ANSWERS GIVEN BY DG ENVIRONMENT ON THE IMPLEMENTATION OF THE INDUSTRIAL EMISSIONS DIRECTIVE – ANNEX I

The aim of this document is to share questions and answers to them given by DG Environment in relation to implemention of Directive 2010/75/EU (the IED). These answers do 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.

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IED ANNEX I.1 Consideration of the "Operator" in aggregation of Annex I activities?

The introductory note of Annex I of the Directive reads:

"The threshold values given below generally refer to production capacities or outputs. Where several activities falling under the same activity description containing a threshold are operated in the same installation, the capacities of such activities are added together. For waste management activities, this calculation shall apply at the level of activities 5.1, 5.3(a) and 5.3(b)"

This statement is intended only for the purposes of adding the capacities of Annex I activities to see whether they exceed a specified capacity threshold. It says nothing about the potential inclusion of DAAs.

It is clear from the note that the aggregation rule would also apply in case the activities are carried out by different operators.

Such interpretation is necessary to safeguard against possible abuse of the aggregation rule leading to inconsistent application. For instance, if a pig farm has two pig houses, each of just less than 750 places for sows (the IED threshold), two owners might divide legal ownership to one house each in an attempt to avoid falling under the IED. In this case, however, it could be concluded that there is in fact still only one installation operated as a single entity by the owners together. In order for this not to be the case, it would be necessary for there to be a substantial degree of independence of the two pig units – for example with entirely distinct feeding, treatment of animals, manure management, etc – in order to support the argument that there were really two separate facilities.

IED ANNEX I.2 Does the aggregation rule in the introduction of Annex I also apply to category n° 1.1 and other activities that do not explicitly refer to "capacity" or "output?

According to the aggregation rule: “The threshold values given below generally refer to production capacities or outputs. Where several activities falling under the same activity description containing a threshold are operated in the same installation, the capacities of such activities are added together. For waste management activities, this calculation shall apply at the level of activities 5.1, 5.3(a) and 5.3(b)”.

The introduction of Annex I generally refers to production capacities. This would also cover analogous technical expressions, such as “Rated thermal input” which defines the level of maximum heat production, i.e. capacity. The aggregation rule would therefore also apply to installations carrying out Annex I activities where an expression analogous to “capacity” is used.

Thus the aggregation rule would also cover for instance:

- Section 1.1: “Combustion of fuels in installations with a total rated thermal input of 50 MW or more”;

•Section 2.6: “Surface treatment of metals or plastic materials using an electrolytic or chemical process where the volume of the treatment vats exceeds 30 m³”;
•Section 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”.

However, as regards the latter, the aggregation rule applies at the level of the individual activity description, not across the different thresholds for poultry, production pigs and sows.

IED ANNEX II.3 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 IED.

Most installations do not operate continuously for 24 hours a day. However, they usually do operate in response to market demand, with the result that normal working hours may be exceeded at very short notice.

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 same approach is applied.

IED ANNEX I.4 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 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. For example, the overall throughput of a meat processing line may be technically constrained by the installed cooling or freezing capacity of the installation.

Technical limitations may include deliberately-introduced technical constraints intended to prevent the installation from being able to operate above the level specified by an IED threshold, provided they are reasonably secure and reliable. 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 the IED 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.

IED ANNEX I.5 Where the technical capacity of an installation exceeds an activity threshold as defined in IED Annex I, is it possible to legally limit that capacity so that the installation does not come under the scope of the Directive?

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 IED threshold.

Two types of such legal instruments are:

a) Instruments with general validity, not specifically aimed at but definitely restricting installation capacity and not requiring 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 required 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 a legal instruments is used, it is 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 instrument would be to make provision, under the legislation transposing the IED, for the possibility for an operator to declare an intention not to operate above the IED threshold. The mechanism establishing such a system would need to address details such as the obligations of the operator (e.g. the information 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 wishes to increase its output and exceed the IED threshold, an IED permit would be required before this could occur.

IED ANNEX I.6 Do the BAT conclusions for the non-ferrous metals industries (NFM) cover sulphur recovery and sulphuric acid plants in NFM installations?

The NFM BAT do not cover sulphur recovery and sulphuric acid plants in NFM installations, considering these are covered by the Large Volume Inorganic Chemicals - Ammonia, Acids and Fertilisers (LVIC-AAF) BREF.

