Guidance on Interpretation and Determination of Capacity under the IPPC Directive

The aim of these documents is to provide guidance in implementing the IPPC Directive 96/61/EC by suggesting an approach to some questions on how certain provisions of the Directive should be understood. The guidance does not represent an official position of the Commission and cannot be invoked as such in the context of legal proceedings. Final judgements concerning the interpretation of the Directive can only be made by the European Court of Justice.

1 Add-up rule of Annex I

Does the second provision in the chapeau of Annex I also apply to category n° 1.1 and other activities that do not explicitly refer to "capacity" or "output"?

Annex I to Council Directive 96/61/EC concerning integrated pollution prevention and control (the IPPC Directive) includes two general provisions, the second of which states that:

“2. The threshold values given below generally refer to production capacities or outputs. Where one operator carries out several activities falling under the same subheading in the same installation or on the same site, the capacities of such activities are added together.”

Note: There is an identical provision in Annex I to Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading within the Community.

Category n° 1.1 refers to:

“Combustion installations with a rated thermal input exceeding 50 MW”.

There are other examples in Annex I where the word “capacity” is not used but an analogous expression is used for a technical capacity of the activity, for example:

“2.6. Installations for surface treatment of metals and plastic materials using an electrolytic or chemical process where the volume of the treatment vats exceeds 30 m³

6.6. Installations for the intensive rearing of poultry or pigs with more than:
(a) 40 000 places for poultry
(b) 2 000 places for production pigs (over 30 kg), or
(c) 750 places for sows”

In conclusion, the second provision of the chapeau of Annex I of the IPPC Directive generally refers to production capacities or output. “Rated thermal input” is an expression to define the level of maximal heat production, which is normally expressed in kW or MW for large combustion plant. Expressions such as rated thermal input, which is a specific technical expression analogous to “capacity”, are valid expressions in this respect. The word “capacity” does not have to be mentioned explicitly. The add-up rule expressed in the general chapeau of Annex I applies to
installations belonging to category n° 1.1 and to the other clauses of Annex I where an expression analogous to “capacity” is used.

However, in section 6.6 referring to the intensive rearing of poultry or pigs, it is considered that the add-up rule does not apply across the different thresholds for poultry, production pigs and sows. Rather, it only applies for adding-up places – and thus determining whether a threshold is exceeded – for the same animal types. Section 6.6 clearly establishes different and separate thresholds in different subheadings for poultry, production pigs and sows. More generally, the second provision of the chapeau of Annex I provides for aggregation at the level of the subheading, which is taken to refer to the individual activity descriptions.

This conclusion is also valid for Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading within the Community, where the identical add-up phrase is used.

2 Daily and hourly capacity

Does a capacity threshold in “tonnes per day” refer to 24 hours of continuous operation at rated capacity?

Consumption capacity, produced material or similar criteria, expressed for instance as tonnes per day, are frequently used in Annex I to determine the scope of the IPPC Directive.

In sectors such as textiles and tanneries, most installations do not operate continuously for 24 hours a day. Many smaller units do however operate in very close contact with market demand, with the result that normal working hours may be exceeded at very short notice. Declared working practice is therefore an unreliable guide to the real capacity of an installation and does not reflect the pollution potential of the installation.

The coherent meaning of “capacity” is the maximum capacity to which the installation is limited technically or legally. That is to say, it is the capacity of the installation to operate 24 hours a day, provided that the equipment is not technically or legally restricted from operating in that way.

Where Annex I refers to the hourly capacity, the above paragraph can be applied in the same way.

3 Technical limitations on capacity

Can technical limitations be taken into account in determining the capacity of an installation?

Where a capacity threshold is specified for the installation as a whole or for a particular activity (e.g. 2.2, 2.4, 2.5(b), 3.3, 6.2, 6.5, 6.7) in determining the capacity of an installation it is appropriate to consider all process steps which could limit the throughput of a process. The necessary time taken to load, unload and clean equipment between process batches, for example, may technically restrict the number of process cycles possible in any 24 hour period and thus restrict the capacity of the
whole process. Equally, where one part of a process represents a technical restriction to the throughput of the whole process, this is a valid consideration. By way of example, the overall throughput of a meat processing line may be technically constrained by the installed cooling or freezing capacity of the installation.

Thus it is appropriate for technical restrictions to be taken into account in determining the capacity of an installation. This may include deliberately-introduced technical constraints intended to prevent the installation from being able to operate above the level specified by an IPPC threshold. However, such a constraint would have to be reasonably secure and reliable, in order to support the conclusion that an installation does not exceed a given capacity threshold. A simple undertaking from the operator not to exceed the threshold, or a constraint that could be removed without significant effort, would not suffice.

