

Department for Environment, Food and Rural Affairs

General Guidance for Switchgear Containing SF₆

Guidance: F Gas and Ozone Regulations

Information Sheet SCS 6: Practical Guidance

April 2012

Contents

1	Should Leak Checking Be Carried Out?	1
2	Maintaining Records?	1
3	How is SF ₆ Recovered from End User Equipment?	1
4	What Can I Do with Recovered SF ₆ ?	3
5	What Equipment needs to be Labeled?	3
6	Are There Any F Gas Bans Related to this Sector?	3

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This Information Sheet provides further guidance related to the impact of the EU F gas Regulation on the use of switchgear containing SF₆.

Other Information Sheets on switchgear containing SF₆ give details about the key obligations related to switchgear systems in relation to the EU F gas Regulation. In this Information Sheet we provide practical guidance and address a number of Frequently Asked Questions.

1 Should Leak Checking Be Carried Out?

Unlike refrigeration and air-conditioning systems there is no requirement for regular leak tests on switchgear. However, it is good practice to check that no SF₆ leaks are occurring. This is good for the environment and also ensures that the switchgear remains fully operable. Most switchgear does not leak during its normal use. However, care should be taken to identify leaking equipment and this should be repaired or replaced. If a leak is found it must be repaired by appropriately qualified personnel.

2 Maintaining Records?

Good records are essential for the effective management of SF₆ inventories and SF₆ switchgear. It is recommended that best practice asset management principles such as those in **PAS55 - Asset management. Specification for the optimised management of physical infrastructure assets** are adopted for SF₆ switchgear and that the principles of **ENA ER S38 – Reporting of SF₆ Banks, Emissions and Recoveries** are adopted for the management of SF₆ inventories. As a minimum the following should be recorded:

- The **location and identification reference** of the equipment,
- The make and type of the equipment
- The **quantity** of SF₆ installed in each item when first commissioned,
- The **quantity** of SF₆ added,
- Any **quantity** of SF₆ **recovered** during servicing, maintenance and final disposal.

You should also ensure that you can demonstrate that only certified personnel are used for any activity involving the recovery of SF₆.

3 How is SF₆ Recovered from End User Equipment?

If recovery of SF₆ is involved during equipment maintenance and decommissioning, the SF₆ must be extracted from a system carefully without causing any wilful release to the environment. This must only be carried out by adequately certificated personnel (see Information Sheet SCS 5 for qualification and certification requirements).

In practice, this can be done using a gas recovery unit, which comprises of a small compressor, filters and controls. One side is connected to the switchgear system via service valves and the other side to an empty cylinder. Great care should be taken to label the recovery cylinder in order to identify its contents.

Sample Log Sheet

The table below shows an example record sheet. It is recommended that records of this type be kept for all switchgear containing SF₆.

RECORD SHEET			
General Information			
Plant Name			Reference No.
Location of plant			
Plant Operator (Name, Address, Telephone)			
Operator Contact			
Number of Switchgear Units		Total Quantity of SF ₆ (kg)	
Plant manufacturer (s):			
SF₆ Additions			
Date	Personnel/Company	Amount Added, kg	Reason for addition
Decommissioning			
Date	Personnel/Company	Amount Removed, kg	Reason for removal. What was done with recovered SF ₆
Follow-up Actions			
Date	Personnel/Company	Related to test on	Actions Taken

4 What Can I Do with Recovered SF₆?

Recovered SF₆ should be recycled reclaimed or destroyed. Waste SF₆ is a hazardous waste and as such you should consider your Duty of Care when disposing of it and that it may need to be accompanied by the appropriate documentation. Waste SF₆ is currently sent overseas for reclamation or sent for destruction. Your SF₆ supplier will be able to give advice on disposal options.

5 What Equipment needs to be Labelled?

All new switchgear containing SF₆ and operating at 1 kV or above must be labelled by the manufacturer or supplier, irrespective of size, as required by the EU F gas Regulation. The labelling rule applies to equipment placed on the market after 1st April 2008. Existing equipment does not need to be labelled, although it is good practice to label all equipment.

A mandatory label for new equipment must include:

- The text 'Contains fluorinated greenhouse gases covered by the Kyoto Protocol',
- A clear indication that the equipment contains SF₆,
- The quantity of SF₆, expressed in kilograms.

The label may be placed in any of the following positions.

- Adjacent to the service points for charging or recovering the SF₆,
- On that part of the product or equipment which contains the SF₆,
- On, or adjacent to existing nameplates or product information labels.

In addition any instruction manuals that come with the product/equipment need to state that SF₆ is contained in the equipment and give its global warming potential.

6 Are There Any F Gas Bans Related to this Sector?

It is important to note that there are no bans in the EU F gas Regulation related to the use of SF₆ in switchgear.

The information in this document is intended as guidance and must not be taken as formal legal advice or as a definitive statement of the law. Ultimately only the courts can decide on legal questions and matters of legal interpretation. If you have continuing concerns you should seek legal advice from your own lawyers.

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