



## CERN Fluorinated Gases (F-Gas) Policy

CERN, an intergovernmental organization for fundamental research in particle physics, defines and implements a fluorinated gases policy (hereafter “F-Gas Policy”). This policy covers all installations (including equipment) and activities on the CERN site containing or using fluorinated gases, i.e., human-made greenhouse gases that contain fluorine (F-Gases). The policy is periodically reviewed.

### 1. Objectives

In line with the CERN Safety Policy, the F-Gas Policy is designed to minimize the impact on the environment of the Organization’s installations and activities containing or using F-Gases.

In particular, the F-Gas Policy aims at a reduction of the use of F-Gases and of related emissions.

### 2. Means

The Organization makes the necessary means available needed to meet the F-Gas Policy objectives.

In particular, the Organization commits to:

- minimize the use of F-Gases at CERN, in particular through:
  - o the promotion of research and development into F-Gas alternatives,
  - o the replacement, to the extent possible, of F-Gases already used in its installations and activities with gases with no - or less impact on the environment, and
  - o the minimization, to the extent possible, of the use of F-Gases in new installations and activities.
- limit its emissions of F-Gases, in particular through:
  - o the prohibition of intentional releases,
  - o the detection and reduction of leaks,
  - o appropriate training of personnel concerned.
- monitor and manage the use and emissions of F-Gases within the Organization,
- establish and update appropriate internal procedures and regulations and monitor compliance with them,
- communicate proactively,
- collaborate with the Host States.



## 2.1 Minimization of the use of F-Gases at CERN

### 2.1.1 Promotion of research and development into F-Gas alternatives

The Organization promotes R&D and scientific exchanges on gases and related technologies with no or a low impact on the environment (including gases with a low Global Warming Potential (GWP<sup>1</sup>) meeting the requirements of its installations and activities.

### 2.1.2 Replacement of F-Gases already used in CERN installations and activities

The Organization actively promotes the replacement of F-Gases by natural or other gases with no or a low impact on the environment (including gases with a low GWP) wherever technically and economically reasonable solutions exist.

### 2.1.3 Minimization of F-Gases in new installations and activities

The Organization ensures that new installations and activities are planned, designed, and operated or carried out in a way that minimizes the use of F-Gases. It actively promotes the use of natural gases or other gases with no or a low impact on the environment (including gases with a low GWP) wherever technically and economically reasonable solutions exist.

## 2.2 Limitation of F-Gas emissions

### 2.2.1 Prohibition of intentional releases

The Organization prohibits intentional releases of F-Gases into the atmosphere.

### 2.2.2 Detection and reduction of leaks

The Organization implements measures to detect and reduce leaks in installations containing F-Gases.

In particular, the Organization:

- takes all reasonable measures to ensure that leaks are repaired in a timely and durable manner,
- implements a leak detection management system, including automatic or regular manual leak checks,
- ensures that equipment containing F-Gases is maintained according to a predefined schedule,
- implement F-Gas recovery, recirculation, and purification systems, where possible.

### 2.2.3 Training of personnel

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<sup>1</sup> GWP: indicator designed to compare the global warming impact of different gases. Specifically, it is a measure of how much energy the emissions of 1 ton of a gas will absorb over a given period, relative to the emissions of 1 ton of carbon dioxide (CO<sub>2</sub>). GWP of CO<sub>2</sub> equals to 1.



The Organization ensures that personnel handling F-Gases on its site are trained and certified as appropriate.

### 2.3 Management and Monitoring of F-Gas Use and Emissions

The Organization monitors the use of F-Gases on its site as well as related emissions.

It implements the necessary procedures and tools for the efficient management of F-Gases on its site.

### 2.4 Internal Procedures and Regulations

The Organization establishes and updates internal procedures and regulations to implement its F-Gas Policy. In doing so, it takes into consideration the relevant legislation of the Host States, as well as European and international regulations, directives, and standards.

The Organization monitors compliance with the procedures and regulations that it establishes.

### 2.5 Proactive Communication

The Organization proactively communicates its F-Gas Policy to all persons concerned on its site, as well as to the Host States and the public as appropriate. It runs information campaigns targeting those involved in activities using F-Gases or designing or operating equipment containing F-Gases. It also organises awareness-raising exercises.

It establishes and updates a public environment report in accordance with international standards. F-Gas emissions are reported in the Organization's environmental publications and towards Host State bodies upon request.

### 2.5 Collaboration with the Host States

The Organization collaborates with its Host States in a transparent and constructive manner on topics concerning the F-Gas Policy, in particular through the Tripartite Environment Committee.

## 3. Implementation Principles

### 3.1 Measures decided by the Director-General.

As chief executive of CERN, the Director-General:

- assigns responsibility for the implementation of the F-Gas Policy, at all levels of the Organization, to the relevant organic units and in particular:
- assigns to the occupational Health and Safety and Environmental protection (HSE) unit, the role of supporting the CERN stakeholders in the implementation of this Policy,
- assigns specific tasks to specialised units, as necessary.



### 3.2 Individual Responsibility

All persons participating in the Organization activities involving the use of F-Gases are required to actively contribute to the implementation of the F-Gas Policy through exemplary conduct and by complying with its associated rules and procedures, in particular.