

Environmental Programs

Protection of the Ozone Layer: Information for Consumers

The Dangers of Ozone Depletion

Ozone is a natural and vital gas of the upper atmosphere that shields the Earth from the Sun's ultraviolet (UV) rays. Harmful chemicals known as ozone depleting substances (ODS) and halocarbons (halons) contain chlorine and bromine which chemically react with ozone and destroy it, causing the ozone layer to become thinner. This results in increased exposure to UV rays, which may contribute to negative effects on all living organisms, including:

- Poor human and animal health (eye cataracts and skin cancer);
- Unfavourable agricultural and forestry conditions, as well as a deterioration of natural ecosystems; and
- Damage to marine habitats and marine life.



Where You Will Find Ozone Depleting Substances and Halocarbons

- Chlorofluorocarbons (*CFCs*), the most common ODS, are used in refrigerants, solvents, aerosols, and flexible and rigid foams. CFC-12, for example, is a refrigerant used in many refrigerators and freezers, as well as in automobile air conditioners.
- Hydrochlorofluorocarbons (*HCFCs*) are used in refrigerants, solvents and both rigid and flexible foams.
- Halons are used in some fire protection equipment.
- Chlorocarbons are used in solvents.
- Methyl bromide is used as a fumigant in pesticides.
- Halocarbons are a carbon-based compound that may contain hydrogen, fluorine, chlorine, bromine or iodine in its structure. These compounds are powerful greenhouse gases.

New Laws To Control ODS

The Yukon initially passed ODS Regulations in 1996, to control and minimize the release of damaging ozone depleting substances into our atmosphere.

The regulations govern the recovery, recycling and disposal of ODS in the Yukon. They regulate ODS use in refrigeration and air conditioning equipment; motor vehicle air conditioners and fire extinguishing equipment.

In 2000, these regulations were amended to include other halocarbons in accordance with

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the *National Action Plan for the Environmental Control of ODS and their Halocarbon Alternatives (NAP)*, based on recommendations from the Canadian Council of Ministers of the Environment. The NAP outlines how the control, reduction and elimination of ODS and halocarbon alternative emissions can be met. It addresses the ultimate management, control, phase-out and disposal of all ODS in Canada and sets agreed objectives and tasks for harmonized federal and provincial actions.

How The New Rules Affect Your Vehicle's Air Conditioning

Recharging Mobile Air Conditioning Systems with ODS is Now Prohibited

Vehicles manufactured in 1993 or earlier may have been made with air conditioning systems that use CFCs. If any vehicle that uses CFCs has a faulty or leaking air conditioning system, or if such a vehicle will need servicing, then you need to be aware that recharging mobile air conditioning systems with ODS is now prohibited. Such models that have faulty or leaking air conditioning systems may require conversion kits or alternative refrigerant blends (see separate fact sheet "*Motor Vehicle Air Conditioning Systems and Ozone Depletion*").

If you choose, your vehicle can have the air conditioning system retrofitted with a new, less-harmful system. Many service companies invested in the new equipment when the switch from CFCs was made several years ago. Don't be afraid to ask your service technician about your retrofit choices:

- Is the retrofit technician certified to handle ODS under the regulations?
- What is the current condition of your air conditioning system?
- What level of retrofit would best suit your driving needs?
- Will ozone-friendly R-134a or equivalent substances be used in the retrofit?
- What kind of warranty does the service facility offer?
- Where will the retrofit label be placed under the hood?

How You Can Help

Only properly trained technicians should service your refrigeration or air-conditioning units. Qualified technicians should have a technical certification or Trade Qualification (TQ), and they must be registered under the ODS/OH Regulations. When you dispose of this type of equipment at a landfill or dump, you should leave it in a segregated area where the refrigerant can be recovered. When buying new equipment, look for units that operate without ODS. Most automobile air conditioners now use an ozone-friendly refrigerant. Domestic refrigerators and freezers are also available that use less harmful chemicals.

It is up to you to make sure that your mechanic or technician is properly trained and has the appropriate equipment to handle ozone depleting substances and other halocarbons responsibly.

For more information on the ODS&OH Regulations, please contact:

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Copies of Yukon regulations may be viewed online at <http://environmentyukon.gov.yk.ca/monitoringenvironment/> under the "Standards & Approvals" section, or at any Yukon Public Library, territorial agent, territorial representative or regional services office. You may purchase copies at the Inquiry Centre, Yukon Government Administration Building, 2071-2nd Avenue in Whitehorse, or by mail from the Subscriptions Clerk, Yukon Government Queen's Printer, Box 2703, Whitehorse, Yukon, Y1A 2C6 (phone (867) 667-5783 or toll free 1-800-661-0408 extension 5783).