

# Environmental Programs

## Halocarbons

Halocarbons are chemical compounds such as chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), hydrofluorocarbons (HFCs) and halons. Halocarbons are used in air conditioning/cooling systems and fire extinguishing systems. When released into the atmosphere, they contribute to global warming, and some of them are ozone-depleting substances (ODS) that destroy the stratospheric ozone layer which protects the Earth from damaging ultraviolet rays.

Canadian federal and provincial regulations aim to progressively eliminate some halocarbons (CFCs, HCFCs and halons). They also regulate the control of halocarbon releases and disposal, as well as the use of qualified labour to manage them.

At Bell, CFCs were phased out in early 2007, replaced by HCFCs and HFCs that are less harmful to the environment. However, HCFCs were only developed to serve as transition cooling agents. They are now targeted internationally, and their elimination is progressively planned in Canada. Specifically, the production of HCFC-22, intended to serve as a refrigerant, will not be allowed in Canada by 2020. To address this situation, all of Bell's business units have prepared a 5-year plan to replace HCFC-22.

Bell also phased out halons by mid-2010. However, with recent acquisitions, Bell once again has buildings equipped with systems using halon as a fire extinguishing agent. In 2015, we established a halon phase-out plan for these facilities.

Bell uses approximately 153 tonnes of refrigerant in more than 11,900 air conditioning systems across the country. These systems average 15 years of service. Of these, more than 79% use R-22 as refrigerant.

Bell's long-standing commitment to managing halocarbons has resulted in many advances over the last decade, including the following:

- Helping develop an air conditioning system that uses compressed CO<sub>2</sub> as a refrigerant rather than HCFCs
- Creating guidelines for the decommissioning of air conditioning/ cooling systems and halon fire extinguishing systems
- Converting or replacing air conditioning/cooling systems using CFCs
- Developing phase-out plans aligned with government and industry recommendations for equipment using HCFCs in all business units
- Implementing a reporting process in the event of a halocarbon leak.

Our halocarbon program has clear and consistent objectives:

- Protect the ozone layer
- Minimize the use of halocarbons
- Maintain systems using halocarbons in compliance with applicable regulations
- Decommission equipment using HCFCs as soon as possible, in accordance with government regulators' expectations.

Even with the preventive and routine maintenance we conduct on our equipment, releases of halocarbons are inevitable due to mechanical defects and breakdowns. In 2015, our number of halocarbon leaks increased by 5% compared with 2014. Total leaks represented 5,471 kg of halocarbons, which is 5% higher than the volume leaked in 2014. This is just 4% of the 153 tonnes of halocarbons we use across the country.

To further reduce leaks and control any future impact, we perform root- cause analyses of incidents and equipment life cycles.

Halocarbons	2015	2014
Total weight in use (tonnes)	153	150
Number of leaks	399	380
Amount leaked (tonnes)	5.5	5.2
Proportion of total weight leaked (%)	4%	3%