



## The Implementation of the IPPC-Directive in Belgium

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### Preliminary remarks

In Belgium, the main responsibility for environmental policy and legislation, lies with the three regions (the Flemish, Walloon and Brussels Capital Regions). This means not only that the implementation of the IPPC- Directive is an exclusive competence of the regions (without involvement of the Federal State), but also that this legislation differs across the three regions, although European environmental legislation ensures a degree of harmonization.

In the Flemish Region the IPPC Directive is mainly implemented through the *Decree* (Act of the Regional Parliament) of 28 June 1985 on *Environmental Licences* (as amended), supplemented by a series of executive orders (regulations from the regional government to implement the Decree), that regulates in detail the licensing procedure and environmental conditions for environmentally harmful establishments (the so-called VLAREM I and VLAREM II Executive Orders).

In the Walloon Region the IPPC Directive is implemented through the *Decree of 11 March 1999 on Environmental Licences* (as amended) and its implementing orders.

In the Brussels Capital Region environmental licences are covered by the *Ordinance of 5 June 1997 on Environmental Licences* (as amended) and its implementing orders. An Ordinance is an Act of the Brussels Regional Parliament and thus similar to the Decrees in both other regions.

<b>General questions about the implementation and application of the IPPC-directive and the role of the courts</b>
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**1. How many IPPC-plants are there in your country?**

According to the implementation reports submitted to the European Commission by the Belgian regions in response to Decision 1999/391/EC the following numbers were reported for the year 2002 under Directive 96/61/EC<sup>1</sup>:

- Flemish Region:	1.012 (636 intensive rearing of poultry or pigs)
- Walloon Region	201
- Brussels Capital Region	11
Total:	1.233

According to the 3 competent regional administrations<sup>2</sup> actually this figures are as follows:

- Flemish Region:	1.205 (528 intensive rearing of poultry or pigs)
- Walloon Region	263
- Brussels Capital Region	11
Total:	1.479

**2. In what way are questions concerning the application of the IPPC-directive brought to court (litigation, application for a permit, appeal of a permit decision, application for a summons, criminal offence)?**

In Belgium the environmental permits are delivered by political or administrative authorities (see answer to question 3) in first instance. Then there is an administrative appeal possible with a higher political authority. So courts are not involved in the permitting process as such. However, in the Brussels Capital Region there is a somewhat particular situation. In that region one can appeal against decisions taken in first instance by the Brussels Environmental Agency before the “*Milieucollege – Collège de l’environnement*” (Environmental Appeal Board) that is a kind of specialized Environmental Administrative Court that is presided by a professional judge and composed of 5 other independent experts (environmental lawyers and scientists). They can review the decision of the Brussels Environmental Agency in all aspects and thus grant a permit when it was refused in first instance or refuse it when it was granted in first instance, modify the conditions of the permit etc. The Environmental Appeal Board can also review decisions to modify, withdraw, suspend or to prolong a permit. Against the decision of the Environmental Appeal Board one can appeal again before the Regional Government that can review on its turn the decision in all its aspects.

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<sup>1</sup> See also: LDK-ECO Environmental Consultants, *Analysis of Member States' first implementation reports on the IPPC Directive (EU-15)*, Athens, June 2004, p. 25-26 and ENTEC UK & IEEP, *Monitoring of Permitting Progress for Existing IPPC Installations*, Final Report, March 2009, p. 11-26, 52-53.

<sup>2</sup> Figures communicated by e-mail during April 2009.

After exhaustion of the administrative appeals one can appeal against permit decisions taken in last instance by the administrative/political authorities before the Council of State (Supreme Administrative Court), which can review the legality of the decision, both from a procedural as from a substantive point of view, including the compliance of the challenged decisions with relevant European Directives such as the IPPC-Directive<sup>3</sup>. This procedure is open to all interested parties (operator, neighbours, some authorities, other interested parties). If the Council of State is of the opinion that the challenged decision is violating one or another rule of law, the decision will be annulled. In urgent cases the Council can also suspend the challenged decision in interim proceedings. So the Council of State cannot modify the challenged decision. After annulment the case will be taken over again by the administrative authorities and they can take another decision. They must of course in such case respect the judgement of the Council of State and avoid committing the same illegality.

Operating a plant without the required permit, not respecting the conditions of a permit, obstructing inspections by the competent environmental inspectors or not executing their instructions is an offence that, depending on the nature of the violation, will be a criminal or an administrative offence. Criminal offences can be prosecuted before the criminal courts. In such cases IPPC-related questions can arise before these courts, including requests for checking the legality of the permit on the basis of article 159 of the Constitution. In case of administrative offences an administrative fine can be imposed by the competent authority. Appeal against such a decision is possible before the Environmental Appeal Board in Flanders (“*Milieuhandhavingscollege*”) and before the already mentioned Brussels Capital Appeal Board, as that region is concerned. Against their decisions one can appeal again before the Council of State (see above).

The Act of 12 January 1993 on a Right of Action for the Protection of the Environment, allows environmental organizations that satisfy certain requirements (namely, being set up in the form of a non-profit association, having the protection of the environment as its purpose, having existed for at least 3 years and actually being active), public prosecutors and administrative authorities such as municipal authorities, to bring a civil action for cessation of acts that constitute a breach of the protection of the environment before the President of the Court of First Instance. Also individual citizens are able to bring such an action themselves on behalf of a defaulting municipal authority by taking the place of the municipality that refuses to bring such an action. Such civil action can be brought in cases of breaches of regional legislation implementing the IPPC-Directive.

The conclusion of all this is that both administrative judges, especially the Council of State, and ordinary judges (penal and civil judges alike) can be confronted with IPPC-related cases.

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<sup>3</sup> A search in the database of the Council of State learned that for the moment there are only 17 judgements where there was reference to the IPPC-Directive. In most of the cases the Directive was not of importance for the outcome of the case. Recently however the Council of State referred one of these cases to the ECJ for a preliminary ruling on the Access to justice provisions of the Aarhus Convention and the related Directives, including Art. 16 of the IPPC Directive (Conseil d’Etat, n° 191.952, 27 March 2009, *Fastrez*). See also the judgements n°s 191.953, 192.091, 192.092, 192.193. ([www.raadvst-consetat.be](http://www.raadvst-consetat.be))

**3. Which authority (authorities) issues permits according to the IPPC-directive? How far has the integration according to the directive reached? Can, in your country, one authority issue an IPPC-permit comprising the total environmental impact of the polluting activity (water, air, land, waste etc) or does the company (the applicant) have to send applications to different authorities?<sup>4</sup>**

In the *Flemish Region* the environment licensing system, which is in operation since 1 September 1991, makes a distinction between 3 categories of establishments that can harm the environment. For those with little harm (category 3) a prior notification before starting up the operations is required. For those with intermediate environmental impacts (category 2) a prior license (environmental permit) from the local government (municipality) is required. For those establishments that may have significant environmental impacts (category 1) the environmental permit is delivered by the provincial government. The VLAREM I Executive Order contains a list of establishments that are subject to the system, with their categorisation. All IPPC-installations are classified in category 1 and thus subject to an environmental permit from provincial government. All establishments are subject to the general and the relevant sectoral environmental operating conditions laid down in the very detailed VLAREM II Executive Order. These general and sectoral operating conditions are dealing with the different environmental impacts (safety, protection of surface waters, air, noise, waste management, energy use, soil protection, environmental management and reporting). For establishments classified in category 1 or 2 these conditions can be supplemented by special operating conditions laid down in the permit decision, taking into account the specific characteristics of the establishment, its surroundings and the applicable environmental quality standards. All environmental impacts (on water, air, land, waste, noise, nature, land use, energy, and mobility) are assessed. In the preparatory phase all relevant environmental authorities and agencies are consulted, including the Division on Environmental Permits of the Department of the Environment, Nature and Energy of the Flemish Region. They are sitting together in the Provincial Environmental Permitting Commission (PEPC) that will deliver a non-binding common opinion to the Provincial Government, taking also into account the observations received from the public consultation and the EIA and/or Safety Report (Seveso II-plants) when the installations are subject to those assessments. One or another agency that has a dissenting opinion, can join this to the common opinion of the PEPC. The decision is taken by the Provincial Government and can depart from the opinion of the PEPC and the dissenting opinions from individual agencies, subject to giving reasons for that. When there is an administrative appeal, a similar procedure is followed on the regional level. The appeal will be advised by the Regional Environmental Permitting Commission and the final decision will be taken by the Regional Environment Minister. So the environmental permit (including for IPPC-plants) is an integrated permit. However, till now, there has been no integration of the building permit (necessary for the construction activities) in the environmental permit (necessary for the operation of the installations). The building permit is delivered as a rule by the municipality, following a separate procedure. When both permits are needed (e.g. in case of a new plant or an extension of an existing plant) construction activities may only start if one has both permits. When one of the permits is delivered (e.g. the building permit) and the other is refused (e.g. the environmental permit), the first one will become also invalid. For some activities additional permits are required. That is e.g. the case for surface water abstraction (a permit of the authority that is managing the surface water) or

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<sup>4</sup> For more information on the different permitting systems, see: L. LAVRYSEN en I. LARMUSEAU, "Milieuvergunningen" in K. DELETELAERE (ed.), *Handboek Milieu- en Energierecht*, Bruges, die Keure, 2006, 496-560.

for occupying public land (a permit or concession of the public authority concerned is needed).

The situation in the other regions is similar, but not identical.

In the *Brussels Capital Region* one distinguishes in the environmental permitting system, which is in operation since 1 December 1993, 4 (and in the future even 5) categories of establishments subject to the environmental permitting system (categories I A, I B, (in the future also I C), II en III) depending on their environmental impact. Establishments of category I A are subject to an EIA and an environmental permit. The environmental permit is delivered in first instance by the Brussels Environmental Agency. A certain number of IPPC-installations are categorised in this category. Establishments of category I B are subject to a simplified EIA and an environmental permit. The environmental permit is delivered in first instance by the Brussels Environmental Agency. IPPC-installations not included in category I A, are classified in category I B. Establishments of category II (the intermediate ones) are subject to an environmental permit delivered by the municipality. The smallest establishments are listed in category III and are subject to prior notification. As indicated before one can appeal the permit decisions taken in first instance before the Brussels Environmental Appeal Board and further on to the Regional Government. As is the case in the Flanders Region, these environmental permits are integrated ones. As in Flanders a distinction has to be made between the environmental permit (necessary for operating the facility) and the building permit (necessary for the construction). The legislation however provides for special provisions for projects that needs both permits, the so-called “mixed projects”. In such cases both applications must be introduced together and will be submitted to public participation and to the assessment and opinion of the competent advisory bodies together, but will finally result into distinct permit decisions. As in Flanders, one should dispose of both permits before construction can start. Different from the Flanders system, there is no full set of general and sectoral operating conditions, but for an important number of categories of establishments such sectoral conditions were issued by the Regional government.

In the *Walloon Region*, the environmental permitting system, which is in operation since 1 October 2002, classifies the harmful establishments in 3 categories, as is the case in the Flanders region. Establishments of category 1 and 2 are submitted to a prior environmental permit delivered by the municipality, and those of category 3 to a prior notification. IPPC-plants are classified in category 1 or 2 (they are listed in Appendix XXIII of the Executive Order of 4 July 2002). The environmental permit is an integrated permit. Compared with Flanders and the Brussels Capital Region the integration is pushed even further in that sense that for activities submitted both to an environmental permit (for operating the plant) and a building permit (for the construction) one has to apply for a combined permit (“*permis unique*”) that is delivered on the basis of one application and through an integrated procedure in which all relevant authorities are consulted and one public participation procedure is applied. This will result in one decision: a combined permit.

***4. Which authority or court hears appeals against IPPC-permits? What competence does the authority or court have to change/amend a permit? Can it for example decide about new or changed conditions? Can it just withdraw the permit or parts of the permit?***

As explained before, in the three regions there is an administrative appeal procedure in one or, as the Brussels Capital Region is concerned, two instances. The authority that has to decide on the appeal can review the permit decision in all its aspects and is not limited in that by the arguments contained in the request for appeal (although the authority is of course obliged to

look at the arguments put forward and give reason for its decision). The authority can thus review the application for a permit completely: refuse the permit that was granted in first instance; accord the permit that was refused in first instance; modify the conditions of it; introduce new conditions; impose more or less stringent conditions, etc. So, it is not impossible that e.g. an operator was granted a permit in first instance, but not being happy with the conditions of it, appeals against this conditions and finally would see its permit refused.

