

## **FACT Sheet and CHECK List for the Solvent Emissions Directive**

The Solvent Emissions Directive (SED) is a piece of legislation, now implemented into National Law of all European Union (EU) Member States, which aims to control and reduce the emissions of Volatile Organic Compounds (VOC's) into the atmosphere, since they are a Greenhouse gas.

VOC's typically make up the solvent part of paints, other coatings and the cleaning agents typically used for FRP moulds. The SED will affect boat yards and manufacturers that use more than 5 Tonnes of VOC per year for metal/plastic coating operations or more than 15 Tonnes of VOC per year for wood coating operations.

The SED requires the yard to keep a solvent management plan which is an inventory of all paint and solvent used at the yard in any one year. It also allows the yard to carry out the 'Solvent Reduction Scheme' which is a compliance option available for yards to follow to meet the emission limits set out in the SED.

Yards that have coating operations for both metal/plastic substrates and wood substrates are advised to set up two separate inventories since the emission limits set out in the SED are different for both categories. It is in the yards interest to do this as they are permitted to use a larger amount of VOC for wood coating operations than they are for metal/plastic coating operations.

Process Guidance note 4/02 issued by the Secretary of State, the Welsh Assembly Government (WAG) and the Scottish Executive provides guidance on the conditions appropriate for the control of emissions into the air from processes for the polymerisation or co-polymerisation of any pre-formulated resin or preformulated gel coat which contains any unsaturated hydrocarbon.

To check whether you may have to comply to this important European legislation use this FACT/CHECK list to ask yourself the following question;

Do you use:

- Paints, fillers, thinners and/or cleaning products contains VOC's (solvents)
- Resins, glues, sealants, diluents/thinners
- Or other VOC containing cleaning products as part of your boat building/repairing business

**If the answer is YES the information contained in this fact sheet is vital to the way you operate your facility**

All the products above can contain VOC's (Volatile Organic Compounds) such as solvents, styrene, ammonia, chlorine and certain amines.

October 31st 2007 was the final deadline for the implementation of the SED Solvents Emission Directive. The SED requires European Union countries to pass laws to control VOC emissions from all business operations, including the Super Yacht and Boating Industry and the Ship Building Industry that uses these types of products.

### **Questions and Answers**

#### **How will this directive affect the boat manufacturing and repair business?**

Boat manufacturing/repairing businesses using the products above in their daily operation must report to the National Authorities whether they are using these types of products, and report whether their facility complies with the set target in this legislation.

#### **The EU Legislation is divided into three tiers;**

- Below 5 tonnes VOC emitted per year - If you release less than 5 tonnes per annum you will not be affected by this legislation.
- Between 5 – 15 tonnes VOC emitted per year
- Above 15 tonnes a year

#### **EXAMPLE: How much does a repair or a new build Yard emit?**

- Repair: 1 dry docking of a 50 meter motor yacht with full exterior repaint produces approximately 750 – 900 kg VOC
- 2 New build 50 meter (Motor Yachts) Super Yachts produces approximately 15.000 – 17.000 kg VOC (15 – 17 tonnes)
- 12 new build 15 meter FRP/GRP Sailing Yachts produces approximately 2.300 – 3.800 kg VOC (this is without the solvents related to the lamination process and including the VOC containing products for cleaning the moulds and tooling equipment)
- 12 new build 20 meter FRP/GRP Motor Yachts produces approximately 5.400 kg to 6.500 kg VOC (this is without the solvents related to the lamination process, and including the VOC containing products for cleaning the moulds and tooling equipment etc.)

#### **How do I know how much VOC is contained in the products I use?**

The amounts of VOC's contained within a product are detailed in a PDS (Product Data Sheet) which will be available from the manufacturer or on the Internet. This will give the exact percentage contained within the product.

#### **How can I work out how much VOC is released from the facility?**

It will be necessary to detail all the VOC containing products used and its proportion of each product. This will allow the total VOC usage to be evaluated. ICOMIA has released a special (management) tool that calculates exactly how much VOC is released at your facility. (For details see below)

### What happens if this shows that we are using more than 5 tonnes per annum?

It will be necessary to calculate (use the ICOMIA VOC calculator) the average annual VOC weight as a percentage of the total volume. To comply with the directive and with a usage between 5 and 15 tonnes VOC it will be necessary for the VOC level to be equal or less than 37,5% of average solvent weight.

### Are there any other limits that we need to be aware of?

Yes - if the facility uses more than 15 tonnes of VOC the restrictions are higher. The limit for the average annual VOC weight is equal to or less than 27,3 % of solvent weight.

### What happens if my building/repair yard cannot comply with limits?

By National Legislation and or your environmental permit the local and or regional environmental authorities can force the facility to reduce its level of VOC expelled. This can be in the form of fines amounting € 2,500 per week. If it does not comply with the requirements it is possible for the court to order the closure of the yard until it can comply with the directive

### When you have to report to your Authorities?

The local authority (or possibly a port health authority) is the regulator and members should always deal with them if they are operating a process which is or could be covered by the Pollution prevention and control (PPC) regulations (which include the SED).

### Who do I need to contact to find out more information regarding what I need to do?

ICOMIA, in cooperation with International Paint have developed a calculator to assist companies both calculate and then monitor their solvent emissions. This is based on recording in a database all the products that you use which emit solvents to the atmosphere. The "tool" then calculates your total emissions on a running, annual basis. There are two versions of the tool available, one preloaded with International Paint's products (but other companies products may be added to it) and a blank version may be downloaded from the ICOMIA web site. ([www.icomia.org](http://www.icomia.org)).

## Further reading and Information

- [http://www.naei.org.uk/issuedetail.php?issue\\_id=4](http://www.naei.org.uk/issuedetail.php?issue_id=4)
- <http://www.defra.gov.uk/environment/airquality/strategy/pdf/air-qualitystrategy-vol1.pdf>
- <http://www.defra.gov.uk/environment/ppc/localauth/pubs/guidance/notes/pgnotes/index.htm>
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