Nevertheless, sulphur recovery by producing sulphuric acid or liquid SO_2 is BAT for some NFM industries and the cross reference with the LVIC-AAF BREF should be taken into account during the reconsideration of permit conditions triggered by publication of the BAT conclusions for the NFM industries, in accordance with Article 21 of the IED.

As regards the setting of emission limit values in permits, the BAT conclusions chapter of the LVIC-AAF BREF continues to provide a useful reference, while leaving Member States the possibility to set the appropriate emission limit values reflecting the application of BAT in a given installation.

In this respect, one should note in particular the "Concluding remarks and recommendation for future work" in Chapter 12 of the NFM BREF, which provide an updated value for the upper end of the BAT-AEL range for SO_2 emissions from the production of sulphuric acid, as the NFM TWG spotted an error in Table 24 "Conversion rates and SO_2 emission levels associated with BAT" of the LVIC-AAF BREF (adopted in 2007).

In the light hereof, it is recommended to consider this updated value as the upper end of the BAT-AEL range for SO_2 emissions from the production of sulphuric acid from NFM production in a double contact/double absorption plant: i.e. 770 mg/Nm instead of 680 mg/Nm (as a daily average).

IED ANNEX I.7 Is the ferro-alloy industry covered by Annex I section 2.5(b) IED?

The production of ferro-alloys involves alloyage of non-ferrous metals and is therefore covered by Annex I section 2.5(b).

IED ANNEX I.8 How should the term "treatment vat" in Annex I section 2.6 be understood?

The thresholds for installations for surface treatment of metals and plastics in Annex I section 2.6 are expressed in terms of the volume of the treatment vats. In addition to the main process step, vats are typically used for processes such as soak clean, pickling, degreasing, acid dip, passivation and rinsing. With the exception of rinsing, all of these process steps involve an alteration of the surface as a result of an electrolytic or chemical process, and therefore fall under the definition of "treatment". Conversely, non-electrolytic, non-chemical surface treatments such as ultrasound, grit blasting, water blasting and annealing are not considered to fall under this definition. For the purposes of determining which installations are covered in this section, the volume of the treatment vats is to be calculated as the total sum of the volumes of each vat used for those process steps involving alteration of the surface as a result of an electrolytic or chemical process.

It should nevertheless be noted that, for those installations covered by the Directive, all steps including rinsing should be regarded as an "associated activity" within the meaning of Article 3(3).

IED ANNEX I.9 What is the meaning of "production on an industrial scale in Annex I section 4"?

Annex I Section 4 ("chemical industry") refers to "production on an industrial scale" and contains no quantitative capacity thresholds. The scale of chemical manufacture can vary from a few grams (of a highly specialised product), to many tonnes (of a bulk chemical product); yet both may correspond to "industrial scale" for that particular activity.

Various criteria should be taken into account to decide whether production is “on an industrial scale”, including such factors as the nature of the product, the industrial character of the plant and machinery used, production volume, commercial purpose, production solely for own use, environmental impact. Such considerations should take account of the primary objective of the IED as expressed in Article 1 as to "prevent or, where that is not practicable, to reduce emissions into air, water and land and to prevent the generation of waste, in order to achieve a high level of protection of the environment taken as a whole", complemented by the general principle set in Article 11 (c) that "no significant pollution is caused".

The fact that the activity is carried out for "commercial purposes" may be a strong indicator of "industrial scale", even if the material is an intermediate product and therefore not itself traded. By contrast, non-commercial activities producing chemicals exclusively for their own consumption – for example domestic, academic or laboratory activities – may not be covered.

"Commercial purposes" implies that the activity is being undertaken principally as a remunerated business activity. The existence of a form of trading account associated with the activity, or other such indicators, may illustrate the conduct of a business. If such indicators are absent, for example as may be the case in the (small-scale) production of “artisanal soap”, it may be concluded that the activity is not being undertaken for "commercial purposes" and hence is not on an "industrial scale".

However, it may not be sufficient to use the “commercial purpose” of an activity as the sole determinand of "industrial scale". It may also be important to take into account the potential environmental impact of a production sequence. For example, if the production of an intermediate (chemical) product takes place on the same site where it is used (e.g. production of sodium hypochlorite for disinfecting water storage tanks), without having any significant effect on the environment, it may be disproportionate to consider this activity to be production on an "industrial scale”. The potential environmental effect would in turn be dependent on the quantities produced and technology used.

IED ANNEX I.10 What is the meaning of “chemical or biological processing” in Annex I section 4"?

