Consolidated version

Directive 2010/75/EU on industrial emissions, as amended by Directive 2024/1785 (green for added text, red for deleted text)

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New recitals (in green) do not revise recitals from the IED. They explain and help interpreting provisions from the amending directive.

This document is based on the informal consolidated text of **Directive 2010/75/EU**, published on 4 August 2024.

DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 24 November 2010

on industrial and livestock rearing emissions (integrated pollution prevention and control)

(Recast)

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Whereas:

(1) A number of substantial changes are to be made to Council Directive 78/176/EEC of 20 February 1978 on waste from the titanium dioxide industry ([4]), Council Directive 82/883/EEC of 3 December 1982 on procedures for the surveillance and monitoring of environments concerned by waste from the titanium dioxide industry ([5]), Council Directive 92/112/EEC of 15 December 1992 on procedures for harmonising the programmes for the reduction and eventual elimination of pollution caused by waste from the titanium dioxide industry ([6]), Council Directive 1999/13/EC of 11 March 1999 on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain activities and installations ([7]), Directive 2000/76/EC of the European Parliament and of the Council of 4 December 2000 on the incineration of waste ([8]), Directive 2001/80/EC of the European Parliament and of the Council of 23 October 2001 on the limitation of emissions of certain pollutants into the air from large combustion plants ([9]) and Directive 2008/1/EC of the European Parliament and of the Council of 15 January 2008 concerning integrated pollution prevention and control ([10]). In the interests of clarity, those Directives should be recast.

(2) In order to prevent, reduce and as far as possible eliminate pollution arising from industrial activities in compliance with the 'polluter pays' principle and the principle of pollution prevention, it is necessary to establish a general framework for the control of the main industrial activities, giving priority to intervention at source, ensuring prudent management of natural resources and taking into account, when necessary, the economic situation and specific local characteristics of the place in which the industrial activity is taking place.

(3) Different approaches to controlling emissions into air, water or soil separately may encourage the shifting of pollution from one environmental medium to another rather than protecting the environment as a whole. It is, therefore, appropriate to provide for an integrated approach to prevention and control of emissions into air, water and soil, to waste management, to energy efficiency and to accident prevention. Such an approach will also contribute to the achievement of a level playing field in the Union by aligning environmental performance requirements for industrial installations.

(4) It is appropriate to revise the legislation relating to industrial installations in order to simplify and clarify the existing provisions, reduce unnecessary administrative burden and implement the conclusions of the Commission Communications of 21 September 2005 on the Thematic Strategy on Air Pollution (hereinafter the Thematic Strategy on Air Pollution), of 22 September 2006 on the Thematic Strategy for Soil Protection and of 21 December 2005 on the Thematic Strategy on the Prevention and Recycling of Waste adopted as a follow-up to Decision No 1600/2002/EC of the European Parliament and of the Council of 22 July 2002 laying down the Sixth Community Environment Action Programme ([11]). Those Communications set objectives to protect human health and the environment which cannot be met without further reductions in emissions arising from industrial activities.

(5) In order to ensure the prevention and control of pollution, each installation should operate only if it holds a permit or, in the case of certain installations and activities using organic solvents, only if it holds a permit or is registered.

(6) It is for Member States to determine the approach for assigning responsibilities to operators of installations provided that compliance with this Directive is ensured. Member States may choose to grant a permit to one responsible operator for each installation or to specify the responsibility amongst several operators of different parts of an installation. Where its current legal system provides for only one responsible operator for each installation, a Member State may decide to retain this system.

(7) In order to facilitate the granting of permits, Member States should be able to set requirements for certain categories of installations in general binding rules.

(8) It is important to prevent accidents and incidents and limit their consequences. Liability regarding the environmental consequences of accidents and incidents is a matter for relevant national law and, where applicable, other relevant Union law.

(9) In order to avoid duplication of regulation, the permit for an installation covered by Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community ([12]) should not include an emission limit value for direct emissions of the greenhouse gases specified in Annex I to that Directive except where it is necessary to ensure that no significant local pollution is caused or where an installation is excluded from that scheme.

(10) In accordance with Article 193 of the Treaty on the Functioning of the European Union (TFEU), this Directive does not prevent Member States from maintaining or introducing more stringent protective measures, for example greenhouse gas emission requirements, provided that such measures are compatible with the Treaties and the Commission has been notified.

(11) Operators should submit permit applications containing the information necessary for the competent authority to set permit conditions. Operators should be able to use information resulting from the application of Council Directive 85/337/EEC of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment ([13]) and of Council Directive 96/82/EC of 9 December 1996 on the control of major-accident hazards involving dangerous substances ([14]) when submitting permit applications.

(12) The permit should include all the measures necessary to achieve a high level of protection of the environment as a whole and to ensure that the installation is operated in accordance with the general principles governing the basic obligations of the operator. The permit should also include emission limit values for polluting substances, or equivalent parameters or technical measures, appropriate requirements to protect the soil and groundwater and monitoring requirements. Permit conditions should be set on the basis of best available techniques.

(13) In order to determine best available techniques and to limit imbalances in the Union as regards the level of emissions from industrial activities, reference documents for best available techniques (hereinafter BAT reference documents') should be drawn up, reviewed and, where necessary, updated through an exchange of information with stakeholders and the key elements of BAT reference documents (hereinafter BAT conclusions') adopted through committee procedure. In this respect, the Commission should, through committee procedure, establish guidance on the collection of data, on the elaboration of BAT reference documents and on their quality assurance. BAT conclusions should be the reference for setting permit conditions. They can be supplemented by other sources. The Commission should aim to update BAT reference documents not later than 8 years after the publication of the previous version.

(14) In order to ensure an effective and active exchange of information resulting in high-quality BAT reference documents, the Commission should establish a forum that functions in a transparent manner. Practical arrangements for the exchange of information and the accessibility of BAT reference documents should be laid down, in particular to ensure that Member States and stakeholders provide data of sufficient quality and quantity based on

established guidance to enable the determination of best available techniques and emerging techniques.

(15) It is important to provide sufficient flexibility to competent authorities to set emission limit values that ensure that, under normal operating conditions, emissions do not exceed the emission levels associated with the best available techniques. To this end, the competent authority may set emission limits that differ from the emission levels associated with the best available techniques in terms of the values, periods of time and reference conditions applied, so long as it can be demonstrated, through the results of emission monitoring, that emissions have not exceeded the emission levels associated with the best available techniques. Compliance with the emission limit values that are set in permits results in emissions below those emission limit values.

(16) In order to take into account certain specific circumstances where the application of emission levels associated with the best available techniques would lead to disproportionately high costs compared to the environmental benefits, competent authorities should be able to set emission limit values deviating from those levels. Such deviations should be based on an assessment taking into account well-defined criteria. The emission limit values set out in this Directive should not be exceeded. In any event, no significant pollution should be caused and a high level of protection of the environment taken as a whole should be achieved.

(17) In order to enable operators to test emerging techniques which could provide for a higher general level of environmental protection, or at least the same level of environmental protection and higher cost savings than existing best available techniques, the competent authority should be able to grant temporary derogations from emission levels associated with the best available techniques.

(18) Changes to an installation may give rise to higher levels of pollution. Operators should notify the competent authority of any planned change which might affect the environment. Substantial changes to installations which may have significant negative effects on human health or the environment should not be made without a permit granted in accordance with this Directive.

(19) The spreading of manure contributes significantly to emissions of pollutants into air and water. With a view to meeting the objectives set out in the Thematic Strategy on Air Pollution and Union law on water protection, it is necessary for the Commission to review the need to establish the most suitable controls of these emissions through the application of best available techniques.

(20) The intensive rearing of poultry and cattle contributes significantly to emissions of pollutants into air and water. With a view to meeting the objectives set out in the Thematic Strategy on Air Pollution and in Union law on water protection, it is necessary for the Commission to review the need to establish differentiated capacity thresholds for different poultry species in order to define the scope of this Directive and to review the need to establish the most suitable controls on emissions from cattle rearing installations.

(21) In order to take account of developments in best available techniques or other changes to an installation, permit conditions should be reconsidered regularly and, where necessary, updated, in particular where new or updated BAT conclusions are adopted.

(22) In specific cases where permit reconsideration and updating identifies that a longer period than 4 years after the publication of a decision on BAT conclusions might be needed to introduce new best available techniques, competent authorities may set a longer time period in permit conditions where this is justified on the basis of the criteria laid down in this Directive.

(23) It is necessary to ensure that the operation of an installation does not lead to a deterioration of the quality of soil and groundwater. Permit conditions should, therefore, include appropriate measures to prevent emissions to soil and groundwater and regular surveillance of those measures to avoid leaks, spills, incidents or accidents occurring during the use of equipment and during storage. In order to detect possible soil and groundwater pollution at an early stage and, therefore, to take appropriate corrective measures before the pollution spreads, the monitoring of soil and groundwater for relevant hazardous substances is also necessary. When determining the frequency of monitoring, the type of prevention measures and the extent and occurrence of their surveillance may be considered.

(24) In order to ensure that the operation of an installation does not deteriorate the quality of soil and groundwater, it is necessary to establish, through a baseline report, the state of soil and groundwater contamination. The baseline report should be a practical tool that permits, as far as possible, a quantified comparison between the state of the site described in that report and the state of the site upon definitive cessation of activities, in order to ascertain whether a significant increase in pollution of soil or groundwater has taken place. The baseline report should, therefore, contain information making use of existing data on soil and groundwater measurements and historical data related to past uses of the site.

(25) In accordance with the polluter pays principle, when assessing the level of significance of the pollution of soil and groundwater caused by the operator which would trigger the obligation to return the site to the state described in the baseline report, Member States should take into account the permit conditions that have applied over the lifetime of the activity concerned, the pollution prevention measures adopted for the installation, and the relative increase in pollution compared to the contamination load identified in the baseline report. Liability regarding pollution not caused by the operator is a matter for relevant national law and, where applicable, other relevant Union law.

(26) In order to ensure the effective implementation and enforcement of this Directive, operators should regularly report to the competent authority on compliance with permit conditions. Member States should ensure that the operator and the competent authority each take necessary measures in the event of non-compliance with this Directive and provide for a system of environmental inspections. Member States should ensure that sufficient staff are available with the skills and qualifications needed to carry out those inspections effectively.

(27) In accordance with the Århus Convention on access to information, public participation in decision-making and access to justice in environmental matters ([15]), effective public

participation in decision-making is necessary to enable the public to express, and the decision-maker to take account of, opinions and concerns which may be relevant to those decisions, thereby increasing the accountability and transparency of the decision-making process and contributing to public awareness of environmental issues and support for the decisions taken. Members of the public concerned should have access to justice in order to contribute to the protection of the right to live in an environment which is adequate for personal health and well-being.

(28) The combustion of fuel in installations with a total rated thermal input below 50 MW contributes significantly to emissions of pollutants into the air. With a view to meeting the objectives set out in the Thematic Strategy on Air Pollution, it is necessary for the Commission to review the need to establish the most suitable controls on emissions from such installations. That review should take into account the specificities of combustion plants used in healthcare facilities, in particular with regard to their exceptional use in the case of emergencies.

(29) Large combustion plants contribute greatly to emissions of polluting substances into the air resulting in a significant impact on human health and the environment. In order to reduce that impact and to work towards meeting the requirements of Directive 2001/81/EC of the European Parliament and of the Council of 23 October 2001 on national emission ceilings for certain atmospheric pollutants ([16]) and the objectives set out in the Thematic Strategy on Air Pollution, it is necessary to set more stringent emission limit values at Union level for certain categories of combustion plants and pollutants.

(30) The Commission should review the need to establish Union-wide emission limit values and to amend the emission limit values set out in Annex V for certain large combustion plants, taking into account the review and update of the relevant BAT reference documents. In this context, the Commission should consider the specificity of the energy systems of refineries.

(31) Due to the characteristics of certain indigenous solid fuels, it is appropriate to apply minimum desulphurisation rates rather than emission limit values for sulphur dioxide for combustion plants firing such fuels. Moreover, as the specific characteristics of oil shale may not allow the application of the same sulphur abatement techniques or the achievement of the same desulphurisation efficiency as for other fuels, a slightly lower minimum desulphurisation rate for plants using this fuel is appropriate.

(32) In the case of a sudden interruption in the supply of low-sulphur fuel or gas resulting from a serious shortage, the competent authority should be able to grant temporary derogations to allow emissions of the combustion plants concerned to exceed the emission limit values set out in this Directive.

(33) The operator concerned should not operate a combustion plant for more than 24 hours after malfunctioning or breakdown of abatement equipment and unabated operation should not exceed 120 hours in a 12-month period in order to limit the negative effects of pollution on the environment. However, where there is an overriding need for energy supplies or it is

necessary to avoid an overall increase of emissions resulting from the operation of another combustion plant, competent authorities should be able to grant a derogation from those time limits.

(34) In order to ensure a high level of environmental and human health protection and to avoid transboundary movements of waste to plants operating at lower environmental standards, it is necessary to set and maintain stringent operating conditions, technical requirements and emission limit values for plants incinerating or co-incinerating waste within the Union.

(35) The use of organic solvents in certain activities and installations gives rise to emissions of organic compounds into the air which contribute to the local and transboundary formation of photochemical oxidants which causes damage to natural resources and has harmful effects on human health. It is, therefore, necessary to take preventive action against the use of organic solvents and to establish a requirement to comply with emission limit values for organic compounds and appropriate operating conditions. Operators should be allowed to comply with the requirements of a reduction scheme instead of complying with the emission limit values set out in this Directive where other measures, such as the use of low-solvent or solvent-free products or techniques, provide alternative means of achieving equivalent emission reduction.

(36) Installations producing titanium dioxide can give rise to significant pollution into air and water. In order to reduce these impacts, it is necessary to set at Union level more stringent emission limit values for certain polluting substances.

(37) With regard to the inclusion in the scope of national laws, regulations and administrative provisions brought into force in order to comply with this Directive of installations for the manufacturing of ceramic products by firings, on the basis of the characteristics of the national industrial sector, and in order to grant clear interpretation of the scope, Member States should decide whether to apply both the criteria, production capacity and kiln capacity, or just one of the two criteria.

(38) In order to simplify reporting and reduce unnecessary administrative burden, the Commission should identify methods to streamline the way in which data are made available pursuant to this Directive with the other requirements of Union law, and in particular Regulation (EC) No 166/2006 of the European Parliament and of the Council of 18 January 2006 concerning the establishment of a European Pollutant Release and Transfer Register ([17]).

(39) In order to ensure uniform conditions for implementation, implementing powers should be conferred on the Commission to adopt guidance on the collection of data, on the drawing up of BAT reference documents and on their quality assurance, including the suitability of their content and format, to adopt decisions on BAT conclusions, to establish detailed rules on the determination of start-up and shut-down periods and for transitional national plans for large combustion plants, and to establish the type, format and frequency of information that Member States are to make available to the Commission. In accordance with Article 291 TFEU, rules and general principles concerning mechanisms for the control by Member States

of the Commission's exercise of implementing powers are to be laid down in advance by a regulation adopted in accordance with the ordinary legislative procedure. Pending the adoption of that new regulation, Council Decision 1999/468/EC of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the Commission ([18]) continues to apply, with the exception of the regulatory procedure with scrutiny, which is not applicable.

(40) The Commission should be empowered to adopt delegated acts in accordance with Article 290 TFEU in respect of the setting of the date from which continuous measurements of emissions into the air of heavy metals and dioxins and furans are to be carried out, and the adaptation of certain parts of Annexes V, VI and VII to scientific and technical progress. In the case of waste incineration plants and waste co-incineration plants, this may include, inter alia, the establishment of criteria to allow derogations from continuous monitoring of total dust emissions. It is of particular importance that the Commission carry out appropriate consultations during its preparatory work, including at expert level.

(41) In order to address significant environmental pollution, for example from heavy metals and dioxins and furans, the Commission should, based on an assessment of the implementation of the best available techniques by certain activities or of the impact of those activities on the environment as a whole, present proposals for Union-wide minimum requirements for emission limit values and for rules on monitoring and compliance.

(42) Member States should lay down rules on penalties applicable to infringements of the national provisions adopted pursuant to this Directive and ensure that they are implemented. Those penalties should be effective, proportionate and dissuasive.

(43) In order to provide existing installations with sufficient time to adapt technically to the new requirements of this Directive, some of the new requirements should apply to those installations after a fixed period from the date of application of this Directive. Combustion plants need sufficient time to install the necessary abatement measures to meet the emission limit values set out in Annex V.

(44) Since the objectives of this Directive, namely to ensure a high level of environmental protection and the improvement of environmental quality, cannot be sufficiently achieved by Member States and can, therefore, by reason of the transboundary nature of pollution from industrial activities, be better achieved at Union level, the Union may adopt measures in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty on European Union. In accordance with the principle of proportionality, as set out in that Article, this Directive does not go beyond what is necessary in order to achieve those objectives.

(45) This Directive respects the fundamental rights and observes the principles recognised in particular by the Charter of Fundamental Rights of the European Union. In particular, this Directive seeks to promote the application of Article 37 of that Charter.

(46) The obligation to transpose this Directive into national law should be confined to those provisions which represent a substantive change as compared with the earlier Directives. The obligation to transpose the provisions which are unchanged arises under the earlier Directives.

(47) In accordance with paragraph 34 of the Interinstitutional agreement on better law-making ([19]), Member States are encouraged to draw up, for themselves and in the interests of the Union, their own tables, which will as far as possible, illustrate the correlation between this Directive and the transposition measures, and to make those tables public.

(48) This Directive should be without prejudice to the obligations of the Member States relating to the time-limits for transposition into national law and application of the Directives set out in Annex IX, Part B,

(1) The communication of 11 December 2019 entitled 'The European Green Deal' constitutes Europe's strategy to ensure, by 2050, a climate-neutral, clean and circular economy, optimising resource use, reuse and management, minimising pollution while recognising the need for deeply transformative policies as well as the need to protect the health and well-being of citizens from environment-related risks and impacts. It also aims to ensure that such transition is just and inclusive, leaving no one behind. The Union is also committed to the Paris Agreement (4), the 2030 Agenda for Sustainable Development and its Sustainable Development Goals as well as to its involvement in the World Health Organization. The Union's Chemicals Strategy for Sustainability of October 2020 and the Zero Pollution Action Plan adopted in May 2021 specifically address pollution aspects of the European Green Deal. In parallel, the New Industrial Strategy for Europe further emphasises the potential role of transformative technologies. Other particularly relevant policies related to the revision of Directive 2010/75/EU of the European Parliament and of the Council (5) include the European Climate law (6), 'Fit for 55' package, the Methane Strategy and the Glasgow methane pledge, the Climate Adaptation Strategy, the Biodiversity Strategy, the Farm to Fork strategy, the Soil Strategy and the Sustainable Products Initiative. In addition, as part of the EU response to the Russian war of aggression against Ukraine, REPowerEU proposes a Joint European Action to support the diversification of energy supplies, accelerate the transition to renewable energy and improve energy efficiency.

(2) The Commission announced in the European Green Deal a revision of Union measures to address pollution from large industrial installations, including a review of the sectoral scope of the legislation and how to make it fully consistent with climate, energy and circular economy policies. In addition, the Zero Pollution Action Plan, the Circular Economy Action Plan and the Farm to Fork Strategy also call for the improvement of resource efficiency and reuse while reducing pollutant emissions at source, including sources not currently within the scope of Directive 2010/75/EU. Addressing pollution from certain agro-industrial activities, while promoting sustainable agricultural practices that have multiple co-benefits for the environmental and climate objectives of the European Green Deal, requires their inclusion within the scope of that Directive.

(3) The Union's extractive industry is key to achieving the objectives of the European Green Deal and the industrial strategy of the Union, including any updates to that strategy. Metals are of strategic importance for the digital and green transition, the energy, materials and circular economy transformation as well as for the strengthening of the Union's economic resilience and autonomy. In order to achieve those objectives, sustainable domestic capacities and supply need to be further developed, especially in light of the growing global demand, the vulnerability of supply chains and geopolitical tensions. This requires effective, tailored and

harmonised measures to ensure that the best available techniques are established and employed, thus applying processes that are both the most efficient and have the lowest possible impacts on human health and the environment. The governance mechanisms of Directive 2010/75/EU, which closely associate industry experts with the development of consensual and tailored environmental requirements, will support the sustainable growth of those activities in the Union. The development and availability of commonly agreed standards will level the Union's playing field while ensuring a high level of protection of human health and the environment. It is therefore appropriate to include those activities within the scope of Directive 2010/75/EU, without prejudice to the Regulation (EU) 2024/1252 of the European Parliament and of the Council (7). The Industrial Emissions Directive will support industry in the Union in developing projects and facilitate sustainable and consensual growth of the mining activities in the Union in line with the 2030 benchmarks of the Critical Raw Materials Act. The Industrial Emissions Directive will help in meeting the targets for the streamlined permit granting process of the Critical Raw Materials Act by supporting Member States as regards the setting of operating permit conditions and the rapid granting of permits.

(4) This amending act should clarify that olfactory pollution should be taken into account when defining best available techniques ('BAT') and granting or reviewing permits.

(5) The potential aggravation of the impact of industrial discharges on the state of water bodies due to variations of water flow dynamics should be explicitly taken into account as part of the granting and reviewing of permits.

(6) Rearing of livestock causes the release of significant pollutant emissions into the air and water. To reduce those emissions, including ammonia, methane, nitrates and greenhouse gas and thereby improve air, water and soil quality, it is necessary to lower the threshold above which pig and poultry installations are included within the scope of Directive 2010/75/EU. Therefore, the Commission should assess, and report to the European Parliament and the Council on the need for Union action to comprehensively address the emissions from the rearing of livestock, in particular cattle, taking into account the range of instruments available and the specificities of the sector. In parallel, the Commission should also assess and report to the European Parliament and the Council, based on evidence, on the need for Union action to achieve the objective of global environmental protection with regard to products placed on the internal market through the prevention and control of emissions from livestock farming, in a manner consistent with the international obligations of the Union.

(7) BAT requirements relevant to the type of installations take into consideration the nature, size, stocking density and complexity of those installations, including the specificities of rearing systems, and the range of environmental impacts they may have. The proportionality requirements in BATs aim to incentivise farmers to make the necessary transition towards increasingly environmentally-friendly agricultural practices.

(8) Rearing of pigs in installations operating under organic production regimes or with low stocking density should be exempted from the scope of Directive 2010/75/EU, since they contribute positively to preserving landscapes, forest fire prevention and protecting biological diversity and habitats. The exemption should cover installations with pasture-based rearing of

pigs with a low stocking density, where the animals are reared outside for a significant amount of time in a year, particularly during daytime, and where weather and safety conditions ensure the welfare of the animals, or where the animals are seasonally reared outside. The area used for calculating the stocking density should be the area used for grazing by the animals in the installation or for growing fodder or forage used to feed the animals in the installation.

(9) The Union has a responsibility to continue playing a leading role in global climate action, including by meeting the objective of a climate-neutral Union at the latest by 2050 in line with the Paris Agreement. Addressing on a global level methane emissions from livestock would contribute to the reduction of greenhouse gas emissions. That reduction is urgently needed if the world is to keep the increase in global average temperature to well below 2 oC above pre-industrial levels and to pursue efforts to limit the temperature increase to 1,5 oC above pre-industrial levels.

(10) The Farm to Fork (F2F) Strategy has set out a commitment to promote the global transition to sustainable food systems in standard-setting bodies and lead the work on international sustainability standards. The Union will continue striving to promote international standards in the relevant international bodies and encourage the production of agri-food products complying with high safety and sustainability standards. In addition, as stated in the Commission report 'Application of EU health and environmental standards to imported agricultural and agri-food products', ambitious health, environmental and other sustainability standards and objectives contribute to achieving legitimate objectives in relation to global concerns, and are also in line with the One Health approach. The Union will continue its efforts at multilateral level to reach a global consensus on the need for action and internationally agreed standards.

(11) The Union should also take the lead in international cooperation to create an open and fair multilateral system whereby sustainable trade acts as a key enabler of the green transition. In line with the review of the Union's Trade and Sustainable Development policy and the Commission's Communication 'The power of trade partnerships: together for green and just economic growth', it is essential to engage with partners in a cooperative process to foster international environmental governance and compliance with international environmental standards.

(12) In order to prevent the artificial splitting of farms, which could result in the reduction of the livestock unit ('LSU') capacity of the farm to a level below the thresholds established in Annex Ia for the application of this Directive, Member States should adopt measures to ensure that if two or more installations are located close to each other and if their operator is the same or if the installations are under the control of operators who are engaged in an economic or legal relationship, the competent authority can consider those installations to be a single unit for the purpose of calculating the livestock capacity. The threshold for mixed farming should not be used to circumvent the threshold relating to each individual livestock. (12) In order to prevent the artificial splitting of farms, which could result in the reduction of the livestock unit ('LSU') capacity of the farm to a level below the thresholds established in Annex Ia for the application of this Directive, Member States should adopt measures to ensure

that if two or more installations are located close to each other and if their operator is the same or if the installations are under the control of operators who are engaged in an economic or legal relationship, the competent authority can consider those installations to be a single unit for the purpose of calculating the livestock capacity . The threshold for mixed farming should not be used to circumvent the threshold relating to each individual livestock.

