

## To the Secretariat of the VCS organisation

### **VCS Methodology - Public Comment to the “Greenhouse Gas Emission Reductions by Recovering and Destroying Ozone Depleting Substances (ODS) from Products”**

As an independent expert in the field of end of life treatment processes for cooling & freezing appliances containing either ODS or non-ODS as cooling or blowing agents, I would like to comment the proposal as follows.

The methodology is unnecessarily restricted to technologies extracting and concentrating ODS prior to destruction. Technologies which allow the immediate incineration of the captured cooling and/or blowing agents on site are well known and successfully implemented e.g. in Sweden and Italy. Since the analysis of the concentrated ODS and its mixtures is very laborious and at risk for ODS losses during further handling of the containers, such a restriction cannot be of any favour, out of economic and ecologic reasons. Furthermore the baseline scenario requires preventing fugitive releases of ODS during the treatment process applying negative pressure in the installation. It is well accepted that just negative pressure is not a sufficient measure to prevent ODS releases.

Analysis of the composition and concentration of ODS is definitely a very important issue. The given description is taking care on that but is neglecting a situation when the mixture of ODS is containing relevant amounts of water in a separate fluid layer. If samples are taken from the lower ODS layer, not recognising the upper water layer, big misinterpretations are possible. For collected blowing agents, non-mixed ODS (> 90% pure) are almost impossible because of increasing amounts of non-ODS blowing agents, e.g. cyclopentane present as captured liquids.

The procedure for determining of the recovery efficiency of blowing agents is referring to the RAL test specifications version 2007/09. It is not clear how the 1000 ODS containing appliances shall be collected. It is our experience that today it is almost impossible to do such a selection because many producers did not label the appliances containing cyclopentane instead of ODS properly. Therefore it is not possible to calculate recovery efficiency and evaluate it against a 90% target. Furthermore it is foreseen that RAL is publishing the (expected) quantities of ODS for each host country, not saying how these values are being determined.

As a mandated expert from the WEEE Forum, a European association of take back systems for E+E wastes, I am an active member of the WG 4 in TC111X of CENELEC, developing new standard requirements for the treatment of cooling & freezing appliances<sup>1</sup>. In almost all European countries this standard will be the base for contracts between the members of the

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<sup>1</sup> End of life requirements for household appliances containing volatile halogenated hydrocarbons or volatile hydrocarbons (to be published by CEN/CENELEC).

WEEE Forum (representing the producer's responsibility according to the WEEE directive) and the recyclers. A VCS methodology referring to the RAL test specification, which is not considering the situation with mixtures of non-ODS and ODS appliances, seems not to be sustainable.

Finally the methodology is not describing the efficiency and the monitoring requirements of the destruction process itself. This might be a crucial issue in Non-Article 5 countries.

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