After exhaustion of the administrative appeal procedure, one can challenge final decisions before the Council of State. Only legal arguments can be raised (both on procedural and substantive grounds). The Council of State can only annul (and suspend) the challenged decision, not putting its own decision in its place or modify it (see above under question 1)

***5. Who – in addition to the operator of the plant - can bring a case concerning IPPC-matters to court by appealing against an IPPC-permit? What about for example people living in the neighbourhood, NGO's and authorities on different administrative levels (local, regional, national)? What kind of obstacles are there for them to bring a case to court; for instance different kinds of procedural costs?***

According to article 19 of the Coordinated Laws on the Council of State, actions for suspension and actions for annulment of administrative acts can be brought by any party that can demonstrate a 'prejudice or interest'. According to the case law, this interest must be personal and direct. There is no doubt that an operator itself can lodge such an appeal, against a refusal of a permit or a permit that is believed to have been delivered under to strict conditions. Also local government, who's opinion was not followed in the permit decision, will have standing. Actions brought by natural persons against licences for the execution of construction works or the operation of industries are not only admissible if they are instituted by owners or tenants, i.e. holders of a subjective right, who live in the immediate vicinity of the site in question. Since the early eighties, a wider circle of interested parties is taken into consideration. It is not necessary to live in the immediate vicinity of an industrial establishment to contest the environmental licence that was granted to that establishment if it can be proven that the company in question causes a 'significant nuisance' which can be experienced many miles away. Since the mid-eighties of the last century, the Council of State also acknowledges that environmental groups can take action against government acts in order to protect collective environmental interests. The Council of State does require, however, that the organization is 'representative' of the group of people whose collective interests are threatened or damaged and verifies whether "the organization has such a level of support among the members of that group that it may be reasonably assumed that the positions adopted by the organization coincide with those of the interested parties themselves". This approach is not without its problems, in particular for umbrella organizations. In a number of cases, for instance, the Council ruled that an environmental umbrella organization does not have the authority to defend the specific interests of the constituent organizations, or that a national environmental organization has no specific interest in taking action with regard to a local environmental issue. Local environmental groups, for their part, sometimes have difficulty proving that they have sufficient local support.

The Court fee for lodging an appeal for annulment with the Council of State is now fixed at a rate of € 175 per party. If one is asking also for suspension, the same fee has to be paid again. Apart from the court fee, an important cost is off course the fee of the lawyer. Although not prescribed by law – one can indeed introduce an appeal without relying on the services of a

barrister – in practice, to be successful one has *de facto* to rely on such services. The preparation of an appeal and of the elaboration of the further pieces in the procedure (memorandum of reply, final memorandum) is time consuming. With an hourly rate ranging from € 100 to € 300 (without material costs) the barristers cost of a case will easily reach € 3000 to € 9000. In complex cases the cost can be much higher. Otherwise than in procedures before the ordinary courts, the losing party must however not pay a contribution in the lawyer costs of the winning party.

**6. On what basis is decided what is considered to be the best available technique (BAT) in a certain case? What is the role of the BREF documents?**

As the *Flemish Region* is concerned, the application of an environmental permit should include: “*The measures and/or installations provided on the basis of the best available technologies<sup>5</sup> in order: a) to create as little waste as possible; b) to use fewer dangerous substances; c) where possible, to recover and recycle the substances emitted and used in the process as well as waste; d) to limit the use of raw materials, including water, and to optimise energy efficiency; e) to prevent or to minimise the general effect of the emissions and the risks for the environment with regard to noise, vibrations, radiation, air, soil and water pollution and to danger for man outside the establishment and for the environment; f) to prevent accidents and to limit the consequences thereof for the environment; g) to comply with the general and sectoral environmental conditions which are applicable to the establishment; h) to comply with Article 14 and Article 16, §4 of the Decree of 21 October 1997 concerning nature preservation and the natural environment*” (art. 5, § 1, 11°, VLAREM I). As IPPC-installations are concerned, there should also be an annex on integrated pollution prevention and control (cf. art. 6 of the IPPC Directive) describing *inter alia* the by the operator envisaged measures to comply with the general principles of the basic obligations of the operator as provided for in article 43<sup>ter</sup> VLAREM I. Article 43<sup>ter</sup> VLAREM I is inspired by article 3 of the IPPC Directive with that difference that the obligations of article 3 of the Directive, which are addressed to the member states, are formulated in article 43<sup>ter</sup> VLAREM I as direct obligations for the operator. So the operator is obliged to “take all the appropriate preventive measures against pollution, in particular through the application of the best available techniques”. So, in first instance, it is up to the operator to show in its application for an environmental permit, that the proposed (in case of a not already existing installations) or applied (in case of a renewal of a permit) “techniques” are in conformity with the BAT requirement. Off course, that is only a starting point, and the authority that deliver the permit has to verify this and can be of another opinion and impose other measures it believes are in conformity with BAT.

As indicated earlier, there is a comprehensive set of general and sectoral environmental conditions, established by Flemish government (VLAREM II). The general conditions are applicable to all establishments subject to the environmental permitting system, while the sectoral conditions are applicable to the corresponding categories of establishments (actually such sectoral conditions applies to 61 different categories of establishments). One of the general conditions states: “§ 1. *The operator should act with due diligence and always use the best available techniques for the protection of man and environment - this both with the selection of the treatment methods for emissions, as well as with the selection of measures for reduction at source (adapted production techniques and methods, raw materials management,*

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<sup>5</sup> The definition of BAT, contained in art. 1, 29°, VLAREM I, is literally taken from art. 2 (12) of the IPPC - Directive.

*etc.*). This obligation also holds for modifications to classified establishments, as well as for activities which in themselves do not require a licence or a notification. § 2. The compliance with the conditions in this order and/or the environmental licence should correspond to the obligation from § 1. “(art. 4.1.2.1. VLAREM II). Although there is a presumption, it is not clear, and certainly not proven, that Flemish government applied BAT when drafting the different general and sectoral conditions contained in VLAREM II.

The general and sectoral conditions of VLAREM II are only a starting point during the assessment of environmental permit applications. According art. 3.3.0.1. VLAREM II, the authority can, subject to giving reason for that, impose stricter or complementary environmental conditions in view *inter alia* of applicable environmental quality standards. Specific for IPPC-installations, article 30*bis*, § 2, VLAREM I details the requirements for the environmental conditions to be imposed in an environmental permit for IPPC-installations. By reference to article 43*bis* and 43*ter* VLAREM I, this includes the requirement that those conditions are in line with BAT. Article 43*bis* VLAREM I lists the considerations to be taken into account when determining BAT. It lists the 12 points mentioned in Annex IV of the IPPC-Directive. In determining what should be considered as BAT in a given case, permitting authorities can consult the BAT Centre of VITO (Flemish institute for Technological Research), that is also involved in the European BREF-activities<sup>6</sup>.

As the *Brussels Capital Region* is concerned, art. 55 of the Ordinance on Environmental Licences states that while taking any decision – and thus not solely concerning IPPC-installations- in relation to environmental permits, one of the elements that should be taken into consideration are “*the best available techniques* in view to reduce primary energy use to a minimum, to prevent, reduce or compensate the dangers and nuisances of the establishment, and the concrete possibility to use such techniques”. These elements should be mentioned in the reasons of the decision or in the file relating to the decision. As IPPC-plants are concerned, they are subject to the Executive Order of the Brussels Regional Government of 11 October 2007. According to art. 6, that is similar to art. 9 and 10 of the IPPC-Directive, emission limit values shall be set for the substances mentioned in Annex II (cf. Annex III of the IPPC-Directive) that are emitted in significant quantities based on BAT. Where environment quality standards requires stricter standards than those achievable with the use of BAT, additional measures shall be required. Art. N3 of the said Executive Order (cf. Annex IV of the IPPC-Directive) list the considerations to be taken into account when determining BAT. It includes “the information published by the Commission pursuant to Article 17 (2) of the IPPC Directive, or by international organisations”. So, this is to be understood as a reference to the work of the IPPC Bureau, including the BREF’s developed by it.

In het *Walloon Region* the Decree of 11 March 1999 on Environmental Licenses authorises the Government to establish general, sectoral and integral operating conditions for establishments that fall within the environmental permitting system. According article 8 of the Decree, those conditions shall be based on BAT<sup>7</sup>. An environmental permit shall contain the particular conditions applicable to the installation in question (art. 35, § 1, 1<sup>o</sup>), which cannot be less stricter than the general and sectoral conditions, except within the limits authorised by the said conditions and on the condition that the same level of environmental protection will be attained (art. 6). The permitting authority shall base the particular conditions on BAT. If environmental quality standards requires so, more stringent conditions shall be imposed (art.

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<sup>6</sup> <http://www.emis.vito.be/index.cfm?PageID=363>

<sup>7</sup> The definition of BAT (art. 1, 19<sup>o</sup>) is identical to that of the IPPC-Directive and the function of it (art. 8) is described in a way that is similar to art. 9 (4) of the IPPC-Directive.

56). Art. 1, 19° (2) list the considerations (a) to l)) to be taken into account when determining BAT. It includes the information published by the European Commission pursuant to Article 17 (2) of the IPPC Directive, or by international organisations. So, this is to be understood as a reference to the work of the IPPC Bureau, including the BREF's developed by it. The ISSeP (*Institut scientifique de service public*) is in charge of following developments in BAT<sup>8</sup>

***7. Is there a time limit for the IPPC-permit, or is the permit valid for ever? Is the permit holder obliged to apply for a new permit after a certain time period? Can a supervisory authority issue injunctions which go further than the conditions of the permit as regards environmental matters? Under what circumstances can a supervisory authority request a review of the permit and its conditions?***

Environmental permits in the Flanders and Walloon Regions are valid for maximum 20 years, but one can apply for a new permit for another 20 years following the same permitting procedure, etc. If one asks such a new permit in time, one is authorised to continue the operation till the moment that a final decision has been taken over the demand for a new permit. In the Brussels Capital Region an environmental permit is valid for a period of 15 years, but it can be prolonged one time with the same period through a simplified procedure. If one likes to continue after that period the operation, a complete new permit, following the ordinary procedure, must be followed.

In the *Flanders Region* there is an obligation for the authority who issued the permit, to review *ex officio* the permit each 4 years when it allows the discharge of dangerous substances in surface waters (Directive 76/464/CEE) or groundwater (Directive 80/68/CEE) (art. 41 VLAREM I). As IPPC-installations are concerned, the competent authority is obliged to reconsider periodically, and where necessary, to update the permit conditions. Reconsideration is also necessary in the circumstances described in art. 13 (2) of the IPPC-Directive. For existing installations the review was to be completed on 30 October 2007 (art. 41*bis* VLAREM I). The review has to be done in accordance with the procedure of art. 45 VLAREM I. This procedure has a wider scope and authorises the competent authority to modify or to complete the conditions of an environmental permit. This can be done *ex officio*, or on the demand of a competent environmental administration or agency, the operator, any natural or legal person that is likely to undergo negative effects of the operation of the establishment or on the demand of an environmental NGO. In this procedure the opinion of the competent environmental authorities is requested. Injunctions can be given in cases of non-compliance with the conditions of the permit or in cases of an imminent and significant danger for human or the environment. These injunctions are given by the Mayor on proposition of the environmental inspectorate or by the environmental inspectorate itself (art. 64-67 VLAREM I). These injunctions can be appealed with the Environment Minister (art. 68 VLAREM I) and further on to the Council of State. When the environmental conditions of the permit seems to be deficient, and in attendance of their review through the earlier mentioned procedure, environmental inspectors can prescribe all necessary measures to combat the danger for the environment (art. 69 VLAREM I).

In the *Brussels Capital Region* article 64 of the Ordinance on Environmental Licences states that the permitting authority can modify the conditions of a running permit when she is of the

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<sup>8</sup> [www.issep.be](http://www.issep.be)

opinion that the conditions of it are not longer suitable to prevent, limit or compensate the environmental and health impacts, including the use of best available techniques. When the permitting authority is considering to impose new or stricter conditions for IPPC-plants (establishments subject to the Executive Order of 17 October 2007), the proposed new conditions and the explaining memorandum will be subject to a 15 days public inquiry. According to art. 8 of the Executive Order of 17 October 2007 the Brussels Environmental Agency has to reconsider each 5 years and, where necessary, update the permit conditions. Such a reconsideration has also to be taken place under the conditions set out in art. 13 (2) of the IPPC-Directive. The inspection and enforcement of environmental permits is regulated by the Ordinance of 25 March 1999. The environmental inspectors of the Brussels Environmental Agency have in this respect similar powers than those of the Flemish region. The injunctions can be appealed with the Environmental Appeal Board.