(13) A significant increase in the number of large-scale installations for the production of batteries for electric vehicles will likely take place within the Union up to and after 2030, increasing the Union's share of the global battery production. Several of the activities in the batteries value chain are already regulated by Directive 2010/75/EU and batteries are regulated as products by Regulation (EU) 2023/1542 of the European Parliament and of the Council (8). However, it is still necessary to include in the scope of Directive 2010/75/EU large installations manufacturing batteries, to ensure that they are also covered by the requirements set out in Directive 2010/75/EU. The inclusion of large installations manufacturing batteries, as opposed to installations that only assemble batteries, in the scope of Directive 2010/75/EU will improve in a holistic way the sustainability of batteries and minimise their impact on the environment throughout their life cycle. This will contribute to growth in batteries manufacturing which is more sustainable.

(14) With a view to further strengthening public access to environmental information, it is necessary to clarify that permits for installations granted pursuant to Directive 2010/75/EU are to be made available to the public on the internet, free of charge and without restricting access to registered users, while ensuring that confidential business information is safeguarded.

(15) Member States should develop electronic permitting systems that reduce the administrative burden for operators and competent authorities, enhance public access to information and facilitate public participation in permitting procedures. The Commission should support Member States in developing electronic permitting by organising the exchange of information between Member States and providing guidance on best practices.

(16) The impact of pollution, including when caused by incidents or accidents, can extend beyond the territory of a Member State. In such cases, without prejudice to Directive 2012/18/EU of the European Parliament and of the Council (9), limiting the consequences for human health and the environment of incidents or accidents and preventing further possible incidents or accidents requires prompt exchange of information and close coordination between the competent authorities of the Member States which are or could be affected by such events. Therefore, in the event of any incident or accident significantly affecting the environment or human health in another Member State, exchange of information and transboundary and multidisciplinary cooperation between the affected Member States should be fostered to limit the consequences for the environment and human health and to prevent further possible incidents or accidents.

(17) Member States should also adopt compliance assurance measures to promote, monitor and enforce compliance with obligations placed on natural or legal persons under Directive 2010/75/EU. As part of compliance assurance measures, Member States should ensure that

national authorities in charge of the implementation and enforcement of this Directive have a sufficient number of qualified staff and sufficient financial, technical and technological resources for the effective performance of their functions related to the implementation of this Directive.

(18) Also as part of compliance assurance measures, competent authorities should be able to suspend the operation of an installation where a continued breach of the permit conditions and the non-implementation of the findings of the inspection report pose a danger to human health or risk causing a significant adverse effect upon the environment, in order to remove that danger.

(19) In the event of pollution affecting drinking water resources, including transboundary resources, or affecting waste water infrastructure, the competent authority should inform the drinking water and waste water operators affected of the measures taken to prevent or remedy the damage caused by that pollution to human health or the environment.

(20) The evaluation of Directive 2010/75/EU concluded that there is a need to strengthen the links between that Directive and Regulation (EC) No 1907/2006 of the European Parliament and of the Council (10) to better address the risks of the use of chemicals in installations within the scope of Directive 2010/75/EU. In order to develop synergies between the work carried out by the European Chemicals Agency (ECHA) on chemicals and the preparation of BAT reference documents under Directive 2010/75/EU, the ECHA should be given a formal role in such preparation of BAT reference documents.

(21) The Commission should encourage participation in the forum for exchange of information by stakeholders and representatives of civil society including NGOs involved in promotion of the protection of human health or the environment. The Commission should ensure that the European Environment Agency participates in the exchange of information, where the exchange of information would benefit from the expertise of the Agency. Given the extension of scope and the increasing workload of the forum for exchange and the technical working group, the Commission should commit adequate resources and adopt the changes necessary, including by amending Commission Implementing Decision 2012/119/EU (11), to ensure the functioning of the forum and the technical working group.

(22) In order to facilitate the exchange of information supporting the determination of emission levels and environmental performance levels associated with best available techniques, while maintaining the integrity of confidential business information, the procedures for the handling of information qualifying as confidential business information or commercially sensitive information, including conditions in relation to anonymisation for certain categories of stakeholders, and information collected from the industry in the context of the exchange of information organised by the Commission for the purpose of drafting, reviewing or updating BAT reference documents should be specified. It should be ensured that individuals participating in the exchange of information do not share information qualifying as confidential business information or commercially sensitive information with any representative of undertakings or trade associations having an economic interest in the industrial activities concerned and related markets. Such exchange of information is without

prejudice to Union competition law, in particular Article 101 of the Treaty on the Functioning of the European Union (TFEU).

(23) This Directive does not create any obligations to disclose to the public confidential business information additional to those already laid down in Directive 2003/4/EC of the European Parliament and of the Council (12) and Directive (EU) 2016/943 of the European Parliament and of the Council (13).

(24) To ensure the protection of human health and the environment as a whole, synergies and coordination with other relevant Union environmental legislation are necessary, at all stages of implementation of Directive 2010/75/EU. Therefore, all relevant competent authorities with a responsibility regarding compliance with relevant Union environmental legislation should be duly consulted before the granting of a permit under that Directive.

(25) With a view to continuously improving the environmental performance and safety of installations, including by preventing waste generation, optimising resource use and water reuse, and preventing or reducing risks associated with the use of hazardous substances, operators of installations should establish and implement an environmental management system (EMS) in accordance with this Directive and relevant BAT conclusions, and should make relevant parts available to the public. Prior to making available the relevant parts of their EMS to the public, the operators should have the possibility of redacting or excluding confidential business information. Such possibility should apply in a restrictive way, taking into account, for the particular case, the public interest served by disclosure. The EMS should also cover the management of risks related to the use of hazardous substances and an analysis of the possible substitution of hazardous substances by safer alternatives.

(26) In order to ensure that the EMS is in line with the requirements of Directive 2010/75/EU, the EMS should be reviewed by the operator and audited by an external auditor contracted by the operator. The auditor should be either a conformity assessment body accredited in accordance with Regulation (EC) No 765/2008 of the European Parliament and of the Council (14), as required under ISO 17021, or any natural or legal person which has obtained a licence as an environmental verifier in accordance with Article 2(20) of Regulation (EC) No 1221/2009 of the European Parliament and of the Council (15).

(27) In order to support decarbonisation, resource efficiency and a circular economy, the BAT conclusions should include binding environmental performance levels associated with BAT, and indicative environmental performance levels associated with emerging techniques, for individual processes that have similar characteristics, such as energy carriers, raw materials, production units and final products, and a high degree of homogeneity across the Union, in cases where the data made available in the exchange of information supporting the determination of BAT are sufficiently robust. The BAT conclusions should also include indicative benchmarks for other cases to be included by operators in their EMS, in cases where environmental performance is highly dependent on specific circumstances of the processes. The environmental performance levels associated with BAT and the benchmarks could include consumption levels, resource efficiency levels and reuse levels covering materials, water and energy resources, and waste and other levels obtained under specified

reference conditions. Environmental performance levels and benchmarks should be established taking account of the resources needed for the transformation of installations that aim to reduce greenhouse gas emissions as well as demand-driven variations of resource needs for specific products, such as variations of water consumption. The competent authority should set in the permit, binding ranges for environmental performance as laid down in BAT conclusions, as well as binding environmental performance limit values concerning water and indicative environmental performance levels concerning waste and resources other than water, which are not environmentally less strict than the binding ranges, provided that the lower performing end of the mandatory range is ensured. The operator should include the benchmarks in the EMS.

(28) It is necessary to specify further the conditions under which the competent authority, when setting emission limit values applicable to pollutant releases to water in a permit granted under Directive 2010/75/EU, can take account of the downstream treatment processes in a waste water treatment plant. The emission limit values should be specified in a manner ensuring that such releases do not lead to an increased load of pollutants in receiving waters or impede the capacity or potential to recover resources from the waste water treatment stream when compared to a situation where the installation applies BAT and meets emission levels associated with the best available techniques for direct releases.

(29) Providing a high level of protection of human health and the environment as a whole requires, inter alia, the establishment in permits of emission limit values at a level that ensures compliance with the applicable emission levels associated with the best available techniques set out in the BAT conclusions. Emission levels associated with the best available techniques (BAT-AELs) are usually expressed as ranges, rather than as single values, to reflect the differences within a given type of installation that result in variations in the environmental performances achieved when applying BAT. For example, a given BAT will not deliver the same performance for different installations, some BATs might not be suitable for use in certain installations, or a combination of BATs could be more effective for some pollutants or environmental media than others. The achievement of a high level of protection of human health and the environment as a whole has been jeopardised by the practice of setting emission limit values at the laxest end of the range of emission levels associated with the best available techniques, without considering the potential of a given installation to achieve lower emission levels through the application of best available techniques. Such practice discourages frontrunners from implementing more effective techniques, and hinders the achievement of a level playing field which ensures a high level of protection of human health and the environment. In order for the emissions to be decreased, the competent authority should set emission limit values at the strictest achievable level for the specific installation, taking into account the entire range of the BAT AELs as well as cross-media effects. The emission limit values should be based on an assessment by the operator analysing the feasibility of meeting the strictest end of the BAT AEL range and aiming at the best environmental performance possible for the specific installations; unless the operator demonstrates that applying best available techniques as described in the BAT conclusions only allows the installation concerned to meet less strict emission limit values. In order to support the setting of emission limit values in permits and the adoption of general binding rules, BAT conclusions should contain information on the circumstances allowing the

achievement of lower emissions levels within the range of BAT-AELs set for categories of installations having similar characteristics. When setting emission limit values within the range of the BAT AELs, the derogation procedure should not be applicable.

(30) BAT conclusions should identify emerging techniques and best available techniques that industrial operators can implement to transform installations to be consistent with the Union's objective of a sustainable, clean, circular and climate-neutral economy. Competent authorities should be allowed to grant industrial operators sufficient time to implement deep industrial transformation requiring substantial investment via BATs or emerging techniques which involve a major change in design or technology, or to replace an existing installation, as described in the BAT conclusions and laid down in a transformation plan.

(31) In recent years exceptional crisis situations have affected the Union and its Member States, such as the COVID-19 pandemic and the Russian war of aggression against Ukraine. Those crises have suddenly and directly affected the supply of energy and of societally-critical resources, materials or equipment, leading to severe shortages and disruption to which it is necessary to react swiftly. Where crises require such reaction, it could be necessary to set emission limit values and environmental performance limit values that are less strict than the levels in the BAT conclusions, in order to maintain energy production or the production of other equipment of critical importance or to allow the continuity of the operations of critical installations. The need to set less strict emission limit values or environmental performance limit values is to be balanced with the need to protect the environment and human health as well as to ensure the level playing field and the integrity of the internal market. Consequently, less strict limits may be set only as a last resort, when all measures resulting in less pollution have been exhausted. The competent authority should ensure that no significant pollution is caused due to emissions from the installation. In order to supervise the impact on the environment and public health, the emissions should be monitored. In order to ensure there is a level playing field and protect the internal market, the Commission should be able to provide strict guidance regarding the exceptional crisis situations and their circumstances that could be taken into account. The Commission should verify that such derogations granted by the Member States are justified and formulate objections where it concludes that a derogation is not justified, in which case the Member State should revise the derogation without delay.

(32) Member States should be able to choose to exempt certain combustion units or units emitting carbon dioxide listed in Annex I to Directive 2003/87/EC of the European Parliament and of the Council (16) from requirements on energy efficiency in the permit conditions.

(33) With a view to preventing or minimising the emission of pollutants by installations within the scope of Directive 2010/75/EU and to levelling the playing field across the Union, the conditions under which derogations from emissions limit values can be granted should be better framed through general principles, including a requirement for their regular reassessment, in order to ensure that the implementation of such derogations throughout the Union is more harmonised. Moreover, derogations from emission limit values should not be granted where they could put at risk compliance with environmental quality standards.

(34) The evaluation of Directive 2010/75/EU concluded that there was some disparity in compliance assessment approaches for installations covered by Chapter II of that Directive. In order to achieve a high level of protection of the environment as a whole, ensure a consistent implementation of Union law and a level playing field throughout the Union, while minimising the administrative burden on businesses and public authorities, the Commission should set common rules for assessing compliance with emission limit values and validation of measured levels for both air and water emissions based on best available techniques. Those compliance assessment rules should take precedence over the rules set out in Chapters III and IV on assessment of compliance with emission limit values contained in Annexes V and VI to Directive 2010/75/EU.

(35) Environmental quality standards should be understood to refer to all the requirements set out in Union law, such as Union legislation on air and water, which must be fulfilled at a given time by a given environment or particular part thereof. Therefore, it is appropriate to clarify that, when granting a permit to an installation, competent authorities should not only set out conditions to ensure compliance of the installation's operations with the use of the BAT conclusions, but should also, where appropriate with a view to reducing the specific contribution of the installation to the pollution occurring in the relevant area, and taking into consideration the concentration of the pollutants concerned in the receiving environment, include specific additional conditions in the permit that are stricter than those set in relevant BAT conclusions, so as to ensure the installation's compliance with environmental quality standards. Such conditions could consist in setting stricter emission limit values, pollutant emission load limits or limiting the operation or capacity of the installation.

(36) Permit conditions should be regularly reviewed and, where necessary, updated by the competent authority to ensure compliance with relevant legislation. Such reviews or updates should also take place where it is necessary for the installation to comply with an environmental quality standard, including in the case of a new or revised environmental quality standard or where the status of the receiving environment requires a revision of the permit, in order to achieve compliance with plans and programmes set under Union legislation, such as the river basin management plans under Directive 2000/60/EC of the European Parliament and of the Council (17).

(37) Parties to the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, at their seventh Meeting session, endorsed the Convention's Compliance Committee's findings in case ACCC/C/2014/121, according to which, by putting in place a legal framework that does not envisage any possibility for public participation in relation to reconsiderations and updates under Article 21(3), (4) and (5)(b) and (c) of Directive 2010/75/EU, the European Union fails to comply with Article 6(10) of the Convention. Those findings have been endorsed by the Union and its Member States, and, with a view to reaching full compliance with the Aarhus Convention, it is necessary to specify that the members of the public concerned should be given early and effective opportunities to participate in the granting or updating of permit conditions set by the competent authority also when permit conditions are reconsidered following the publication of decisions on BAT conclusions relating to the main activity of the installation when developments in the best available techniques allow for the significant

reduction of emissions, when operational safety requires other techniques to be used and where it is necessary to comply with a new or revised environmental quality standard.

(38) As clarified by the case-law of the Court of Justice (18), Member States may not restrict a legal right to challenge a decision of a public authority to those members of the public concerned who have intervened in the preceding administrative procedure to adopt such decision. As also clarified by the case-law of the Court of Justice (19), effective access to justice in environmental matters and effective remedies require inter alia that members of the public concerned should have the right to ask the court or a competent independent and impartial body to order interim measures to prevent a given instance of pollution, including, where necessary, through the temporary suspension of the disputed permit. Therefore, it should be specified that legal standing should not be made conditional on the role that the member of the public concerned played during a participatory phase of the decision-making procedures, especially with regard to the granting of permits and site closures, under this Directive. In addition, any review procedure should be fair, equitable, timely and not prohibitively expensive, and provide for adequate and effective remedies, including injunctive relief as appropriate. In relation to livestock-rearing farms, a suspension of operations should be strictly without prejudice to the continuation of activities that are necessary for the welfare of the livestock.

(39) Transboundary cooperation should take place prior to the granting of permits where more than one Member State could be affected by the operation of an installation, and should include prior information and consultation of the members of the public concerned and competent authorities in the other Member States which could be affected.

(40) The evaluation of Directive 2010/75/EU found that, even if it is intended to foster the transformation of European industry, it is not dynamic enough and does not sufficiently support the deployment of innovative processes and technologies, including those that are essential for the twin green and digital transition and the achievement of the objectives of the European Climate Law. Without prescribing the use of any technique or specific technology, it is therefore appropriate to facilitate the testing and deployment of emerging techniques with improved environmental performance, to facilitate cooperation with researchers and industries in publicly funded research projects subject to the conditions provided for in the relevant European and national funding instruments, as well as to set up a dedicated centre to support innovation by collecting and analysing information on emerging techniques, relevant to activities within the scope of that Directive, including the rearing of poultry and pigs, and to characterise their level of development from research to deployment using the technology readiness level (‘TRL’) scale and assess the level of the environmental performance of those techniques, while taking into account any potential limitation with regard to the availability of data and its robustness. This will also inform the exchange of information on drawing up, reviewing and updating BAT reference documents. Emerging techniques to be analysed by the centre should be at least at the level of TRL 6-7, namely technology demonstrated in relevant environment (industrially relevant environment in the case of key enabling technologies) or system prototype demonstration in operation environment.

(41) Achieving Union objectives regarding a clean, circular and climate-neutral economy by 2050 calls for a deep transformation of the Union economy. Consistently with the 8th Environmental Action Programme, operators of installations covered by Directive 2010/75/EU should therefore be required to include transformation plans in their environmental management systems. Such transformation plans will also complement the Corporate Sustainability Reporting requirements under Directive 2013/34/EU of the European Parliament and of the Council (20) by providing a means for implementation of those requirements at installation level. The first priority should be the transformation of energy-intensive activities listed in Annex I. Therefore, the operators of energy-intensive installations should produce transformation plans by 30 June 2030. Operators of installations carrying out other activities listed in Annex I should be required to produce transformation plans as part of the permit reconsideration and update following the publication of decisions on BAT conclusions published after 1 January 2030. Operators should be allowed to produce a single transformation plan covering all installations under their control in a Member State and, where elements of the transformation plans have already been developed in other documents and are compliant with the requirements of Directive 2010/75/EU, operators should be allowed to include in the transformation plan a reference to the relevant documents. Whilst the transformation plans should remain indicative documents prepared under the responsibility of the operators, the conformity assessment body or the environmental verifier contracted by the operators as part of their environmental management systems should check that they contain the minimum information required pursuant to a delegated act to be adopted by the Commission, and the operators should make the transformation plans public.

(42) Digital tools such as digitalised management systems might help to quantitatively and qualitatively assess and manage pollution-related risks, and help operators in the transformation of their installations.

(43) Further clarity is needed regarding the criteria to assess whether the cleaned gases or liquids resulting from the gasification and pyrolysis of waste are sufficiently purified to such an extent that they are no longer waste prior to their incineration.

(44) In light of the high number of rearing installations that should be included within the scope of Directive 2010/75/EU, and the relative simplicity of the processes and emissions patterns of such installations, it is appropriate to set out specific administrative procedures for issuing permits and for the operation of the relevant activities which are adapted to the sector, without prejudice to requirements related to public information and participation, monitoring and compliance. This would allow the adoption of general binding rules at national level and the registration of farms instead of issuing individual permits to farms. Member States should ensure that general binding rules and registration procedures secure a high level of environmental protection equivalent to that achievable with individual permit conditions.

(45) Innovative techniques coming onto the market are expected to increasingly reduce both emissions of pollutants and of greenhouse gases from installations within the scope of both Directive 2003/87/EC and Directive 2010/75/EU. Whilst this will allow further synergies to be created between those Directives, it could affect their operation, including on the carbon market. Directive 2003/87/EC contains in this regard a provision to review the effectiveness

of synergies with Directive 2010/75/EU, and which calls for environmental and climate relevant permits to be coordinated to ensure efficient and speedier execution of measures needed to comply with Union climate and energy objectives. In order to take into account the dynamics of innovation in this regard and the review referred to in Article 8 of Directive 2003/87/EC, the Commission should submit a report reviewing the implementation of Directive 2010/75/EU to the European Parliament and to the Council by 2028 and every five years thereafter.

(46) Building on the simplification of reporting carried out under Directive 2010/75/EU, the Commission should continue to streamline how information is made available to it by Member States pursuant to that directive with other relevant requirements of Union law, and in particular Regulation (EU) 2024/1244 of the European Parliament and of the Council (21). The information reported should allow a meaningful review of implementation and results achieved regarding emissions and other forms of pollution, emission limit values, the application of BAT, granting of derogations and status of operation of installations. To that end, the Commission should update by 5 August 2026 the implementing decision setting out the type, format and frequency for the reporting of information by the Member States.

(47) In order to ensure that Directive 2010/75/EU continues to meet its objectives to prevent or reduce emissions of pollutants and achieve a high level of protection of human health and the environment, operating rules for activities relating to rearing of pigs and poultry should be established, taking into account the specificity of each sector of activity. Implementing powers should be conferred on the Commission to establish uniform conditions. Those powers should be exercised in accordance with Regulation (EU) No 182/2011 of the European Parliament and of the Council (22). It is of particular importance that the Commission carry out appropriate consultations during its preparatory work, including at expert level.

(48) The Commission should review the need to control emissions from onshore and offshore exploration and production of mineral oil and gas, taking into account the existing Union legislative framework, including Regulation (EU) 2024/1787 of the European Parliament and of the Council (23) and Directive 2013/30/EU of the European Parliament and of the Council (24), the need to control emissions from the on-site treatment and extraction of non-energy industrial minerals used in industry other than for construction, as well as the need to control emissions from the on-site treatment and extraction of ores which are newly carried out in the Union, and the need to revise the activity threshold in Annex I for the production of hydrogen by electrolysis of water.

(49) In order to ensure uniform conditions for the implementation of Directive 2010/75/EU, implementing powers should be conferred on the Commission as regards the establishment of (i) a standardised methodology for assessing the disproportionality between the costs of implementation of the BAT conclusions and the potential environmental benefits in accordance with Article 15(4) taking into consideration methods such as the ‘Value of Statistical Life’ (VSL) or the ‘Value of Life Year’ (VOLY) methods, if appropriate; (ii) a standardised methodology for undertaking the assessment referred to in Article 15(6); (iii) the measuring method for assessing compliance with emission limit values set out in the permit

with regard to emissions to air and water; (iv) the detailed arrangements necessary for the establishment and functioning of the innovation centre for industrial transformation and emissions; (v) the format to be used for transformation plans; and (vi) which information from the EMS is relevant for publication, which should include information at least on environmental performance indicators and objectives, as well as on the progress towards the environmental objectives. Those powers should be exercised in accordance with Regulation (EU) No 182/2011.

(50) In order to ensure the effective implementation and enforcement of the obligations set out in Directive 2010/75/EU, it is necessary to specify the minimum content of effective, proportionate and dissuasive penalties. Disparities in penalties regimes, the fact that imposed penalties are deemed in many cases too low to truly have a deterrent effect on illegal behaviours, and the lack of uniform implementation across Member States, undermine the level playing field on industrial emissions throughout the Union.

(51) Member States should lay down rules on penalties applicable to infringements of national provisions adopted pursuant to this Directive and should ensure that they are implemented. Member States may lay down rules for administrative as well as criminal penalties. In any case, the imposition of criminal and administrative penalties should not lead to a breach of the right not to be tried or punished twice in criminal proceedings for the same criminal offence (ne bis in idem principle) as interpreted by the Court of Justice. For the most serious infringements committed by a legal person, such as those of a high level of gravity due to their nature, extent and repetition, or where those infringements pose a significant risk to human health or the environment, Member States should ensure that their national system of penalties includes fines whose maximum amount should be at least 3 % of the annual Union turnover of the operator in the financial year preceding the year in which the fine is imposed. For those infringements, without prejudice to the obligations of Member States under Directive 2008/99/EC of the European Parliament and of the Council (25), Member States may also or alternatively adopt criminal penalties, provided that they are effective, proportionate and dissuasive.

(52) Where damage to human health has occurred as a result of an infringement of national measures adopted pursuant to Directive 2010/75/EU, Member States should ensure that the individuals affected are able to claim and obtain compensation for that damage from the relevant natural or legal persons. Such rules on compensation contribute to the pursuit of the objectives of preserving, protecting and improving the quality of the environment and the protection of human health as laid down in Article 191 TFEU. They also underpin the right to life, integrity of the person and health care laid down in Article 2, 3 and 35 of the Charter of Fundamental Rights of the European Union and the right to an effective remedy as laid down in Article 47 of the Charter. Moreover, Directive 2004/35/EC of the European Parliament and of the Council (26) does not give private parties a right of compensation as a consequence of environmental damage or of an imminent threat of such damage.

(53) It is therefore appropriate for Directive 2010/75/EU to address the right for compensation for damages suffered by individuals and to ensure that individuals can defend their rights against damages to health caused by infringements of Directive 2010/75/EU and thereby

ensure a more efficient enforcement of that Directive. Procedures relating to claims for compensation should be designed and applied in such a way that they do not render the exercise of the right to compensation for damage impossible or excessively difficult.

(54) The impact of Directive 2010/75/EU on the procedural autonomy of the Member States should be limited to what is necessary to ensure the objectives of protection of human health through a safe environment pursued by it and should not affect other national procedural rules establishing the right to seek compensation for infringements of that Directive. Such national rules should, however, not hamper the effective functioning of the mechanism for seeking compensation required by Directive 2010/75/EU.

