



ENFORCEMENT IN QUEBEC

Fact Sheet

Ozone-depleting Substances (ODSs)

April 1999

Halocarbons and the Ozone Layer

In 1985, British scientists stunned the world with the discovery of a "hole" in the ozone layer, a phenomenon believed to have begun around 1975. Located at an altitude of 25 to 30 kilometers, the ozone layer is a gaseous layer that surrounds the earth and protects us from ultraviolet (UV) rays harmful to living beings.

Ozone-depleting substances (ODSs) are the main cause of the marked depletion of this protective layer. Commonly referred to as a "hole" in the ozone layer, this depletion occurs especially in winter, above the northern and southern polar regions, and may attain the dimensions of a continent. ODSs are all halocarbons, the most widely-known of which are chlorofluorocarbons (CFCs) and methyl chloroform (MCF), halons and hydrochlorofluorocarbons (HCFC). Halocarbons may be used, among other things, as refrigerants, insulating material, solvents, pesticides, or for sterilization. Products containing ODSs include a variety of articles, such as refrigerators, air conditioners, extinguishers, plastic packaging, and foam insulation panels.

Other halocarbons, which do not contain chlorine, have been suggested as alternatives to ODSs: hydrofluorocarbons (HFC) and perfluorocarbons (PFC). It has now been established that these substitution gases contribute to the greenhouse effect. It should be noted that these new factors are integrated into the *Montreal Protocol*, which sets out the

commitments of Canada and of the other parties to control ODSs.

Despite international efforts, a recent study, conducted by scientists of the Max Planck Institute in Germany, illustrates that, given the combined effects of ODSs and greenhouse effect gases, the ozone layer will not become what it was before the industrial era until the end of the next century.

Effects of UV Rays

Without the protection of the ozone layer, UV rays may have adverse effects on all organisms, from the unicellular plants to the great mammals, thereby compromising the equilibrium of the ecosystems.

For humans, exaggerated exposure to UV rays may cause skin cancer, cataracts, as well as a weakening of the immune system. It appears that the populations of the countries close to the poles are more subject to the adverse effects of UV rays. Consequently, Environment Canada views controlling ODSs as a priority.

Agreements and Regulatory Initiatives

Different international agreements and regulatory initiatives aiming the reduction and disposal of ODSs were implemented over the last decades. Canada is generally thought of as a leader in this area. Following is an overview:

- 1985-Vienna Convention on the Ozone Layer
- 1986-First studies on ODSs and the ozone layer by Environment Canada

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- 1987-Signature of the *Montreal Protocol* by 24 countries, including Canada
- 1987-Canadian regulations on ODSs
- 1989-Ratification of the *Montreal Protocol* (ahead of planned schedules, and with additional new substitution products)
- 1992-Implementation of ODS recovery programs by Quebec
- 1993-Provincial regulations on ODSs
- 1996-Total ban on the production and import of CFCs (industrialized countries)
- 1998-New *Ozone-depleting Substances Regulations*, in effect since January 1, 1999

Following various control efforts, the supply of ODSs in Canada dropped 96% over the past ten years. According to a report for the period from 1993 to 1996, prepared by the ministère de l'Environnement du Québec, the sale of all CFCs and halons in Quebec decreased by 95% and 80% respectively.

Federal Regulations

The *Ozone-depleting Substances Regulations* (ODS) and the *Ozone-depleting Substances Products Regulations* (ODSP) were adopted under the *Canadian Environmental Protection Act* (CEPA), in compliance with the *Montreal Protocol*.

The regulations governing ODSs controlled the consumption of CFCs, halons, HCFCs, methyl bromide, carbon tetrachloride, and 1,1,1-trichloroethane. Among other things, these decreed that companies were held to requesting permits for the use, manufacture, import or export of these substances.

As to the regulations respecting ODSPs, these prohibited commercial activities concerning, among others, pressurized containers of less than 10 kg, CFC-blown foam plastic packaging for food products, as well as certain other products such as mobile air conditioning

systems, fire extinguishers, and insulation panels originating from countries that were not party to the *Montreal Protocol*.

Since January 1999, the *Ozone-depleting Substances Regulations* (1998) replaces the above mentioned regulations.

The results presented in this fact sheet set out the inspections conducted in 1997-1998 in accordance with the regulations that were in effect at the time: the *Ozone-depleting Substances Regulations* (ODS) and the *Ozone-depleting Substances Products Regulations*.

Legal Measures in the Event of a Suspected Offence

When an inspector has reasonable grounds to believe that there has been a violation of the regulations or the Act, the inspector, guided by the Department's *CEPA Enforcement and Compliance Policy*, may choose one or the other of the following legal measures:

- verbal or written warning;
- directive of the inspector ;
- ministerial order;
- injunction;
- civil suit;
- criminal prosecution.

The selection of these measures depends on various criteria, namely the nature of the violation, the compliance record of the suspected offender, environmental impact, and consistency of enforcement.

Offences and Penalties

CEPA provides for penalties for anyone who violates the regulations and the Act. Should the suspected offender be found guilty of having violated regulations governing ODSs and

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ODSPs, the maximum penalty is \$1,000,000 or 3 years of imprisonment, or both.

Verification of Compliance: Report for 1997-1998

In 1997-1998, Quebec counted two companies holding permits for the export of recycled halons, three for carbon tetrachloride, two for MCF, two for HCFC, and 43 that benefitted from allowances for the use of methyl bromide (MBr). Three companies distinguished themselves from the group of MBr importers, with more than 95% of the allowances. An allowance is what gives one the right to produce, import or export a determined quantity of a controlled substance.

In short, as little as 5 companies shared more than 93% of the ODS allowances in Quebec. Their activities were the object of a special follow-up by Environment Canada.