In the *Walloon Region* article 65 of the Decree on Environmental Licenses states that the permitting authority, on proposal of the competent officer of the region, when she is of the opinion that the conditions of it are not longer suitable to prevent, limit or compensate the environmental and health impacts or to respect the environment quality standards, can modify or complement the environmental conditions of the permit. The permitting authority has to notify its proposal to the operator, the competent officer of the region and the municipality. A public inquiry can be necessary. In case when completing or modifying the environmental conditions is deemed not being able to avoid an serious treat for man or the environment the permit can be suspended or withdrawn. These measures can be appealed with the Regional Government. The environmental inspectors of the DPE (Division of Environmental Policing of the DG Natural Resources and the Environment of the Ministry of the Walloon Region) have in this respect similar powers as those of the Flemish and Brussels Capital Region. The injunctions can be appealed with the Walloon Government.

***8. Is the choice of the localisation of an IPPC-plant considered in the same process as the IPPC-permit and the conditions for the permit? Or is the localisation decided in a separate process according to another legislation? In that case; which comes first, the decision on the localisation or the IPPC-permit?***

The localisation of the plant is a question of land use planning and building permits. For the construction of the plant, as indicated earlier (see answer to question 3), a building permit is necessary. In the *Flanders region* the building permit is delivered in a separate process according to the Decree on Land Use Planning, in first instance by the municipality, and on appeal by provincial government, while an environmental permit for an IPPC-plant is delivered according to the Decree on Environmental Licences, in first instance by provincial government, and on appeal by the Environment Minister. Depending of the situation, the building permit can be delivered first, or the environmental permit can be delivered first. As explained before, both permits are needed to start the construction works. In the *Brussels Capital Region* both procedures are co-ordinated, but will result in to distinct decisions on both permits. In het *Walloon Region* a “*permis unique*” (combined permit) will be delivered.

**9. Are the EIA-directive (Council Directive of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment, 85/337/EEC) and the IPPC-directive implemented in the same legislation in your country, so that you in one single process get a permit that fulfils the demands of both directives? If not so; how is the EIA-directive implemented? For example in a special legislation, in planning and building legislation or otherwise?**

In the *Flanders Region* the EIA-Directive is implemented in a separate piece of legislation (Chapter III of Title IV of the Decree of 5 April 1995 containing general provisions on environmental policy and its implementing Executive Orders)<sup>9</sup>. This legislation defines the projects subject to EIA. There is a list of projects (Annex I of the Executive Order of 10 December 2004) that are subject to EIA in all circumstances and a second list (Annex II of the same Executive Order) of projects that can be subject to EIA, after screening, and depending on the specific characteristics of the envisaged project. The legislation deals first with the screening and scoping phase. The initiator of the project has to notify his intention to start an EIA to the competent authority (the EIA Service of the Flemish Region). After public participation this Service will issue guidelines on the EIA (scope, alternatives to be considered, impacts to be studied...). The EIA must besides the minimum requirements mentioned in the Decree fulfil the requirements of the guidelines issued by the EIA Service. EIAs are to be conducted by EIA-experts that are recognised by the Environment Minister and that are independent from the initiator. After completion of the EIS, the EIA Service will check its quality and when it is deemed to have sufficient quality, one can start the permitting process. The EIS will be part of the application for the environmental and the building permits and will then follow the same process (public participation, consultation of specialised environmental agencies and administrations...). One cannot challenge an EIS separately in court. One can only challenge an EIS together with the final permit decision (s).

In the *Brussels Capital Region* the EIA-Directive is implemented in the Ordinance of 7 June 1997 on environmental licences, so the same legislation in which the IPPC-Directive is implemented. As indicated earlier (see answer to question 3), establishments of category I A are subject to EIA and an environmental permit. The procedure starts with a public inquiry on the “preparatory note to the EIA”, after the Brussels Environmental Agency has elaborated draft-guidelines for the EIA. After this 15 days public inquiry a guidance committee, composed of civil servants from different administrations, will issue final guidelines and has to approve the consultant who will be in charge of the EIA. When the EIS is completed it will be inspected by the guidance committee. If the quality is sufficient, the procedure can go on. The application for the permit, will together with the EIS, follow the permitting procedure, including public participation and advice by competent authorities.

In the *Walloon Region* the EIA-Directive is now implemented through Chapter III of Part 5 of the Environmental Code, while the IPPC Directive is mainly implemented through the Decree of 11 March 1999 on Environmental Licences and its implementing Executive Orders. Every decision to grant a permit (environmental permit and/ or building permit) is subject to environmental impact assessment. For smaller projects an environmental impact notice is required; for the bigger ones, listed in Appendix I of an Executive Order of 4 July 2002, an environmental impact statement is necessary. However, if the competent authority is of the opinion that a project for which only an impact notice is required, believes the project has

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<sup>9</sup> For more information, see: E. DE PUE, L. LAVRYSEN & P. STRYCKERS, *Milieuzaakboekje 2008*, Mechelen, Wolters Kluwer Belgium, 75-85.

nevertheless significant environmental impacts, a full environmental impact statement can be imposed. Environmental impact statements can only be produced by consultants recognised by the Government. Before starting the drafting of an EIS, there will be a public consultation, in view of deciding on the scope of the EIS. The EIS will be part of the permit application. The EIS will be sent together with the permit application and the observations received during the public consultation on the scoping, to the Walloon Council for Sustainable Development (a consultative body) and the local or Regional Consultative Commission on Land Use Planning (idem). Both bodies will deliver an opinion on the quality of the EIS and on the opportunity of the project. The permitting procedure will then go further, including public participation and advice of the competent authorities.

***10. Suppose an existing IPPC-plant wants to double its production and that this will be done by duplicating most of the process equipment. The plant will thus consist of an old and a new line of production, but some equipment that is necessary for environment protection will be shared so that it is used by both lines. The application concerns only the increase of production (the new line) and not the whole production (both old and new line). How does the permit authority handle this situation? Does it issue a permit concerning only the increased production (the new line)? Or does it demand a new application concerning the whole production (old and new line)? Or what? (See article 12.2.) This question can be considered in light of the EIA-directive, which demands the assessment of a project as a whole (and no cutting of the salami!).***

In the *Flanders Region*, as indicated earlier, an environmental permit is valid for maximum 20 years. For extensions of an existing plant, depending on the nature of it, a notification or a “modifying” environmental permit is necessary. A “modifying” environmental permit is necessary *inter alia* when the capacity is increased with 50 % or more or in case of a “substantial change” (art. 6bis VLAREM I), concept that is defined in the same way as in art. 2 (11) of the IPPC-Directive. Such a “modifying permit” deals only with the modification, not with the already permitted plant, but will end at the same moment as the original permit (art. 30, § 5, VLAREM I). Say e.g. that the extension is planned after the plant is in operation for 10 years, then the “modifying permit” can only be delivered for the lasting 10 years of the initial environmental permit. As EIA is concerned, modifications and extensions of existing permitted projects of Annex I (projects that requires in principle always EIA) of the Executive Order of 10 December 2004 are subject to EIA when the modification or extension is exceeding in itself the thresholds, if any, mentioned in Annex I (Annex I, n° 26). Other modifications and extensions of existing permitted projects of Annex I or Annex II (projects that requires EIA, except when after screening the EIA Service is of the opinion that they have no significant impacts) are subject to EIA if they are believed to have significant impacts, after screening by the EIA Service (Annex II, n° 13). In an EIA, not only a description of the “existing situation” should be included, also the “cumulative and synergetic effects” should be assessed, including the effects of the existing plant. In the environmental permitting legislation there is no clear provision giving effect to art. 12 (2) of the IPPC-Directive, nor to the in this respect relevant findings of the EIA. It seems that one cannot modify the pre-existing environmental permit on the occasion of the introduction of a demand for a “modifying permit”. The only possibility seems to be the launch of an *ex officio* review procedure of the existing environmental permit on the basis of art. 45 VLAREM I as described in answer to question 7.

In the *Brussels Capital Region* the operator of such a plant has to inform the Brussels Environmental Agency of its intentions. That Agency has to decide within 30 days if a permit (and a EIS) is necessary or not and if the conditions of the permit have to be reviewed or not. A permit will be necessary if the nuisances of the plant will increase significantly. A reconsideration of the permit conditions will be necessary in case of increase of the nuisances that is considered not to be significant. The reconsideration is subject to art. 64 of the Ordinance on Environmental Licences (see above in answer to question 6) (art. 7bis Ordinance on Environmental Licences). Art. 55 of the Ordinance on Environmental Licences states that while taking any decision – and thus not solely concerning IPPC-installations- in relation to environmental permits, one of the elements that should be taken into consideration are ”the mutual influences of the dangers and the nuisances of the existing and the projected establishments”. These elements should be mentioned in the reasons of the decision or in the file relating to the decision. So it seems, that, different from the situation in Flanders, the environmental conditions of the existing permit can be reviewed on such an occasion.

In het *Walloon Region* an transformation or an extension of an existing permitted establishment is subject to a new permit when the transformation or the extension can increase directly or indirectly the dangers and nuisances for man or the environment or when an new entry of the classification list becomes applicable (art. 10, § 1, (2) 2° of the Decree of 11 March 1999). A capacity increase of 25 % of an installation that was subject to EIS, needs also a new EIS and a permit. The same procedure as for the initial permit is followed. In the permit decision one has to indicate the elements of the initial permit that are modified or complemented (art. 45), so the initial permit can be reviewed on that occasion. Such a permit will expire together with the original permit, which is valid for a period of maximum 20 years (art. 50 and 51). The situation is thus similar to that of the Brussels Capital Region.

***11. Can the permit authority decide on conditions based on BAT, even if the application only describes environment protection measures that are less strict? How does the authority handle applications that are not based on BAT?***

As indicated in answer to question 6, in the *Flemish region*, the applicant must show in its application for the permit that the proposed measures are based on BAT. It is however the task of the permitting authority, taking into account in that the opinions expressed by the competent environmental authorities and agencies, sitting together in the Environmental Permit Commissions, to impose environmental conditions that respond to BAT. So, if the permitting authority is of the opinion that the measures proposed by the operator are not in line with BAT, she can impose in the permit conditions she believe are in line with BAT.

The situation in the *Brussels Capital Region* and the *Walloon Region* seems to be similar.

***12. If there are national general rules on emission standards that do not match BAT, how are they applied by the permit authority?***

As explained before in answer to question 7, in the *Flemish Region*, there is a comprehensive set of general and sectoral conditions that are not necessary all in line with BAT. However, these general and sectoral conditions are only a starting point. The permitting authority is legally obliged to impose BAT based conditions in an environmental permit for IPPC

installations, by imposing stricter or complementary conditions compared with those general and sectoral conditions. The permit decision should give reasons in that respect.

The situation in the *Brussels Capital Region*, where there are some general and sectoral conditions, seems to be similar.

In het *Walloon Region* there are also a whole range of Executive Orders setting general and sectoral environmental conditions for different categories of establishments subject to the environmental permitting system. According article 8 of the Decree, those conditions shall be based on BAT.

***13. How does existing industries meet the demands of the IPPC-directive in your country? Who has the responsibility to make sure that the requirements are met? Is it the supervisory authority, the operator of the plant or someone else? What are the consequences if an existing industry does not meet the requirements? Can it be closed? Or is a certain time period accepted before measures? How long? (See article 5.)***

In the *Flemish region* there is a general obligation imposed on the operators of all establishments subject to the environmental permitting system (and not only IPPC-installations) to apply BAT (art. 4.1.2.1. VLAREM II, see above under question 6). This general obligation is applicable on existing installations from 1 January 1996 onwards (art. 3.2.1.2, § 3, VLAREM II). The environmental permitting system is in operation since 1 September 1991. For environmental permits delivered after that date, one can expect that they are more or less in conformity with the IPPC-requirements. However, that is surely not the case with “operating” and other types of environmental permits delivered under the former system (before 1 September 1991) that were in principle valid for 30 years, but were restricted in time due to the entry into force of the Decree on Environmental Licenses, and will become invalid ultimately on 31 August 2011 (20 years after the entry into force of the Decree). These permits were not integrated environmental permits. The general and sectoral conditions laid down in VLAREM II became however gradually applicable on these establishments and are in their entirety applicable from 1 January 1999 onwards, with some extensions to 1 January 2003 (art. 3.2.1.2 VLAREM II). Art. 41bis, 1°, VLAREM I, disposes that for existing IPPC-installations the first *ex officio* periodical review has to be done before 30 October 2007 (see answer to question 7). So it is up to the permitting authority to review and if necessary to update the permit conditions of existing IPPC-installations, taking into consideration the opinions expressed by the competent environmental administrations and agencies. There is no explicit provision about the time one has to give to the operator to meet stricter conditions that are imposed due to an update, but the general principle that the authority has to act reasonable will apply. The operators are – except for modifications that are not subject to a permit, in which cases they have to apply themselves BAT and except the general duty of care (art. 22 of the Decree on Environmental Licenses) - only bound by the environmental conditions of the environmental permit and the general and sectoral conditions laid down in the VLAREM II Executive Order. If the permitting authorities have not updated the permits, or have not done this in time according to art. 5 of the IPPC-Directive, one cannot hold the operator liable for that. When updated conditions are in force, operators should respect them. Operating an installation without respecting the environmental conditions is an offence and can lead to criminal or administrative sanctions. It is the Regional Environmental Inspectorate that verifies if operators of IPPC-installations respect the environmental conditions. A closing measure, taken by the mayor or the environmental inspectors, can in the first place be the result of a decision of the permitting authority to suspend or to withdraw an

environmental permit in cases of not respecting applicable environmental conditions. Such measures are taken only in exceptional cases. A closing measure can also be taken when the operator is not respecting the applicable environmental conditions, after he was requested to do so within a certain period of time (final notice) or in case of imminent danger for man and the environment. Also this type of measure is applied in a limited number of cases. Closure can be applicable to the whole establishments or part of it. If the problem can be solved with partial closure that measure should be taken on the basis of the principle of proportionality.