(55) Directive 2010/75/EU has been implemented in a divergent manner across the Member States concerning the coverage of installations for the manufacturing of ceramic products by firing, because the wording of the definition of this activity allowed Member States to decide whether to apply both or only one of the two criteria on production capacity and kiln capacity. With a view to ensuring a more consistent implementation of that Directive and securing a level playing field throughout the Union, such installations should be included within the scope of that Directive whenever one of those two criteria is met.

(56) When setting emission limit values for polluting substances, the competent authority should consider all substances, including substances of emerging concern, which may be emitted from the concerned installation and may have a significant impact on the environment or human health. In doing so, the hazard characteristics, quantity and nature of the substances emitted and their potential to pollute any environmental media should be considered. The BAT conclusions, where relevant, are the reference point for selecting the substances for which emission limit values are to be set, although the competent authority may decide to select additional substances. Currently, individual polluting substances are listed in a non-exhaustive way in Annex II to Directive 2010/75/EU which is not compatible with the holistic approach of that Directive and does not reflect the need for competent authorities to take into account all relevant polluting substances, including those of emerging concern. The non-exhaustive list of polluting substances should therefore be deleted. Instead, reference should be made to the list of pollutants in Annex II to Regulation (EC) No 166/2006 of the European Parliament and of the Council (27).

(57) Although landfills are included within the scope of Directive 2010/75/EU, no BAT conclusions exist for landfills since that activity falls within the scope of Council Directive 1999/31/EC (28) and the requirements of the latter Directive are deemed to constitute BAT. Due to the technical developments and innovation that have taken place since the adoption of Directive 1999/31/EC, more effective techniques for protecting human health and the environment are now available. The adoption of BAT conclusions under Directive 2010/75/EU would allow addressing the key environmental issues related to the operation of waste landfills, including significant emissions of methane. Directive 1999/31/EC should therefore allow for the adoption of BAT conclusions on landfills under Directive 2010/75/EU.

(58) Since the objectives of this Directive, namely to ensure a high level of environmental protection and the improvement of environmental quality, cannot be sufficiently achieved by

Member States but can rather, by reason of the transboundary nature of pollution from industrial activities, be better achieved at Union level, the Union may adopt measures in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty on European Union. In accordance with the principle of proportionality, as set out in that Article, this Directive does not go beyond what is necessary in order to achieve those objectives.

(59) In accordance with the principle of proportionality, it is necessary and appropriate for the achievement of the basic objective of ensuring a high level of environmental protection and the improvement of environmental quality to lay down rules on integrated prevention and control of pollution arising from industrial activities and livestock rearing activities. This Directive does not go beyond what is necessary in order to achieve the objectives pursued, in accordance with Article 5(4) of the Treaty on European Union.

(60) In accordance with the Joint Political Declaration of 28 September 2011 of Member States and the Commission on explanatory documents (29), Member States have undertaken to accompany, in justified cases, the notification of their transposition measures with one or more documents explaining the relationship between the components of a directive and the corresponding parts of national transposition instruments. With regard to this Directive, the legislator considers the transmission of such documents to be justified,

(61) Combustion plants that are part of small isolated systems, may, due to their geographical location and lack of interconnection to the mainland grid of Member States or the grid of another Member State, face special challenges requiring more time to comply with the emission limit values. The Member States concerned should establish a plan for compliance covering combustion plants being part of a small isolated system that sets out the measures to ensure compliance with the emission limit values at the latest by 31 December 2029. The plan should describe the measures to ensure compliance with this Directive, and measures to minimise the magnitude and duration of the pollutant emissions during the period covered by the plan and include information on demand management measures and possibilities for cleaner fuel switching possibilities or cleaner alternatives such as the deployment of renewables and interconnection with the mainland grids or the grid of another Member State. Member States concerned should communicate their Compliance Plan to the Commission. Member States should update the plan in case the Commission raises objections. Member States concerned should report annually on progress towards compliance.

(62) In order to give the Member States, competent authorities and installations time to comply with the new provisions, and also to give the Commission time to adopt new BAT conclusions that take the new provisions into account, transitional provisions should be prescribed. To ensure legal certainty there is a need to have a fixed date by when the provisions should be complied with at the absolute latest. With regard to the Seville process and the number of BAT reference documents that need to be reviewed, this date should be set to 12 years for existing activities and 10 years for new activities. This does not prevent BAT conclusions to be adopted and implemented earlier, which is expected for most activities covered by this directive. Existing installations should comply with the provisions in Directive 2010/75/EU in the version in force on 3 August 2024, until there are new BAT conclusions or there is a permit update.

(63) Directives 2010/75/EU and 1999/31/EC should therefore be amended accordingly,

HAVE ADOPTED THIS DIRECTIVE:

CHAPTER I

COMMON PROVISIONS

Article 1

Subject matter

This Directive lays down rules on integrated prevention and control of pollution arising from industrial activities.

It also lays down rules designed to prevent or, where that is not practicable, to continuously reduce emissions into air, water and land, to prevent the generation of waste, improve resource efficiency, and to promote the circular economy and decarbonisation, in order to achieve a high level of protection of human health and the environment taken as a whole.

Article 2

Scope

1. This Directive shall apply to the industrial activities giving rise to pollution referred to in Chapters II to VIa.

2. This Directive shall not apply to research activities, development activities or the testing of new products and processes.

Article 3

Definitions

For the purposes of this Directive the following definitions shall apply:

(1) 'substance' means any chemical element and its compounds, with the exception of the following substances:

(a) radioactive substances as defined in Article 1 of Council Directive 96/29/Euratom of 13 May 1996 laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation ([20]);

(b) genetically modified micro-organisms as defined in Article 2(b) of Directive 2009/41/EC of the European Parliament and the Council of 6 May 2009 on the contained use of genetically modified micro-organisms ([21]);

(c) genetically modified organisms as defined in point 2 of Article 2 of Directive 2001/18/EC of the European Parliament and of the Council of 12 March 2001 on the deliberate release into the environment of genetically modified organisms ([22]);

(2) 'pollution' means the direct or indirect introduction, as a result of human activity, of substances, vibrations, heat, noise or odours into air, water or land, which can ~~may~~ be harmful to human health or the quality of the environment, result in damage to material property, or impair or interfere with amenities and other legitimate uses of the environment;

(3) 'installation' means a stationary technical unit within which one or more activities listed in Annex I, in Annex Ia or in Part 1 of Annex VII are carried out, and any other directly associated activities on the same site which have a technical connection with the activities listed in those Annexes and which could have an effect on emissions and pollution;

(4) 'emission' means the direct or indirect release of substances, vibrations, heat or noise from individual or diffuse sources in the installation into air, water or land;

(5) 'emission limit value' means the mass, expressed in terms of certain specific parameters, concentration and/or level of an emission, which may not be exceeded during one or more periods of time;

(5a) 'environmental performance limit value' means a performance value included in a permit, expressed for specified conditions in terms of certain specific parameters;

(6) 'environmental quality standard' means the set of requirements which must be fulfilled at a given time by a given environment or particular part thereof, as set out in Union law;

(7) 'permit' means a written authorisation to operate all or part of an installation or combustion plant, waste incineration plant or waste co-incineration plant;

(8) 'general binding rules' means emission limit values or other conditions, at least at sector level, that are adopted with the intention of being used directly to set permit conditions;

(9) 'substantial change' means a change in the nature or functioning, or an extension, of an installation or combustion plant, waste incineration plant or waste co-incineration plant which may have significant negative effects on human health or the environment;

(9a) 'deep industrial transformation' means the implementation by industrial operators of emerging techniques or best available techniques involving a major change in the design or technology of all or part of an installation or the replacement of an existing installation by a new installation, which allows an extremely substantial reduction of emissions of greenhouse gases in line with the objective of climate neutrality and optimises environmental co-benefits, at least to the levels that can be achieved by techniques identified in the applicable BAT conclusions, taking into account cross-media effects;

(10) 'best available techniques' means the most effective and advanced stage in the development of activities and their methods of operation which indicates the practical suitability of particular techniques for providing the basis for emission limit values and other permit conditions designed to prevent and, where that is not practicable, to reduce emissions and the impact on the environment as a whole:

(a) 'techniques' includes both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned;

(b) 'available techniques' means techniques ~~those~~ developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the costs and advantages, regardless of whether such techniques are used or produced in the Union ~~inside the Member State in question~~, as long as they are reasonably accessible to the operator;

(c) 'best' means most effective in achieving a high general level of protection of the environment as a whole, including human health and climate protection;

(11) 'BAT reference document' means a document, resulting from the exchange of information organised pursuant to Article 13, drawn up for defined activities and describing, in particular, applied techniques, present emissions and consumption levels, techniques considered for the determination of best available techniques as well as BAT conclusions and any emerging techniques, giving special consideration to the criteria listed in Annex III;

(12) 'BAT conclusions' means a document containing the parts of a BAT reference document laying down the conclusions on best available techniques and emerging techniques, their description, information to assess their applicability, the emission levels associated with those techniques ~~the best available techniques~~, the environmental performance levels associated with those techniques, the content of an environmental management system including benchmarks, associated monitoring, associated consumption levels and, where appropriate, relevant site remediation measures;

(12a) 'operating rules' means the rules included in permits or general binding rules for the operation of activities referred to in Annex Ia, setting out the emission limit values, the environmental performance limit values, associated monitoring requirements, and, where relevant, land spreading practices, pollution prevention and mitigation practices, nutritional management, feed preparation, housing, manure management, including collection, storage, processing and land spreading of manure, and storage of dead animals, and which are consistent with the use of best available techniques;

(13) 'emission levels associated with the best available techniques' means the range of emission levels obtained under normal operating conditions using a best available technique or a combination of best available techniques, as described in BAT conclusions, expressed as an average over a given period of time, under specified reference conditions;

(13a) 'environmental performance levels associated with the best available techniques' means the range of environmental performance levels, obtained under normal operating conditions using a BAT or a combination of BATs; as described in BAT conclusions;

(13aa) 'environmental performance' means the performance with regard to consumption levels, resource efficiency concerning materials, water and energy resources, the reuse of materials and water, and to waste generation;

(13b) 'benchmarks' means the indicative range of environmental performance levels associated with best available techniques, which is to be used as a reference in the EMS;

(14) 'emerging technique' means a novel technique for an industrial activity that, if commercially developed, could provide either a higher general level of protection of human health and the environment or at least the same level of protection of human health and the environment and higher cost savings than existing best available techniques;

(15) ‘operator’ means any natural or legal person who operates or controls in whole or in part the installation or combustion plant, waste incineration plant or waste co-incineration plant or, where this is provided for in national law, to whom decisive economic power over the technical functioning of the installation or plant has been delegated;

(16) ‘the public’ means one or more natural or legal persons and, in accordance with national law or practice, their associations, organisations or groups;

(17) ‘the public concerned’ means the public affected or likely to be affected by, or having an interest in, the taking of a decision on the granting or the updating of a permit or of permit conditions; for the purposes of this definition, non-governmental organisations promoting the protection of human health or the environment ~~environmental protection~~ and meeting any requirements under national law shall be deemed to have an interest;

(18) ‘hazardous substances’ means substances or mixtures as defined in Article 3 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures ([23]);

(19) ‘baseline report’ means information on the state of soil and groundwater contamination by relevant hazardous substances;

(20) ‘groundwater’ means groundwater as defined in point 2 of Article 2 of Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy ([24]);

(21) ‘soil’ means the top layer of the Earth’s crust situated between the bedrock and the surface. The soil is composed of mineral particles, organic matter, water, air and living organisms;

(22) ‘environmental inspection’ means all actions, including site visits, monitoring of emissions and checks of internal reports and follow-up documents, verification of self-monitoring, checking of the techniques used and adequacy of the environment management of the installation, undertaken by or on behalf of the competent authority to check and promote compliance of installations with their permit conditions and, where necessary, to monitor their environmental impact;

(23) ‘poultry’ means poultry as defined in Article 4, point 9, of Regulation (EU) 2016/429 of the European Parliament and of the Council (*1) ~~point 1 of Article 2 of Council Directive 90/539/EEC of 15 October 1990 on animal health conditions governing intra-Community trade in, and imports from third countries of, poultry and hatching eggs (25)~~;

(*1) Regulation (EU) 2016/429 of the European Parliament and of the Council of 9 March 2016 on transmissible animal diseases and amending and repealing certain acts in the area of animal health (“Animal Health Law”) (OJ L 84, 31.3.2016, p. 1).

(23a) ‘pigs’ means pigs as defined in Article 2 of Council Directive 2008/120/EC (*2);

(23b) ‘livestock unit’ means a standard measurement unit that allows for the aggregation of the various categories of livestock in order for them to be compared, and is calculated by using the coefficients for individual livestock categories listed in Annex Ia;

(*2) Council Directive 2008/120/EC of 18 December 2008 laying down minimum standards for the protection of pigs (OJ L 47, 18.2.2009, p. 5).

(24) ‘fuel’ means any solid, liquid or gaseous combustible material;

(25) ‘combustion plant’ means any technical apparatus in which fuels are oxidised in order to use the heat thus generated;

(26) ‘stack’ means a structure containing one or more flues providing a passage for waste gases in order to discharge them into the air;

(27) ‘operating hours’ means the time, expressed in hours, during which a combustion plant, in whole or in part, is operating and discharging emissions into the air, excluding start-up and shut-down periods;

(28) ‘rate of desulphurisation’ means the ratio over a given period of time of the quantity of sulphur which is not emitted into air by a combustion plant to the quantity of sulphur contained in the solid fuel which is introduced into the combustion plant facilities and which is used in the plant over the same period of time;

(29) ‘indigenous solid fuel’ means a naturally occurring solid fuel fired in a combustion plant specifically designed for that fuel and extracted locally;

(30) ‘determinative fuel’ means the fuel which, amongst all fuels used in a multi-fuel firing combustion plant using the distillation and conversion residues from the refining of crude-oil for own consumption, alone or with other fuels, has the highest emission limit value as set out in Part 1 of Annex V, or, in the case of several fuels having the same emission limit value, the fuel having the highest thermal input amongst those fuels;

(31) ‘biomass’ means any of the following:

(a) products consisting of any vegetable matter from agriculture or forestry which can be used as a fuel for the purpose of recovering its energy content;

(b) the following waste:

(i) vegetable waste from agriculture and forestry;

(ii) vegetable waste from the food processing industry, if the heat generated is recovered;

(iii) fibrous vegetable waste from virgin pulp production and from production of paper from pulp, if it is co-incinerated at the place of production and the heat generated is recovered;

(iv) cork waste;

(v) wood waste with the exception of wood waste which may contain halogenated organic compounds or heavy metals as a result of treatment with wood preservatives or coating and which includes, in particular, such wood waste originating from construction and demolition waste;

(32) ‘multi-fuel firing combustion plant’ means any combustion plant which may be fired simultaneously or alternately by two or more types of fuel;

(33) ‘gas turbine’ means any rotating machine which converts thermal energy into mechanical work, consisting mainly of a compressor, a thermal device in which fuel is oxidised in order to heat the working fluid, and a turbine;

(34) ‘gas engine’ means an internal combustion engine which operates according to the Otto cycle and uses spark ignition or, in case of dual fuel engines, compression ignition to burn fuel;

(35) ‘diesel engine’ means an internal combustion engine which operates according to the diesel cycle and uses compression ignition to burn fuel;

(36) ‘small isolated system’ means a small isolated system as defined in point 26 of Article 2 of Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity ([26]);

(37) ‘waste’ means waste as defined in point 1 of Article 3 of Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste ([27]);

(38) ‘hazardous waste’ means hazardous waste as defined in point 2 of Article 3 of Directive 2008/98/EC;

(39) ‘mixed municipal waste’ means waste from households as well as commercial, industrial and institutional waste which, because of its nature and composition, is similar to waste from households, but excluding fractions indicated under heading 20 01 of the Annex to Decision 2000/532/EC ([28]) that are collected separately at source and excluding the other waste indicated under heading 20 02 of that Annex;

(40) ‘waste incineration plant’ means any stationary or mobile technical unit and equipment dedicated to the thermal treatment of waste, with or without recovery of the combustion heat generated, through the incineration by oxidation of waste as well as other thermal treatment processes, such as pyrolysis, gasification or plasma process, if the substances resulting from the treatment are subsequently incinerated;

(41) ‘waste co-incineration plant’ means any stationary or mobile technical unit whose main purpose is the generation of energy or production of material products and which uses waste as a regular or additional fuel or in which waste is thermally treated for the purpose of disposal through the incineration by oxidation of waste as well as other thermal treatment processes, such as pyrolysis, gasification or plasma process, if the substances resulting from the treatment are subsequently incinerated;

(42) ‘nominal capacity’ means the sum of the incineration capacities of the furnaces of which a waste incineration plant or a waste co-incineration plant is composed, as specified by the constructor and confirmed by the operator, with due account being taken of the calorific value of the waste, expressed as the quantity of waste incinerated per hour;

(43) ‘dioxins and furans’ means all polychlorinated dibenzo-p-dioxins and dibenzofurans listed in Part 2 of Annex VI;

(44) ‘organic compound’ means any compound containing at least the element carbon and one or more of hydrogen, halogens, oxygen, sulphur, phosphorus, silicon or nitrogen, with the exception of carbon oxides and inorganic carbonates and bicarbonates;

(45) ‘volatile organic compound’ means any organic compound as well as the fraction of creosote, having at 293,15 K a vapour pressure of 0,01 kPa or more, or having a corresponding volatility under the particular conditions of use;

(46) ‘organic solvent’ means any volatile organic compound which is used for any of the following:

(a) alone or in combination with other agents, and without undergoing a chemical change, to dissolve raw materials, products or waste materials;

(b) as a cleaning agent to dissolve contaminants;

(c) as a dissolver;

(d) as a dispersion medium;

(e) as a viscosity adjuster;

(f) as a surface tension adjuster;

(g) as a plasticiser;

(h) as a preservative;

(47) ‘coating’ means coating as defined in point 8 of Article 2 of Directive 2004/42/EC of the European Parliament and of the Council of 21 April 2004 on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products ([29]).

(48) ‘emission levels associated with emerging techniques’ means the range of emission levels obtained under normal operating conditions using an emerging technique or a combination of emerging techniques, as described in BAT conclusions, expressed as an average over a given period of time, under specified reference conditions;

(49) ‘environmental performance levels associated with emerging techniques’ means the range of environmental performance levels, obtained under normal operating conditions, using an emerging technique or a combination of emerging techniques as described in BAT conclusions;

(50) ‘compliance assurance’ means mechanisms for securing compliance using three categories of intervention: compliance promotion; compliance monitoring; follow-up and enforcement.

Article 4

Obligation to hold a permit

1. Member States shall take the necessary measures to ensure that no installation or combustion plant, waste incineration plant or waste co-incineration plant is operated without a permit.

By way of derogation from the first subparagraph, Member States may set a procedure for the registration of installations covered only by Chapter V or Chapter VIa.

The procedure for registration shall be specified in a binding act and include at least a notification to the competent authority by the operator of the intention to operate an installation.

2. Member States may opt to provide that a permit cover two or more installations or parts of installations operated by the same operator on the same site.

Where a permit covers two or more installations, it shall contain conditions to ensure that each installation complies with the requirements of this Directive.

3. Member States may opt to provide that a permit cover several parts of an installation operated by different operators. In such cases, the permit shall specify the responsibilities of each operator.

Article 5

Granting of a permit

1. Without prejudice to other requirements laid down in national or Union law, the competent authority shall grant a permit if the installation complies with the requirements of this Directive.

2. Member States shall take the measures necessary to ensure that the conditions of, and the procedures for the granting of, the permit are fully coordinated where more than one competent authority or more than one operator is involved or more than one permit is granted, in order to guarantee an effective integrated approach by all authorities competent for this procedure.

3. In the case of a new installation or a substantial change where Article 4 of Directive 85/337/EEC applies, any relevant information obtained or conclusion arrived at pursuant to Articles 5, 6, 7 and 9 of that Directive shall be examined and used for the purposes of granting the permit.

4. Member States shall develop systems for the electronic permitting of installations and implement electronic permitting procedures by 31 December 2035.

The Commission shall organise an exchange of information with the Member States on electronic permitting and publish guidance on best practices.

Article 6

General binding rules

Without prejudice to the obligation to hold a permit, Member States may include requirements for certain categories of installations, combustion plants, waste incineration plants or waste co-incineration plants in general binding rules.

Where general binding rules are adopted, the permit may simply include a reference to such rules.

Article 7

Incidents and accidents

Without prejudice to Directive 2004/35/EC of the European Parliament and of the Council*, in the event of any incident or accident significantly affecting human health or the environment, Member States shall take the necessary measures to ensure that:

(a) the operator informs the competent authority immediately;

(b) the operator immediately takes the measures to limit the consequences for human health or the environment ~~environmental consequences~~ and to prevent further possible incidents or accidents; and

(c) the competent authority requires the operator to take any appropriate complementary measures that the competent authority considers necessary to limit the consequences for human health or the environment ~~environmental consequences~~ and to prevent further possible incidents or accidents.

In the event of pollution affecting drinking water resources, including transboundary resources, or affecting waste water infrastructure in the case of indirect discharge, the competent authority shall inform the drinking water and waste water operators affected of the measures taken to prevent damage being caused, or remedy the damage caused, by that pollution to human health and the environment.

In the event of any incident or accident significantly affecting human health or the environment in another Member State, the Member State in whose territory the accident or incident has occurred shall ensure that the competent authority of the other Member State is immediately informed. Transboundary and multidisciplinary cooperation between the affected Member States shall be aimed at limiting the consequences for the environment and human health and to prevent further possible incidents or accidents.

Article 8

Non-compliance

1. Member States shall take the necessary measures to ensure that the permit conditions are complied with.

They shall also adopt compliance assurance measures to promote, monitor and enforce compliance with obligations placed on natural or legal persons under this Directive.

2. In the event of a breach of the permit conditions, Member States shall ensure that:

(a) the operator immediately informs the competent authority;

(b) the operator immediately takes the measures necessary to ensure that compliance is restored within the shortest possible time;

(c) the competent authority requires the operator to take any appropriate complementary measures that the competent authority considers necessary to restore compliance.

3. Where the breach of the permit conditions poses an immediate danger to human health or threatens to cause an immediate significant adverse effect upon the environment, and until compliance is restored in accordance with the second paragraph, points (b) and (c) ~~of the first subparagraph~~, the operation of the installation, combustion plant, waste incineration plant, waste co-incineration plant or relevant part thereof shall be suspended without any delay.

Where such breach threatens human health or the environment in another Member State, the Member State in whose territory the breach of the permit conditions has occurred shall ensure that the other Member State is informed.

4. In situations not covered by paragraph 3 of this Article, where a persistent breach of the permit conditions poses a danger to human health or causes a significant adverse effect upon the environment, and where the necessary action for restoring compliance identified in the inspection report referred to in Article 23(6) has not been implemented, the operation of the installation, combustion plant, waste incineration plant, waste co-incineration plant or relevant part thereof may be suspended by the competent authority until compliance with the permit conditions is restored.

5. Member States shall ensure that suspension measures referred to in paragraphs 3 and 4 and adopted by competent authorities in relation to an operator which infringes national provisions adopted pursuant to this Directive are enforced in an effective manner.

6. In the event of a breach of compliance affecting drinking water resources, including transboundary resources, or affecting waste water infrastructure in the case of an indirect discharge, the competent authority shall inform the drinking water and waste water operators, and all relevant authorities with a responsibility regarding compliance with the environmental legislation concerned, of the breach and the measures taken to prevent damage being caused, or remedy the damage caused, to human health and the environment.

Article 9

Emission of greenhouse gases

1. Where emissions of a greenhouse gas from an installation are specified in Annex I to Directive 2003/87/EC in relation to an activity carried out in that installation, the permit shall not include an emission limit value for direct emissions of that gas, unless necessary to ensure that no significant local pollution is caused.

2. For activities listed in Annex I to Directive 2003/87/EC, Member States may choose not to impose requirements laid down in Article 14 (1), point (aa) and Article 15 (4) of this Directive relating to energy efficiency in respect of combustion units or other units emitting carbon dioxide on the site.

3. Where necessary, the competent authorities shall amend the permit as appropriate.

4. Paragraphs 1 to 3 shall not apply to installations which are temporarily excluded from the scheme for greenhouse gas emission allowance trading within the Union in accordance with Article 27 of Directive 2003/87/EC.

CHAPTER II

PROVISIONS FOR ACTIVITIES LISTED IN ANNEX I

Article 10

Scope

This Chapter shall apply to the activities set out in Annex I and, where applicable, reaching the capacity thresholds set out in that Annex.