Where the capacity of a specific piece of equipment is mentioned (e.g. 2.3(a), 2.3(b), 2.6), then only the capacity of that equipment should be considered in determining whether IPPC applies. However, where such a capacity threshold is specified by reference to a time period (e.g. 2.3(a) – hot rolling mills with a capacity exceeding 20 tonnes of crude steel per hour) it remains appropriate to take account of technical limitations (e.g. loading, unloading, cleaning, as described above) relating to such specific equipment.

4 Legal limitations on capacity

Where the technical capacity of an installation exceeds a threshold of an activity as defined in Annex I of the IPPC Directive, is it possible that the capacity is limited by legal means to a capacity below the mentioned threshold in Annex I of the Directive so that the installation does not come under the scope of the Directive? As a result the installation would not need a permit according to the provisions of the IPPC Directive and no other requirement of the Directive would apply.

In some Member States, restrictions upon an installation may be in place through a general or specific legal instrument (for example, development consent or health and safety legislation) with the result that the installation’s effective capacity definitively falls beneath the relevant IPPC threshold. Two types of such legal instruments are:

a) Instruments with general validity, definitely restricting installation capacity and not justifying further monitoring or reporting, as long as compliance with such a legal instrument can be safely assumed and may be checked for its own sake (e.g.: laws restricting working hours, laws requiring times of noise reduction, traffic restriction times, etc.).

b) Instruments created to limit the capacity of a specific installation. In such cases a degree of monitoring and reporting is justified to guarantee that the legal restriction is effective. For instance, the operator should demonstrate that the installation does not exceed the maximum allowed capacity, and should monitor and report this to the competent authority (for example, annually). The competent authority should also check compliance with the restriction.
Where such legal instruments are used, it will be for the Member State concerned to establish the specific mechanism to be applied and to ensure this guarantees that the Directive is fully implemented.

One possible approach in this respect, falling under category (b) of the two types of legal instruments mentioned above, would be to make provision, under the legislation transposing the IPPC Directive, to legally limit the capacity of individual installations. For instance, there could be a possibility for an operator to declare an intention not to operate above the IPPC threshold, leading to the imposition under the legislation of a simple legal limitation to this effect rather than the grant of an IPPC permit. The mechanism establishing such a system would need to address details such as the obligations of the operator (e.g. what information would be needed to support the declaration and to demonstrate ongoing compliance?) and those of the regulator (e.g. how would the declaration be assessed and a legal capacity limit imposed?).

If an operator subject to such a limitation were later to wish to increase its output and exceed the IPPC threshold, an IPPC permit would be required before this could occur.

5 Waste storage capacity

How should the Annex I section 5.1 capacity threshold of 10 tonnes per day be interpreted in the case of storage of hazardous waste?

In the specific case of waste storage as code D15 (in relation to clause 5.1 of Annex I to IPPC), this is taken to refer to installations that have the technical and legal capacity to store more than 10 tonnes of hazardous waste material at any time. Code D15, as set out in the waste framework Directive (75/442/EEC as amended) is "storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where it is produced)". Therefore, an installation with the technical or legal capacity to store more than 10 tonnes of hazardous waste will fall under section 5.1 of Annex I, unless the storage is not pending one of the other relevant waste disposal activities (as defined in codes D1 to D14), or if the storage is temporary storage, pending collection, on the site where the waste is produced.

6 Solvent consumption capacity in Annex I section 6.7

Section 6.7 of Annex I of the IPPC Directive refers to "Installations for the surface treatment of substances, objects or products using organic solvents, in particular for dressing, printing, coating, degreasing, waterproofing, sizing, painting, cleaning or impregnating, with a consumption capacity of more than 150 kg per hour or more than 200 tonnes per year".

a) Does “consumption capacity” include solvents remaining in the product?

The question of whether a solvent can be considered to be “consumed” by the installation does not depend on whether the solvent is subsequently emitted in the product or in some other way. Solvents remaining in the product must therefore be included in determination of the “consumption capacity”.

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b) How can solvent consumption capacity be determined?

Activity 6.7 includes both hourly and annual capacity thresholds for capacity to consume organic solvents. However, the annual capacity is not necessarily equal to 8760 times the hourly capacity, since there may be technical or legal restrictions as described in sections 3 and 4 above. These may include, for instance, non-productive machine-time needed for activities such as make-ready and maintenance, legally binding restrictions on working time or numbers of shifts, operational safety requirements, or even explicitly imposed maximum solvent consumption limits.

The capacity to consume solvents may be further restricted through factors such as: the capacity of drying and curing ovens; the capacity of ancillary equipment; the technical characteristics of the manufacturing operations of the installation such as necessarily intermittent rather than continuous; the coating needs of the products and materials produced; the solvent content of the coating materials used; etc.

The consumption capacity for organic solvents can be related to the production capacity for the products or materials that are produced by the installation. As an illustration, if an installation has a capacity to produce X products per year, each unit of product consuming up to Y grams of varnish with a maximum solvent content of Z%, its consumption capacity for organic solvents will be X*Y*Z/100 grams of solvent per year. However this approach does not work for all solvent using processes.