The situation seems to be similar in the *Brussels Capital Region* and the *Walloon Region*. In the Brussels Capital Region art. 12 of the Executive Order of 11 October 2007 obliges the Brussels Environmental Agency to review and update the environmental permits of existing IPPC-plants before 30 October 2007. In the Walloon Region that is imposed by art. 97bis of the Executive Order of 4 July 2002. An update is also necessary in the circumstances indicated in art. 13 (2) of the IPPC Directive.

***14. Which authority is supervising IPPC-plants? How often do inspections take place? What enforcement policy do they have (warnings, injunctions, sanctions an so on)? Which type of sanctions can be applied in case of violations?***

In the *Flemish Region* supervising IPPC-plants is a task of the Environmental Inspection Division of the Department of Environment, Nature and Energy of the Flemish Region. Since 2004 the Environmental Inspection is running specific inspection campaigns on IPPC-plants in the framework of the yearly updated inspection programmes. Within the Environmental Inspection there is an IPPC Task Force, composed of representatives of the central unit and the operational provincial units and a representative of the task force dealing with Seveso-plants. This task force is developing guidelines and best practices for IPPC-inspections. As these are integrated inspections, dealing with all relevant environmental aspects, including prevention, such inspections are teamwork. In 2004 and 2005 such inspections were held in the chemical industry. In 2006 such inspections were also started on installations for the processing of ferrous metals. An IPPC-inspection runs over several days. In 2006 seven such inspections were held, resulting in 2 official reports to the public prosecutor, 7 final notices and 3 advices<sup>10</sup>. In 2007 nine such inspections were held resulting in 4 official reports to the public prosecutor, 8 final notices, 8 advices and 2 procedures to review or adapt the conditions of the environmental permit of an IPPC-plant. Besides these special IPPC-inspections the Environmental Inspection is holding each year around 2000 inspections on IPPC-plants in the form of routine, thematic or reactive inspections, mostly in industrial IPPC-plants (as opposed to those belonging to the agricultural sector). From 2008 onwards specific IPPC inspections will also be held in the agricultural sector<sup>11</sup>. As sanctions are concerned, the inspectors can give in the first place advices, warnings and final notices. In case of operation without the necessary permit, the plant can be closed down, partially or totally. The same measure can be taken in case of violation of the environmental conditions and on the condition that the operator is not obeying the warnings of the environmental inspector. These measures can be appealed with the Environment Minister. The Environmental permit can be annulled or suspended by the permitting authority in case of a breach of the applicable regulations and environmental conditions (art. 36 Decree on Environmental Licenses). Also these decisions can be appealed. Most of the breaches of the relevant provisions of environmental law applicable to IPPC-plants are considered to be

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<sup>10</sup> Afdeling Milieu-inspectie, *Milieuhandhavingssrapport 2006*, Brussel, 2007, p. 39-42

<sup>11</sup> Afdeling Milieu-inspectie, *Milieuhandhavingssrapport 2007*, Brussel, 2008, p. 33-34.

criminal offences (as opposite to administrative offences)<sup>12</sup>. The Environmental Inspectors must report criminal offences to the Public Prosecutor of the relevant District, as Judicial Officers have to do. They must also report to the relevant regional authorities and the municipality (art. 16.3.24 of the Decree of 5 April 1995 containing general provisions on environmental policy (DABM) and art. 58 of its Executive Order). The public prosecutor can bring the case before the penal court. Each deliberate or by lack of precaution or care committed breach of environmental law can be punished with a fine of 100 (x 5,5) to 250.000 (x 5,5) EUR and/or imprisonment of 1 month to two years. In case of a deliberate environmental pollution, such breaches can be punished with a fine of 100 (x 5,5) to 500.000 (x 5,5) EUR and/or imprisonment of 1 month to five years. Hindering supervision or not executing administrative or safety measures or not executing measures imposed by a criminal judge is punishable with a fine of 100 (x 5,5) to 100.000 (x 5,5) EUR and/or imprisonment of 1 month to one year. The penal judge can also impose a temporary interdiction of operating the plant. (art. 16.6.1-16.6.5. DABM). If the Public Prosecutor decides not to prosecute the case, the administration can impose an "alternative administrative fine". The Public Prosecutor must decide on this within a period of 180 days, period that can be extended to 360 days (art. 16.3.31-16.4.39 DABM). An alternative administrative fine can be of a maximum of 250.000 (x 5,5) EUR (art. 16.4.27 DABM) and can be appealed before the *Milieuhandhavingscollege*, a brand new specialised administrative environmental court.

In the *Brussels Capital Region* the Environmental Inspectorate of the Brussels Environmental Agency is supervising IPPC plants. They can issue warnings and injunctions, including in case of imminent danger and lasting infringement, closing down of the plant. These measures can be appealed with the Environmental Appeal Board (art. 8-10 Ordinance of 25 March 1999). Operating a plant without a permit, not respecting the conditions of the permit, hindering inspections or not executing measures imposed by environmental inspectors, can be punished with a administrative fine from 625 to 62.500 EUR or be prosecuted trough the penal track, in which case the fine can range from 2,50 (x 5,5) or 25 (x 5,5) EUR to 12.500 (x 5,5) or 25.000 (x 5,5) EUR, depending on the category to which the installation belongs. In case of intent or when the infringement is committed which a lucrative aim, these penal sanctions can be doubled. It is up to the public prosecutor to decide within a period of 6 months to prosecute the operator or not. When he has not taken a decision within that period, or when he decides not to prosecute the operator, an administrative fine can be imposed by the head of the Brussels Environmental Agency. Such a decision can be appealed with the Environmental Appeal Board (art. 32-40 Ordinance of 25 March 1999; art. 96 Ordinance on Environmental Licences). The permitting authority can also suspend or withdraw an environmental permit when the operator is not respecting the applicable environmental conditions (art. 65 Ordinance on Environmental Licences). Such a decision can be appealed with the Environmental Appeal Board and further on to the Regional Government.

In the *Walloon Region*. The main inspectors in the Walloon Region are the agents of the Police and Inspection Division of DGARNE, a regional administration (art. R.87 of the Environmental Code). They have basically the same competences as in both other regions in terms of warnings and injunctions, when the mayor of the municipality is not taking the requested measures (art. D. 148 - D 150 of the Environmental Code). As penal sanctions are concerned one distinguishes between 4 categories of infringements. An infringement of the first category supposes intent and risk for danger for man of the environment (imprisonment of 10 to 15 years and a fine of 100.000 (x 5,5) to 10.000.000 (x 5,5) EUR). Opposing

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<sup>12</sup> The administrative offences are listed in the different appendixes to the Executive Order op 12 December 2008 implementing Title XVI of the Decree of 5 April 1995 containing general provisions on environmental policy. These are all minor offences with no direct effect on the environment as such.

measures taken by the mayor or environment inspectors or hindering inspection is an infringement of the second category (imprisonment of 8 days to 3 years and a fine of 100 (x 5,5) to 1.000.000 (x 5,5) EUR. Infringements of the third category can be punished with imprisonment of 8 days to 6 months and a fine of 100 (x 5,5) to 100.000 (x 5,5) EUR (art. D. 151-155). The penal judge can also apply a whole range of other measures in view of restoring the environment (art. D. 156-158). Under some circumstances transactions can be proposed. When the public prosecutor decides not to prosecute, administrative sanctions can be imposed, ranging from 1 to 100.000 EUR, depending of the type of violation.

### **An example (from the Flemish Region)**

*A new tannery is going to be built in the Flemish Region. The tannery will have a production that exceeds 12 tonnes per day and is thus an IPPC-plant.*

*1. What kind of authority or authorities (local, regional, central) will handle (examine, review) the application and issue the permit?*

Such an installation is mentioned under point 25.1.1. of the Appendix I to the VLAREM I Executive Order. It is classified under category 1 and as an IPPC-plant. It needs also an environmental co-ordinator of category B and is subject to PRTR-reporting. An environmental permit of the provincial government is necessary.

*2. Will the application include an EIS according to the EIA-directive?*

Tanneries with a production capacity of 1000 tonnes a year or more (more or less 4 tonnes a day) are mentioned in Annex II of the Executive Order of 19 December 2004. They require an EIS, except when the operator applies for an exemption and the EIA Division of the Environment Department is on the basis of the criteria laid down in Annex II of the Decree of 5 April 1995 (cf. Annex III of Directive 85/337/CEE) of the opinion that they may not cause significant environmental impacts. So, if no exemption is granted, an EIS shall be produced, before the operator can introduce an application for an environmental permit and for a building permit.

*3. Will the permit authority/authorities try the localisation of the plant in the same process as the IPPC-questions?*

If it is a new plant or an extension of an existing plant involving building activities, a building permit is necessary and will be delivered by the municipality. In that process land use issues are dealt with, but also in the environmental permit process one has to check the conformity with land use planning.

*4. Are there any procedural costs for the tannery operator?*

A regional tax of 247,89 EUR has to be paid. In some provinces there is an additional provincial tax.

*5. Does the permit authority normally ask other authorities on different administrative levels in the permit process for their opinion on the application?*

For establishments of category 1, as is the case with the tannery, provincial government has to ask before deciding on the application the opinion of:

- the municipality;
- the Provincial Environmental Permitting Commission, composed of representatives of the Environmental Permitting Division of the Department of the Environment, Nature and Energy

of the Flemish Region; the Flemish Land Use Planning Agency, the Public Health Division, the Division for Natural Resources, the Flemish Waste Agency, the Flemish Environment Agency, the Flemish Land Agency and the Flemish Energy Agency (these are all regional administrations), some provincial civil servant and experts.

**6. How does the permit authority ensure public participation? Can for example people state their view in writing, by e-mail, in a public hearing or otherwise?**

There will be a 30 days public inquiry. A notice (35 dm<sup>2</sup>) is published on the site where the plant is projected (good visible from the public road) and on the official notice boards of the municipality. Owners and users of property in a radius of 100 meters around the site receive an individual notice. A notice will also be published in 2 daily or weekly papers and on the website of the municipality. The application and the EIS can be inspected with the municipality by everyone within that period of time. An information meeting will be held. There are special provisions in case of a plant that can have transboundary environmental impacts. Before the closing of the public inquiry everybody can send written objections and comments to the municipality. An official record is made of the oral objections or comments raised during the information meeting or later on in front of the person in charge of the public inquiry. All the objections and comments received during the public inquiry are sent to the Provincial Environmental Permitting Commission. One of the elements the opinion of that Commission should contain is an evaluation of those objections and comments. While taking a decision on the application, Provincial Government shall state reasons and must take into consideration the result of public participation. When departing of the opinion of the Provincial Environmental Permitting Commission, there should be given explicit reasons for that.

