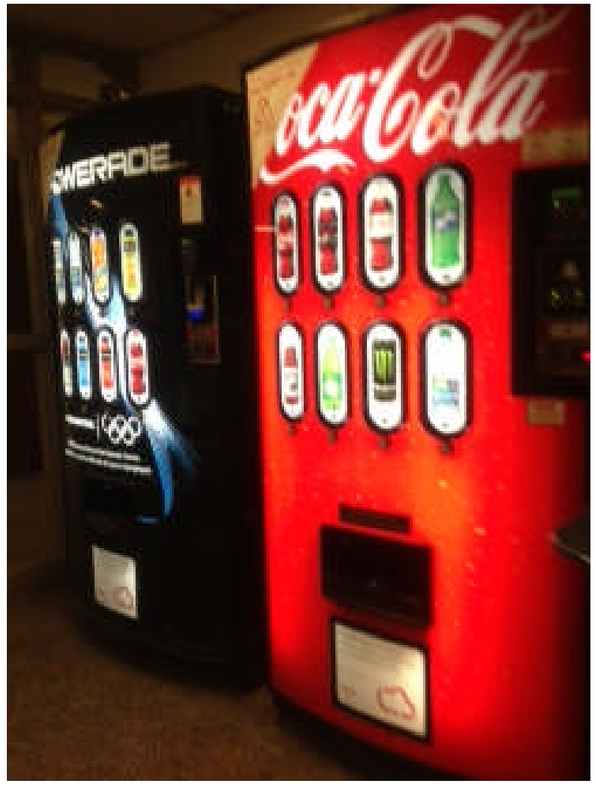
http://www.switchthestat.ca/eng/index.php

BULLETIN INFORMATION

Please note that MOPIA does not endorse, sell or aim to promote any product, company, technology or enterprise. However, we do highlight and portray specific products, companies or technologies for the benefit of our stakeholders to raise awareness of the emerging and on-going strides to improve our society and the environment. Links to sites are independent and discretion should be taken with any claims. You are responsible for verifying any facts they may portray and MOPIA encourages you to do your own research and validation.

Coke and Pepsi committed to change refrigerants

With a solid mandate by the Montreal Protocol, major manufacturers and distributors are making innovations happen.



Both International multinational beverage giants Coca Cola and Pepsico have committed to replacing all of their vending machines with climate friendly refrigerant gas units with carbon dioxide or hydrocarbon refrigerants based units. See:

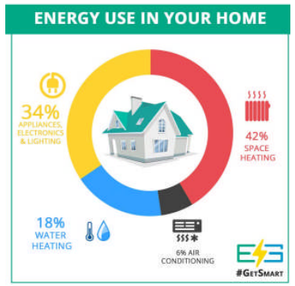
http://www.coca-colacompany.com/stories/cooling-equipment-pushing-forward-with-hfc-free

http://www.pepsico.com/live/pressrelease/pepsico-brings-first-climate-friendly-vending-machines-to-the-us03302009

http://ozone.unep.org/

CANADA 150

Appliances use an estimated 12% of household energy.



http://www.nrcan.gc.ca/sites/oee.nrcan.gc.ca/files/pdf/publications/statistics/cama12/cama12.pdf

http://www.torontohydro.com/sites/electricsystem/residential/yourbilloverview/Pages/ApplianceChart.aspx

https://energy.gov/energysaver/estimating-appliance-and-home-electronic-energy-use

http://www.nrcan.gc.ca/energy/products/categories/appliances/13630

https://www.energuide.be/en/questions-answers/how-much-energy-do-my-household-appliances-use/71/

What not to do with White Goods!

Never cut the copper or aluminum refrigerant tubes/lines. These tubes carry the refrigerant gases which are harmful to the environment if not properly recovered.

Also, always be careful when moving a unit as the refrigerant lines are usually exposed at the back of the unit and can easily get punctured or caught or hung up on a variety of things by accident.

Never add refrigerant into a unit as a do-it yourselfer. First off, one must fully recover the existing refrigerant. Adding a different refrigerant such as a hydrocarbon may compromise the unit as it was not designed to carry a different type of refrigerant and may void the warranty. Also note: cock-tailing or mixing refrigerants is illegal as it becomes useless to reuse in future.

If someone is cutting the lines on a white good, not only are they creating a potential environmental harm, they are libel for a penalty of upwards of $50,000 and/or 6 months in prison or both.

Never pile white goods into a dumpster or move and crush them with a backhoe or front end loader before the refrigerant is recovered. This will undoubtedly rupture the refrigerant lines. You are then liable for improper disposal and fines of up to $500,000 as a company!

Technology Advances

Much of Asia and some of Europe are now offering new refrigerators and related white goods with the next generation refrigerant gas called hydrocarbon. This gas is a propane, butane containing type of refrigerant that has a characteristic of minimal flammability potential.

To see how this new technology is being deployed and used see the following useful websites:

http://web2.unep.fr/hcfc/about/default.aspx?type=alternatives

www.uneptie.org/ozonaction/information/mmcfiles/4316-e-pr1198backfuture.pdf

http://ausref.org.au/

www.hydrocarbons21.com/

http://refrigerants.danfoss.com/hydrocarbons/#/

www.engas.com.au/about/about-hydrocarbon-refrigerants/

www.lindecanada.com/en/products and supply/refrigerants/nat

WHITE GOOD S AND THE FEDERAL HALOCARBON REGULATION REQUIREMENTS

Under CANADA'S Federal Halocarbon Regulation (FHR), white goods are also regulated. If you are working at or, are contracted to provide services at a federal work or undertaking, you must be aware and follow the FHR.

For more information on the FDR, see:
http://www.ec.gc.ca/ozone/Default.asp?lang=En&n=9090CC46-1

http://www.ec.gc.ca/lcpe-cepa/default.asp?lang=En&n=1DFC36BB-1

Be Aware Refrigerant Sulphur Dioxide is deadly!

Refrigerant gases used in various appliances has evolved since first introduced. Among the first gases was carbon dioxide. Then Sulphur dioxide was used commonly in the 1930's but its' health characteristics were very harmful and potent. If you come across an old fridge or freezers with this type of refrigerant be sure to handle it with extreme caution. Only a qualified and experienced appliance technician should service this type of unit.