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ANNEX VII

Technical provisions relating to installations and activities using organic solvents

PART 7

**Solvent management plan**

1.      Principles

The solvent management plan shall be used to:

(a)      verify compliance as specified in Article 62;

(b)      identify future reduction options;

(c)      enable provision of information on solvent consumption, solvent emissions and compliance with the requirements of Chapter V to the public.

2.      Definitions

The following definitions provide a framework for the mass balance exercise.

Inputs of organic solvents (I):

| | |
|---|---|
| I1 | The quantity of organic solvents or their quantity in mixtures purchased which are used as input into the process in the time frame over which the mass balance is being calculated. |
| I2 | The quantity of organic solvents or their quantity in mixtures recovered and reused as solvent input into the process. The recycled solvent is counted every time it is used to carry out the activity. |

Outputs of organic solvents (O):

| | |
|---|---|
| O1 | Emissions in waste gases. |
| O2 | Organic solvents lost in water, taking into account waste water treatment when calculating O5. |
| O3 | The quantity of organic solvents which remains as contamination or residue in products output from the process. |
| O4 | Uncaptured emissions of organic solvents into air. This includes the general ventilation of rooms, where air is released to the outside environment via windows, doors, vents and similar openings. |
| O5 | Organic solvents and/or organic compounds lost due to chemical or physical reactions (including those which are destroyed, by incineration or other waste gas or waste water treatments, or captured, as long as they are not counted under O6, O7 or O8). |
| O6 | Organic solvents contained in collected waste. |
| O7 | Organic solvents, or organic solvents contained in mixtures, which are sold or are intended to be sold as a commercially valuable product. |
| O8 | Organic solvents contained in mixtures recovered for reuse but not as input into the process, as long as not counted under O7. |
| O9 | Organic solvents released in other ways. |

3.      Use of the solvent management plan for verification of compliance.

The use made of the solvent management plan shall be determined by the particular requirement which is to be verified, as follows:

(a)      verification of compliance with the reduction scheme as set out in Part 5, with a total emission limit value expressed in solvent emissions per unit product, or otherwise stated in Parts 2 and 3.

        (i)      for all activities using the reduction scheme as set out in Part 5, the solvent management plan shall be drawn up annually to determine the consumption (C). The consumption shall be calculated according to the following equation:

$$C = I1 - O8$$

A parallel exercise shall also be undertaken to determine solids used in coating in order to derive the annual reference emission and the target emission each year.

        (ii)      for assessing compliance with a total emission limit value expressed in solvent emissions per unit product or otherwise stated in Parts 2 and 3, the solvent management plan shall be drawn up annually to determine the emissions (E). The emissions shall be calculated according to the following equation:

$$E = F + O1$$

Where F is the fugitive emission as defined in point (b)(i). The emission figure shall then be divided by the relevant product parameter.

        (iii)      for assessing compliance with the requirements of point (b)(ii) of Article 59(6), the solvent management plan shall be drawn up annually to determine total emissions from all activities concerned, and that figure shall then be compared with the total emissions that would have resulted had the requirements of Parts 2, 3 and 5 been met for each activity separately.

(b)      Determination of fugitive emissions for comparison with the fugitive emission limit values in Part 2:

        (i)      The fugitive emission shall be calculated according to one of the following equations;

$$F = I1 - O1 - O5 - O6 - O7 - O8$$

or

$$F = O2 + O3 + O4 + O9$$

F shall be determined either by direct measurement of the quantities or by an equivalent method or calculation, for instance by using the capture efficiency of the process.

The fugitive emission limit value is expressed as a proportion of the input, which shall be calculated according to the following equation:

$$I = I1 + I2$$

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(ii)     Determination of fugitive emissions shall be done by a short but comprehensive set of measurements and needs not be done again until the equipment is modified.