**7. The permitting authority will issue the permit on certain conditions. Mark with an X in the table what kind of conditions that might be laid down. And please make good use of the “remark”-column, with for instance examples of conditions!**

Kind of condition	Yes	No	Remark (see also the appendix)
conditions concerning the tanning technology itself (clean production)	X		Art. 5.25.0.2. VLAREM II contains some very general prescriptions on the tanning technology
conditions concerning the cleaning technology (end of pipe solutions)	X		Art. 5.25.0.2., § 4, VLAREM II imposes the use of a gas treatment installation
limit values for water pollutants	X		The general limit values of art. 4.2.2.2.1. and 4.2.3.1 (when the wastewater contains dangerous substances) VLAREM II apply as a starting point, supplemented by the sectoral emission values (Appendix 5.3.2., n° 23, VLAREM II) for tanneries. In function of the quality standards of the receiving water, more strict limit values can be imposed in the environmental permit
limit values for air pollutants	X		Appendix 4.4.2. VLAREM II contains (TA LUFT 1986 based) limit values for all classified installations, including tanneries

			There is a specific limit value for chromium VI and chromium III-compounds (1,0 mg/Nm <sup>3</sup> ) (art. 5.25.0.3. VLAREM II)
conditions concerning solid wastes	X		The general conditions of art. 4.1.6.1 – 4.1.6.4 VLAREM II will apply as a starting point
limit values for noise	X		The general conditions of artt. 4.5.1.1. -4 .5.4.1. VLAREM II will apply
limit values for energy consumption		X	There are no limit values for energy consumption in the general and sectoral conditions of VLAREM II (energy planning provisions are only applicable on installations that are subject to the European emission trading system or establishments with a yearly energy consumption of at least 0,5 PetaJoule) According art. 21, § 10, VLAREM I, the Flemish Energy Agency shall deliver in the course of the permitting procedure an opinion on the efficient use of energy in IPPC-installations.
conditions concerning transports to and from the plant	X		“Insofar as an establishment is located near or along the banks of a waterway, it may be stipulated in the environmental licence that a minimum percentage of the transport of raw materials and/or products to and from the establishment must be carried out via this waterway” (art. 3.3.01, § 3, VLAREM II)
conditions about what chemicals that are not to be used in the production	X		
conditions concerning the control of discharges	X		Art. 4.2.5.1.1.-4.2.5.3.1. VLAREM II will apply

Other questions	Yes	No	Remark
can the setting of conditions be postponed in the permit?	X		That is only possible in the exceptional case of a “testing permit” that is valid for maximum 2 years. After evaluation such a permit can be transformed in a “normal” permit
can stricter conditions than what is stated in the BREF-document be set?	X		<p>“If with a view to respect an environmental quality standard more stringent conditions must apply than those which are achievable by applying the best available technologies, additional conditions must in particular be stipulated in the licence without prejudice to Article 3.3.0.1 of title II of the VLAREM and without prejudice to other measures which may be implemented to comply with the environmental quality standards” (art. 30, § 4, VLAREM I)</p> <p>“§ 1. Without prejudice to the environmental conditions laid down in this order, when granting an environmental licence - and provided it states the grounds for its decision - the licensing authority may impose particular conditions for the licence with a view to the protection of the population and the environment and in particular with a view to maintaining or</p>

		<p>achieving the environmental quality standards included in part 2 of this order. In such cases one needs to take into account aspects such as the toxicity, the persistence and the bioaccumulation of the substances involved in the environment where they are being emitted.</p> <p>§ 2. The particular conditions of the licence complement the conditions laid down in this order, or impose additional requirements. These conditions may only be less stringent than what is stipulated in this order if the possibility is explicitly laid down in these regulations and in the case of the permission referred to in sections 1.2.2. and 1.2.3 “ (art. 3.3.0.1. VLAREM II).</p>
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*8. If the permit authority wants to prescribe a condition on the maximum discharge of chromium to water from the tannery, on what basis is the level of the discharge decided?*

The sectoral limit value for tanneries (Appendix 5.3.2, N° 23 VLAREM II) is 1,5 mg Cr/l (in function of a reference volume of 20 or 40 m<sup>3</sup> wastewater per ton processed skins depending on the used process). A stricter limit value can be imposed in the environmental permit if that is necessary in function of the quality objectives of the receiving water. According to the overall environmental quality standards for surface water concentrations of chromium should not exceed 50 µg/l (Appendix 2.2.3. VLAREM II).

*9. Who can appeal the permit and to whom?*

A permit delivered in fist instance by the Provincial Government can be appealed with the Flemish Environment Minister. Can introduce such an appeal:

- the operator;
- the governor of the province;
- the administrations and agencies that delivered an opinion during the permitting process;
- each natural or legal person that can directly experience nuisance due to the operation of the plant;
- each legal person that aims to protect the environment that can suffer such nuisances (environmental NGO's)
- the municipality.

## **Appendix – VLAREM II Executive Order – Relevant excerpts<sup>13</sup>**

(...)

### **PART 2 ENVIRONMENTAL QUALITY STANDARDS AND RELATIVE POLICY TASKS**

(...)

#### **CHAPTER 2.8. POLICY TASKS CONCERNING INTEGRATED PREVENTION AND COUNTERACTING OF POLLUTION**

(...)

##### **Art. 2.8.0.2.**

In accordance with EC directive 96/61/EC of 24 September 1996 related to the integrated prevention and counteracting of pollution, the minister will ensure that the advisory government bodies under his competence, mentioned in article 20 of title I of VLAREM, will for their advisory competence each follow or be informed on developments in the area of the best available techniques.

##### **Art. 2.8.0.3.**

§ 1. The Europe and Environment department of the AMINAL is appointed as the authority for the exchanging of the information as referred to in article 16 of EC directive 96/61/EC of 24 September 1996 related to the integrated prevention and counteracting of pollution. The minister informs the EU Commission of this appointment through the recognised channels.

§ 2. In accordance with EC directive 96/61/EC of 24 September 1996 related to the integrated prevention and counteracting of pollution, the European Commission is informed by the Europe and Environment department of the AMINAL through the recognised channels of the representative information on the available limit values which have been laid down per category of activities of appendix 2.8, and should the occasion arise of the best available techniques on which the values are based, in particular in accordance with the provisions of title I of VLAREM.

This notification takes place every three years, and for the first time by 30 April 2001 at the latest.

##### **Article 2.8.0.4. Control of ammonia**

In pursuance of article 41bis of Title I of VLAREM, for the Integrated pollution prevention and control companies referred to in the headings 9.3.1.d) and 9.4.1.d) of appendix 1 of Title I of VLAREM, by 1 January 2006 the Flemish Land Corporation will submit a proposal to the minister amending the sectoral conditions of section 5.9 of this order for the implementation of the measures described in the BREF study for the cattle breeding sector.

(...)

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<sup>13</sup> For the complete text see: [http://www.emis.vito.be/wet\\_ENG\\_navigator/vlarem2.htm](http://www.emis.vito.be/wet_ENG_navigator/vlarem2.htm)

## **PART 4. GENERAL ENVIRONMENTAL CONDITIONS FOR CLASSIFIED ESTABLISHMENTS**

### **CHAPTER 4.1. GENERAL REGULATIONS**

(...)

#### **Section 4.1.2. Best Available Techniques (BAT)**

Art. 4.1.2.1.

§ 1. The operator should act with due diligence and always use the best available techniques for the protection of man and environment - this both with the selection of the treatment methods for emissions, as well as with the selection of measures for reduction at source (adapted production techniques and methods, raw materials management, etc.). This obligation also holds for modifications to classified establishments, as well as for activities which in themselves do not require a licence or a notification.

§ 2. The compliance with the conditions in this order and/or the environmental licence should correspond to the obligation from § 1.

(...)

#### **Section 4.1.6. Waste materials management and the management of installations that have been put out of operation**

Art. 4.1.6.1.

[Without prejudice to the provisions applicable for the storage of hazardous substances, the temporary storage of waste materials takes place in suitable packaging and/or waste containers. This provision does not apply to inert waste materials and asphalt that does not contain tar.] Unless stipulated otherwise in this order or in the environmental licence, these waste materials should regularly be removed from the establishment for processing in accordance with art. 4.1.6.2. The removal of the waste materials should be performed in such a way that no waste can spread outside the establishment.

Art. 4.1.6.2.

§ 1. Without prejudice to other legal stipulations, environmental conditions from these regulations or conditions stipulated in the environmental licence, for the processing of waste materials apart from the collection, the separation and the transport, preference should be given to the processing methods specified below (in decreasing order of priority):

- the reuse of products ;
- recycling of materials;
- energy recovery;
- incineration without energy recovery.

Only if even the best available techniques do not allow any of the aforementioned processing methods to be used, can the waste materials be dumped at a licensed establishment in accordance with the legal stipulations.

§ 2. In order to be able to comply with the hierarchy of processing methods described in § 1, waste material flows that need to (be able to) undergo a different form of processing need to be collected separately or must be separated mechanically after collection.

(...)

## CHAPTER 4.2. SURFACE WATER POLLUTION CONTROL

(...)

### Subsection 4.2.2.1.

#### Discharging in ordinary surface waters of industrial waste water that does not contain hazardous substances

##### Art. 4.2.2.1.1.

The general conditions for the discharge in ordinary surface waters of industrial waste water not containing hazardous substances are as follows:

1. if the industrial waste water to be discharged contains such a quantity of pathogenic germs that the receiving water might become dangerously contaminated as a result of the discharge, the waste water must first be disinfected;
2. the pH value of the discharged industrial waste water may not be over 9 or below 6.5; if the discharged industrial waste water originates from the use of ordinary surface water and/or groundwater and if the natural pH value of this surface water and/or groundwater is over 9 or below 6.5, one may use this natural pH value for determining the limit values for the pH of the discharge;
3. the biochemical oxygen demand in five days at 20°C in the industrial waste water discharged may not exceed 25 mg per litre;
4. the temperature of the industrial waste water discharged may not exceed 30°C; however, if it is explicitly stated in the licence and with an outside temperature of 25°C or more, or if the cooling water is taken in at a temperature of 20°C or more, the waste water discharged may have a temperature of up to 35°C - insofar as this does not cause the temperature of the receiving surface water to exceed the value indicated in the environmental quality standards;
5. in the industrial waste water discharged, the following concentrations may not be exceeded:
  - a. 0.5 millilitre per litre for settleable solids (during stationary sedimentation for two hours);
  - b. 60 milligram per litre for suspended solids;
  - c. 5 milligram per litre for non-polar hydrocarbons extractable in tetrachloromethane;
  - d. 3 milligram per litre for the anionic, cationic and non-ionic surface-active agents;
6. if the industrial waste water discharged originates from the use of ordinary surface water and/or groundwater, the values set down in point 3° and in point 5° of this article may be increased by the concentration value in the water taken in;
7. a representative sample of the industrial waste water discharged must not contain oils, fats or other floating substances in such quantities that the presence of a floating film can be established unequivocally; when in doubt, the presence of the film can be established by pouring the sample into a separating funnel to examine whether the two phases can be separated.

(...)

### Section 4.2.3.

#### The discharging of industrial waste water containing one or more hazardous substances

##### Art. 4.2.3.1.

1. Without prejudice to the emission limit values laid down in this order, the discharging of the hazardous substances mentioned in appendix 2C must be prevented as much as possible by making use of the best available techniques.
2. For the discharging of industrial waste water containing one or more hazardous substances mentioned in appendix 2C the same general emission limit values apply as prescribed in Section 4.2.2. for the discharging of industrial waste water not containing hazardous substances, barring that specified under 3° hereafter.

3. From the hazardous substances referred to in appendix 2C, only those substances may be discharged in concentrations higher than the environmental quality standards applicable for the ultimately receiving watercourse, for which emission limit values have been laid down in the environmental licence in accordance with that specified in art. 2.3.6.1.

These emission limit values determine:

- a. the permissible maximum concentration of a substance in the discharges; in the event of dilution, the emission limit value laid down in this order for the substance in question must be divided by the dilution factor;
- b. the permissible maximum quantity in the discharges of a substance during one or more specific periods; furthermore, if need be this quantity can be expressed in the unit of weight of the pollutant per unit of the component that is characteristic for the polluting effect (for example unit of weight per raw material or per unit of product).
- c. if the industrial waste water discharged originates from the use of ordinary surface water and/or groundwater, the values set down in points a) and b) of this article may be increased by the concentration value or the quantity present in the water taken in.

(...)

## **CHAPTER 4.4. CONTROL OF AIR POLLUTION**

(...)

### **Section 4.4.2. General regulations for installations**

#### **Art. 4.4.2.1.**

The installations must be designed, built and operated according to a code of good practice - in such a way that the air pollution caused by these installations is reduced as much as possible or even completely prevented, if possible.

To that end, the installations are to be operated and equipped with means to reduce emissions corresponding to the best available techniques. The emission-reducing measures must be aimed both at a reduction of the mass concentration as well as the mass flow rates or mass ratios of the air pollution originating from the installation. With this, one should in particular take into account:

1. measures to reduce the amount of waste gas, such as the encasing of parts of the installation, purposive collection of waste gas flows, etc.;
2. measures to optimise the substances used and the energy consumed;
3. measures to optimise the operations for starting up and shutting down and other special operating conditions.

(...)

### **Section 4.4.3. General emission limit values**

#### **Art. 4.4.3.1.**

§ 1. Unless specified otherwise in these regulations for specific categories of establishments, the emission limit values included in appendix 4.4.2. apply to emitted waste gases. These limit values are expressed in mg/Nm<sup>3</sup> and refer to ducted emissions in the following conditions: a temperature of 0°C, pressure of 101.3 kPa, dry gas. The quantities of air that are supplied to part of the installation for the dilution or cooling of the waste gas are not taken into account with the calculation of the emission values.