The introduction to section 4 makes reference to production on an industrial scale by "chemical or biological processing". "Chemical processing" implies that transformation by one or several chemical reactions takes place during the production process. An activity involving only physical processing (for instance simple blending or mixing of substances which do not chemically react, dewatering, dilution, repackaging of acids/bases) would not be covered. "Biological processing" implies that transformation takes place during the production process involving the use of a living organism e.g. physiological process, cellular differentiation, fermentation, fertilisation, germination, tropism, hybridisation, metamorphosis, morphogenesis, photosynthesis.

As a general remark and in view of the very large number of possible situations (as regards chemical and biological processing, chemical substances or groups of substances produced, types and places of activities), it remains for the competent authorities to make an informed and justified judgment on whether or not a particular installation falls under the scope of the IED, using this guidance as a tool to promote consistency and prevent possible abuse in the interpretation of the scope of the Directive as regards section 4 of Annex I.

IED ANNEX I.11 Can an installation which produces explosives for the military and is operated by the armed forces be excluded from the IED on the basis of Article 346 of the Treaty on the Functioning of the European Union?

Section 4.6 of Annex I of the IED covers "*The production of explosives*"

There is a clear Community interest that these installations are operated in such a way that a high level of protection of the environment is safeguarded. In view of this, a general exemption from the complete IED would not be appropriate. This is underpinned by the lack of an exclusion provision from the scope of the Directive unlike some other Community environmental legislation.

Nevertheless, applying the IED to military installations could imply the need to comply with certain provisions which would be in conflict with essential security interests, such as the requirement to ensure public participation during the permitting procedure.

Article 346 of the Treaty on the Functioning of the European Union includes a general exemption from the Treaty and therefore the whole Community legislation based on it.[1] This covers among others "essential interests of its security which are connected with the production of or trade in arms, munitions and war material"

In view of this, Member States would be allowed to provide that installations operated by the armed forces would be exempted from having to comply with these provisions, if justified according to Art. 346 paragraph 1(a).

On the other hand, all requirements of the IED that are deemed non-sensitive from the point of view of national security can and should be fulfilled by these installations.

Moreover, confidentiality aspects are not confined to military installations. The competent authorities also need to handle business secrets. Each Member State must manage confidentiality aspects in accordance with the principle of subsidiarity and Directive 2003/4/EC on Public Access to Environmental Information.

IED ANNEX I.12 Are enzymes covered by Annex I section 4 or 6.4?

The production of enzymes, e.g. plant health products and pharmaceutical products, is covered by section 4.

On the other hand, where enzymes are used in food production, e.g. to speed up chemical reactions, the food production process (including the use of enzymes) would be covered by section 6.4.b.

1 A judgement of the Court (sixth chamber) from 16 September 1999, Case C-414/97 reads:
"21. It must be observed in that regard, as the Court has already held in Case 222/84 Johnston [1986] ECR 1651, paragraph 26, that the only articles in which the Treaty provides for derogations applicable in situations which may involve public safety are Articles 36, 48, 56, **223** and 224 of the EC Treaty (now, after amendment, Articles 30 EC, 39 EC, 46 EC, 296 EC and 297 EC), which deal with exceptional and clearly defined cases. Because of their limited character, those articles do not lend themselves to a wide interpretation.
22. Accordingly, it is for the Member State which seeks to rely on those exceptions to furnish evidence that the exemptions in question do not go beyond the limits of such cases.(...)"
Article **223** EC is now Article **346 TFEU**

IED ANNEX I.13 Does Annex I section 4.2 include gaseous oxygen?

Even though oxygen (O_2) is not explicitly included in the list of gases in section 4.2(a), it is clearly an "inorganic chemical". The list given is indicative only since it begins with the words "gases, such as…". The production of oxygen using a chemical or biological process is therefore covered. However, oxygen is usually produced by physically (cryogenically) separating it from air. Since section 4 refers to "production...by chemical or biological processing", such physical separation can not be considered as an Annex I activity.

IED ANNEX I.14 Does IED cover installations carrying out the dismantling of end-of-life vehicles (ELV) and the processing of waste electrical and electronic equipment (WEEE)?

Annex I to Commission Decision 2000/532/EC of 3 May 2000 establishing a list of waste determines the classification of ELV, waste from the dismantling of ELV, WEEE and components from WEEE as hazardous or as non-hazardous waste (sections 16.01 and 16.02). Furthermore, the provisions of Articles 3(2) and 7 and of Annex III of Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste are to be taken into account for this purpose.