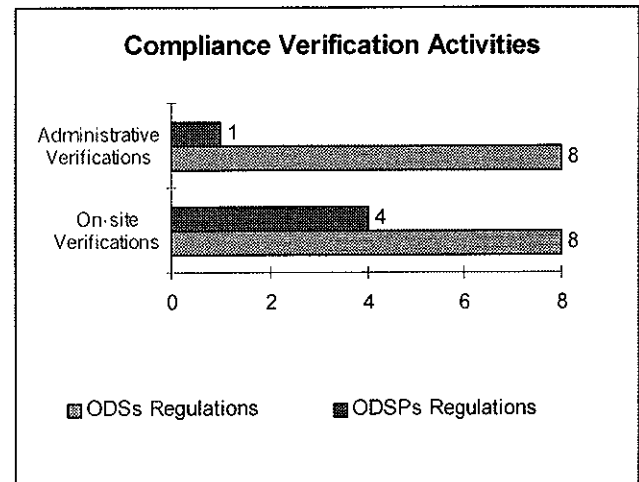
Results

In 1997-1998, 8 administrative verifications and 8 on-site verifications were conducted under the regulations regarding ODSs. Five violations of an administrative nature were detected, as well as 2 violations regarding permitted quantities.

Concerning regulations governing ODSPs, the method of compliance verification took the shape of sporadic visits of company sites and response to the calls of the customs officers, for a total of 1 administrative verification and 4 on-site verifications.

On a few occasions, imported products, manufactured using CFCs and labelled in compliance with American legislation, attracted the attention of the customs officers. The officers called upon Environment Canada inspectors who concluded, following

verification, that no regulations had been violated. In short, the ODSP compliance control activities did not reveal any violations.



Warnings

Warnings were delivered to companies in 1997-1998 for suspected offences. A warning is registered in the company's compliance record and requires to proceed at once with the corrections needed to ensure compliance. Failure to do so can lead to other legal measures being undertaken.

In 1997-1998, four warnings were issued to companies:

- for failure to produce an annual report;
- for failure to produce an annual report, and for producing incomplete records;
- for failure to produce an annual report, for producing incomplete records, and for holding, during a control period, a calculated consumption level higher than the allowance;
- for failure to hold the records required under the regulations.

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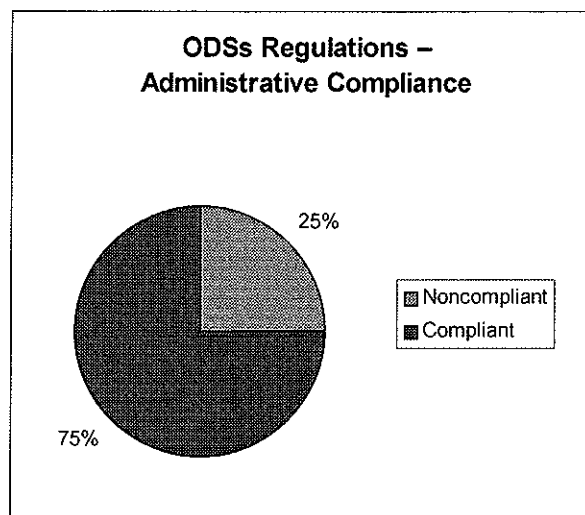
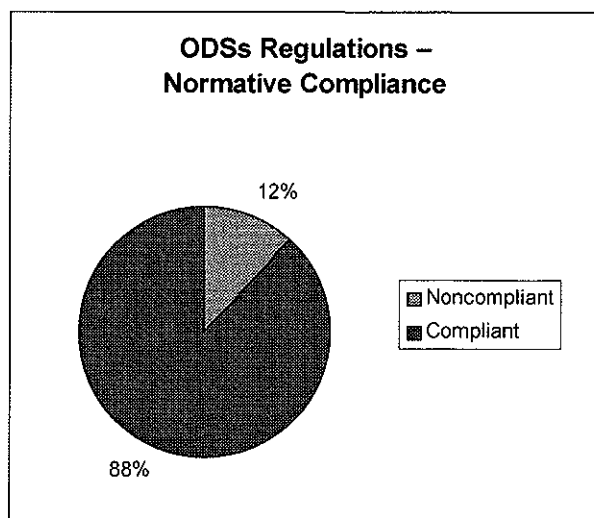
Investigations

An investigation is undertaken when a suspected offence is of a serious nature, when potential environmental impact is great, or when there is negligence or repetition of an offence.

Four investigations are ongoing following cases of noncompliance with the *Ozone-depleting Substances Regulations* that occurred in 1997-1998. The results of these investigations will determine whether or not the companies involved will have to face legal proceedings.

Report

For the verifications conducted during the year 1997-1998, the rate of compliance to administrative requirements was 75%, while the rate of compliance to normative requirements was 88%. However, these rates must be interpreted with care, given that they were calculated on the basis of a restricted number of verifications in the regulated community.



FOR FURTHER INFORMATION

In order to make known federal regulation enforcement in Quebec, other fact sheets are available on the following subjects:

- Polychlorinated Biphenyls (PCBs)
- Export and Import of Hazardous Wastes
- The Pulp and Paper Sector

For information on the new *Ozone-depleting Substances Regulations* (1998): <http://www2.ec.gc.ca/ozone/odsr/francais/rias/>; for further information on Environment Canada's activities, visit the Green Lane: <http://www.qc.ec.gc.ca> or go directly to our section on the ozone layer: <http://www.ec.gc.ca/ozone/index.htm>. You may also contact the regional office of Environment Canada:

Environmental Protection Branch
105, McGill Street, 4th Floor
Montreal, Quebec
H2Y 2E7
Tel.: (514) 283-4670
Fax: (514) 283-4423

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