In the environmental licence:

1. more stringent emission limit values can be imposed on the basis of the environmental quality standards for air;
2. the wet emission limit values (including water contents) can be applied for emissions where steam is the carrier gas and main component of the emission; emissions with wet plumes as a result of wet scrubbers are excluded from this provision;
3. for the establishments located in a protected zone or a special protection zone, emission limit values can be imposed that are more stringent than the emission limit values indicated in § 1, on the basis of the environmental quality standards for air laid down for these zones;
4. emission limit values can be imposed for specific substances, expressed in mass flow rates (e.g. g/h or g/day);
5. emission limits can be imposed for substances - specified or otherwise. These limits are expressed as maximum dustfall quantities on the ground near the establishment and/or in environmental quality standards in the ambient air near the establishment.



§ 1bis. The emission limit values apply :

1. for each emission point where the mass flow rate indicated in appendix 4.4.3 is exceeded;
2. if the mass flow rate indicated in appendix 4.4.3. is exceeded for the technical environmental entity as a whole, also the weighted average concentration of the emissions from the technical environmental entity must meet the emission limit values.

To determine the emissions from the technical environmental entity, measurements must be made at all emission points at the start of the measuring programme. This must also be done when changes are made to the production process that can result in a change of emissions.

On the basis of these measuring results, constituent flows that do not (significantly) contribute to the emissions may be left out of consideration. Unless specified otherwise in the environmental licence, leaving measurements for specific constituent flows out of consideration is accepted:

1. either, if the sum of emissions from the constituent flows that are measured is not less than 95% of the emissions for the pollutant concerned for the technical environmental entity as a whole;
2. or on the condition that this has been approved by the supervisory authority beforehand.

The measuring frequency (appendix 4.4.3) and the monitoring programme (appendix 4.4.4) are applied to the technical environmental entity as a whole.

§ 1ter. Unless specified otherwise in the environmental licence, the following conditions apply for the emitted waste gases when staged combustion is used as waste gas cleaning technique:

- temperature: 0° C;
- pressure: 101.3 kPa;
- dry gas;
- oxygen content: 18 %.

§ 2. If several substances classified in the same subsection of appendix 4.4.2. are present, the emission limit values prescribed for each of the substances individually also apply for the sum of the different substances classified in the same subsection, with the exception of the substances indicated in points 2°, 3°, 4° and 5°.

If any of the substances indicated in points 9°, 10° and 11° are present, and if the total mass flow rate is 3 kg/hour or more, the mass concentration in the waste gas may not exceed 150 mg/Nm<sup>3</sup>.

§ 3. Substances that are not mentioned in the list of organic substances are reckoned to belong to the group of which the substances are most similar as regards their impact on the environment. In this respect, one must in particular take into account degradability and bioaccumulation, toxicity, and the effects of the degradation processes with the concomitant reaction products and odour intensity. This can be laid down in the environmental licence.

§ 4. For existing installations, with the implementation of the requirement to make use of the best available techniques as explained in article 4.4.2.1., one must take into account:

1. the technical characteristics of the establishment;
2. the rate of utilisation and length of the remaining life of the establishment;
3. the nature and volume of polluting emissions from the establishment;
4. the desirability of not entailing excessive costs for the establishment concerned, having regard in particular to the economic situation of undertakings belonging to the category in question.

§ 5. Unless specified otherwise in the chapters, sections or subsections concerned of these regulations, for "existing establishments" the emission limit values laid down in this article only apply after the transitional periods provided for in Chapter 3.2. of this order for such existing establishments.

§ 6. Use the following conversion formula to convert the measured emission to the reference oxygen content:

$$ER = EM * ((21-OR) / (21-OM))$$

where: EM = measured emission;

ER = emission associated with the reference value;

OR = reference oxygen content;

OM = measured oxygen content.

#### **Section 4.4.4. Measuring strategy and checking of the measured values**

##### **Art. 4.4.4.1.**

§ 1. The parameters SO<sub>2</sub>, NO<sub>x</sub>, and total suspended particulates must be measured at least once per month at the operator's expense if the mass flow rate for the substance concerned exceeds 5 kg SO<sub>2</sub>/h, 5 kg NO<sub>x</sub>/h - expressed as NO<sub>2</sub> - or 0.5 kg suspended particulates/h, respectively. This measurement must be carried out either by the operator himself with equipment and according to a method that has been approved by an environmental expert accredited in the discipline "air", or by this environmental expert himself.

§ 2. If the emissions for the substances referred to in § 1 exceed 50 kg SO<sub>2</sub>/h, 30 kg NO<sub>x</sub>/h - expressed as NO<sub>2</sub> - or 5 kg suspended particulates/h, respectively, the emission values for these substance(s) must be measured continually using measuring equipment installed at the operator's expense that is built and operated according to a code of good practice and which has been approved by an environmental expert accredited in the discipline air.

The continuous measurements referred to in the first subsection may be dispensed with if other controls can be used to establish with the same measure of accuracy that the prescribed emission limit values are not exceeded. Possible other such controls:

- the continuous monitoring of the abatement installations' effectiveness;
- the continuous monitoring of fuel composition, processed materials or process conditions;
- any other equivalent continuous monitoring.

In this case a measurement must be carried out once per month. This frequency does not apply for the provisions of Chapters 5.1 and 5.20. (Industrial establishments that may cause air pollution).

§ 3. In addition, the following can be imposed in the environmental licence:

1. measurements of emissions for other relevant parameters, to be carried out at the operator's expense;
2. measurements of the immissions in the vicinity of the establishment for specific substances, to be carried out at the operator's expense;
3. measurements of the deposition of specific substances on the ground in the vicinity of the establishment, to be carried out at the operator's expense.

§ 4. Without prejudice to the provisions of § 2 and § 3, with respect to measuring method, sampling, relevant parameters to be measured, frequency of measurements, control measuring programme and assessment of the measuring results for the emission limit values referred to in appendix 4.4.2., the measuring strategy for air-polluting substances is applicable as specified in articles 4.4.4.2. to 4.4.4.5. and in appendices 4.4.3. and 4.4.4.

#### **Art. 4.4.4.4. Relevant parameters to be measured and measuring frequency**

§ 1. Without prejudice to the measurements prescribed in accordance with the other provisions of these regulations and/or by the environmental licence, the parameters listed in appendix 4.4.3. are to be measured in the waste gases emitted by the establishments classified in the first category, with the indicated measuring frequency and at the operator's expense.

In addition, the environmental licence may impose the measuring of parameters, the measurement of which is not prescribed by these regulations. Unless specified otherwise in the environmental licence, these relevant parameters must also be measured according to the measuring frequency prescribed in this article. For all parameters relevant for the activities concerned and for which the measuring frequency is not specified in this article or in the environmental licence, a biannual measuring frequency applies.

§ 2. The measuring frequency prescribed in § 1 must be observed during the first year:

1. after this order becoming operative for the establishments that are in operation on the date of this order coming into force, and if within the framework of an existing measuring strategy the number of measurements carried out was less than that prescribed in this order. In the latter case the existing measured values are used for evaluation and immediately the change-over to the control measuring programme as set down in appendix 4.4.4. is made.
2. after the coming into service of the establishments starting operations after the date of this order coming into force.

Providing that the operator applies the in control measuring programme specified in appendix 4.4.4., after his period the measuring frequency for one or more parameters can be adjusted in keeping with the provisions of appendix 4.4.4.

(...)

### **CHAPTER 4.5. CONTROL OF NOISE POLLUTION**


#### **Section 4.5.1. General provisions**

##### **Art. 4.5.1.1.**

§ 1. In order to comply with the provisions of this chapter, the operator is to take all measures necessary to reduce the noise production at source and the noise transmission to the surrounding area. Depending on circumstances and on the basis of technologically sound possible solutions according to the best available techniques, remedial action can be taken including judicious

(re)arrangement of noise sources, silent installations and appliances, sound insulation and/or noise absorption and/or noise barriers.

§ 2. The provisions indicated in sections 4.5.2, 4.5.3 and 4.5.4 of this order apply, unless other provisions have been laid down in these regulations for specific categories of establishments.

(...)

### **Section 4.5.3. Conditions for new category 1 and 2 establishments and for modifications to existing category 1 and 2 establishments**

#### **Art. 4.5.3.1.**

§ 1.  $L_{A95,1h}$  of the original ambient noise is equal to or greater than the guiding value given in appendix 2.2.1 to this order. In this case the specific noise produced in the open air by the new establishment - or, as appropriate, by all or part of the existing establishment to which a modification has been made - must on the one hand be limited to the  $L_{A95,1h}$  of the original ambient noise decreased by 5 dB(A), and must on the other hand be limited to the specific guiding values laid down in appendix 4.5.4 to this order.

§ 2.  $L_{A95,1h}$  of the original ambient noise is less than the guiding values specified for the areas in points 1°, 4°, 6° or 7° of appendix 2.2.1 to this order. In this case the specific noise produced in the open air by the new establishment - or, as appropriate, by all or part of the existing establishment to which a modification has been made - must on the one hand be limited to the  $L_{A95,1h}$  of the original ambient noise, and must on the other hand be limited to the specific guiding values laid down in appendix 4.5.4 to this order decreased by 5 dB(A).

§ 3.  $L_{A95,1h}$  of the original ambient noise is less than the guiding values specified for the areas in points 2°, 3°, 5°, 8° or 9° of appendix 2.2.1 to this order. In this case the specific noise produced in the open air by the new establishment - or, as appropriate, by all or part of the existing establishment to which a modification has been made - must be limited to the specific guiding values laid down in appendix 4.5.4 to this order decreased by 5 dB(A).

§ 4. Without prejudice to the provisions of § 1, 2 and 3, new category 1 or 2 establishments as well as modifications to existing category 1 or 2 establishments having a common wall and/or floor with inhabited spaces must comply with following provisions:  
the specific noise indoors of the establishment, measured in the inhabited spaces with windows and doors closed, must be limited to the guiding values laid down in appendix 2.2.2 to this order decreased by 3 dB(A).

§ 5. If the noise in the open air produced by an establishment has an incidental, fluctuating, intermittent or impulsive character, then the guiding values indicated in appendix 4.5.5 to this order are to be applied to the appropriate value. The appropriate value is the guiding value given in appendix 4.5.4 to this order for the different areas, decreased by 5.

§ 6. The conditions indicated in this section are schematically shown in decision diagrams 4.5.6.1 and 4.5.6.3 in appendix 4.5.6 to these regulations.

The specific noise from the establishment is measured in the inhabited spaces, with windows and doors closed.

Unless specified otherwise in the environmental licence, the specific noise from the establishment must be in compliance with the provisions of this paragraph not later than 1 August 1997.

§ 5. If the noise in the open air produced by an establishment has an incidental, fluctuating, intermittent or impulsive character, then the guiding values indicated in appendix 4.5.5 to this order are to be applied to the appropriate value. The appropriate value is the guiding value given in appendix 4.5.4 to this order for the different areas.

§ 6. The conditions indicated in this section are schematically shown in decision diagrams 4.5.6.2 and 4.5.6.3 in appendix 4.5.6 to these regulations.

(...)

#### **Section 4.5.6. Particular conditions**

##### **Art. 4.5.6.1.**

§ 1. The licensing authorities may impose more stringent limit values and measuring conditions for the specific noise produced by category 1 or category 2 establishments located in the proximity of noise-sensitive institutions or areas.

For the application of this chapter, the following terms are understood as:

1. "noise-sensitive institutions": buildings where - because of their function or use - noise in the surrounding area must always be limited; this concerns in particular old-people's homes, hospitals, schools and the like;
2. "noise-sensitive areas": areas where - because of their function - noise in the surrounding area must always be limited; these areas include in particular residential areas and natural areas with scientific value - according to the regional plan or to an environmental implementing plan - as well as the recognised nature and forestry reserves.

§ 2. The limit values, as referred to in § 1, may be imposed either outside or - in the case of establishments having a common wall and/or floor with inhabited spaces - indoors, both during the day, in the evenings and at night.

§ 3. If the noise produced by an establishment has an incidental, fluctuating, intermittent or impulsive character, more stringent guiding values can be imposed in the proximity of noise-sensitive institutions or areas as referred to in § 1.

§ 4. In the event of non-observance of the particular conditions imposed in the environmental licence in keeping with this article, the licensing authorities may - on the advice of the Environmental Licence Department for category 1 establishments and on the advice of the Environmental Licence Department and the municipal environmental official for category 2 establishments - enforce an improvement scheme to be carried out in keeping with the provisions of appendix 4.5.3 to this order.

(...)

### **PART 5 SECTORAL ENVIRONMENTAL CONDITIONS FOR CLASSIFIED ESTABLISHMENTS**

(...)