Article 11

General principles governing the basic obligations of the operator

Member States shall take the necessary measures to provide that installations are operated in accordance with the following principles:

(a) all the appropriate preventive measures are taken against pollution;

(b) the best available techniques are applied;

(c) no significant pollution is caused;

(d) the generation of waste is prevented in accordance with Directive 2008/98/EC;

(e) where waste is generated, it is, in order of priority and in accordance with Directive 2008/98/EC, prepared for re-use, recycled, recovered or, where that is technically and economically impossible, it is disposed of while avoiding or reducing any impact on the environment;

(f) energy is used efficiently and the use and, where possible, the production of renewable energy is promoted;

(fa) material resources and water are used efficiently, including through re-use;

(fb) an environmental management system is implemented as provided for in Article 14a;

(g) the necessary measures are taken to prevent accidents and limit their consequences;

(h) the necessary measures are taken upon definitive cessation of activities to avoid any risk of pollution and return the site of operation to the satisfactory state defined in accordance with Article 22.

Article 12

Applications for permits

1. Member States shall take the necessary measures to ensure that an application for a permit includes a description of the following:

(a) the installation and its activities;

(b) the raw and auxiliary materials, other substances, the energy and water used in or generated by the installation;

(c) the sources of emissions from the installation, including odours;

(d) the conditions of the site of the installation;

(e) where applicable, a baseline report in accordance with Article 22(2);

(f) the nature and quantities of foreseeable emissions, including odours, from the installation into each medium, as well as an identification of significant effects of the emissions on the environment;

(g) the proposed technology and other techniques for preventing or, where this is not possible, reducing emissions from the installation;

(h) measures for the prevention, preparation for re-use, recycling and recovery of waste generated by the installation;

(i) further measures planned to comply with the general principles of the basic obligations of the operator as provided for in Article 11;

(j) measures planned to monitor emissions into the environment;

(k) the main alternatives to the proposed technology, techniques and measures studied by the applicant in outline.

An application for a permit shall also include a non-technical summary of the details referred to in the first subparagraph.

2. Where information supplied in accordance with the requirements provided for in Directive 85/337/EEC or a safety report prepared in accordance with Directive 96/82/EC or other information produced in response to other legislation fulfils any of the requirements of paragraph 1, that information may be included in, or attached to, the application.

Article 13

BAT reference documents and exchange of information

1. In order to draw up, review and, where necessary, update BAT reference documents, the Commission shall organise an exchange of information between Member States, the industries concerned, non-governmental organisations promoting human health or environmental protection, the European Chemicals Agency and the Commission. That exchange of information shall aim at an eight-year review cycle of BAT reference documents prioritising the documents that have the highest potential to improve the protection of human

health or the environment. The duration of the exchange of information referred to in the first subparagraph shall not exceed four years for each individual BAT reference document.

1a. The Commission shall by 1 July 2026 amend Implementing Decision 2012/119/EU.

2. The exchange of information shall, in particular, address the following:

(a) the performance of installations and techniques in terms of emissions, expressed as short- and long-term averages, where appropriate, and the associated reference conditions, consumption and nature of raw materials, water consumption, use of energy and generation of waste;

(b) the techniques used, associated monitoring, cross-media effects, economic and technical viability and developments therein;

(c) best available techniques and emerging techniques identified after considering the issues mentioned in points (a) and (b).

Without prejudice to Union competition law, information considered to be confidential business information or commercially sensitive information shall only be shared with the Commission and, after having signed a confidentiality and non-disclosure agreement, with civil servants and other public employees representing Member States or Union agencies. Information shall be anonymised, in such a manner that it does not refer to a particular operator or installation, when shared with the other stakeholders involved in the exchange of information referred to in paragraph 1. Non-anonymised information may only be shared in cases where anonymising the information would not allow an effective exchange of information on BAT in the context of drawing up, reviewing and, where necessary, updating BAT reference documents, with representatives of non-governmental organisations promoting the protection of human health or the environment and representatives of associations representing the relevant industrial sectors, as appropriate, and where such representatives of organisations and associations have signed a confidentiality and non-disclosure agreement. The exchange of information considered to be confidential business information or commercially sensitive information shall remain strictly limited to what is technically required to draw up, review and, where necessary, update BAT reference documents, and such confidential business information or commercially sensitive information shall not be used for other purposes.

3. The Commission shall establish and regularly convene a forum composed of representatives of Member States, the industries concerned and non-governmental organisations promoting the ~~environmental~~ protection of human health or the environment**.**

The Commission shall obtain the opinion of the forum on the practical arrangements for the exchange of information and, in particular, on the following:

(a) the rules of procedure of the forum;

(b) the work programme for the exchange of information;

(c) guidance on the collection of data;

(d) guidance on the drawing up of BAT reference documents, and on their quality assurance including the suitability of their content and format.

The guidance referred to in points (c) and (d) of the second subparagraph shall take account of the opinion of the forum and shall be adopted in accordance with the regulatory procedure referred to in Article 75(2).

3a. The Commission shall obtain the opinion of the forum on the method for assessing compliance with emission limit values set out in the permit with regard to emissions to air and water, as set out in Article 15a.

4. The Commission shall obtain and make publicly available the opinion of the forum on the proposed content of the BAT reference documents and shall take into account this opinion for the procedures laid down in paragraph 5.

The opinion of the forum referred to in the first subparagraph shall be submitted within six months of the final meeting of the technical working group responsible for that BAT reference document.

5. Decisions on the BAT conclusions shall be adopted in accordance with the regulatory procedure referred to in Article 75(2).

6. After the adoption of a decision in accordance with paragraph 5, the Commission shall ~~without delay~~ make the BAT conclusions and the BAT reference document publicly available without undue delay ~~and ensure that BAT conclusions are made available in all the official languages of the Union~~.

7. Pending the adoption of a relevant decision in accordance with paragraph 5, the conclusions on best available techniques from BAT reference documents adopted by the Commission prior to the date referred to in Article 83 shall apply as BAT conclusions for the purposes of this Chapter except for Article 15(3) and (4).

Article 14

Permit conditions

1. Member States shall ensure that the permit includes all measures necessary to comply ~~for compliance~~ with the requirements of Articles 11 and 18. To that effect, Member States shall ensure that permits are granted further to consultation of all relevant authorities with a responsibility regarding compliance with Union environmental legislation, including with environmental quality standards.

Those measures shall include at least the following:

(a) emission limit values for polluting substances listed in Annex II to Regulation (EC) No 166/2006, and for other polluting substances, which are likely to be emitted from the installation concerned in significant quantities, having regard to their nature, their hazardousness and their potential to transfer pollution from one medium to another, taking into account the variation of water flow dynamics in receiving water bodies;

(aa) environmental performance limit values in accordance with Article 15(4);

(ab) appropriate requirements ensuring the assessment of the need to prevent or reduce the emissions of substances fulfilling the criteria of Article 57 or substances addressed in restrictions in Annex XVII to regulation (EC) No 1907/2006;

(b) appropriate requirements ensuring protection of the soil, groundwater, surface water and catchment areas for abstraction points of water intended for human consumption as referred to in Article 7 of Directive (EU) 2020/2184, and measures concerning the monitoring and management of waste generated by the installation;

(ba) appropriate requirements laying down the characteristics of an environmental management system in accordance with Article 14a;

(bb) suitable monitoring requirements for the consumption and reuse of resources such as energy, water and raw materials;

(c) suitable emission monitoring requirements specifying:

(i) measurement methodology, frequency and evaluation procedure; and

(ii) where Article 15(3)(b) is applied, that results of emission monitoring are available for the same periods of time and reference conditions as for the emission levels associated with the best available techniques;

(d) an obligation to supply the competent authority regularly, and at least annually, with:

(i) information on the basis of results of emission monitoring referred to in point (c) and other required data that enables the competent authority to verify compliance with the permit conditions; and

(ii) where Article 15(3)(b) is applied, a summary of the results of emission monitoring which allows a comparison with the emission levels associated with the best available techniques;

(iii) information on progress towards fulfilment of the environmental policy objectives referred to in Article 14a;

(e) appropriate requirements for the regular maintenance and surveillance of measures taken to prevent emissions to soil, surface and groundwater pursuant to point (b), and appropriate requirements concerning the periodic monitoring of soil, surface and groundwater in relation to relevant hazardous substances likely to be found on site and having regard to the possibility of soil, surface and groundwater contamination at the site of the installation;

(f) measures relating to conditions other than normal operating conditions such as start-up and shut-down operations, leaks, malfunctions, momentary stoppages and definitive cessation of operations;

(g) provisions on the minimisation of long-distance or transboundary pollution;

(h) conditions for assessing compliance with the emission limit values and environmental performance limit values or a reference to the applicable requirements specified elsewhere.

2. For the purpose of paragraph 1(a), emission limit values may be supplemented or replaced by equivalent parameters or technical measures ensuring an equivalent level of environmental protection.

3. BAT conclusions shall be the reference for setting the permit conditions.

4. Without prejudice to Article 18, the competent authority may set stricter permit conditions than those achievable by the use of the best available techniques as described in the BAT

conclusions. Member States may establish rules under which the competent authority may set such stricter conditions.

5. Where the competent authority sets permit conditions on the basis of a best available technique not described in any of the relevant BAT conclusions, it shall ensure that:

(a) that technique is determined by giving special consideration to the criteria listed in Annex III; and

(b) the requirements of Article 15 are complied with.

Where the BAT conclusions referred to in the first subparagraph do not contain emission levels associated with the best available techniques, the competent authority shall ensure that the technique referred to in the first subparagraph ensures a level of environmental protection equivalent to the best available techniques described in the BAT conclusions.

6. Where an activity or a type of production process carried out within an installation is not covered by any of the BAT conclusions or where those conclusions do not address all the potential environmental effects of the activity or process, the competent authority shall, after prior consultations with the operator, set the permit conditions on the basis of the best available techniques that it has determined for the activities or processes concerned, by giving special consideration to the criteria listed in Annex III.

7. For installations referred to in point 6.6 of Annex I, paragraphs 1 to 6 of this Article shall apply without prejudice to the legislation relating to animal welfare.

Article 14a

Environmental management system

1. Member States shall require the operator to prepare and implement, for each installation falling within the scope of this Chapter, an environmental management system ("EMS"). The EMS shall include the elements listed in paragraph 2 and shall comply with relevant BAT conclusions that determine aspects to be covered in the EMS.

2. The EMS shall include at least the following:

(a) environmental policy objectives for the continuous improvement of the environmental performance and safety of the installation, which shall include measures to:

(i) prevent the generation of waste;

(ii) optimise resource and energy use and water reuse;

(iii) prevent or reduce the use or emissions of hazardous substances.

(b) objectives and performance indicators in relation to significant environmental aspects, which shall take into account benchmarks set out in the relevant BAT conclusions;

(c) for installations covered by the obligation to conduct an energy audit or implement an energy management system pursuant to Article 8 of Directive 2012/27/EU, inclusion of the

results of that audit or implementation of the energy management system pursuant to Article 8 of and Annex VI to that Directive and of the measures to implement their recommendations;

(d) a chemicals inventory of the hazardous substances present in or emitted from the installation as such, as constituents of other substances or as part of mixtures, with special regard given to the substances fulfilling the criteria referred to in Article 57 of Regulation (EC) No 1907/2006 and substances addressed in restrictions referred to in Annex XVII to Regulation (EC) No 1907/2006, and a risk assessment of the impact of such substances on human health and the environment, as well as an analysis of the possibilities for substituting them with safer alternatives or reducing their use or emissions;

(e) measures taken to achieve the environmental objectives and avoid risks for human health or the environment, including corrective and preventive measures where needed;

(f) a transformation plan as referred to in Article 27d.

3. The level of detail of the EMS shall be consistent with the nature, scale and complexity of the installation, and the range of environmental impacts it could have.

Where elements required to be included in the EMS, including objectives, performance indicators or measures, have already been developed in accordance with other relevant Union legislation and comply with this Article, a reference in the EMS to the relevant documents shall be sufficient.

4. Member States shall ensure that the relevant information set out in the EMS and listed in paragraph 2 is made available on the internet, free of charge and without restricting access to registered users.

The Commission shall, by 31 December 2025, adopt an implementing act on which information is relevant for publication. That implementing act shall be adopted in accordance with the examination procedure referred to in Article 75(2).

Information may be redacted or, if that is not possible, excluded when made available on the internet, if the disclosure of the information would adversely affect any of the interests listed in Article 4(2), points (a) to (h) of Directive 2003/4/EC.

The operator shall prepare and implement the EMS in accordance with the relevant BAT conclusions for the sector by 1 July 2027, except for installations referred to in Article 3(4) of Directive (EU) 2024/1785 of the European Parliament and of the Council (*4).

The EMS shall be reviewed periodically to ensure that it continues to be suitable, adequate and effective.

The EMS shall be audited for the first time by 1 July 2027 except for installations referred to in Article 3(4) of Directive (EU) 2024/1785. The EMS shall be audited at least every 3 years, by a conformity assessment body accredited in accordance with Regulation (EC) No 765/2008 or an accredited or licensed environmental verifier as defined in Article 2, point 20 of Regulation (EC) No 1221/2009, who verifies the conformity of the EMS, and of its implementation, with this Article.

(*4) Directive (EU) 2024/1785 of the European Parliament and of the Council of 24 April 2024 amending Directive 2010/75/EU of the European Parliament and of the Council on

industrial emissions (integrated pollution prevention and control) and Council Directive 1999/31/EC on the landfill of waste (OJ L, 2024/1785, 15.7.2024, ELI: http://data.europa.eu/eli/dir/2024/1785/oj).

Article 15

Emission limit values, environmental performance limit values, equivalent parameters and technical measures

1. The emission limit values for polluting substances shall apply at the point where the emissions leave the installation, and any dilution prior to that point shall be disregarded when determining those values.

With regard to indirect releases of polluting substances into water, the effect of a waste water treatment plant outside the installation may be taken into account when determining the emission limit values of the installation concerned, provided that ~~an equivalent level of protection of the environment as a whole is guaranteed and provided this does not lead to higher levels of pollution in the environment~~ this does not lead to higher levels of pollution in the environment, an equivalent level of protection of the environment as a whole is guaranteed, and the operator ensures, in consultation with the operator of the waste water treatment plant, that the indirect releases do not jeopardise compliance with the provisions of the permit of the waste water treatment plant under this Directive or the specific authorisation under Directive 91/271/EEC and that all of the following requirements are fulfilled:

(a) the released polluting substances do not impede the operation of the waste water treatment plant or the capacity to recover resources from the waste water treatment stream;

(b) the released polluting substances do not harm the health of the staff working in collecting systems and waste water treatment plants;

(c) the waste water treatment plant is designed and equipped to abate the released polluting substances;

(d) the overall load of the concerned polluting substances eventually released into the water is not increased compared to the situation where the emissions from the installation concerned remained compliant with emission limit values set for direct releases in accordance with paragraph 3 of this Article, without prejudice to stricter measures required pursuant to Article 18.

The competent authority shall set out in an annex to the permit conditions the reasons for the application of the second subparagraph, including the result of the assessment by the operator of the fulfilment of the required conditions.

The operator shall provide an updated assessment in cases where the permit conditions should be changed to ensure that the requirements set out in the second subparagraph, points (a) to (d) are fulfilled.

2. Without prejudice to Article 18, the emission limit values and the equivalent parameters and technical measures referred to in Article 14(1) and (2) shall be based on BAT ~~the best available techniques,~~ without prescribing the use of any technique or specific technology.

3. The competent authority shall set the strictest achievable emission limit values by applying BAT in the installation, considering the entire range of the emission levels associated with the

best available techniques ('BAT-AELs') to ensure that, under normal operating conditions, emissions do not exceed the BAT-AELs ~~emission levels associated with the best available techniques~~ as laid down in the decisions on BAT conclusions referred to in Article 13(5). The emission limit values shall be based on an assessment by the operator of the entire BAT-AEL range, analysing the feasibility of meeting the strictest end of the BAT-AEL range and demonstrating the best overall performance that the installation can achieve by applying BAT as described in BAT conclusions, having regard to possible cross-media effects. The emission limit values shall be set through either of the following:

(a) setting emission limit values ~~that do not exceed the emission levels associated with the best available techniques. Those emission limit values shall be~~ expressed for the same or shorter periods of time and under the same reference conditions as the emission levels associated with the best available techniques; or

(b) setting different emission limit values than those referred to under point (a) in terms of values, periods of time and reference conditions.

Where the emission limit values are set in accordance with point (b) ~~is applied~~, the competent authority shall, at least annually, assess the results of emission monitoring in order to ensure that emissions under normal operating conditions have not exceeded the BAT-AELs ~~emission levels associated with the best available techniques~~.

General binding rules referred to in Article 6 may be applied while setting relevant emission limit values in accordance with this Article.

If general binding rules are adopted, the strictest achievable emission limit values by applying BAT shall be set for categories of installations having similar characteristics that are relevant in determining the lowest emission levels achievable, considering the entire range of the BAT-AELs. The general binding rules shall be established by the Member State, based on the information in the BAT conclusions, analysing the feasibility of meeting the strictest end of the BAT-AEL range and demonstrating the best performance that those categories of installations can achieve by applying BAT as described in BAT conclusions.

4. Without prejudice to Article 9(2), the competent authority shall set, for normal operating conditions, binding ranges for environmental performance that are not to be exceeded during one or more periods, as laid down in the decisions on BAT conclusions referred to in Article 13(5).

In addition, the competent authority shall:
(a) set, for normal operating conditions, environmental performance limit values concerning water, having regard to possible cross-media effects, that are not to be exceeded during one or more periods, and which are not less strict than the binding ranges referred to in the first subparagraph;
(b) set, for normal operating conditions, indicative environmental performance levels concerning waste and resources other than water, which are not less strict than the binding ranges referred to in the first subparagraph.

5. ~~4.~~ By way of derogation from paragraph 3, and without prejudice to Article 18, the competent authority may, in specific cases, set ~~less strict~~ emission limit values higher than the BAT-AELs. Such a derogation may apply only where an assessment shows that the

achievement of BAT-AELs as described in BAT conclusions would lead to disproportionately higher costs compared to the environmental benefits due to:

(a) the geographical location or the local environmental conditions of the installation concerned; or

(b) the technical characteristics of the installation concerned.

The competent authority shall document in an annex to the permit conditions the reasons for derogating from paragraph 3, and the result of the assessment referred to in the first subparagraph of this paragraph and the justification for the conditions imposed.

The emission limit values set in accordance with the first subparagraph shall, however, not exceed the emission limit values set out in the Annexes to this Directive, where applicable.

Derogations granted in accordance with this paragraph shall respect the principles set out in Annex II. The competent authority shall ensure that the operator provides an assessment of the impact of the derogation on the concentration of the pollutants concerned in the receiving environment and in any case ensure that no significant pollution is caused and that a high level of protection of the environment as a whole is achieved. Derogations shall not be granted where they could put at risk compliance with environmental quality standards referred to in Article 18.

The competent authority shall re-assess whether derogations granted in accordance with this paragraph are justified, every four years or as part of each reconsideration of the permit conditions pursuant to Article 21, where such reconsideration occurs earlier than four years after the derogation was granted.

The Commission shall adopt an implementing act to establish a standardised methodology for assessing the disproportionality between the costs of implementation of the BAT conclusions and the potential environmental benefits referred to in the first subparagraph. That implementing act shall be adopted in accordance with the examination procedure referred to in Article 75(2).

~~The competent authority shall in any case ensure that no significant pollution is caused and that a high level of protection of the environment as a whole is achieved.~~

~~On the basis of information provided by Member States in accordance with Article 72(1), in particular concerning the application of this paragraph, the Commission may, where necessary, assess and further clarify, through guidance, the criteria to be taken into account for the application of this paragraph.~~

~~The competent authority shall re-assess the application of the first subparagraph as part of each reconsideration of the permit conditions pursuant to Article 21.~~

~~5. The competent authority may grant temporary derogations from the requirements of paragraphs 2 and 3 of this Article and from Article 11(a) and (b) for the testing and use of emerging techniques for a total period of time not exceeding 9 months, provided that after the period specified, either the technique is stopped or the activity achieves at least the emission levels associated with the best available techniques.~~

6. By way of derogation from paragraph 4, the competent authority may, in specific cases, set less strict binding ranges for environmental performance or environmental performance limit values. Such a derogation may apply only where an assessment shows that the achievement of performance levels associated with the best available techniques as described in BAT conclusions will lead to a significant negative environmental impact, including cross media effects, or a significant economic impact due to:

(a) the geographical location or the local environmental conditions of the installation concerned; or

(b) the technical characteristics of the installation concerned.

The competent authority shall document in an annex to the permit conditions the reasons for derogating from paragraph 4 and the result of the assessment referred to in the first subparagraph of this paragraph and the justification for the conditions imposed.

The competent authority shall ensure that operating under less strict binding ranges for environmental performance or environmental performance limit values does not cause any significant environmental impact, including depletion of water resources, and achieves a high level of protection of the environment as a whole.

The Commission shall establish, by means of implementing acts, a standardised methodology for undertaking the assessment referred to in the first subparagraph. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 75(2).

7. By way of derogation from paragraphs 3 and 4, and provided that no significant pollution is caused and all measures resulting in less pollution have been exhausted, the competent authority may set less strict emission limit values or environmental performance limit values in the event of a crisis due to extraordinary circumstances beyond the control of the operator and Member States, leading to a severe disruption or shortage of:

(a) energy supplies, provided that there is an overriding public interest in security of energy supply;

(b) resources, materials or equipment essential for the operator to perform activities of public interest, in compliance with the applicable emission limit values or environmental performance limit values; or

(c) essential resources, materials or equipment where the production output compensates for such shortage or disruption, for reasons of public health or public safety or for other imperative reasons of overriding public interest.

The derogation shall not be granted for more than three months. If the reasons justifying the granting of a derogation persist, the derogation may be prolonged for a maximum period of three months.

As soon as the supply conditions are restored or where there is an alternative to the energy supplies, resources, materials or equipment, the Member State shall ensure that the decision to set less strict emission limit values and environmental performance limit values ceases to have effect, and the installation shall comply with permit conditions set in accordance with paragraphs 3 and 4.

The Member States shall take measures to ensure that emissions resulting from the derogation referred to in the first subparagraph are monitored.

The competent authority shall make information on the derogation and the conditions imposed publicly available in accordance with Article 24(2).

The Commission may, where necessary, assess and further clarify, through guidance, the criteria to be taken into account for the application of this paragraph.

Member States shall notify the Commission of any derogation granted under this paragraph, including the reasons justifying the granting of the derogation and the conditions imposed.

The Commission shall assess whether the derogation granted is justified having due regard to the criteria set in this paragraph. If the Commission raises objections within 2 months of the notification by the Member State, the Member States shall without delay revise the derogation accordingly.

Article 15a

Compliance assessment

1. For the purpose of assessing compliance under normal operating conditions with emission limit values in accordance with Article 14(1), point (h), the correction made to measurements to determine the validated average emission values shall not exceed the measurement uncertainty of the measuring method.

2. The Commission shall by 1 September 2026 adopt an implementing act establishing the method for assessing compliance under normal operating conditions with emission limit values set out in the permit with regard to emissions to air and water. That implementing act shall be adopted in accordance with the examination procedure referred to in Article 75(2).

The method referred to in the first subparagraph shall address, as a minimum, the determination of validated average emission values and shall set out how measurement uncertainty and the frequency of exceedance of emission limit values are to be taken into account in the compliance assessment.

3. Where an installation falling within the scope of this Chapter also falls within the scope of Chapter III or IV and compliance with the emission limit values set in accordance with this Chapter has been demonstrated pursuant to paragraph 1 of this Article, the installation shall be deemed to also comply with the emission limit values set in accordance with Chapter III or IV for the pollutants concerned under normal operating conditions.

Article 16

Monitoring requirements

1. The monitoring requirements referred to in Article 14(1)(c) shall, where applicable, be based on the conclusions on monitoring as described in the BAT conclusions.

2. The frequency of the periodic monitoring referred to in Article 14(1)(e), shall be determined by the competent authority in a permit for each individual installation or in general binding rules.

Without prejudice to the first subparagraph, periodic monitoring shall be carried out as set out in the BAT Conclusions, where applicable, and at least once every 4 ~~5~~ years for groundwater and 9 ~~10~~ years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

3. The quality control of laboratories performing the monitoring shall be based on CEN standards or, if CEN standards are not available, ISO, national or other international standards which ensure the provision of data of an equivalent scientific quality.

4. Where the assessment referred to in Article 15(5) demonstrates that the derogation will have a quantifiable or measurable effect on the environment, Member States shall ensure that the concentration of the pollutants concerned is monitored in the receiving environment. Where relevant, monitoring and measuring methods for each pollutant concerned which are set out in other relevant Union legislation shall be used for the purpose of the monitoring referred to in this paragraph.

Article 17

General binding rules for activities listed in Annex I

1. When adopting general binding rules, Member States shall ensure an integrated approach and a high level of environmental protection equivalent to that achievable with individual permit conditions.

2. General binding rules shall be based on the best available techniques, without prescribing the use of any technique or specific technology in order to ensure compliance with Articles 14 and 15.

3. Member States shall ensure that general binding rules are updated to take into account developments in best available techniques and in order to ensure compliance with Article 21.

