

# Recovered refrigerant: don't lose track of your responsibilities

AS ONE of the UK's leading refrigerant suppliers, Bristol-based IDS is ideally placed to understand the legal requirements and responsibilities of all those involved in handling what has become an increasingly expensive and sometimes scarce commodity.

What with the F-gas regulations, ODS and hazardous waste legislation it is understandable that some may be confused or finding it difficult to keep up to speed with their responsibilities, but it is something they ignore at their peril.

"Worryingly there remains a lack of understanding in some quarters as to the differences between recycled and reclaimed refrigerant," claims Peter Dinnage of IDS Climalife.

Recycling of refrigerant is the reuse of a recovered refrigerant following a basic cleaning process such as filtering and drying.

"This is carried out on site with little or no quality checking, usually with no way of measuring impurities, moisture or acid content," maintains Peter Dinnage.

"It is difficult to understand why some will put high value capital plant at risk of equipment failure or at the very least, adverse effects on plant operation and efficiency which may incur increased energy costs. Moisture, acidity, dirty oil and impurities are all enemies of your plant and can be avoided by using quality guaranteed product."

Reclamation on the other hand involves the reprocessing and upgrading of a recovered refrigerant through processes such as filtering, drying, distillation and chemical treatment in order to restore the substance to a specified standard of performance.

## Specialised service

It's a point which Peter Dinnage and IDS Climalife is keen to emphasise: "Refrigerant reclamation is a very specialised service that isn't covered by the normal specialist waste management companies and only F-gas qualified engineers can recover refrigerant from equipment irrespective of its charge size."

Although requirements for transporting and documenting waste differ throughout Europe, it is a very important part of the life cycle to reuse refrigerant resources within the industry.

Although specific cylinders for reclaiming refrigerant were first used in the UK in 1989, it has taken legislation and a better understanding of the environment to get the industry to where it is today. However, it has not been plain sailing.

"Legislation has played a major part and comes in many different guises, F-gas, ODS, Hazardous Waste, Duty of Care and Health & Safety.

Refrigerant recovery is required by law for all fluorinated refrigerants. It is illegal to deliberately vent such refrigerants into the atmosphere and cause damage to the environment. The need for recovery cylinders specifically for the purpose of containing refrigerant is therefore vital."

Companies carrying out this recovery service



must be registered with Refcom, Quidos or one of the other certifying companies in the UK to comply with the F-Gas Legislation. Additionally their engineers need to have the latest training qualifications to carry out the work.

## Hazardous waste

In addition to F-Gas and ODS legislation, one of the biggest changes occurred in 2005 when refrigerant came under the hazardous waste regulations (HWR). As Peter Dinnage points out, this legislation was revised in 2007, 2009 and again this year. The responsibilities that it places on companies are now huge and varied, he maintains: "The record keeping, cylinder logging, documentation and paperwork trail has become an integral part of handling refrigerant recovered from systems into cylinders. Both F Gas and HWR demand good records that can be made available for inspection.

"Any contractor recovering refrigerant will usually be considered as a mobile service operator and the premises from which they operate must be registered as any other hazardous waste producing premises with the Environment Agency. This notification needs to be renewed annually. Those who operate from multiple locations only need to register their head office.

"You cannot operate a mobile service under an exemption from the requirement to notify your premises because you recover less than 500kg per annum, a premise code is required regardless. Waste created by a mobile operator does not count towards the waste threshold for that site. SEPA regulations apply to waste created in

Scotland.

"From 28 September 2011, whenever waste is passed on to someone else, you will have to declare on the waste transfer note, that you have applied the waste management hierarchy. This is a five-step hierarchy which is an important part of the revised Waste Framework Directive and applies to anyone who produces or manages waste. The consignor must sign the declaration which needs to be added to Part D of the waste note to indicate that they have considered the hierarchy before the waste is transferred.

But it doesn't end there. "Anyone carrying waste needs a waste carriers licence and even if you arrange for waste to be moved back by others a broker's licence is required.

"Once back at the reprocessor a bespoke environmental permit is required to reprocess refrigerant, something that only a handful of companies in the UK possess and this is not without significant cost," he points out.

All the details of current requirements can be found on the Environment Agency website or the SEPA website if you are in Scotland.

Facilities put in place by IDS to handle R22 coming back for reprocessing are now increasingly handling larger quantities of other refrigerants such as 134a, 404A and 407C when they are replaced or reach the end of life.

"All of this is good for the environment as it means these resources are reused," maintains Peter Dinnage.

"Destruction should be the last resort for HFCs as they can only be destroyed by a high temperature incineration process that is very energy intensive."