#### **CHAPTER 5.25. LEATHER**

##### **Art. 5.25.0.1.**

§ 1. The provisions of this chapter are applicable to the establishments specified in section 25 of the classification list.

§ 2. It is forbidden to operate an establishment as referred to in subsections 25.1, 25.2 and 25.3 of the classification which is wholly or partly located in a water abstraction area and/or protected zone I, II and III.

§ 3. The prohibitions of § 2 are not applicable for existing establishments or parts of them.

#### Art. 5.25.0.2.

§ 1. Processing installations as well as storage sites where the origination of odours can be expected must be accommodated in closed spaces.

§ 2. The spent gases from the processing installations must be collected.

§ 3. Raw materials and intermediate products where the origination of odours can be expected must be stored in closed containers or spaces and, in principle, be cooled.

§ 4. The spent gases with odour-intensive substances must be transported to a purification installation for spent gas, or equivalent emission reduction must be applied.

**Art. 5.25.0.3. § 1.** Unless otherwise prescribed in the environmental licence for air quality targets, and as a derogation from the provisions of chapter 4.4., the emission limit values mentioned below, expressed in mg/Nm<sup>3</sup>, apply in the following circumstances: temperature 0° C, pressure 101.3 30 kPa, dry gas, applicable to the discharged gaseous effluents. The quantities of air supplied to a part of the installation for the dilution or cooling of the waste gas are not taken into account with the calculation of the emission values.

parameter	emission limit value
the following substances, with a mass flow per suspended particulates of 5 g/h or more:	
- chromium VI-compounds (in inhalable form), such as calcium chromate	1,0 mg/Nm <sup>3</sup>
- chromium III, strontium and zinc chromate, expressed in Cr	1,0 mg/Nm <sup>3</sup>

§ 2. With respect to dyeing, the requirements referred to in chapter 5.4. also apply

§ 3. With respect to measurements, the measurement programme and assessment of the measuring results, the provisions of chapter 4.4. apply.

(...)

#### APPENDIX 2.2.1. ENVIRONMENTAL QUALITY STANDARDS FOR NOISE IN OPEN AIR

AREA	ENVIRONMENTAL QUALITY STANDARDS IN dB(A) IN THE OPEN AIR		
	DURING THE DAY	IN THE EVENINGS	AT NIGHT
1° Rural areas and areas for residential recreation	40	35	30
2° Areas or parts of areas at a distance of less than 500 m from industrial areas not mentioned in point 3° or from areas for municipal facilities and public utilities	50	45	45
3° Areas or parts of areas at a distance of less than 500 m from areas for artisanal companies and small and medium-sized businesses, from commercial areas or from exploitation areas, during exploitation	50	45	40
4° Residential areas	45	40	35
5° Industrial areas, commercial areas, areas for municipal facilities and public utilities and exploitation areas during exploitation	60	55	55
6° Recreation areas, with the exception of areas for	50	45	40

residential recreation			
7° All other areas, with the exception of: buffer zones, military land and areas for which guide values are laid down in special orders	45	40	35
8° Buffer zones	55	50	50
9° Areas or parts of areas at a distance of less than 500 m from exploitation areas intended for gravel mining, during exploitation	55	50	45

Note: If an area comes under two or more points in the table above, the highest guide value is applicable in the area.

(...)

#### APPENDIX 4.2.5.2.

### CONTROL AND ASSESSMENT OF MEASUREMENT RESULTS FOR DISCHARGES OF INDUSTRIAL WASTE WATER

-

#### Art. 1.

§ 1. With a view to the control of the compliance with the emission limit values laid down in chapters 4.2. and 5.3., the operators referred to in articles 4.2.5.2.1. and 4.2.5.3.1. must take samples of the waste water discharged via the monitoring installation for waste water referred to in article 4.2.5.1.1. With the sampling appropriate international laboratory practices are to be applied in order to restrict the deterioration of the sample in the time between the taking of the sample and its analysis to a minimum.

§ 2. On the basis of the sampling referred to in § 1 at least those parameters are determined, of which the measurement is prescribed in articles 4.2.5.2.1. and 4.2.5.3.1.

#### Art. 2. Measuring frequency

§ 1. Unless laid down otherwise in the environmental licence, the frequency of the measurements and sampling prescribed in articles 4.2.5.2.1., § 2 and 4.2.5.3.1., § 2 is as follows:

1° parameters to be measured and recorded continuously: flow rate, temperature, conductivity and degree of acidity;

2° parameters to be measured on the basis of 24-hourly sampling during days of normal operation and proportionate to the flow rate:

Number	parameter	minimum measuring frequency
1	BOD	monthly

2	COD	monthly
3	suspended solids	monthly
4	conductivity	monthly
5	total phosphorus	quarterly
6	total nitrogen	quarterly
7	ammoniacal nitrogen	half-yearly
8	flashpoint	half-yearly
9	total fluorine	half-yearly
10	chlorides	quarterly
11	fluoride	quarterly
12	sulphates	quarterly
13	sulphides	quarterly
14	cyanides that can be oxidised using chlorine	bimonthly
15	easily decomposable cyanides	bimonthly
16	chromium VI	quarterly
17	mercury and its compounds	quarterly
18	total arsenic	quarterly
19	total cadmium	quarterly
20	total chromium	quarterly
21	total mercury	quarterly
22	total lead	quarterly
23	total silver	quarterly
24	total copper	quarterly
25	total zinc	quarterly
26	total nickel	quarterly
27	total iron	quarterly
28	phenols	monthly
29	organochlorine	monthly
30	chlorinated hydrocarbons	monthly
31	sum of organic phosphorus and organohalogen	monthly

	compounds	
32	benzo(a)pyrene	monthly
33	chloroform	monthly
34	DDT	monthly
35	1,2-dichloroethane (EDC)	monthly
36	drins (sum of aldrin dieldrin, endrin and isodrin)	monthly
37	hexachlorobenzene (HCB)	monthly
38	hexachlorobutadiene (HCBd)	monthly
39	hexachlorocyclohexane (HCH)	fortnightly
40	organochlorine pesticides	monthly
41	pentachlorophenol	monthly
42	perchloroethylene (PER)	monthly
43	polychlorinated biphenyls (PCB)	monthly
44	polychlorinated terphenyls (PCT)	monthly
45	tetrachloromethane	monthly
46	T.O.C.	monthly
47	T.O.X.	monthly
48	A.O.X.	monthly
49	trichlorobenzene (TCB)	monthly
50	trichloroethylene (TRI)	monthly
51	asbestos	monthly

§ 2. The measuring frequency prescribed in § 1, 2° must be observed during the first year:

1° after the coming into force of this order — for establishments that are operating on the date of this order coming into force;

2° after the coming into service of the establishments starting operations after the date of this order coming into force.

Providing that the operator applies the control measuring programme specified in this appendix, the measuring frequency can be adjusted in keeping with the provisions of article 3.

(...)

#### Appendix 4.4.2 GENERAL EMISSION LIMIT VALUES FOR AIR

parameter	emission limit value	measuring method	
		continuous	discontinuous
1° total dust at a mass flow of:			
a) ≤ 500 g/h	150.0 mg/Nm <sup>3</sup>	photoconductive cell	NBN T95101

b) > 500 g/h	50.0 mg/Nm <sup>3</sup>	BETA-rays VDI 2066/4 & 6	NBN X44-002 ISO 9096 NPR 2788 VDI 2066/1, 2, 3 & 7
2° the following vaporous or gaseous inorganic substances, at a mass flow per substance of 10 g/h or more:			
- arsenic(III) hydride	1.0 mg/Nm <sup>3</sup>		
- cyanogen chloride	1.0 mg/Nm <sup>3</sup>		DIN 38405
- carbonyl chloride	1.0 mg/Nm <sup>3</sup>		
- phosphorus hydrides	1.0 mg/Nm <sup>3</sup>		
3° the following vaporous or gaseous inorganic substances, at a mass flow per substance of 50 g/h or more:			
- bromine and its vaporous or gaseous compounds, expressed in hydrogen bromide	5.0 mg/Nm <sup>3</sup>		ion chromatography after sampling in conformance with VDI 3480/1
- chlorine	5.0 mg/Nm <sup>3</sup>		VDI 3488/1 and 2
- hydrogen cyanide	5.0 mg/Nm <sup>3</sup>		ion chromatography ion-selective electrode colorimetry DIN 38405
- fluorine and its vaporous or gaseous compounds, as expressed in hydrogen fluoride	5.0 mg/Nm <sup>3</sup>		NBN T95-501 and 502 VDI 2470/1
- hydrogen sulphide	5.0 mg/Nm <sup>3</sup>		gas chromatography VDI 3486/1 and 2
4° vaporous or gaseous inorganic chlorine compounds (not including cyanogen chloride), at a mass flow of 25 g/h or more	30.0 mg/Nm <sup>3</sup>		VDI 3480/1
5° the following vaporous or gaseous inorganic substances, at a mass flow per substance			

of 5 kg/h or more:			
- SO <sub>x</sub> (expressed in SO <sub>2</sub> )	500.0 mg/Nm <sup>3</sup>	ISO 7935 (performance characteristics for automatic appliances)	NBN T95-201 and ISO 7934  VDI 2462
- NO <sub>x</sub> (expressed in NO <sub>2</sub> )	500.0 mg/Nm <sup>3</sup>	NEN 2039  VDI 2456 various (appliance-specific)	NBN T 95-301  VDI 2456/1, 2, 8 & 10
- CO (originating from production plants with fully oxidative combustion processes, including post-combustion)	100.0 mg/Nm <sup>3</sup>	VDI 2459/6	
6° the following substances, at a mass flow of 0.5 g/h or more:			
- benzo(a)pyrene	0.1 mg/Nm <sup>3</sup>		
- dibenz(a,h)anthracene	0.1 mg/Nm <sup>3</sup>		
- naphthalen-2-amine	0.1 mg/Nm <sup>3</sup>		
- beryllium and its compounds in inhalable form, expressed in Be	0.1 mg/Nm <sup>3</sup>		
- <b>chromium VI compounds, such as calcium chromate, expressed in Cr</b>	<b>0.1 mg/Nm<sup>3</sup></b>		
- <b>ethyleneimine</b>	<b>0.1 mg/Nm<sup>3</sup></b>		
7° the following substances, at a mass flow of 5 g/h or more:			
- arsenic trioxide and arsenic pentoxide, expressed in As	1.0 mg/Nm <sup>3</sup>		
- arsenic acids and their salts, expressed in As	1.0 mg/Nm <sup>3</sup>		
- chromiumIII, strontium chromate and zinc chromate, expressed in Cr	1.0 mg/Nm <sup>3</sup>		
- 3,3-dichlorobenzidine	1.0 mg/Nm <sup>3</sup>		
- dimethyl sulphate	1.0 mg/Nm <sup>3</sup>		
- nickel (nickel metal, nickel sulphide and sulphide ores, nickel oxide and nickel carbonate, nickel tetracarbonyl), expressed in Ni	1.0 mg/Nm <sup>3</sup>		

8° the following substances, at a mass flow of 25 g/h or more:			
- propenenitrile	5.0 mg/Nm <sup>3</sup>		
- benzene	5.0 mg/Nm <sup>3</sup>		
- 1,3-butadiene	5.0 mg/Nm <sup>3</sup>		
- 1-chloro-2,3-epoxypropane (epichlorohydrin)	5.0 mg/Nm <sup>3</sup>		
- 1,2-dibromoethane	5.0 mg/Nm <sup>3</sup>		
- 1,2-epoxypropane	5.0 mg/Nm <sup>3</sup>		
- ethylene oxide	5.0 mg/Nm <sup>3</sup>		
- hydrazine	5.0 mg/Nm <sup>3</sup>		
- vinyl chloride	5.0 mg/Nm <sup>3</sup>		
9° the following organic substances, at a mass flow of 100 g/h or more:			
- ethanal	20.0 mg/Nm <sup>3</sup>		
- propenoic acid	20.0 mg/Nm <sup>3</sup>		
- alkyl lead compounds	20.0 mg/Nm <sup>3</sup>		
- phenylamine	20.0 mg/Nm <sup>3</sup>		
- benzyl chloride	20.0 mg/Nm <sup>3</sup>		
- biphenyl	20.0 mg/Nm <sup>3</sup>		
- chloroacetaldehyde	20.0 mg/Nm <sup>3</sup>		
- chloroethanoic acid	20.0 mg/Nm <sup>3</sup>		
- chloromethane	20.0 mg/Nm <sup>3</sup>		
- alpha-chlorotoluene	20.0 mg/Nm <sup>3</sup>		
- ortho-dichlorobenzene	20.0 mg/Nm <sup>3</sup>		
- 1,2-dichloroethane	20.0 mg/Nm <sup>3</sup>		
- 1,1-dichloroethylene	20.0 mg/Nm <sup>3</sup>		
- dichlorophenols	20.0 mg/Nm <sup>3</sup>		
- diethylamine	20.0 mg/Nm <sup>3</sup>		
- dimethylamine	20.0 mg/Nm <sup>3</sup>		
- 1,4-diethylene dioxide	20.0 mg/Nm <sup>3</sup>		
- ethyl acrylate	20.0 mg/Nm <sup>3</sup>		
- ethylamine	20.0 mg/Nm <sup>3</sup>		
- phenol	20.0 mg/Nm <sup>3</sup>		
- methanal	20.0 mg/Nm <sup>3</sup>		