4. General binding rules adopted in accordance with paragraphs 1 to 3 shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication.

Article 18

Environmental quality standards

Where an environmental quality standard requires stricter conditions than those achievable by the use of the best available techniques, additional measures shall be included in the permit, with a view to reducing the specific contribution of the installation to the pollution occurring in the relevant area, without prejudice to other measures which may be taken to comply with environmental quality standards.

Where stricter conditions have been included in the permit in accordance with the first paragraph, the competent authority shall assess the impact of the stricter conditions on the concentration of the pollutants concerned in the receiving environment.

Where the load of pollutants emitted by the installation has a quantifiable or measurable effect on the environment, Member States shall ensure that the concentration of the pollutants concerned in the receiving environment is monitored. The results of such monitoring shall be transmitted to the competent authority.

Where monitoring and measurement methods for the pollutants concerned are set out in other relevant Union legislation, such methods, including effect-based methods as appropriate, shall be used for the purpose of the monitoring referred to in the third paragraph.

Article 19

Developments in best available techniques

Member States shall ensure that the competent authority follows or is informed of developments in best available techniques and of the publication of any new or updated BAT conclusions and shall make that information available to the public concerned.

Article 20

Changes by operators to installations

1. Member States shall take the necessary measures to ensure that the operator informs the competent authority of any planned change in the nature or functioning, or any ~~an~~ extension, of the installation which may have consequences for the environment, in due time and in any event prior to the implementation of any such change or extension. Where appropriate, the competent authority shall update the permit. Member States shall take the necessary measures to ensure that the competent authority reacts in due time to the information provided by the operator.

2. Member States shall take the necessary measures to ensure that no substantial change planned by the operator is made without a permit granted in accordance with this Directive.

The application for a permit and the decision by the competent authority shall cover those parts of the installation and those details listed in Article 12 which may be affected by the substantial change.

3. Any change in the nature or functioning or an extension of an installation shall be deemed to be substantial if the change or extension in itself reaches the capacity thresholds set out in Annex I.

Article 21

Reconsideration and updating of permit conditions by the competent authority

1. Member States shall take the necessary measures to ensure that the competent authority periodically reconsiders in accordance with paragraphs 2 to 5 all permit conditions and, where necessary to ensure compliance with this Directive, updates those conditions.

2. At the request of the competent authority, the operator shall submit all the information necessary for the purpose of reconsidering the permit conditions, including, in particular, results of emission monitoring and other data, that enables a comparison of the operation of the installation with the best available techniques described in the applicable BAT conclusions and with the emission levels associated with the best available techniques.

When reconsidering permit conditions, the competent authority shall use any information resulting from monitoring or inspections.

3. Within 4 years of publication of decisions on BAT conclusions in accordance with Article 13(5) relating to the main activity of an installation, the competent authority shall ensure that:

(a) all the permit conditions for the installation concerned are reconsidered and, if necessary, updated to ensure compliance with this Directive, in particular, with Article 15(3), (4) and (5), where applicable;

(b) the installation complies with those permit conditions.

The reconsideration shall take into account all the new or updated BAT conclusions applicable to the installation and adopted in accordance with Article 13(5) since the permit was granted or last reconsidered.

4. Where an installation is not covered by any of the BAT conclusions, the permit conditions shall be reconsidered and, if necessary, updated where developments in the best available techniques allow for the significant reduction of emissions.

5. The permit conditions shall be reconsidered and, where necessary, updated at least in the following cases:

(a) the pollution caused by the installation is of such significance that the existing emission limit values of the permit need to be revised or new such values need to be included in the permit;

(b) the operational safety requires other techniques to be used;

(c) where it is necessary to comply with an ~~a new or revised~~ environmental quality standard referred to in Article 18, including in the case of a new or revised quality standard or where the status of the receiving environment requires a revision of the permit in order to achieve compliance with plans and programmes set under Union legislation;

(d) in the case of a request from the operator to extend the duration of the operation of an installation undertaking the activity referred to in Annex I, point 5.4.

Article 22

Site closure

1. Without prejudice to Directive 2000/60/EC, Directive 2004/35/EC, Directive 2006/118/EC of the European Parliament and of the Council of 12 December 2006 on the protection of groundwater against pollution and deterioration ([31]) and to relevant Union law on soil protection, the competent authority shall set permit conditions to ensure compliance with paragraphs 3 and 4 of this Article upon definitive cessation of activities.

2. Where the activity involves the use, production or release of relevant hazardous substances and having regard to the possibility of soil and groundwater contamination at the site of the installation, the operator shall prepare and submit to the competent authority a baseline report before starting operation of an installation or before a permit for an installation is updated for the first time after 7 January 2013.

The baseline report shall contain the information necessary to determine the state of soil and groundwater contamination so as to make a quantified comparison with the state upon definitive cessation of activities provided for under paragraph 3.

The baseline report shall contain at least the following information:

(a) information on the present use and, where available, on past uses of the site;

(b) where available, existing information on soil and groundwater measurements that reflect the state at the time the report is drawn up or, alternatively, new soil and groundwater measurements having regard to the possibility of soil and groundwater contamination by those hazardous substances to be used, produced or released by the installation concerned.

Where information produced pursuant to other national or Union law fulfils the requirements of this paragraph that information may be included in, or attached to, the submitted baseline report.

The Commission shall establish guidance on the content of the baseline report.

3. Upon definitive cessation of the activities, the operator shall assess the state of soil and groundwater contamination by relevant hazardous substances used, produced or released by the installation. Where the installation has caused significant pollution of soil or groundwater by relevant hazardous substances compared to the state established in the baseline report referred to in paragraph 2, the operator shall take the necessary measures to address that pollution so as to return the site to that state. For that purpose, the technical feasibility of such measures may be taken into account.

Without prejudice to the first subparagraph, upon definitive cessation of the activities, and where the contamination of soil and groundwater at the site poses a significant risk to human health or the environment as a result of the permitted activities carried out by the operator before the permit for the installation is updated for the first time after 7 January 2013 and taking into account the conditions of the site of the installation established in accordance with Article 12(1)(d), the operator shall take the necessary actions aimed at the removal, control, containment or reduction of relevant hazardous substances, so that the site, taking into account its current or approved future use, ceases to pose such a risk.

4. Where the operator is not required to prepare a baseline report referred to in paragraph 2, the operator shall, upon definitive cessation of the activities, take the necessary actions aimed at the removal, control, containment or reduction of relevant hazardous substances, so that the site, taking into account its current or approved future use, ceases to pose any significant risk to human health or the environment due to the contamination of soil and groundwater as a result of the permitted activities and taking into account the conditions of the site of the installation established in accordance with Article 12(1)(d).

Article 23

Environmental inspections

1. Member States shall set up a system of environmental inspections of installations addressing the examination of the full range of relevant environmental effects from the installations concerned.

Member States shall ensure that operators afford the competent authorities all necessary assistance to enable those authorities to carry out any site visits, to take samples and to gather any information necessary for the performance of their duties for the purposes of this Directive.

2. Member States shall ensure that all installations are covered by an environmental inspection plan at national, regional or local level and shall ensure that this plan is regularly reviewed and, where appropriate, updated.

3. Each environmental inspection plan shall include the following:

(a) a general assessment of relevant significant environmental issues;

(b) the geographical area covered by the inspection plan;

(c) a register of the installations covered by the plan;

(d) procedures for drawing up programmes for routine environmental inspections pursuant to paragraph 4;

(e) procedures for non-routine environmental inspections pursuant to paragraph 5;

(f) where necessary, provisions on the cooperation between different inspection authorities.

4. Based on the inspection plans, the competent authority shall regularly draw up programmes for routine environmental inspections, including the frequency of site visits for different types of installations.

The period between two site visits shall be based on a systematic appraisal of the environmental risks of the installations concerned and shall not exceed 1 year for installations posing the highest risks and 3 years for installations posing the lowest risks.

If an inspection has identified an important case of non-compliance with the permit conditions, an additional site visit shall be carried out within 6 months of that inspection.

The systematic appraisal of the environmental risks shall be based on at least the following criteria:

(a) the potential and actual impacts of the installations concerned on human health and the environment taking into account the levels and types of emissions, the sensitivity of the local environment and the risk of accidents;

(b) the record of compliance with permit conditions;

(c) the participation of the operator in the Union eco-management and audit scheme (EMAS), pursuant to Regulation (EC) No 1221/2009 ([32]).

The Commission shall ~~may~~ adopt and, where appropriate, regularly update guidance on the criteria for the appraisal of environmental risks.

5. Non-routine environmental inspections shall be carried out to investigate serious environmental complaints, serious environmental accidents, incidents and occurrences of non-compliance as soon as possible and, where appropriate, before the granting, reconsideration or update of a permit.

6. Following each site visit, the competent authority shall prepare a report describing the relevant findings regarding compliance of the installation with the permit conditions and conclusions on whether any further action is necessary.

The report shall be notified to the operator concerned within 2 months of the site visit taking place. The report shall be made publicly available by the competent authority in accordance with Directive 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information ([33]) within 4 months of the site visit taking place.

Without prejudice to Article 8(2), the competent authority shall ensure that the operator takes all the necessary actions identified in the report within a reasonable period.

Article 24

Access to information and public participation in the permit procedure

1. Member States shall ensure that the public concerned are given early and effective opportunities to participate in the following procedures:

(a) the granting of a permit for new installations;

(b) the granting of a permit for any substantial change;

(c) the granting or updating of a permit for an installation where the application of Article 15(4) is proposed;

(d) the updating of a permit or permit conditions for an installation in accordance with Article 21(5);

(e) the updating of a permit in accordance with Article 21(3) or Article 21(4).

The procedure set out in Annex IV shall apply to such participation.

2. When a decision on granting or the reconsideration or updating of a permit has been taken, the competent authority shall make available to the public, including systematically via the internet, on a webpage which is easy to find, free of charge and without restricting access to registered users, in relation to points (a), (b) and (f), the following information:

(a) the content of the decision, including a copy of the permit and any subsequent updates, including consolidated permit conditions where relevant;

(b) the reasons on which the decision is based;

(c) the results of the consultations held before the decision was taken, including consultations held pursuant to Article 26, and an explanation of how those consultations ~~they~~ were taken into account in that decision;

(d) the title of the BAT reference documents relevant to the installation or activity concerned;

(e) how the permit conditions referred to in Article 14, including the emission limit values, environmental performance levels and environmental performance limit

values, have been determined in relation to the best available techniques and emission levels and environmental performance levels associated with the best available techniques;

(f) where a derogation is granted in accordance with Article 15 ~~Article 15(4)~~, the specific reasons for that derogation based on the criteria laid down in that paragraph and the conditions imposed.

3. The competent authority shall also make available to the public, including systematically via the internet ~~at least in relation to point (a)~~, on a webpage which is easy to find, free of charge and without restricting access to registered users, the following:

(a) relevant information on the measures taken by the operator upon definitive cessation of activities in accordance with Article 22;

(b) the results of emission monitoring as required under the permit conditions and held by the competent authority;

(c) the results of the monitoring referred to in Article 16(4) and in Article 18.

4. Paragraphs 1, 2 and 3 of this Article shall apply subject to the restrictions laid down in Article 4(1) and (2) of Directive 2003/4/EC.

Article 25

Access to justice

1. Member States shall ensure that, in accordance with the relevant national legal system, members of the public concerned have access to a review procedure before a court of law or another independent and impartial body established by law to challenge the substantive or procedural legality of decisions, acts or omissions subject to Article 24 when one of the following conditions is met:

(a) they have a sufficient interest;

(b) they maintain the impairment of a right, where administrative procedural law of a Member State requires this as a precondition.

Standing in the review procedure shall not be conditional on the role that the member of the public concerned played during a participatory phase of the decision-making procedures under this Directive.

The review procedure shall be fair, equitable, timely and not prohibitively expensive, and shall provide for adequate and effective remedies, including injunctive relief as appropriate.

2. Member States shall determine at what stage the decisions, acts or omissions may be challenged.

3. What constitutes a sufficient interest and impairment of a right shall be determined by Member States, consistently with the objective of giving the public concerned wide access to justice.

To this end, the interest of any non-governmental organisation promoting environmental protection and meeting any requirements under national law shall be deemed sufficient for the purpose of paragraph 1(a).

Such organisations shall also be deemed to have rights capable of being impaired for the purpose of paragraph 1(b).

4. Paragraphs 1, 2 and 3 shall not exclude the possibility of a preliminary review procedure before an administrative authority and shall not affect the requirement of exhaustion of administrative review procedures prior to recourse to judicial review procedures, where such a requirement exists under national law.

Any such procedure shall be fair, equitable, timely and not prohibitively expensive.

5. Member States shall ensure that practical information is made available to the public on access to administrative and judicial review procedures.

Article 26

Transboundary effects

1. Where a Member State is aware that the operation of an installation could ~~is likely to~~ have significant negative effects on the environment of another Member State, or where a Member State that could ~~which is likely to~~ be significantly affected so requests, the Member State in whose territory the application for a permit pursuant to Article 4 or Article 20(2) was submitted shall forward to the other Member State any information required to be given or made available pursuant to Annex IV at the same time as it makes it available to the public. On the basis of that information, consultations shall be carried out between the two Member States, while ensuring that the comments from the Member State that could be significantly affected are provided before the competent authority of the Member State in whose territory the application for a permit was submitted reaches its decision. Should no comments be provided by the Member State that could be significantly affected within the period for consultation of the public concerned, the competent authority shall proceed with the permitting procedure.

~~Such information shall serve as a basis for any consultations necessary in the framework of the bilateral relations between the two Member States on a reciprocal and equivalent basis.~~

2. Member States shall ensure that, in the cases referred to in paragraph 1, the application for a permit is also made available for comments to the public of the Member State that could be significantly affected and that it remains available for the same period of time it was available in the Member State where the application was made. ~~Within the framework of their bilateral relations, Member States shall ensure that in the cases referred to in paragraph 1, the applications are also made available for an appropriate period of time to the public of the Member State likely to be affected so that it will have the right to comment on them before the competent authority reaches its decision~~.

3. The results of any consultations pursuant to paragraphs 1 and 2 shall be taken into consideration when the competent authority reaches a decision on the application.

4. The competent authority shall inform any Member State which has been consulted pursuant to paragraph 1 of the decision reached on the application and shall forward to it the information referred to in Article 24(2). That Member State shall take the measures necessary to ensure that that information is made available in an appropriate manner to the public concerned in its own territory.

CHAPTER IIa

ENABLING AND PROMOTING INNOVATION

Article 27

Emerging techniques

Member States shall, where appropriate, encourage the development and application of emerging techniques, in particular where such techniques have been identified in the BAT conclusions, the BAT reference documents or the findings of the innovation centre for industrial transformation and emissions referred to in Article 27a.

~~*Article 27*~~

~~Emerging techniques~~

~~1. Member States shall, where appropriate, encourage the development and application of emerging techniques, in particular for those emerging techniques identified in BAT reference documents.~~

~~2. The Commission shall establish guidance to assist Member States in encouraging the development and application of emerging techniques as referred to in paragraph 1.~~

Article 27a

Innovation centre for industrial transformation and emissions

1. The Commission shall establish and operate an innovation centre for industrial transformation and emissions (the ‘centre’ or ‘Incite’).

2. The centre shall collect and analyse information on innovative techniques, including emerging and transformative techniques, which contribute inter alia to minimisation of pollution, decarbonisation, resource efficiency, a circular economy using fewer or safer chemicals, relevant to activities within the scope of this Directive, and characterise their level of development and their environmental performance. The Commission shall take into account the findings of the centre when preparing the work programme for the exchange of information referred to in Article 13(3), point (b), and when drawing up, reviewing and updating the BAT reference documents referred to in Article 13(1).

3. The centre shall be assisted by:

(a) representatives of Member States;

(b) relevant public institutions;

(c) relevant research institutes;

(d) research and technology organisations;

(e) representatives of the industries and farmers concerned;

(f) technology providers;

(g) non-governmental organisations promoting the protection of human health or the environment;

(h) the Commission.

4. The centre shall make its findings public, subject to the restrictions laid down in Article 4(1) and (2) of Directive 2003/4/EC.

The Commission shall adopt an implementing act setting out the detailed arrangements necessary for the establishment and functioning of the centre. That implementing act shall be adopted in accordance with the examination procedure referred to in Article 75(2).

Article 27b

Testing of emerging techniques

Without prejudice to Article 18, the competent authority may grant temporary derogations from the requirements set out in Article 15(2), (3) and (4) and from the principles set out in Article 11, points (a) and (b), for the testing of emerging techniques for a total period of time not exceeding 30 months, provided that after the period specified in the permit, either the testing of the technique is stopped or the activity achieves at least the BAT-AELs.

Article 27c

Emission levels and indicative environmental performance values associated with emerging techniques

By way of derogation from Article 21(3), the competent authority may set:
(a) emission limit values that ensure that, within 6 years of publication of a decision on BAT conclusions in accordance with Article 13(5) relating to the main activity of an installation, emissions do not, under normal operating conditions, exceed emission levels associated with emerging techniques as laid down in the decisions on BAT conclusions;
(b) indicative environmental performance values consistent with the decisions on BAT conclusions.

Article 27d

Transformation towards a clean, circular and climate neutral industry

1. Member States shall require that operators by 30 June 2030 include in their EMS an indicative transformation plan covering their activities as listed in points 1, 2, 3, 4, 6.1 a, and 6.1 b of Annex I. The transformation plan shall contain information on how the operator will transform the installation during the 2030-2050 period to contribute to the emergence of

a sustainable, clean, circular, resource-efficient and climate-neutral economy by 2050, including where relevant deep industrial transformation as referred to in Article 27e.

Member States shall take the necessary measures to ensure that, no later than a year after the deadline set out in the first subparagraph of this paragraph, the audit organisation referred to in Article 14a(4), sixth subparagraph, assesses the conformity of the transformation plans referred to in the first subparagraph of this paragraph with the requirements set out in the delegated act referred to in paragraph 5 of this Article.

2. Member States shall require that, as part of the review of the permit conditions pursuant to Article 21(3) following the publication of decisions on BAT conclusions after 1 January 2030, the operator includes in its EMS a transformation plan for each installation carrying out any activity listed in Annex I that is not referred to in paragraph 1 of this Article. The transformation plan shall contain information on how the operator will transform the installation during the 2030-2050 period in order to contribute to the emergence of a sustainable, clean, circular and climate-neutral economy by 2050, in accordance with the requirements set out in the delegated act referred to in paragraph 5 of this Article.

Member States shall take the necessary measures to ensure that, no later than a year after completion of the review referred to in Article 21(3), the audit organisation referred to in Article 14a(4), sixth subparagraph, assesses the conformity of the transformation plans referred to in the first subparagraph with the requirements set out in the delegated act referred to in paragraph 5 of this Article.

3. Where two or more installations are under the control of the same operator, or if the installations are under the control of different operators that are part of the same company, in the same Member State, those installations may be covered by one transformation plan.

Where elements of the transformation plans have already been developed in accordance with other Union legislation and are compliant with this Article, a reference may be made in the transformation plan to the relevant documents.

4. The operator shall make its transformation plan, updates of the transformation plan, as well as the results of the assessment referred to in paragraphs 1 and 2 public, as part of the publication of relevant information set out in the EMS as referred to in Article 14a(4).

5. The Commission shall, by 30 June 2026, adopt a delegated act in order to supplement this Directive by specifying the content for the transformation plans, on the basis of the information required under paragraphs 1, 2 and 3.

The Commission shall, by 31 December 2034, review and, where appropriate, revise the delegated act referred to in the first subparagraph.

Article 27e

Deep Industrial Transformation

1. Without prejudice to Article 18, in the event of deep industrial transformation of the installation set out in the relevant transformation plan covering the installation, the competent authority may extend the period for the installation to comply with the updated permit conditions referred to in Article 21(3) up to a total of eight years maximum, provided that:

(a) the permit for the installation contains a description of the deep industrial transformation, the emission levels and the resource efficiency that will be achieved, and the implementation timeline and milestones;

(b) the operator reports annually to the competent authority on the progress in the implementation of the deep industrial transformation; and

(c) during the period granted for the transformation of the installation, the competent authority ensures that no significant pollution is caused and that a high level of protection of the environment as a whole is achieved.

Member States shall inform the Commission at least yearly of derogations granted as part of their reporting to the Commission under Article 72.

2. Without prejudice to Articles 18 and 22, in the event of deep industrial transformation consisting of the closure of an installation and its replacement by a new installation set out in the relevant transformation plan covering the installation and to be completed within 8 years of publication of decisions on BAT conclusions, in accordance with Article 13(5), relating to the main activity of the existing installation, the competent authority may waive the obligation of updating the permit in accordance with Article 21(3), provided that all the following conditions are met:

(a) the permit for the existing installation contains a description of the closure plan and the associated timeline and milestones;

(b) the operator reports annually to the competent authority on the progress in relation to the closure plan for the existing installation and to its replacement by a new installation;

(c) during the period preceding the closure of the installation, the competent authority ensures that no significant pollution is caused and that a high level of protection of the environment as a whole is achieved.

Member States shall inform the Commission as part of their reporting under Article 72 at least yearly of derogations granted.

CHAPTER III

SPECIAL PROVISIONS FOR COMBUSTION PLANTS

Article 28

Scope

This Chapter shall apply to combustion plants, the total rated thermal input of which is equal to or greater than 50 MW, irrespective of the type of fuel used.

This Chapter shall not apply to the following combustion plants:

(a) plants in which the products of combustion are used for the direct heating, drying, or any other treatment of objects or materials;

(b) post-combustion plants designed to purify the waste gases by combustion which are not operated as independent combustion plants;

(c) facilities for the regeneration of catalytic cracking catalysts;

(d) facilities for the conversion of hydrogen sulphide into sulphur;

(e) reactors used in the chemical industry;

(f) coke battery furnaces;

(g) cowpers;

(h) any technical apparatus used in the propulsion of a vehicle, ship or aircraft;

(i) gas turbines and gas engines used on offshore platforms;

(j) plants which use any solid or liquid waste as a fuel other than waste referred to in point (b) of point 31 of Article 3.

Article 29

Aggregation rules

1. Where the waste gases of two or more separate combustion plants are discharged through a common stack, the combination formed by such plants shall be considered as a single combustion plant and their capacities added for the purpose of calculating the total rated thermal input.

2. Where two or more separate combustion plants which have been granted a permit for the first time on or after 1 July 1987, or the operators of which have submitted a complete application for a permit on or after that date, are installed in such a way that, taking technical and economic factors into account, their waste gases could in the judgement of the competent authority, be discharged through a common stack, the combination formed by such plants shall be considered as a single combustion plant and their capacities added for the purpose of calculating the total rated thermal input.

3. For the purpose of calculating the total rated thermal input of a combination of combustion plants referred to in paragraphs 1 and 2, individual combustion plants with a rated thermal input below 15 MW shall not be considered.

Article 30

Emission limit values

1. Waste gases from combustion plants shall be discharged in a controlled way by means of a stack, containing one or more flues, the height of which is calculated in such a way as to safeguard human health and the environment.

2. All permits for installations containing combustion plants which have been granted a permit before 7 January 2013, or the operators of which have submitted a complete application for a permit before that date, provided that such plants are put into operation no later than 7 January 2014, shall include conditions ensuring that emissions into air from these plants do not exceed the emission limit values set out in Part 1 of Annex V.

All permits for installations containing combustion plants which had been granted an exemption as referred to in Article 4(4) of Directive 2001/80/EC and which are in operation after 1 January 2016, shall include conditions ensuring that emissions into the air from these plants do not exceed the emission limit values set out in Part 2 of Annex V.

3. All permits for installations containing combustion plants not covered by paragraph 2 shall include conditions ensuring that emissions into the air from these plants do not exceed the emission limit values set out in Part 2 of Annex V.

4. The emission limit values set out in Parts 1 and 2 of Annex V as well as the minimum rates of desulphurisation set out in Part 5 of that Annex shall apply to the emissions of each common stack in relation to the total rated thermal input of the entire combustion plant. Where Annex V provides that emission limit values may be applied for a part of a combustion plant with a limited number of operating hours, those limit values shall apply to the emissions of that part of the plant, but shall be set in relation to the total rated thermal input of the entire combustion plant.

5. The competent authority may grant a derogation for a maximum of six months from the obligation to comply with the emission limit values provided for in paragraphs 2 and 3 for sulphur dioxide, in respect of a combustion plant which to that end normally uses low-sulphur fuel, in cases where the operator is unable to comply with those limit values because of an interruption in the supply of low-sulphur fuel resulting from a serious shortage.

Member States shall immediately inform the Commission of any derogation granted under the first subparagraph, including the reasons justifying the derogation and the conditions imposed.

6. The competent authority may grant a derogation from the obligation to comply with the emission limit values provided for in paragraphs 2 and 3 in cases where a combustion plant using only gaseous fuel has to resort exceptionally to the use of other fuels because of a sudden interruption in the supply of gas and for this reason would need to be equipped with a waste gas purification facility. The period for which such a derogation is granted shall not exceed 10 days except where there is an overriding need to maintain energy supplies.

