

# Recovery, reclamation and destruction solutions and services

As far back as 1980, the Dehon Group was already developing refrigerant recovery and recycling activities at its Bry-sur-Marne site in France (department 94).

In 1990, the process was industrialized and rolled out at the Group's various production sites. Today, having accumulated a wealth of know-how and expertise in refrigerants, Climalife offers these services in every European country in which it operates: France, the United Kingdom, Spain, Italy, Belgium, the Netherlands, Germany, Hungary, Switzerland and Sweden.



## What do we mean by “recovery”, “recycling” and “reclamation”?

«**Recovery**» is the collection and storage of refrigerants from products, equipment or containers during their maintenance or servicing, or prior to their disposal.

«**Recycling**» is the reuse of a recovered refrigerant after a basic cleaning operation.

«**Reclamation**» is the re-processing of a recovered refrigerant (a controlled substance) to meet the same performance specifications as a virgin substance, taking into account the use for which it is intended.

## From collection to reclamation to resale: what happens to re

### Let's take R-22 as an example.

The R-22 fluid is recovered from refrigeration or air conditioning systems using purpose-designed fluorescent green containers and is transferred to our industrial sites for treatment. At these sites, the forklift truck operators receiving the recovery containers identify the product from the documents affixed to the containers (e.g. the Waste Tracking Form and the bristol board sheet in France) then dispatch these documents to the department responsible for traceability. The containers are then moved to the reclamation shop (photo 1).

The quantity of R-22 contained in each recovery container is weighed (photo 2) even before the nature of the product is analysed (photo 3) to determine whether it can be reclaimed or not.

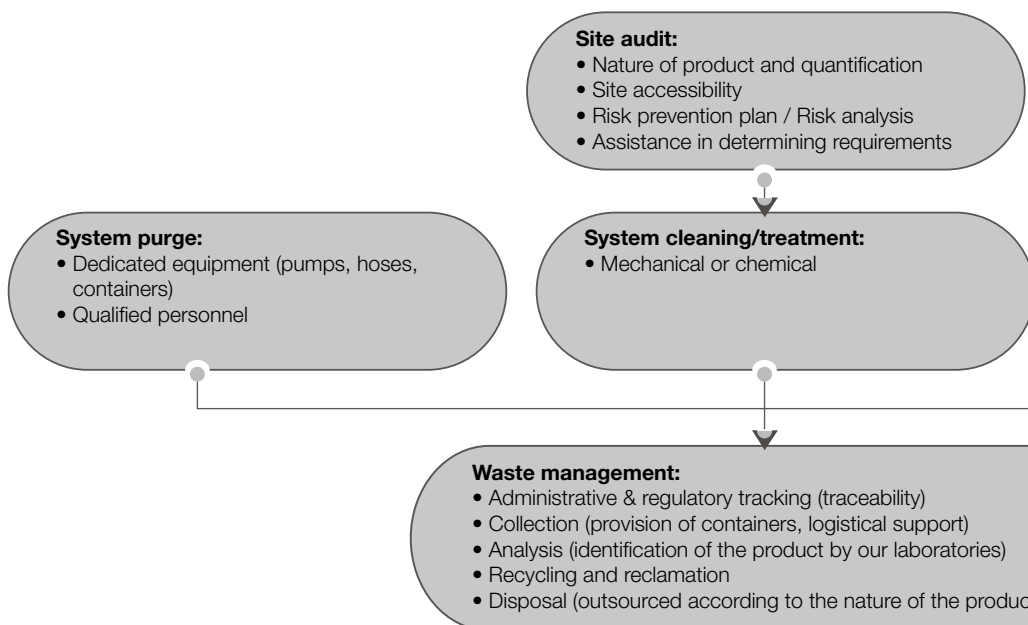
These first two stages are also used to check that the product information provided by the customer is accurate. If the R-22 analysed is

95% pure or more, then the product can be reclaimed and the entire contents of the recovery cylinder will be purged at a specific station (4-8 tonne batch) for reclamation (photo 4).

If the R-22 is less than 95% pure, or is too contaminated (mixed with other refrigerants, for example), the product cannot be treated and will be immediately sent for destruction, as reclamation has no impact on the purity of the refrigerant.



## The Climalife approach: Our experienced team can re a whole range of services tailored to yo



# on of refrigerants:



## recovered refrigerants

Treatment of the batch (photo 5):

- eliminates non-condensable gases
- filters solid particles
- separates contaminants
- dries the refrigerant.

After this treatment, the R-22 is analysed again before being stored. A sample is taken from the station containing the reclaimed R-22 (photo 6), then the Climalife laboratory

analyses the refrigerant's purity and composition by chromatography, its water content using the Karl Fisher method, and its non condensable content and acidity by chemical determination.

If, after these analyses (photo 7), the R-22 is deemed to be of the required quality, it will be stored in a tank (photo 8) before being packaged and placed on the market again

under the name R-22T (the name given to R-22 reclaimed by Climalife).

If this is not the case, it is retreated until it meets our quality requirements.



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**BELGIUM**

## Recovery:



## a new procedure for better traceability

For over twenty years, Climalife Belgium has offered a comprehensive refrigerant recovery service, fully compliant with all applicable regional legislation. The waste is taken to the Sint-Niklaas plant, where a lab analysis is performed to determine whether it will be recycled or destroyed.

The administrative procedure was recently reviewed and adapted in order more effectively to meet customers' traceability needs.

Under the new procedure, introduced on 1st June, customers wishing Climalife to dispose of waste for them must submit a duly completed Waste Disposal Request form (Demande d'Enlèvement des Déchets or D.E.D.). This form will contain key information required to track the waste effectively and will be used to prepare essential transport documents. The cylinders and drums containing recovered waste must be accompanied by an identification sheet on which the customer indicates the origin of the waste. The information from these documents is used to produce a final document, which is essential for customers' refrigerant inventory management, particularly the sending of the recovery certificate proving the purpose of the recovered waste.

**This document will now also bear a unique hologram, proving its authenticity and preventing the circulation of illegal copies.**

### System recharge:

- with new or reclaimed refrigerants