Whether ELV dismantling and WEEE processing are activities covered by Annex I, point 5, of the IED, depends on the classification of such waste as hazardous or non-hazardous, on the nature of the waste treatment activities and on the capacity of the installation concerned, as follows:

- The disposal and/or recovery of hazardous waste is covered by the IED if it involves one or several of the activities listed under point 5.1 of Annex I and the installation capacity exceeds 10 tonnes per day.

- The disposal of non-hazardous waste is covered by the IED if it involves one or several of the activities listed under point 5.3(a) of Annex I and the installation capacity exceeds 50 tonnes per day.

- The recovery, or a mix of recovery and disposal, of non-hazardous waste is covered by the IED if it involves one or several of the activities listed under point 5.3(b) of Annex I and the installation capacity exceeds 75 tonnes per day.

IED ANNEX I.15 How should the terms "*pending any of the activities listed in points 5.1, 5.2, 5.4 and 5.6*" in point 5.5 of Annex I be interpreted?

The activity description in point 5.5 is concerned with the temporary storage of hazardous waste with a total capacity exceeding 50 tonnes and which is performed prior to any of the waste treatment activities listed in points 5.1, 5.2, 5.4 or 5.6.

The activity is covered irrespective of whether the subsequent waste treatment activities take place on the same site as the temporary storage. It is also irrelevant whether those subsequent activities exceed the capacity thresholds mentioned under the points 5.1, 5.2, 5.4 and 5.6.

Point 5.5 does not cover the temporary storage of hazardous waste that falls under point 5.4 (landfill), nor the temporary storage, pending collection, on the site where the waste is generated.

IED ANNEX I.16 What is meant by "finished product" in Annex I section 6.3?

Tannery products frequently leave the installation in wet form, and consequently weigh considerably more than the final product. The inclusion of the qualifier "finished" in the term "finished products" implies some activity of finishing or treatment beyond what is actually carried out during the tanning process.. A "finished product" is thus a leather fit for making up into consumer goods, i.e. in dry form.

IED ANNEX I.17 In activity description 6.4 (b) (ii), why are there two different thresholds?

This activity description defines different production thresholds for different production profiles.

- For those food activities that operate throughout the year, the 300 tonnes per day threshold is generally applicable.
- For those activities that take place for a limited period of time during the year (seasonal activities), the environmental impacts would generally be limited compared to those for activities operating throughout the year. A threshold of 600 tonnes per day applies, but only for installations that operate for no more than 90 consecutive days in any complete year.

The reference to "600 tonnes per day where the installation operates for a period of no more than 90 consecutive days in any one year" allows a higher temporary threshold value for activities that only operated on a seasonal basis following e.g. the harvesting of a particular vegetable, fruit, grain or fungi. An activity that only occurs over about one quarter of the year can reasonably be regarded as seasonal activity hence the introduction of the higher threshold for plants operating for less than 90 consecutive days. The 600 tonnes per day threshold only applies where the installation operates for one period of less than 90 consecutive days in a year. If the plant goes on to operate for another period in that same year then the 300 tonnes threshold value would apply. This reflects the objective of the Directive, as it would avoid that an installation that operates all year round, but which never exceeds 90 day continuous operation, could be excluded from the 300 tonnes per day threshold. It would indeed seem unreasonable if a plant operating at 599 tonnes per day, 5 days a week, all year, would not need a permit; whereas a plant operating at 301 tonnes for 91 consecutive days only, would require a permit. This also removes the possibility to avoid the 300 tonnes per day threshold by shutting down at least once every 90 days.

IED ANNEX I.18 Does "consumption capacity" include solvents remaining in the product in Annex I section 6.7?

Annex I section 6.7 refers to *"Surface treatment of substances, objects or products using organic solvents, in particular for dressing, printing, coating, degreasing, waterproofing,*

sizing, painting, cleaning or impregnating, with an organic solvent consumption capacity of more than 150 kg per hour or more than 200 tonnes per year".

Whether a solvent is 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".

IED ANNEX I.19 How can solvent consumption capacity be determined in Annex I section 6.7?

Activity 6.7 includes hourly and annual organic solvent consumption capacity thresholds. 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 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.

The organic solvent consumption capacity 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 organic solvent content of Z%, its consumption capacity for organic solvents will be X*Y*Z grams of solvent per year.