The operator shall immediately inform the competent authority of each specific case referred to in the first subparagraph.

Member States shall inform the Commission immediately of any derogation granted under the first subparagraph, including the reasons justifying the derogation and the conditions imposed.

7. Where a combustion plant is extended, the emission limit values set out in Part 2 of Annex V shall apply to the extended part of the plant affected by the change and shall be set in relation to the total rated thermal input of the entire combustion plant. In the case of a change to a combustion plant, which may have consequences for the environment and which affects a part of the plant with a rated thermal input of 50 MW or more, the emission limit values as set out in Part 2 of Annex V shall apply to the part of the plant which has changed in relation to the total rated thermal input of the entire combustion plant.

8. The emission limit values set out in Parts 1 and 2 of Annex V shall not apply to the following combustion plants:

(a) diesel engines;

(b) recovery boilers within installations for the production of pulp.

9. For the following combustion plants, on the basis of the best available techniques, the Commission shall review the need to establish Union-wide emission limit values and to amend the emission limit values set out in Annex V:

(a) the combustion plants referred to in paragraph 8;

(b) combustion plants within refineries firing the distillation and conversion residues from the refining of crude-oil for own consumption, alone or with other fuels, taking into account the specificity of the energy systems of refineries;

(c) combustion plants firing gases other than natural gas;

(d) combustion plants in chemical installations using liquid production residues as non-commercial fuel for own consumption.

The Commission shall, by 31 December 2013, report the results of this review to the European Parliament and to the Council accompanied, if appropriate, by a legislative proposal.

Article 31

Desulphurisation rate

1. For combustion plants firing indigenous solid fuel, which cannot comply with the emission limit values for sulphur dioxide referred to in Article 30(2) and (3) due to the characteristics of this fuel, Member States may apply instead the minimum rates of desulphurisation set out in Part 5 of Annex V, in accordance with the compliance rules set out in Part 6 of that Annex and with prior validation by the competent authority of the technical report referred to in Article 72(4)(a).

2. For combustion plants firing indigenous solid fuel, which co-incinerate waste, and which cannot comply with the C_{proc} values for sulphur dioxide set out in points 3.1 or 3.2 of Part 4 of Annex VI due to the characteristics of the indigenous solid fuel, Member States may apply instead the minimum rates of desulphurisation set out in Part 5 of Annex V, in accordance with the compliance rules set out in Part 6 of that Annex. If Member States choose to apply this paragraph, C_{waste} as referred to in point 1 of Part 4 of Annex VI shall be equal to 0 mg/Nm^3.

3. The Commission shall, by 31 December 2019, review the possibility of applying minimum rates of desulphurisation set out in Part 5 of Annex V, taking into account, in particular, the best available techniques and benefits obtained from reduced sulphur dioxide emissions.

Article 32

Transitional National Plan

1. During the period from 1 January 2016 to 30 June 2020, Member States may draw up and implement a transitional national plan covering combustion plants which were granted the first permit before 27 November 2002 or the operators of which had submitted a complete application for a permit before that date, provided that the plant was put into operation no later than 27 November 2003. For each of the combustion plants covered by the plan, the plan shall cover emissions of one or more of the following pollutants: nitrogen oxides, sulphur dioxide and dust. For gas turbines, only nitrogen oxides emissions shall be covered by the plan.

The transitional national plan shall not include any of the following combustion plants:

(a) those to which Article 33(1) applies;

(b) those within refineries firing low calorific gases from the gasification of refinery residues or the distillation and conversion residues from the refining of crude oil for own consumption, alone or with other fuels;

(c) those to which Article 35 applies;

(d) those which are granted an exemption as referred to in Article 4(4) of Directive 2001/80/EC.

2. Combustion plants covered by the plan may be exempted from compliance with the emission limit values referred to in Article 30(2) for the pollutants which are subject to the plan or, where applicable, with the rates of desulphurisation referred to in Article 31.

The emission limit values for sulphur dioxide, nitrogen oxides and dust set out in the permit for the combustion plant applicable on 31 December 2015, pursuant in particular to the requirements of Directives 2001/80/EC and 2008/1/EC, shall at least be maintained.

Combustion plants with a total rated thermal input of more than 500 MW firing solid fuels, which were granted the first permit after 1 July 1987, shall comply with the emission limit values for nitrogen oxides set out in Part 1 of Annex V.

3. For each of the pollutants it covers, the transitional national plan shall set a ceiling defining the maximum total annual emissions for all of the plants covered by the plan on the basis of each plant's total rated thermal input on 31 December 2010, its actual annual operating hours and its fuel use, averaged over the last 10 years of operation up to and including 2010.

The ceiling for the year 2016 shall be calculated on the basis of the relevant emission limit values set out in Annexes III to VII to Directive 2001/80/EC or, where applicable, on the basis of the rates of desulphurisation set out in Annex III to Directive 2001/80/EC. In the case of gas turbines, the emission limit values for nitrogen oxides set out for such plants in Part B of Annex VI to Directive 2001/80/EC shall be used. The ceilings for the years 2019 and 2020 shall be calculated on the basis of the relevant emission limit values set out in Part 1 of Annex V to this Directive or, where applicable, the relevant rates of desulphurisation set out in Part 5 of Annex V to this Directive. The ceilings for the years 2017 and 2018 shall be set providing a linear decrease of the ceilings between 2016 and 2019.

Where a plant included in the transitional national plan is closed or no longer falls within the scope of Chapter III, this shall not result in an increase in total annual emissions from the remaining plants covered by the plan.

4. The transitional national plan shall also contain provisions on monitoring and reporting that comply with the implementing rules established in accordance with Article 41(b), as well as the measures foreseen for each of the plants in order to ensure timely compliance with the emission limit values that will apply from 1 July 2020.

5. Not later than 1 January 2013, Member States shall communicate their transitional national plans to the Commission.

The Commission shall evaluate the plans and, where the Commission has raised no objections within 12 months of receipt of a plan, the Member State concerned shall consider its plan to be accepted.

When the Commission considers a plan not to be in accordance with the implementing rules established in accordance with Article 41(b), it shall inform the Member State concerned that its plan cannot be accepted. In relation to the evaluation of a new version of a plan which a Member State communicates to the Commission, the time period referred to in the second subparagraph shall be 6 months.

6. Member States shall inform the Commission of any subsequent changes to the plan.

Article 33

Limited life time derogation

1. During the period from 1 January 2016 to 31 December 2023, combustion plants may be exempted from compliance with the emission limit values referred to in Article 30(2) and with the rates of desulphurisation referred to in Article 31, where applicable, and from their inclusion in the transitional national plan referred to in Article 32 provided that the following conditions are fulfilled:

(a) the operator of the combustion plant undertakes, in a written declaration submitted by 1 January 2014 at the latest to the competent authority, not to operate the plant for more than 17 500 operating hours, starting from 1 January 2016 and ending no later than 31 December 2023;

(b) the operator is required to submit each year to the competent authority a record of the number of operating hours since 1 January 2016;

(c) the emission limit values for sulphur dioxides, nitrogen oxides and dust set out in the permit for the combustion plant applicable on 31 December 2015, pursuant in particular to the requirements of Directives 2001/80/EC and 2008/1/EC, shall at least be maintained during the remaining operational life of the combustion plant. Combustion plants with a total rated thermal input of more than 500 MW firing solid fuels, which were granted the first permit after 1 July 1987, shall comply with the emission limit values for nitrogen oxides set out in Part 1 of Annex V; and

(d) the combustion plant has not been granted an exemption as referred to in Article 4(4) of Directive 2001/80/EC.

2. At the latest on 1 January 2016, each Member State shall communicate to the Commission a list of any combustion plants to which paragraph 1 applies, including their total rated thermal input, the fuel types used and the applicable emission limit values for sulphur dioxide, nitrogen oxides and dust. For plants subject to paragraph 1, Member States shall communicate annually to the Commission a record of the number of operating hours since 1 January 2016.

3. In case of a combustion plant being, on 6 January 2011, part of a small isolated system and accounting at that date for at least 35 % of the electricity supply within that system, which is unable, due to its technical characteristics, to comply with the emission limit values referred to in Article 30(2), the number of operating hours referred to in paragraph 1(a) of this Article shall be 18 000 , starting from 1 January 2020 and ending no later than 31 December 2023, and the date referred to in paragraph 1(b) and paragraph 2 of this Article shall be 1 January 2020.

4. In case of a combustion plant with a total rated thermal input of more than 1 500 MW which started operating before 31 December 1986 and fires indigenous solid fuel with a net calorific value of less than 5 800 kJ/kg, a moisture content greater than 45 % by weight, a combined moisture and ash content greater than 60 % by weight and a calcium oxide content in ash greater than 10 %, the number of operating hours referred to in paragraph 1(a) shall be 32 000 .

Article 34

Small isolated systems

1. Until 31 December 2019, combustion plants being, on 6 January 2011, part of a small isolated system may be exempted from compliance with the emission limit values referred to in Article 30(2) and the rates of desulphurisation referred to in Article 31, where applicable. Until 31 December 2019, the emission limit values set out in the permits of these combustion plants, pursuant in particular to the requirements of Directives 2001/80/EC and 2008/1/EC, shall at least be maintained.

2. Combustion plants with a total rated thermal input of more than 500 MW firing solid fuels, which were granted the first permit after 1 July 1987, shall comply with the emission limit values for nitrogen oxides set out in Part 1 of Annex V.

3. Where there are, on the territory of a Member State combustion plants covered by this Chapter that are part of a small isolated system, that Member State shall report to the Commission before 7 January 2013 a list of those combustion plants, the total annual energy consumption of the small isolated system and the amount of energy obtained through interconnection with other systems.

Article 34a

Combustion plants that are part of a small isolated system

1. Member States may, until 31 December 2029, exempt combustion plants that are part of a small isolated system on 4 August 2024 from compliance with the emission limit values referred to in Article 30(2) and in Article 15(3) for sulphur dioxide, nitrogen oxides and dust or, where applicable, with the rates of desulphurisation referred to in Article 31. The emission limit values for sulphur dioxide, nitrogen oxides and dust set out in the permit for such combustion plants, pursuant to the requirements of Directives 2001/80/EC and 2008/1/EC, shall at least be maintained.

The Member States shall take measures to ensure that the emissions are monitored and that no significant pollution is caused. Member States may only exempt installations from the emission limit values when all measures resulting in less pollution have been exhausted. The exemption shall not be made for a longer period than necessary.

2. From 1 January 2030, the combustion plants concerned shall comply with the emission limit values for sulphur dioxide, nitrogen oxides and dust set out in Part 2 of Annex V and with the emission limit values referred to in Article 15(3) for sulphur dioxide, nitrogen oxides and dust.

3. Member States that provide exemptions in accordance with paragraph 1 of this Article shall implement a compliance plan covering the combustion plants that benefit from such

exemptions. The compliance plan shall contain information on the measures to ensure compliance of the plants concerned by 31 December 2029 with the emission limit values for sulphur dioxide, nitrogen oxides and dust set out in Part 2 of Annex V and with the emission limit values in Article 15(3) for sulphur dioxide, nitrogen oxides and dust. The compliance plan shall also include information on measures to minimise the magnitude and duration of the pollutant emissions during the period covered by the plan and information on demand management measures and cleaner fuel switching possibilities or cleaner alternatives such as the deployment of renewables and interconnection with the mainland grids.

4. Not later than 5 February 2025, Member States shall communicate their compliance plan to the Commission. The Commission shall evaluate the plans and, where the Commission has raised no objections within 12 months of receipt of the plan, the Member State concerned shall consider its plan to have been accepted. Where the Commission raises objections on the ground that the plan does not guarantee the compliance of the plants concerned by 31 December 2029 or does not minimise the magnitude and duration of the pollutant emissions during the period covered by the plan, the Member State concerned shall communicate to the Commission a revised plan within 6 months of the notification of the Commission's objections. In relation to the evaluation of a revised version of a plan which a Member State communicates to the Commission, the period referred to in the second sentence shall be 6 months.

5. Member States shall report to the Commission on the progress made in relation to the actions described in the compliance plan not later than 5 February 2026, and at the end of each subsequent calendar year. Member States shall inform the Commission of any subsequent changes to the compliance plan. In relation to the evaluation of a revised version of a plan which a Member State communicates to the Commission, the period referred to in the second sentence of paragraph 4 shall be six months.

6. The Member State shall make information on the derogation and the conditions imposed publicly available in accordance with Article 24(2).

Article 35

District heating plants

1. Until 31 December 2022, a combustion plant may be exempted from compliance with the emission limit values referred to in Article 30(2) and the rates of desulphurisation referred to in Article 31 provided that the following conditions are fulfilled:

(a) the total rated thermal input of the combustion plant does not exceed 200 MW;

(b) the plant was granted a first permit before 27 November 2002 or the operator of that plant had submitted a complete application for a permit before that date, provided that it was put into operation no later than 27 November 2003;

(c) at least 50 % of the useful heat production of the plant, as a rolling average over a period of 5 years, is delivered in the form of steam or hot water to a public network for district heating; and

(d) the emission limit values for sulphur dioxide, nitrogen oxides and dust set out in its permit applicable on 31 December 2015, pursuant in particular to the requirements of Directives 2001/80/EC and 2008/1/EC, are at least maintained until 31 December 2022.

2. At the latest on 1 January 2016, each Member State shall communicate to the Commission a list of any combustion plants to which paragraph 1 applies, including their total rated thermal input, the fuel types used and the applicable emission limit values for sulphur dioxide, nitrogen oxides and dust. In addition, Member States shall, for any combustion plants to which paragraph 1 applies and during the period mentioned in that paragraph, inform the Commission annually of the proportion of useful heat production of each plant which was delivered in the form of steam or hot water to a public network for district heating, expressed as a rolling average over the preceding 5 years.

Article 36

Geological storage of carbon dioxide

1. Member States shall ensure that operators of all combustion plants with a rated electrical output of 300 megawatts or more for which the original construction licence or, in the absence of such a procedure, the original operating licence is granted after the entry into force of Directive 2009/31/EC of the European Parliament and of the Council of 23 April 2009 on the geological storage of carbon dioxide ([34]), have assessed whether the following conditions are met:

(a) suitable storage sites are available,

(b) transport facilities are technically and economically feasible,

(c) it is technically and economically feasible to retrofit for carbon dioxide capture.

2. If the conditions laid down in paragraph 1 are met, the competent authority shall ensure that suitable space on the installation site for the equipment necessary to capture and compress carbon dioxide is set aside. The competent authority shall determine whether the conditions are met on the basis of the assessment referred to in paragraph 1 and other available information, particularly concerning the protection of the environment and human health.

Article 37

Malfunction or breakdown of the abatement equipment

1. Member States shall ensure that provision is made in the permits for procedures relating to malfunction or breakdown of the abatement equipment.

2. In the case of a breakdown, the competent authority shall require the operator to reduce or close down operations if a return to normal operation is not achieved within 24 hours, or to operate the plant using low polluting fuels.

The operator shall notify the competent authority within 48 hours after the malfunction or breakdown of the abatement equipment.

The cumulative duration of unabated operation shall not exceed 120 hours in any 12-month period.

The competent authority may grant a derogation from the time limits set out in the first and third subparagraphs in one of the following cases:

(a) there is an overriding need to maintain energy supplies;

(b) the combustion plant with the breakdown would be replaced for a limited period by another plant which would cause an overall increase in emissions.

Article 38

Monitoring of emissions into air

1. Member States shall ensure that the monitoring of air polluting substances is carried out in accordance with Part 3 of Annex V.

2. The installation and functioning of the automated monitoring equipment shall be subject to control and to annual surveillance tests as set out in Part 3 of Annex V.

3. The competent authority shall determine the location of the sampling or measurement points to be used for the monitoring of emissions.

4. All monitoring results shall be recorded, processed and presented in such a way as to enable the competent authority to verify compliance with the operating conditions and emission limit values which are included in the permit.

Article 39

Compliance with emission limit values

The emission limit values for air shall be regarded as being complied with if the conditions set out in Part 4 of Annex V are fulfilled.

Article 40

Multi-fuel firing combustion plants

1. In the case of a multi-fuel firing combustion plant involving the simultaneous use of two or more fuels, the competent authority shall set the emission limit values in accordance with the following steps:

(a) taking the emission limit value relevant for each individual fuel and pollutant corresponding to the total rated thermal input of the entire combustion plant as set out in Parts 1 and 2 of Annex V;

(b) determining fuel-weighted emission limit values, which are obtained by multiplying the individual emission limit value referred to in point (a) by the thermal input delivered by each fuel, and dividing the product of multiplication by the sum of the thermal inputs delivered by all fuels,

(c) aggregating the fuel-weighted emission limit values.

2. In the case of multi-fuel firing combustion plants covered by Article 30(2), which use the distillation and conversion residues from the refining of crude-oil for own consumption, alone or with other fuels, the following emission limit values may be applied instead of the emission limit values set according to paragraph 1:

(a) where, during the operation of the combustion plant, the proportion contributed by the determinative fuel to the sum of the thermal inputs delivered by all fuels is 50 % or more, the emission limit value set in Part 1 of Annex V for the determinative fuel;

(b) where the proportion contributed by the determinative fuel to the sum of the thermal inputs delivered by all fuels is less than 50 %, the emission limit value determined in accordance with the following steps:

(i) taking the emission limit values set out in Part 1 of Annex V for each of the fuels used, corresponding to the total rated thermal input of the combustion plant;

(ii) calculating the emission limit value of the determinative fuel by multiplying the emission limit value, determined for that fuel according to point (i), by a factor of two, and subtracting from this product the emission limit value of the fuel used with the lowest emission limit value as set out in Part 1 of Annex V, corresponding to the total rated thermal input of the combustion plant;

(iii) determining the fuel-weighted emission limit value for each fuel used by multiplying the emission limit value determined under points (i) and (ii) by the thermal input of the fuel concerned and by dividing the product of this multiplication by the sum of the thermal inputs delivered by all fuels;

(iv) aggregating the fuel-weighted emission limit values determined under point (iii).

3. In the case of multi-fuel firing combustion plants covered by Article 30(2), which use the distillation and conversion residues from the refining of crude-oil for own consumption, alone or with other fuels, the average emission limit values for sulphur dioxide set out in Part 7 of Annex V may be applied instead of the emission limit values set according to paragraphs 1 or 2 of this Article.

Article 41

Implementing rules

Implementing rules shall be established concerning:

(a) the determination of the start-up and shut-down periods referred to in point 27 of Article 3 and in point 1 of Part 4 of Annex V; and

(b) the transitional national plans referred to in Article 32 and, in particular, the setting of emission ceilings and related monitoring and reporting.

Those implementing rules shall be adopted in accordance with the regulatory procedure referred to in Article 75(2). The Commission shall make appropriate proposals not later than 7 July 2011.

CHAPTER IV

SPECIAL PROVISIONS FOR WASTE INCINERATION PLANTS AND WASTE CO-INCINERATION PLANTS

Article 42

Scope

1. This Chapter shall apply to waste incineration plants and waste co-incineration plants which incinerate or co-incinerate solid or liquid waste.

This Chapter shall not apply to gasification or pyrolysis plants, if the gases or liquids resulting from such thermal treatment of waste are ~~purified~~ treated prior to their incineration to such an extent that ~~they are no longer a waste prior to their incineration and they can cause emissions no higher than those resulting from the burning of natural gas.~~:

(a) the incineration causes emissions lower than the combustion of the least polluting fuels available on the market that could be combusted in the installation;

(b) for emissions other than nitrogen oxides, sulphur oxides and dust, the incineration does not cause emissions higher than those from incineration or co-incineration of waste.

For the purposes of this Chapter, waste incineration plants and waste co-incineration plants shall include all incineration lines or co-incineration lines, waste reception, storage, on site pretreatment facilities, waste-, fuel- and air-supply systems, boilers, facilities for the treatment of waste gases, on-site facilities for treatment or storage of residues and waste water, stacks, devices and systems for controlling incineration or co-incineration operations, recording and monitoring incineration or co-incineration conditions.

If processes other than oxidation, such as pyrolysis, gasification or plasma process, are applied for the thermal treatment of waste, the waste incineration plant or waste co-incineration plant shall include both the thermal treatment process and the subsequent incineration process.

If waste co-incineration takes place in such a way that the main purpose of the plant is not the generation of energy or production of material products but rather the thermal treatment of waste, the plant shall be regarded as a waste incineration plant.

2. This Chapter shall not apply to the following plants:

(a) plants treating only the following wastes:

(i) waste listed in point (b) of point 31 of Article 3;

(ii) radioactive waste;

(iii) animal carcasses as regulated by Regulation (EC) No 1774/2002 of the European Parliament and of the Council of 3 October 2002 laying down health rules concerning animal by-products not intended for human consumption ([35]);

(iv) waste resulting from the exploration for, and the exploitation of, oil and gas resources from off-shore installations and incinerated on board the installations;

(b) experimental plants used for research, development and testing in order to improve the incineration process and which treat less than 50 tonnes of waste per year.

Article 43

Definition of residue

For the purposes of this Chapter, 'residue' shall mean any liquid or solid waste which is generated by a waste incineration plant or waste co-incineration plant.

Article 44

Applications for permits

An application for a permit for a waste incineration plant or waste co-incineration plant shall include a description of the measures which are envisaged to guarantee that the following requirements are met:

(a) the plant is designed, equipped and will be maintained and operated in such a manner that the requirements of this Chapter are met taking into account the categories of waste to be incinerated or co-incinerated;

(b) the heat generated during the incineration and co-incineration process is recovered as far as practicable through the generation of heat, steam or power;

(c) the residues will be minimised in their amount and harmfulness and recycled where appropriate;

(d) the disposal of the residues which cannot be prevented, reduced or recycled will be carried out in conformity with national and Union law.

Article 45

Permit conditions

1. The permit shall include the following:

(a) a list of all types of waste which may be treated using at least the types of waste set out in the European Waste List established by Decision 2000/532/EC, if possible, and containing information on the quantity of each type of waste, where appropriate;

(b) the total waste incinerating or co-incinerating capacity of the plant;

(c) the limit values for emissions into air and water;

(d) the requirements for the pH, temperature and flow of waste water discharges;

(e) the sampling and measurement procedures and frequencies to be used to comply with the conditions set for emission monitoring;

(f) the maximum permissible period of any technically unavoidable stoppages, disturbances, or failures of the purification devices or the measurement devices, during which the emissions into the air and the discharges of waste water may exceed the prescribed emission limit values.

2. In addition to the requirements set out in paragraph 1, the permit granted to a waste incineration plant or waste co-incineration plant using hazardous waste shall include the following:

(a) a list of the quantities of the different categories of hazardous waste which may be treated;

(b) the minimum and maximum mass flows of those hazardous wastes, their lowest and maximum calorific values and their maximum contents of polychlorinated biphenyls, pentachlorophenol, chlorine, fluorine, sulphur, heavy metals and other polluting substances.

3. Member States may list the categories of waste to be included in the permit which can be co-incinerated in certain categories of waste co-incineration plants.

4. The competent authority shall periodically reconsider and, where necessary, update permit conditions.

Article 46

Control of emissions

1. Waste gases from waste incineration plants and waste co-incineration plants shall be discharged in a controlled way by means of a stack the height of which is calculated in such a way as to safeguard human health and the environment.

2. Emissions into air from waste incineration plants and waste co-incineration plants shall not exceed the emission limit values set out in parts 3 and 4 of Annex VI or determined in accordance with Part 4 of that Annex.

If in a waste co-incineration plant more than 40 % of the resulting heat release comes from hazardous waste, or the plant co-incinerates untreated mixed municipal waste, the emission limit values set out in Part 3 of Annex VI shall apply.

3. Discharges to the aquatic environment of waste water resulting from the cleaning of waste gases shall be limited as far as practicable and the concentrations of polluting substances shall not exceed the emission limit values set out in Part 5 of Annex VI.

4. The emission limit values shall apply at the point where waste waters from the cleaning of waste gases are discharged from the waste incineration plant or waste co-incineration plant.

When waste waters from the cleaning of waste gases are treated outside the waste incineration plant or waste co-incineration plant at a treatment plant intended only for the treatment of this sort of waste water, the emission limit values set out in Part 5 of Annex VI shall be applied at the point where the waste waters leave the treatment plant. Where the waste water from the cleaning of waste gases is treated collectively with other sources of waste water, either on site or off site, the operator shall make the appropriate mass balance calculations, using the results of the measurements set out in point 3 of Part 6 of Annex VI in order to determine the emission levels in the final waste water discharge that can be attributed to the waste water arising from the cleaning of waste gases.

Under no circumstances shall dilution of waste water take place for the purpose of complying with the emission limit values set out in Part 5 of Annex VI.

5. Waste incineration plant sites and waste co-incineration plant sites, including associated storage areas for waste, shall be designed and operated in such a way as to prevent the

unauthorised and accidental release of any polluting substances into soil, surface water and groundwater.

