

## Fact-sheet - How to establish an ODS and F-gases equipment inventory?



### What is the objective?

ODS (Ozone Depleting Substances) are responsible of the ozone layer depletion. Widely used ODS are gases such as chlorofluorocarbons (CFCs) and hydrofluorocarbons (HCFCs) used as refrigerants in air conditioning, chillers, etc. and halons used in firefighting equipment, for example. Note that other refrigerant gases used in refrigerant systems called F-gases such as HFCs are also damaging the environment (powerful greenhouse gases) so they should be controlled as well. In order to manage and control the equipment that might contain ODS and F-gases, the factory should have an inventory. The main objectives are to:

- **Identify** the potential sources of ODS and F-gases in the factory;
- **Avoid** the risk of ODS and F-gases leaks through regular inspections.



### How to achieve this objective?

**Step 1: Create** a template/format for your inventory of equipment containing ODS and F-gases. You can use a template as per the model below.

**Step 2: Identify all the equipment** that might contain ODS or F-gases such as equipment for refrigeration, air-conditioning, fire suppression system and heat pump. For each equipment identified, fill-in the table as per the example:

| ODS (Ozone Depleting Substances) and F-gases equipment inventory |  |   |                                  |          |                      |   |   |                          |  |
|--|--|---|----------------------------------|----------|----------------------|---|---|--------------------------|--|
| Factory name:  |  |   |                                  |          |                      |   |   |                          | Objective of this document:<br>Identify the ODS equipment, ODS types and record the maintenance operations undertaken<br>(date:...) signed by (...). |
| Responsible person:  |  |   |                                  |          |                      |   |   |                          |  |
| Date of last update:   |  |   |                                  |          |                      |   |   |                          |  |
| Area/location  | Equipment                              | Refrigerant name                              | Charge/<br>Amount of<br>gas (kg) | Quantity | Banned<br>substance? | Frequency of<br>maintenance and<br>leak control | Last maintenance<br>and leak control<br>check | Certified<br>contractors |  |
| Offices  | Brand name air conditioner (Model XXX) | R-22<br>(or HCFC-22<br>chlorodifluoromethane) | 5 kg                             | 3        | YES                  | Once a year                                     | 22/03/2017                                    | ABC Ltd.                 |  |
|  | ...                                    |   |                                  |          |                      |   |   |                          |  |
| Production section<br>(building 1, floor 1)                      | Chiller                                |   |                                  |          |                      |   |   |                          |  |
| Production section<br>(building 1, floor 2)                      |  |   |                                  |          |                      |   |   |                          |  |
| Canteen & kitchen  | Fridge                                 |   |                                  |          |                      |   |   |                          |  |
| ...  |  |   |                                  |          |                      |   |   |                          |  |

**Banned  
substance?**

The substance can be banned by;

- 1) The Montreal Protocol (for ODS)<sup>1</sup> or;
- 2) The Kyoto Protocol (for F-gases)<sup>2</sup>.

**Frequency of  
maintenance and  
leak control**

The frequency of the maintenance depends on the size of the equipment; the bigger is the amount of gas in the equipment the more the maintenance and leak checking has to be frequent. The service provider of the equipment should also indicate to the factory what should be the maintenance frequency. For refrigerant and air-conditioning systems, if the charge is less than 30kg, the checking can be annual.

**Step 3: Test the equipment** and repair leaks if any identified (external contractors could be appointed).

**Step 4: Appoint a manager** to update the inventory on a regular basis.



**Write a ODS and F-gases phase-out procedure:** this document should explain how you plan to phase-out the use of ODS and F-gases in your equipment and/or how do you plan to avoid purchasing any new equipment that might contain harmful gases for the environment.

<sup>1</sup> <http://ozone.unep.org/en/treaties-and-decisions/montreal-protocol-substances-deplete-ozone-layer>

<sup>2</sup> [http://unfccc.int/kyoto\\_protocol/items/2830.php](http://unfccc.int/kyoto_protocol/items/2830.php)