- 2-furaldehyde	20.0 mg/Nm <sup>3</sup>		
- metylphenols	20.0 mg/Nm <sup>3</sup>		
- butenedioic anhydride	20.0 mg/Nm <sup>3</sup>		
- methyl propenoate	20.0 mg/Nm <sup>3</sup>		
- methylamine	20.0 mg/Nm <sup>3</sup>		
- 4-methyl-m-phenylene diisocyanate	20.0 mg/Nm <sup>3</sup>		
- methanoic acid	20.0 mg/Nm <sup>3</sup>		
- nitrobenzene	20.0 mg/Nm <sup>3</sup>		
- nitrocresols	20.0 mg/Nm <sup>3</sup>		
- nitrophenols	20.0 mg/Nm <sup>3</sup>		
- methylnitrobenzenes	20.0 mg/Nm <sup>3</sup>		
- 2-propenal	20.0 mg/Nm <sup>3</sup>		
- pyridine	20.0 mg/Nm <sup>3</sup>		
- 1,1,2,2-tetrachloroethane	20.0 mg/Nm <sup>3</sup>		
- tetrachloromethane	20.0 mg/Nm <sup>3</sup>		
- thiols (mercaptans)	20.0 mg/Nm <sup>3</sup>		
- thioethers	20.0 mg/Nm <sup>3</sup>		
- 2-methylphenylamine	20.0 mg/Nm <sup>3</sup>		
- 1,1,2-trichloroethane	20.0 mg/Nm <sup>3</sup>		
- trichloromethane	20.0 mg/Nm <sup>3</sup>		
- trichlorophenols	20.0 mg/Nm <sup>3</sup>		
- triethylamine	20.0 mg/Nm <sup>3</sup>		
- xylenols (except 2,4-xylenol)	20.0 mg/Nm <sup>3</sup>		
10° the following organic substances, at a mass flow of 2,000 g/h or more:			
- ethanoic acid	100.0 mg/Nm <sup>3</sup>		
- 2-butoxyethanol	100.0 mg/Nm <sup>3</sup>		
- butyraldehyde	100.0 mg/Nm <sup>3</sup>		
- chlorobenzene	100.0 mg/Nm <sup>3</sup>		
- 2-chlorobuta-1,3-diene	100.0 mg/Nm <sup>3</sup>		
- isopropyl chloride	100.0 mg/Nm <sup>3</sup>		
- cyclohexanone	100.0 mg/Nm <sup>3</sup>		
- para-dichlorobenzene	100.0 mg/Nm <sup>3</sup>		
- 1,1-dichloroethane	100.0 mg/Nm <sup>3</sup>		

- di(2-ethylhexyl) phtalate	100.0 mg/Nm <sup>3</sup>		
- M,N-dimethylformamide	100.0 mg/Nm <sup>3</sup>		
- 2,6-dimethyl-4-heptanone	100.0 mg/Nm <sup>3</sup>		
- 2-ethoxyethanol	100.0 mg/Nm <sup>3</sup>		
- ethylbenzene	100.0 mg/Nm <sup>3</sup>		
- furfuryl alcohol	100.0 mg/Nm <sup>3</sup>		
- 2,2-iminodiethanol	100.0 mg/Nm <sup>3</sup>		
- alpha-methyl styrene	100.0 mg/Nm <sup>3</sup>		
- (1-methylethyl)benzene	100.0 mg/Nm <sup>3</sup>		
- 2-methoxyethanol	100.0 mg/Nm <sup>3</sup>		
- methyl acetate	100.0 mg/Nm <sup>3</sup>		
- methylcyclohexanone	100.0 mg/Nm <sup>3</sup>		
- methyl formate	100.0 mg/Nm <sup>3</sup>		
- methyl methacrylate	100.0 mg/Nm <sup>3</sup>		
- naphthalene	100.0 mg/Nm <sup>3</sup>		
- propanal	100.0 mg/Nm <sup>3</sup>		
- propanoic acid	100.0 mg/Nm <sup>3</sup>		
- styrene	100.0 mg/Nm <sup>3</sup>		
- tetrachloroethylene	100.0 mg/Nm <sup>3</sup>		
- tetrahydrofuran	100.0 mg/Nm <sup>3</sup>		
- methylbenzene	100.0 mg/Nm <sup>3</sup>		
- 1,1,1-trichloroethane	100.0 mg/Nm <sup>3</sup>		
- trichloroethylene	100.0 mg/Nm <sup>3</sup>		
- trimethylbenzene	100.0 mg/Nm <sup>3</sup>		
- ethenyl ethanoate	100.0 mg/Nm <sup>3</sup>		
- 2,4-xylenol	100.0 mg/Nm <sup>3</sup>		
- xylene isomers	100.0 mg/Nm <sup>3</sup>		
- carbon disulphide	100.0 mg/Nm <sup>3</sup>		
11° the following organic substances, at a mass flow of 3,000 g/h or more:			
- propanone	150.0 mg/Nm <sup>3</sup>		
- alkyl alcohol	150.0 mg/Nm <sup>3</sup>		
- 2-butanone	150.0 mg/Nm <sup>3</sup>		
- butyl acetate	150.0 mg/Nm <sup>3</sup>		
- chloroethane	150.0 mg/Nm <sup>3</sup>		

- dibutyl ether	150.0 mg/Nm <sup>3</sup>		
- dichlorodifluoromethane	150.0 mg/Nm <sup>3</sup>		
- 1,2-dichloroethylene	150.0 mg/Nm <sup>3</sup>		
- dichloromethane	150.0 mg/Nm <sup>3</sup>		
- diethyl ether	150.0 mg/Nm <sup>3</sup>		
- diisopropyl ether	150.0 mg/Nm <sup>3</sup>		
- dimethyl ether	150.0 mg/Nm <sup>3</sup>		
- ethyl ethanoate	150.0 mg/Nm <sup>3</sup>		
- ethane-1,2-diol	150.0 mg/Nm <sup>3</sup>		
- 4-hydroxy-4-methylpentan-2-one	150.0 mg/Nm <sup>3</sup>		
- methyl benzoate	150.0 mg/Nm <sup>3</sup>		
- 4-methyl-2-pentanone	150.0 mg/Nm <sup>3</sup>		
- N-methyl-2-pyrrolidone	150.0 mg/Nm <sup>3</sup>		
- alkenes			
(except for 1,3-butadiene)	150.0 mg/Nm <sup>3</sup>		
- alkanes			
(except for methane)	150.0 mg/Nm <sup>3</sup>		
- pinenes	150.0 mg/Nm <sup>3</sup>		
- trichlorofluoromethane	150.0 mg/Nm <sup>3</sup>		
	Unless acceptable component-specific methods have been established, in general the VDI 2457/1 method is used to determine organic components.		
12° the following inorganic particulate substances, at a mass flow of 1 g/h or more:	(*)		
- cadmium and its compounds (expressed in Cd)	0.2 mg/m <sup>3</sup>		
- mercury and its compounds (expressed in Hg)	0.2 mg/m <sup>3</sup>		
- thallium and its compounds (expressed in Tl)	0.2 mg/m <sup>3</sup>		
	NPR 2817 (draft) and VDI 2268 are commonly used for the determination of metals. A.A. (atomic absorption), I.C.P. (Inductive Coupled Plasma emission Spectrometry) D.C.P. (Direct Current Plasma emission spectrometry) and FRX after dust measurement can be used for the measurement of the aforementioned metals.		

13° the following inorganic particulate substances, at a mass flow of 5 g/h or more:			(*)
- arsenic and its compounds (expressed in As)	1.0 mg/m <sup>3</sup>		
- nickel and its compounds (expressed in Ni)	1.0 mg/m <sup>3</sup>		
- selenium and its compounds (expressed in Se)	1.0 mg/m <sup>3</sup>		
	NPR 2817 (draft) and VDI 2268 are commonly used for the determination of metals. A.A. (atomic absorption), I.C.P. (Inductive Coupled Plasma emission Spectrometry) D.C.P. (Direct Current Plasma emission spectrometry) and FRX after dust measurement can be used for the measurement of the aforementioned metals.		
14° the following inorganic particulate substances, at a mass flow of 25 g/h or more:			(*)
- antimony and its compounds expressed in Sb	5.0 mg/m <sup>3</sup>		
- lead and its compounds expressed in Pb	5.0 mg/m <sup>3</sup>		
- chromium and its compounds expressed in Cr	5.0 mg/m <sup>3</sup>		
- cobalt and its compounds expressed in Co	5.0 mg/m <sup>3</sup>		
- easily soluble cyanide and its compounds expressed in CN	5.0 mg/m <sup>3</sup>		
- easily soluble fluoride and its compounds expressed in F	5.0 mg/m <sup>3</sup>		
- copper and its compounds expressed in Cu	5.0 mg/m <sup>3</sup>		
- manganese and its compounds	5.0 mg/m <sup>3</sup>		

expressed in Mn			
- platinum and its compounds expressed in Pt	5.0 mg/Nm <sup>3</sup>		
- vanadium and its compounds expressed in V	5.0 mg/Nm <sup>3</sup>		
- tin and its compounds expressed in Sn	5.0 mg/Nm <sup>3</sup>		
	NPR 2817 (draft) and VDI 2268 are commonly used for the determination of metals. A.A. (atomic absorption), I.C.P. (Inductive Coupled Plasma emission Spectrometry) D.C.P. (Direct Current Plasma emission spectrometry) and FRX after dust measurement can be used for the measurement of the aforementioned metals.		
15° the following fibrous silicates (asbestos):	In keeping with the method laid down in the appendix to the order of the Flemish Government of 14 December 1988 on the stipulation of measures to prevent and counteract air pollution by asbestos		
- actinolite			
- amosite (brown asbestos)			
- anthophyllite			
- chrysotile (white asbestos)			
- crocidolite (blue asbestos)			
- tremolite			
as expressed in asbestos, at a waste gas flow of:			
- 5.000 m <sup>3</sup> /hour or more	0.1 mg/Nm <sup>3</sup>		
- < 5,000 m <sup>3</sup> /hour	500 mg asbestos per hour		

(...)

#### APPENDIX 5.3.2. SECORAL DISCHARGE CONDITIONS FOR INDUSTRIAL WASTE WATER

(...)

**23° tanneries and tawers', furriers and fur works (preparation, dyeing, cleaning included) and felt hat factories and textile hair factories (installations referred to in subheading 25.2 of the classification list):**

*a) discharging in surface waters:*

lower limit pH 6.5 Sørensen  
upper limit pH 9.0 Sørensen  
temperature 30.0 .Celsius  
suspended solids 60.0 mg/l  
settleable solids 0.50 ml/l

CCL4 extractable substances 5.0 mg/l  
detergent 3.0 mg/l  
oil and fat n.v.o.  
ammoniacal nitrogen 100.0 mg N/l  
BOD 60.0 mg/l  
chromium VI 0.50 mg Cr/l  
COD 300.0 mg/l  
phenols 3.0 mg/l  
sulphates 2000.0 mg SO<sub>4</sub>/l  
sulphides 1.0 mg S/l  
total chromium 1.5 mg Cr/l  
total phosphorus 2.0 mg P/l

*b) discharging in sewer systems:*

lower limit pH 6.0 Sørensen  
upper limit pH 9.5 Sørensen  
temperature 45.0 .Celsius  
measurement suspended solids 10.0 mm  
suspended solids 1000.0 mg/l  
detergent (anion./cation./ 30.0 mg/l nonion.)  
petroleum ether extr. substances 500.0 mg/l  
ammoniacal nitrogen l.p.l. mg N/l  
chromium VI 0.50 mg Cr/l  
COD 5000.0 mg/l  
phenols 250.0 mg/l  
sulphates 2000.0 mg SO<sub>4</sub>/l  
sulphides 1.0 mg S/l  
total chromium 1.5 mg Cr/l

c) the emission limit values indicated in point a) and in point b) apply for a specific reference volume of the effluent of:

- establishments which tan with chromium: 40 m<sup>3</sup> per tonne of hides and skins processed;
- establishments tanning with vegetable substances or with oil: 20 m<sup>3</sup> per tonne of hides and skins;