Storage capacity shall be provided for contaminated rainwater run-off from the waste incineration plant site or waste co-incineration plant site or for contaminated water arising from spillage or fire-fighting operations. The storage capacity shall be adequate to ensure that such waters can be tested and treated before discharge where necessary.

6. Without prejudice to Article 50(4)(c), the waste incineration plant or waste co-incineration plant or individual furnaces being part of a waste incineration plant or waste co-incineration plant shall under no circumstances continue to incinerate waste for a period of more than 4 hours uninterrupted where emission limit values are exceeded.

The cumulative duration of operation in such conditions over 1 year shall not exceed 60 hours.

The time limit set out in the second subparagraph shall apply to those furnaces which are linked to one single waste gas cleaning device.

Article 47

Breakdown

In the case of a breakdown, the operator shall reduce or close down operations as soon as practicable until normal operations can be restored.

Article 48

Monitoring of emissions

1. Member States shall ensure that the monitoring of emissions is carried out in accordance with Parts 6 and 7 of Annex VI.

Emissions to air from waste incineration and co-incineration plants shall also be monitored during other than normal operating conditions. Emissions during start-up and shutdown while no waste is being incinerated, including emissions of PCDD/F and dioxin-like PCBs, shall be estimated based on measurement campaigns, carried out at regular intervals, such as every three years, carried out during planned start-up or shutdown operations. Emissions of PCDD/F and dioxin-like PCBs shall as far as possible be prevented or minimised.

2. The installation and functioning of the automated measuring systems shall be subject to control and to annual surveillance tests as set out in point 1 of Part 6 of Annex VI.

3. The competent authority shall determine the location of the sampling or measurement points to be used for monitoring of emissions.

4. All monitoring results shall be recorded, processed and presented in such a way as to enable the competent authority to verify compliance with the operating conditions and emission limit values which are included in the permit.

5. As soon as appropriate measurement techniques are available within the Union, the Commission shall, by means of delegated acts in accordance with Article 76 and subject to the conditions laid down in Articles 77 and 78, set the date from which continuous

measurements of emissions into the air of heavy metals and dioxins and furans are to be carried out.

Article 49

Compliance with emission limit values

The emission limit values for air and water shall be regarded as being complied with if the conditions described in Part 8 of Annex VI are fulfilled.

Article 50

Operating conditions

1. Waste incineration plants shall be operated in such a way as to achieve a level of incineration such that the total organic carbon content of slag and bottom ashes is less than 3 % or their loss on ignition is less than 5 % of the dry weight of the material. If necessary, waste pre-treatment techniques shall be used.

2. Waste incineration plants shall be designed, equipped, built and operated in such a way that the gas resulting from the incineration of waste is raised, after the last injection of combustion air, in a controlled and homogeneous fashion and even under the most unfavourable conditions, to a temperature of at least 850 °C for at least two seconds.

Waste co-incineration plants shall be designed, equipped, built and operated in such a way that the gas resulting from the co-incineration of waste is raised in a controlled and homogeneous fashion and even under the most unfavourable conditions, to a temperature of at least 850 °C for at least two seconds.

If hazardous waste with a content of more than 1 % of halogenated organic substances, expressed as chlorine, is incinerated or co-incinerated, the temperature required to comply with the first and second subparagraphs shall be at least 1 100 °C.

In waste incineration plants, the temperatures set out in the first and third subparagraphs shall be measured near the inner wall of the combustion chamber. The competent authority may authorise the measurements at another representative point of the combustion chamber.

3. Each combustion chamber of a waste incineration plant shall be equipped with at least one auxiliary burner. This burner shall be switched on automatically when the temperature of the combustion gases after the last injection of combustion air falls below the temperatures set out in paragraph 2. It shall also be used during plant start-up and shut-down operations in order to ensure that those temperatures are maintained at all times during these operations and as long as unburned waste is in the combustion chamber.

The auxiliary burner shall not be fed with fuels which can cause higher emissions than those resulting from the burning of gas oil as defined in Article 2(2) of Council Directive 1999/32/EC of 26 April 1999 relating to a reduction in the sulphur content of certain liquid fuels ([36]), liquefied gas or natural gas.

4. Waste incineration plants and waste co-incineration plants shall operate an automatic system to prevent waste feed in the following situations:

(a) at start-up, until the temperature set out in paragraph 2 of this Article or the temperature specified in accordance with Article 51(1) has been reached;

(b) whenever the temperature set out in paragraph 2 of this Article or the temperature specified in accordance with Article 51(1) is not maintained;

(c) whenever the continuous measurements show that any emission limit value is exceeded due to disturbances or failures of the waste gas cleaning devices.

5. Any heat generated by waste incineration plants or waste co-incineration plants shall be recovered as far as practicable.

6. Infectious clinical waste shall be placed straight in the furnace, without first being mixed with other categories of waste and without direct handling.

7. Member States shall ensure that the waste incineration plant or waste co-incineration plant is operated and controlled by a natural person who is competent to manage the plant.

Article 51

Authorisation to change operating conditions

1. Conditions different from those laid down in Article 50(1), (2) and (3) and, as regards the temperature, paragraph 4 of that Article and specified in the permit for certain categories of waste or for certain thermal processes, may be authorised by the competent authority provided the other requirements of this Chapter are met. Member States may lay down rules governing these authorisations.

2. For waste incineration plants, the change of the operating conditions shall not cause more residues or residues with a higher content of organic polluting substances compared to those residues which could be expected under the conditions laid down in Article 50(1), (2) and (3).

3. Emissions of total organic carbon and carbon monoxide from waste co-incineration plants, authorised to change operating conditions according to paragraph 1 shall also comply with the emission limit values set out in Part 3 of Annex VI.

Emissions of total organic carbon from bark boilers within the pulp and paper industry co-incinerating waste at the place of its production which were in operation and had a permit before 28 December 2002 and which are authorised to change operating conditions according to paragraph 1 shall also comply with the emission limit values set out in Part 3 of Annex VI.

4. Member States shall communicate to the Commission all operating conditions authorised under paragraphs 1, 2 and 3 and the results of verifications made as part of the information provided in accordance with the reporting requirements under Article 72.

Article 52

Delivery and reception of waste

1. The operator of the waste incineration plant or waste co-incineration plant shall take all necessary precautions concerning the delivery and reception of waste in order to prevent or to limit as far as practicable the pollution of air, soil, surface water and groundwater as well as other negative effects on the environment, odours and noise, and direct risks to human health.

2. The operator shall determine the mass of each type of waste, if possible according to the European Waste List established by Decision 2000/532/EC, prior to accepting the waste at the waste incineration plant or waste co-incineration plant.

3. Prior to accepting hazardous waste at the waste incineration plant or waste co-incineration plant, the operator shall collect available information about the waste for the purpose of verifying compliance with the permit requirements specified in Article 45(2).

That information shall cover the following:

(a) all the administrative information on the generating process contained in the documents mentioned in paragraph 4(a);

(b) the physical, and as far as practicable, chemical composition of the waste and all other information necessary to evaluate its suitability for the intended incineration process;

(c) the hazardous characteristics of the waste, the substances with which it cannot be mixed, and the precautions to be taken in handling the waste.

4. Prior to accepting hazardous waste at the waste incineration plant or waste co-incineration plant, at least the following procedures shall be carried out by the operator:

(a) the checking of the documents required by Directive 2008/98/EC and, where applicable, those required by Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste ([37]) and by legislation on transport of dangerous goods;

(b) the taking of representative samples, unless inappropriate as far as possible before unloading, to verify conformity with the information provided for in paragraph 3 by carrying out controls and to enable the competent authorities to identify the nature of the wastes treated.

The samples referred to in point (b) shall be kept for at least 1 month after the incineration or co-incineration of the waste concerned.

5. The competent authority may grant exemptions from paragraphs 2, 3 and 4 to waste incineration plants or waste co-incineration plants which are a part of an installation covered by Chapter II and only incinerate or co-incinerate waste generated within that installation.

Article 53

Residues

1. Residues shall be minimised in their amount and harmfulness. Residues shall be recycled, where appropriate, directly in the plant or outside.

2. Transport and intermediate storage of dry residues in the form of dust shall take place in such a way as to prevent dispersal of those residues in the environment.

3. Prior to determining the routes for the disposal or recycling of the residues, appropriate tests shall be carried out to establish the physical and chemical characteristics and the polluting potential of the residues. Those tests shall concern the total soluble fraction and heavy metals soluble fraction.

Article 54

Substantial change

A change of operation of a waste incineration plant or a waste co-incineration plant treating only non-hazardous waste in an installation covered by Chapter II which involves the incineration or co-incineration of hazardous waste shall be regarded as a substantial change.

Article 55

Reporting and public information on waste incineration plants and waste co-incineration plants

1. Applications for new permits for waste incineration plants and waste co-incineration plants shall be made available to the public at one or more locations for an appropriate period to enable the public to comment on the applications before the competent authority reaches a decision. That decision, including at least a copy of the permit, and any subsequent updates, shall also be made available to the public.

2. For waste incineration plants or waste co-incineration plants with a nominal capacity of 2 tonnes or more per hour, the report referred to in Article 72 shall include information on the functioning and monitoring of the plant and give account of the running of the incineration or co-incineration process and the level of emissions into air and water in comparison with the emission limit values. That information shall be made available to the public.

3. A list of waste incineration plants or waste co-incineration plants with a nominal capacity of less than 2 tonnes per hour shall be drawn up by the competent authority and shall be made available to the public.

CHAPTER V

SPECIAL PROVISIONS FOR INSTALLATIONS AND ACTIVITIES USING ORGANIC SOLVENTS

Article 56

Scope

This chapter shall apply to activities listed in Part 1 of Annex VII and, where applicable, reaching the consumption thresholds set out in Part 2 of that Annex.

Article 57

Definitions

For the purposes of this Chapter, the following definitions shall apply:

(1) ‘existing installation’ means an installation in operation on 29 March 1999 or which was granted a permit or registered before 1 April 2001 or the operator of which submitted a

complete application for a permit before 1 April 2001, provided that that installation was put in operation no later than 1 April 2002;

(2) ‘waste gases’ means the final gaseous discharge containing volatile organic compounds or other pollutants from a stack or abatement equipment into air;

(3) ‘fugitive emissions’ means any emissions not in waste gases of volatile organic compounds into air, soil and water as well as solvents contained in any products, unless otherwise stated in Part 2 of Annex VII;

(4) ‘total emissions’ means the sum of fugitive emissions and emissions in waste gases;

(5) ‘mixture’ means mixture as defined in Article 3(2) of Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) and establishing a European Chemicals Agency ([38]),

(6) ‘adhesive’ means any mixture, including all the organic solvents or mixtures containing organic solvents necessary for its proper application, which is used to adhere separate parts of a product;

(7) ‘ink’ means a mixture, including all the organic solvents or mixtures containing organic solvents necessary for its proper application, which is used in a printing activity to impress text or images on to a surface;

(8) ‘varnish’ means a transparent coating;

(9) ‘consumption’ means the total input of organic solvents into an installation per calendar year, or any other 12-month period, less any volatile organic compounds that are recovered for re-use;

(10) ‘input’ means the quantity of organic solvents and their quantity in mixtures used when carrying out an activity, including the solvents recycled inside and outside the installation, and which are counted every time they are used to carry out the activity;

(11) ‘re-use’ means the use of organic solvents recovered from an installation for any technical or commercial purpose and including use as a fuel but excluding the final disposal of such recovered organic solvent as waste;

(12) ‘contained conditions’ means conditions under which an installation is operated so that the volatile organic compounds released from the activity are collected and discharged in a controlled way either via a stack or abatement equipment and are, therefore, not entirely fugitive;

(13) ‘start-up and shut-down operations’ means operations excluding regularly oscillating activity phases whilst bringing an activity, an equipment item or a tank into or out of service or into or out of an idling state.

Article 58

Substitution of hazardous substances

Substances or mixtures which, because of their content of volatile organic compounds classified as carcinogens, mutagens, or toxic to reproduction under Regulation (EC)

No 1272/2008, are assigned or need to carry the hazard statements H340, H350, H350i, H360D or H360F, shall be replaced, as far as possible by less harmful substances or mixtures within the shortest possible time.

Article 59

Control of emissions

1. Member States shall take the necessary measures to ensure that each installation complies with either of the following:

(a) the emission of volatile organic compounds from installations shall not exceed the emission limit values in waste gases and the fugitive emission limit values, or the total emission limit values, and other requirements laid down in Parts 2 and 3 of Annex VII are complied with;

(b) the requirements of the reduction scheme set out in Part 5 of Annex VII provided that an equivalent emission reduction is achieved compared to that achieved through the application of the emission limit values referred to in point (a).

Member States shall report to the Commission in accordance with Article 72(1) on the progress in achieving the equivalent emission reduction referred to in point (b).

2. By way of derogation from paragraph 1(a), where the operator demonstrates to the competent authority that for an individual installation the emission limit value for fugitive emissions is not technically and economically feasible, the competent authority may allow emissions to exceed that emission limit value provided that significant risks to human health or the environment are not to be expected and that the operator demonstrates to the competent authority that the best available techniques are being used.

3. By way of derogation from paragraph 1, for coating activities covered by item 8 of the table in Part 2 of Annex VII which cannot be carried out under contained conditions, the competent authority may allow the emissions of the installation not to comply with the requirements set out in that paragraph if the operator demonstrates to the competent authority that such compliance is not technically and economically feasible and that the best available techniques are being used.

4. Member States shall report to the Commission on the derogations referred to in paragraphs 2 and 3 of this Article in accordance with Article 72(2).

5. The emissions of either volatile organic compounds which are assigned or need to carry the hazard statements H340, H350, H350i, H360D or H360F or halogenated volatile organic compounds which are assigned or need to carry the hazard statements H341 or H351, shall be controlled under contained conditions as far as technically and economically feasible to safeguard public health and the environment and shall not exceed the relevant emission limit values set out in Part 4 of Annex VII.

6. Installations where two or more activities are carried out, each of which exceeds the thresholds in Part 2 of Annex VII shall:

(a) as regards the substances specified in paragraph 5, meet the requirements of that paragraph for each activity individually;

(b) as regards all other substances, either:

(i) meet the requirements of paragraph 1 for each activity individually; or

(ii) have total emissions of volatile organic compounds not exceeding those which would have resulted had point (i) been applied.

7. All appropriate precautions shall be taken to minimise emissions of volatile organic compounds during start-up and shut-down operations.

Article 60

Monitoring of emissions

Member States shall, either by specification in the permit conditions or by general binding rules, ensure that measurements of emissions are carried out in accordance with Part 6 of Annex VII.

Article 61

Compliance with emission limit values

The emission limit values in waste gases shall be regarded as being complied with if the conditions set out in Part 8 of Annex VII are fulfilled.

Article 62

Reporting on compliance

The operator shall supply the competent authority, on request, with data enabling the competent authority to verify compliance with either of the following:

(a) emission limit values in waste gases, fugitive emission limit values and total emission limit values;

(b) the requirements of the reduction scheme under Part 5 of Annex VII;

(c) the derogations granted in accordance with Article 59(2) and (3).

This may include a solvent management plan prepared in accordance with Part 7 of Annex VII.

Article 63

Substantial change to existing installations

1. A change of the maximum mass input of organic solvents by an existing installation averaged over 1 day, where the installation is operated at its design output under conditions other than start-up and shut-down operations and maintenance of equipment, shall be considered as substantial if it leads to an increase of emissions of volatile organic compounds of more than:

(a) 25 % for an installation carrying out either activities which fall within the lower threshold band of items 1, 3, 4, 5, 8, 10, 13, 16 or 17 of the table in Part 2 of Annex VII or, activities

which fall under one of the other items of Part 2 of Annex VII, and with a solvent consumption of less than 10 tonnes per year;

(b) 10 % for all other installations.

2. Where an existing installation undergoes a substantial change, or falls within the scope of this Directive for the first time following a substantial change, that part of the installation which undergoes the substantial change shall be treated ~~either~~ as a new installation ~~or as an existing installation, provided that the total emissions of the whole installation do not exceed those that would have resulted had the substantially changed part been treated as a new installation~~.

3. In case of a substantial change, the competent authority shall check compliance of the installation with the requirements of this Directive.

Article 64

Exchange of information on substitution of organic solvents

The Commission shall organise an exchange of information with the Member States, the industry concerned and non-governmental organisations promoting environmental protection on the use of organic solvents and their potential substitutes and techniques which have the least potential effects on air, water, soil, ecosystems and human health.

The exchange of information shall be organised on all of the following:

(a) fitness for use;

(b) potential effects on human health and occupational exposure in particular;

(c) potential effects on the environment;

(d) the economic consequences, in particular the costs and benefits of the options available.

Article 65

Access to information

1. The decision of the competent authority, including at least a copy of the permit, and any subsequent updates, shall be made available to the public.

The general binding rules applicable for installations and the list of installations subject to permitting and registration shall be made available to the public.

2. The results of the monitoring of emissions as required under Article 60 and held by the competent authority shall be made available to the public.

3. Paragraphs 1 and 2 of this Article shall apply, subject to the restrictions laid down in Article 4(1) and (2) of Directive 2003/4/EC.

CHAPTER VI

SPECIAL PROVISIONS FOR INSTALLATIONS PRODUCING TITANIUM DIOXIDE

Article 66

Scope

This Chapter shall apply to installations producing titanium dioxide.

Article 67

Prohibition of the disposal of waste

Member States shall prohibit the disposal of the following waste into any water body, sea or ocean:

(a) solid waste;

(b) the mother liquors arising from the filtration phase following hydrolysis of the titanyl sulphate solution from installations applying the sulphate process; including the acid waste associated with such liquors, containing overall more than 0,5 % free sulphuric acid and various heavy metals and including such mother liquors which have been diluted until they contain 0,5 % or less free sulphuric acid;

(c) waste from installations applying the chloride process containing more than 0,5 % free hydrochloric acid and various heavy metals, including such waste which has been diluted until it contains 0,5 % or less free hydrochloric acid;

(d) filtration salts, sludges and liquid waste arising from the treatment (concentration or neutralisation) of the waste mentioned under points (b) and (c) and containing various heavy metals, but not including neutralised and filtered or decanted waste containing only traces of heavy metals and which, before any dilution, has a pH value above 5,5.

Article 68

Control of emissions into water

Emissions from installations into water shall not exceed the emission limit values set out in Part 1 of Annex VIII.

Article 69

Prevention and control of emissions into air

1. The emission of acid droplets from installations shall be prevented.

2. Emissions into air from installations shall not exceed the emission limit values set out in Part 2 of Annex VIII.

Article 70

Monitoring of emissions

1. Member States shall ensure the monitoring of emissions into water in order to enable the competent authority to verify compliance with the permit conditions and Article 68.

2. Member States shall ensure the monitoring of emissions into air in order to enable the competent authority to verify compliance with the permit conditions and Article 69. Such monitoring shall include at least monitoring of emissions as set out in Part 3 of Annex VIII.

3. Monitoring shall be carried out, and the quality assurance system of the laboratory performing the monitoring shall be, in accordance with CEN standards or, if CEN standards are not available, ISO, national or other international standards which ensure the provision of data of an equivalent scientific quality.

CHAPTER VIa

SPECIAL PROVISIONS FOR REARING POULTRY AND PIGS

Article 70a

Scope

This Chapter shall apply to the activities set out in Annex Ia which reach the capacity thresholds set out in that Annex.

Article 70b

Aggregation rule

1. Member States shall adopt measures to ensure that if two or more installations engaged in livestock rearing activities are located close to each other and if their operator is the same or if the installations are under the control of operators who are engaged in an economic or legal relationship, the competent authority may consider those installations to be a single unit for the purpose of calculating the capacity threshold referred to in Article 70a.

Member States shall ensure that the rule referred to in the first subparagraph is not used to circumvent the obligations set out in this Directive.

2. By 5 August 2028, the Commission shall publish guidelines, after consulting the Member States, on the criteria for considering different installations to be a single unit under paragraph 1.

Article 70c

Permits and registrations

1. Member States shall take the necessary measures to ensure that no installation falling within the scope of this Chapter operates without a permit or without being registered and that the operation of all installations within the scope of this Chapter complies with the uniform conditions for operating rules referred to in Article 70i.

Member States may use any similar pre-existing procedure for the registration of installations in order to avoid creating an administrative burden.

Member States may apply a permitting procedure to the intensive rearing of poultry and pigs:
(a) with more than 40 000 places for poultry;
(b) with more than 2 000 places for production pigs over 30 kg; or
(c) with more than 750 places for sows.

Member States may include requirements for certain categories of installations falling within the scope of this Chapter in the general binding rules referred to in Article 6.

Member States shall specify the procedure for registration or granting a permit in respect of installations falling within the scope of this Chapter. Those procedures shall include at least the information listed in paragraph 2.

2. Registrations or applications for permits shall include at least a description of the following elements:

(a) the installation and its activities;

(b) the animal type;

(c) the stocking density in LSU per hectare calculated in accordance with Annex Ia, where necessary;

(d) the capacity of the installation;

(e) the sources of emissions from the installation;

(f) the nature and quantities of foreseeable emissions from the installation into each medium.

3. Applications shall also include a non-technical summary of the information referred to in paragraph 2.

4. Member States shall take the necessary measures to ensure that the operator informs the competent authority, without delay, of any planned substantial change to the installations falling within the scope of this Chapter which could have consequences for the environment. Where appropriate, the competent authority shall reconsider and update the permit or request the operator to apply for a permit or make a new registration.

5. The Commission shall assess the impacts of the implementation of the operating rules laid down in Article 70i and submit, by 11 years after the entry into force of the implementing act referred to in Article 70i(2), a report to the European Parliament and to the Council on the results of that assessment.

Article 70d

Obligations of the operator

1. Member States shall ensure that the operator carries out monitoring of emissions and of associated environmental performance levels in accordance with the uniform conditions for operating rules referred to in Article 70i.

Monitoring data shall be obtained by means of measurement methods or, where not practicable, by calculation methods such as the use of emission factors. The methods used for obtaining the monitoring data shall be described in the operating rules.

The operator shall keep a record of, and process, all monitoring results, for a period of at least 5 years, in such a way as to enable the verification of compliance with the emission limit values and environmental performance limit values set out in operating rules.

2. In the event of non-compliance with the emission limit values and environmental performance limit values set out in the uniform conditions for operating rules referred to in Article 70i, Member States shall require the operator to take the measures necessary to ensure that compliance is restored within the shortest possible time.

3. The operator shall ensure that any manure management, including land spreading of waste, animal by-products or other residues generated by the installation is undertaken in accordance with the best available techniques, as specified in the operating rules, and other relevant Union legislation and that it does not cause significant pollution of the environment.

Article 70e

Monitoring

1. Member States shall ensure that suitable monitoring is carried out in accordance with the uniform conditions for operating rules referred to in Article 70i.

2. All monitoring results shall be recorded, processed and presented in such a way as to enable the competent authority to verify compliance with the operating conditions, emission limit values and environmental performance limit values which are included in the general binding rules referred to in Article 6 or in the permit.

3. The operator shall, without delay, make available the data and information listed in paragraph 2 to the competent authority upon request. The competent authority may make such a request in order to verify compliance with the uniform conditions for operating rules. The competent authority shall make that request if a member of the public requests access to the data or information listed in paragraph 2.

Article 70f

Non-compliance

1. Member States shall ensure that the values for emissions and environmental performance levels are monitored in accordance with the uniform conditions for operating rules referred to in Article 70i and do not exceed the emission limit values and environmental performance limit values set out therein.

2. Member States shall set up an effective compliance monitoring system, based on either environmental inspections or other measures, to check compliance with the requirements set out in this Chapter.

3. In the event of non-compliance with the requirements set out in this Chapter, Member States shall ensure that the competent authority requires the operator to take any measures, in addition to the measures taken by the operator under Article 70d, that are necessary to ensure that compliance is restored without delay.

Where non-compliance causes a significant degradation of local air, water or soil conditions, or where it poses, or risks posing, a significant danger to human health, the operation of the installation shall be suspended by the competent authority until compliance is restored.

Article 70g

Public information and participation

1. Member States shall ensure that the public concerned are given early and effective opportunities to participate in the following procedures:

(a) preparation of general binding rules as referred to in Article 6 on permits for installations falling within the scope of this Chapter;

(b) the granting of a permit for a new installation falling within the scope of this Chapter;

(c) the granting of an updated permit in accordance with Article 70c(4) for any substantial change to an existing installation falling within the scope of this Chapter; or

(d) the procedure for registration, in the event that general binding rules are not adopted, and the Member States allow the installation only to be registered.

2. The competent authority shall make available to the public, including systematically via the internet, free of charge and without restricting access to registered users, the following documents and information:

(a) the permit or the registration;

(b) the results of the consultations held in accordance with paragraph 1;

(c) the general binding rules referred to in Article 6 which are applicable to installations falling within the scope of this Chapter; and

(d) the reports of inspections of the installations falling within the scope of this Chapter.

Article 70h

Access to justice

1. Member States shall ensure that, in accordance with the relevant national legal system, members of the public concerned have access to a review procedure before a court of law or another independent and impartial body established by law to challenge the substantive or

procedural legality of decisions, acts or omissions subject to this Chapter when one of the following conditions is met:

(a) they have a sufficient interest;

(b) they maintain the impairment of a right, where administrative procedural law of a Member State requires that as a precondition.

Standing in the review procedure shall not be conditional on the role that the member of the public concerned played during a participatory phase of the decision-making procedures under this Directive.

The review procedure shall be fair, equitable, timely and not prohibitively expensive, and shall provide for adequate and effective remedies, including injunctive relief as appropriate.

2. Member States shall determine at what stage the decisions, acts or omissions may be challenged.

Article 70i

Uniform conditions for Operating Rules

1. The Commission shall organise an exchange of information between Member States, the sectors concerned, non-governmental organisations promoting environmental protection and the Commission before establishing uniform conditions for operating rules in accordance with paragraph 2. The exchange of information shall, in particular, address the following:

(a) the emission and environmental performance levels of installations and techniques, and other measures consistent with Annex III;

(b) the techniques used, associated monitoring, cross-media effects, economic and technical viability and developments in that regard;

(c) best available techniques identified after considering the issues mentioned in points (a) and (b);

(d) emerging techniques.

2. The Commission shall adopt by 1 September 2026 an implementing act to establish uniform conditions for operating rules for each of the activities referred to in Annex Ia.

The uniform conditions for operating rules shall be consistent with the use of best available techniques for the activities listed in Annex Ia and shall take into account the nature, type, size and stocking density of those installations, the size of herds of single animal types in mixed farms, and the specificities of pasture-based rearing systems, where animals are only seasonally reared in indoor installations. They shall also include indicative information on emerging techniques, where available.

That implementing act shall be adopted in accordance with the examination procedure referred to in Article 75(2).

3. Member States shall ensure that the competent authority follows or is informed of developments in best available techniques and of the publication of any new or updated uniform conditions for operating rules.

CHAPTER VII

COMMITTEE, TRANSITIONAL AND FINAL PROVISIONS

Article 71

Competent authorities

Member States shall designate the competent authorities responsible for carrying out the obligations arising from this Directive.

Article 72

Reporting by Member States

1. Member States shall ensure that information is made available to the Commission on the implementation of this Directive, on representative data on emissions and other forms of pollution, on emission limit values, on the application of best available techniques in accordance with Articles 14 and 15, in particular on the granting of exemptions in accordance with Article 15(4), and on progress made concerning the development and application of emerging techniques in accordance with Article 27. Member States shall make the information available in an electronic format.

2. The type, format and frequency of information to be made available pursuant to paragraph 1 of this Article shall be established in accordance with the regulatory procedure referred to in Article 75(2). The implementing decision establishing the type, format and frequency of information to be made available pursuant to paragraph 1 of this Article shall be updated whenever necessary and not later than 5 August 2026. ~~This shall include the determination of the specific activities and pollutants for which data referred to in paragraph 1 shall be made available.~~

3. For all combustion plants covered by Chapter III of this Directive, Member States shall, from 1 January 2016, establish an annual inventory of the sulphur dioxide, nitrogen oxides and dust emissions and energy input.

Taking into account the aggregation rules set out in Article 29, the competent authority shall obtain the following data for each combustion plant:

(a) the total rated thermal input (MW) of the combustion plant;

(b) the type of combustion plant: boiler, gas turbine, gas engine, diesel engine, other (specifying the type);

(c) the date of the start of operation of the combustion plant;

(d) the total annual emissions (tonnes per year) of sulphur dioxide, nitrogen oxides and dust (as total suspended particles);

(e) the number of operating hours of the combustion plant;

(f) the total annual amount of energy input, related to the net calorific value (TJ per year), broken down in terms of the following categories of fuel: coal, lignite, biomass, peat, other solid fuels (specifying the type), liquid fuels, natural gas, other gases (specifying the type).

The annual plant-by-plant data contained in these inventories shall be made available to the Commission upon request.

A summary of the inventories shall be made available to the Commission every 3 years within 12 months from the end of the three-year period considered. This summary shall show separately the data for combustion plants within refineries.

The Commission shall make available to the Member States and to the public a summary of the comparison and evaluation of those inventories in accordance with Directive 2003/4/EC within 24 months from the end of the three-year period considered.

4. Member States shall, from 1 January 2016, report the following data annually to the Commission:

(a) for combustion plants to which Article 31 applies, the sulphur content of the indigenous solid fuel used and the rate of desulphurisation achieved, averaged over each month. For the first year where Article 31 is applied, the technical justification of the non-feasibility of complying with the emission limit values referred to in Article 30(2) and (3) shall also be reported; and

(b) for combustion plants which do not operate more than 1 500 operating hours per year as a rolling average over a period of 5 years, the number of operating hours per year.

Article 73

Review

1. By 30 June 2028 and every 5 years thereafter, the Commission shall submit to the European Parliament and to the Council a report reviewing the implementation of this Directive. The report shall include information on activities for which BAT conclusions have or have not been adopted pursuant to Article 13(5) of this Directive, take into account the dynamics of innovation, including emerging techniques, the need for further pollution prevention measures and the review referred to in Article 8 of Directive 2003/87/EC.

~~By 7 January 2016, and every 3 years thereafter, the Commission shall submit to the European Parliament and to the Council a report reviewing the implementation of this Directive on the basis of the information referred to in Article 72.~~

That report shall include an assessment of the need for Union action through the establishment or updating of Union-wide minimum requirements for emission limit values and for rules on monitoring and compliance for activities within the scope of the BAT conclusions adopted during the previous five ~~three~~-year period, on the basis of the following criteria:

(a) the impact of the activities concerned on the environment as a whole and on human health;

(b) the state of implementation of best available techniques for the activities concerned.

That assessment shall consider the opinion of the forum referred to in Article 13(4).

Chapter III and Annex V of this Directive shall be considered to represent the Union-wide minimum requirements in the case of large combustion plants.

The report shall be accompanied by a legislative proposal where appropriate. Where the assessment referred to in the second subparagraph identifies such a need, the legislative proposal shall include provisions establishing or updating Union-wide minimum requirements for emission limit values and for rules on monitoring and compliance assessment for the activities concerned.

2. The Commission shall, by 31 December 2012, review the need to control emissions from:

(a) the combustion of fuels in installations with a total rated thermal input below 50 MW;

(b) the intensive rearing of cattle; and

(c) the spreading of manure.

The Commission shall report the results of that review to the European Parliament and to the Council accompanied by a legislative proposal where appropriate.

3. The Commission shall, using an evidence-based methodology and taking into account the specificities of the sector, assess the need for Union action to:

(a) comprehensively address the emissions from the rearing of livestock within the Union, in particular from cattle; and

(b) further achieve the objective of global environmental protection with respect to products placed on the Union market, through the prevention and control of emissions from livestock farming, and in a manner consistent with the Union's international obligations.

The Commission shall report the results of that assessment by 31 December 2026 to the European Parliament and the Council. The report shall be accompanied by a legislative proposal where appropriate.

~~3. The Commission shall report to the European Parliament and the Council, by 31 December 2011, on the establishment in Annex I of:~~

~~(a) differentiated capacity thresholds for the rearing of different poultry species, including the specific case of quail;~~

~~(b) capacity thresholds for the simultaneous rearing of different types of animals within the same installation.~~

~~The Commission shall report the results of that review to the European Parliament and to the Council accompanied by a legislative proposal where appropriate.~~

4. The Commission shall review:

(a) the need to control emissions from onshore and offshore exploration and production of mineral oil and gas;

(b) the need to control emissions from the on-site treatment and extraction of non-energy industrial minerals used in industry other than for construction, as well as the need to control

emissions from the on-site treatment and extraction of ores which are newly carried out in the Union;

(c) the need to revise the activity threshold in Annex I for the production of hydrogen by electrolysis of water.

The Commission shall include the results of that review in the first of the reports to the European Parliament and to the Council required under the first paragraph.

Article 74

Amendments of Annexes

1. In order to allow the provisions of this Directive to be adapted to scientific and technical progress on the basis of best available techniques, the Commission shall adopt delegated acts in accordance with Article 76 ~~and subject to the conditions laid down in Articles 77 and 78~~ as regards the adaptation of Parts 3 and 4 of Annex V, Parts 2, 6, 7 and 8 of Annex VI and Parts 5, 6, 7 and 8 of Annex VII to such scientific and technical progress.

2. The Commission shall carry out appropriate consultation with stakeholders before adopting a delegated act in accordance with this Article.

The Commission shall make public relevant studies and analyses used in the preparation of a delegated act adopted in accordance with this Article, at the latest upon the adoption of the delegated act.

Article 75

Committee procedure

1. The Commission shall be assisted by a committee. That committee shall be a committee within the meaning of Regulation (EU) No 182/2011.

2. Where reference is made to this paragraph, Article 5 of Regulation (EU) No 182/2011 shall apply. ~~Articles 5 and 7 of Decision 1999/468/EC shall apply, having regard to the provisions of Article 8 thereof~~.

~~The period laid down in Article 5(6) of Decision 1999/468/EC shall be set at 3 months.~~

Article 76

Exercise of the delegation

1. The power to adopt delegated acts is conferred on the Commission subject to the conditions laid down in this Article.

2. The power to adopt delegated acts referred to in Article 27d, Article 48(5), and Article 74 shall be conferred on the Commission for a period of 5 years from 1 August 2024. The

Commission shall draw up a report in respect of the delegation of power not later than 9 months before the end of the 5 year period. The delegation of power shall be tacitly extended for periods of an identical duration, unless the European Parliament or the Council opposes such extension not later than 3 months before the end of each period.

3. The delegation of power referred to in Article 27d, Article 48(5), and Article 74 may be revoked at any time by the European Parliament or by the Council. A decision to revoke shall put an end to the delegation of the power specified in that decision. It shall take effect the day following the publication of the decision in the *Official Journal of the European Union* or at a later date specified therein. It shall not affect the validity of any delegated acts already in force.

4. Before adopting a delegated act, the Commission shall consult experts designated by each Member State in accordance with the principles laid down in the Interinstitutional Agreement of 13 April 2016 on Better Law-Making.

5. As soon as it adopts a delegated act, the Commission shall notify it simultaneously to the European Parliament and to the Council.

6. A delegated act adopted pursuant to Article 27d, Article 48(5) or Article 74 shall enter into force only if no objection has been expressed either by the European Parliament or by the Council within a period of 2 months of notification of that act to the European Parliament and the Council or if, before the expiry of that period, the European Parliament and the Council have both informed the Commission that they will not object. That period shall be extended by 2 months at the initiative of the European Parliament or of the Council.

~~1. The power to adopt the delegated acts referred to in Article 48(5) and Article 74 shall be conferred on the Commission for a period of 5 years from 6 January 2011. The Commission shall draw up a report in respect of the delegated power at the latest 6 months before the end of the five-year period. The delegation of power shall be automatically extended for periods of an identical duration, unless the European Parliament or the Council revokes it in accordance with Article 77.~~

~~2. As soon as it adopts a delegated act, the Commission shall notify it simultaneously to the European Parliament and to the Council.~~

~~3. The power to adopt delegated acts is conferred on the Commission subject to the conditions laid down in Articles 77 and 78.~~

~~*Article 77*~~

~~**Revocation of the delegation**~~

~~1. The delegation of power referred to in Article 48(5) and Article 74 may be revoked at any time by the European Parliament or by the Council.~~

~~2. The institution which has commenced an internal procedure for deciding whether to revoke a delegation of power shall endeavour to inform the other institution and the Commission within a reasonable time before the final decision is taken, indicating the delegated power which could be subject to revocation and possible reasons for a revocation.~~

~~3. The decision of revocation shall put an end to the delegation of the power specified in that decision. It shall take effect immediately or on a later date specified therein. It shall not affect the validity of the delegated acts already in force. It shall be published in the *Official Journal of the European Union*.~~

~~*Article 78*~~

~~**Objections to delegated acts**~~

~~1. The European Parliament or the Council may object to a delegated act within a period of 2 months from the date of notification.~~

~~At the initiative of the European Parliament or the Council that period shall be extended by 2 months.~~

~~2. If, on expiry of the period referred to in paragraph 1, neither the European Parliament nor the Council has objected to the delegated act, it shall be published in the *Official Journal of the European Union* and shall enter into force on the date stated therein.~~

~~The delegated act may be published in the *Official Journal of the European Union* and enter into force before the expiry of that period if the European Parliament and the Council have both informed the Commission of their intention not to raise objections.~~

~~3. If either the European Parliament or the Council objects to the delegated act within the period referred to in paragraph 1, it shall not enter into force. The institution which objects shall state the reasons for objecting to the delegated act.~~

Article 79

Penalties

1. Without prejudice to the obligations of Member States under Directive 2008/99/EC of the European Parliament and of the Council*, Member States shall lay down rules on penalties applicable to infringements of national provisions adopted pursuant to this Directive and shall take all measures necessary to ensure that they are implemented. The penalties provided for shall be effective, proportionate and dissuasive.

2. The penalties referred to in paragraph 1 shall include administrative financial penalties that effectively deprive those that committed the infringement of the economic benefits derived from their infringements.

For the most serious infringements committed by a legal person, the maximum amount of the administrative financial penalties referred to in the first subparagraph shall be at least 3 % of the annual Union turnover of the operator in the financial year preceding the year in which the fine is imposed.

Member States may also, or alternatively, use criminal penalties, provided that they are equivalently effective, proportionate and dissuasive to the administrative financial penalties referred to in this Article.

3. Member States shall ensure that the penalties established pursuant to this Article give due regard to the following, as applicable:

(a) the nature, gravity, and extent of the infringement;

(b) the population or the environment affected by the infringement, bearing in mind the impact of the infringement on the objective of achieving a high level of protection of human health and the environment;

(c) the repetitive or one-off character of the infringement.

4. Member States shall without undue delay notify the Commission of the rules and measures referred to in paragraph 1 and of any subsequent amendments affecting them.

* Directive 2008/99/EC of the European Parliament and of the Council of 19 November 2008 on the protection of the environment through criminal law (OJ L 328, 6.12.2008, p. 28).;

~~Member States shall determine penalties applicable to infringements of the national provisions adopted pursuant to this Directive. The penalties thus provided for shall be effective, proportionate and dissuasive. Member States shall notify those provisions to the Commission by 7 January 2013 and shall notify it without delay of any subsequent amendment affecting them.~~

Article 79a

Compensation

1. Member States shall ensure that, where damage to human health has occurred as a result of an infringement of national measures that were adopted pursuant to this Directive, the individuals affected have the right to claim and obtain compensation for that damage from the relevant natural or legal persons.

2. Member States shall ensure that national rules and procedures relating to claims for compensation are designed and applied in such a way that they do not render impossible or excessively difficult the exercise of the right to compensation for damage caused by an infringement pursuant to paragraph 1.

3. Member States may establish limitation periods for bringing actions for compensation referred to in paragraph 1. Such periods shall not begin to run before the infringement has ceased and the person claiming the compensation knows or can reasonably be expected to know that he or she suffered damage from an infringement pursuant to paragraph 1.

Article 80

Transposition

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with Article 2, points (8), (11) to (15), (18) to (23), (26) to (30), (34) to (38) and (41) of Article 3, Article 4(2) and (3), Article 7, Articles 8 and 10, Article 11(e) and (h), Article 12(1)(e) and (h), Article 13(7), point (ii) of Article 14(1)(c), points (d), (e), (f) and (h) of Article 14(1), Article 14(2) to (7), Article 15(2) to (5), Articles 16, 17 and 19, Article 21(2) to (5), Articles 22, 23, 24, 27, 28 and 29, Article 30(1), (2), (3), (4), (7) and (8), Articles 31, 32, 33, 34, 35, 36, 38 and 39, Article 40(2) and (3), Articles 42 and 43, Article 45(1), Article 58, Article 59(5), Article 63, Article 65(3), Articles 69, 70, 71, 72

and 79, and with the first subparagraph and points 1.1, 1.4, 2.5(b), 3.1, 4, 5, 6.1(c), 6.4(b), 6.10 and 6.11 of Annex I, Annex II, point 12 of Annex III, Annex V, point (b) of Part 1, points 2.2, 2.4, 3.1 and 3.2 of Part 4, points 2.5 and 2.6 of Part 6 and point 1.1(d) of Part 8 of Annex VI, point 2 of Part 4, point 1 of Part 5, point 3 of Part 7 of Annex VII, points 1 and 2(c) of Part 1, points 2 and 3 of Part 2 and Part 3 of Annex VIII by 7 January 2013.

They shall apply those measures from that same date.

When Member States adopt those measures, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. The methods of making such reference shall be laid down by Member States.

2. Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive.

Article 81

Repeal

1. Directives 78/176/EEC, 82/883/EEC, 92/112/EEC, 1999/13/EC, 2000/76/EC and 2008/1/EC, as amended by the acts listed in Annex IX, Part A are repealed with effect from 7 January 2014, without prejudice to the obligations of the Member States relating to the time limits for transposition into national law and application of the Directives set out in Annex IX, Part B.

2. Directive 2001/80/EC as amended by the acts listed in Annex IX, Part A is repealed with effect from 1 January 2016, without prejudice to the obligations of the Member States relating to the time limits for transposition into national law and application of the Directives set out in Annex IX, Part B.

3. References to the repealed Directives shall be construed as references to this Directive and shall be read in accordance with the correlation table set out in Annex X.

Article 82

Transitional provisions

1. In relation to installations carrying out activities referred to in Annex I, point 1.1 for activities with a total rated thermal input exceeding 50 MW, points 1.2 and 1.3, point 1.4(a), points 2.1 to 2.6, points 3.1 to 3.5, points 4.1 to 4.6 for activities concerning production by chemical processing, points 5.1 and 5.2 for activities covered by Directive 2008/1/EC, point 5.3 (a)(i) and (ii), point 5.4, point 6.1(a) and (b), points 6.2 and 6.3, point 6.4(a), point 6.4(b) for activities covered by Directive 2008/1/EC, point 6.4(c) and points 6.5 to 6.9 which are in operation and hold a permit before 7 January 2013 or the operators of which have submitted a complete application for a permit before that date, provided that those installations are put into operation no later than 7 January 2014, Member States shall apply the laws, regulations and administrative provisions adopted in accordance with Article 80(1) from 7 January 2014 with the exception of Chapter III and Annex V.

2. In relation to installations carrying out activities referred to in Annex I, point 1.1 for activities with a total rated thermal input of 50 MW, point 1.4(b), points 4.1 to 4.6 for activities concerning production by biological processing, points 5.1 and 5.2 for activities not

covered by Directive 2008/1/EC, point 5.3(a)(iii) to (v), point 5.3(b), points 5.5 and 5.6, point 6.1(c), point 6.4(b) for activities not covered by Directive 2008/1/EC and points 6.10 and 6.11 which are in operation before 7 January 2013, Member States shall apply the laws, regulations and administrative provisions adopted in accordance with this Directive from 7 July 2015 with the exception of Chapters III and IV and Annexes V and VI.

3. In relation to combustion plants referred to in Article 30(2), Member States shall, from 1 January 2016, apply the laws, regulations and administrative provisions adopted in accordance with Article 80(1) to comply with Chapter III and Annex V.

4. In relation to combustion plants referred to in Article 30(3), Member States shall no longer apply Directive 2001/80/EC from 7 January 2013.

5. In relation to combustion plants which co-incinerate waste, point 3.1 of Part 4 of Annex VI shall apply until:

(a) 31 December 2015, for combustion plants referred to in Article 30(2);

(b) 6 January 2013, for combustion plants referred to in Article 30(3).

6. Point 3.2 of Part 4 of Annex VI shall apply in relation to combustion plants which co-incinerate waste, as from:

(a) 1 January 2016, for combustion plants referred to in Article 30(2)

(b) 7 January 2013, for combustion plants referred to in Article 30(3).

7. Article 58 shall apply from 1 June 2015. Until that date, substances or mixtures which, because of their content of volatile organic compounds classified as carcinogens, mutagens, or toxic to reproduction under Regulation (EC) No 1272/2008, are assigned or need to carry the hazard statements H340, H350, H350i, H360D or H360F or the risk phrases R45, R46, R49, R60 or R61, shall be replaced, as far as possible, by less harmful substances or mixtures within the shortest possible time.

8. Article 59(5) shall apply from 1 June 2015. Until that date, the emissions of either volatile organic compounds which are assigned or need to carry the hazard statements H340, H350, H350i, H360D or H360F or the risk phrases R45, R46, R49, R60 or R61 or halogenated volatile organic compounds which are assigned or need to carry the hazard statements H341 or H351 or the risk phrases R40 or R68, shall be controlled under contained conditions, as far as technically and economically feasible, to safeguard public health and the environment and shall not exceed the relevant emission limit values set out in Part 4 of Annex VII.

9. Point 2 of Part 4 of Annex VII shall apply from 1 June 2015. Until that date, for emissions of halogenated volatile organic compounds which are assigned or need to carry the hazard statements H341 or H351 or the risk phrases R40 or R68, where the mass flow of the sum of the compounds causing the hazard statements H341 or H351 or the labelling R40 or R68 is greater than, or equal to, 100 g/h, an emission limit value of 20 mg/Nm^3 shall be complied with. The emission limit value refers to the mass sum of the individual compounds.

Article 83

Entry into force

This Directive shall enter into force on the 20th day following its publication in the *Official Journal of the European Union*.

Article 84

Addressees

This Directive is addressed to the Member States.

Article 2

Amendments to Directive 1999/31/EC

In Article 1 of Directive 1999/31/EC, paragraph 2 is deleted.

Article 3

Transitional provisions

1. In relation to installations carrying out activities referred to in Annex I, Member States shall apply Article 14(1), second subparagraph, points (aa), (bb), and (h), and Article 15(4) and (6) within four years of the publication of decisions on BAT conclusions that have been published after 1 July 2026 relating to the main activity of an installation in accordance with Article 13(5).

Installations first permitted after the publications of decisions on BAT conclusions published after 1 July 2026 relating to the main activity of an installation in accordance with Article 13(5), shall apply the provisions referred to in the first subparagraph of this paragraph from the date the BAT conclusions are published.

2. In relation to installations carrying out activities referred to in Annex I which fall within the scope of the Directive before 4 August 2024 and that are in operation and hold a permit before 1 July 2026, Article 14(1), second subparagraph, points (a), (b), (ba), and (d), and Article 15(1), Article 15(5), Article 15a and Article 16(4) shall apply when the permit is granted or updated pursuant to Article 20(2) or Article 21(5), or updated within 4 years of publication of decisions on BAT conclusions that have been published after 1 July 2026 in accordance with Article 13(5) relating to the main activity of an installation, or by 1 September 2036, whichever is the earlier.

In relation to installations carrying out activities referred to in Annex I which fall within the scope of the Directive before 4 August 2024 and for which the operators have submitted a complete application for a permit before 1 July 2026, provided that those installations are put into operation no later than 1 July 2027, Article 14(1), second subparagraph, points (a), (b), (ba), and (d), Article 15(1), Article 15(5), Article 15a and Article 16(4) shall apply when the permit is granted or updated pursuant to Article 20(2) or Article 21(5), or updated within 4 years of publication of decisions on BAT conclusions that have been published after 1 July 2026 in accordance with Article 13(5) relating to the main activity of an installation, or by 1 September 2036, whichever is the earlier.

In relation to installations carrying out activities referred to in Annex I which fall within the scope of the directive before 4 August 2024 Article 15(3) shall apply when the permit is

updated within four years of publication of, or granted after, decisions on BAT conclusions that have been published after 1 July 2026 in accordance with Article 13(5) relating to the main activity of an installation, or when the permit is updated pursuant to Article 21(5), or by 1 September 2036, whichever is the earlier.

Until the relevant date of application as referred to in the first, second and third subparagraphs, the installations mentioned in those subparagraphs, which fall within the scope of Directive 2010/75/EU, in the version in force on 3 August 2024, shall comply with Directive 2010/75/EU in that version.

3. In relation to installations which do not fall within the scope of the Directive before 4 August 2024 and carry out activities referred to in Annex I, point 2.3 (aa) and finishing of textile fibres or textiles under point 6.2 of that Annex which are in operation before 1 July 2026 Member States shall, with the exception of Article 14(1), second subparagraph, points (aa), (bb) and (h), Article 15(4) and Article 15(6), apply the laws, regulations and administrative provisions adopted in accordance with this Directive within four years of 1 July 2026.

4. In relation to installations which do not fall within the scope of Directive 2010/75/EU before 4 August 2024 and carrying out activities referred to in Annex I, points 1.4, 2.3(b), 2.3(ba), 2.7 and 3.6, Member States shall, with the exception of Article 14(1), second subparagraph, points (aa), (bb), and (h), Article 15(4) and Article 15(6), apply the laws, regulations and administrative provisions adopted in accordance with this Directive within 4 years of publication of decisions on BAT conclusions in accordance with Article 13(5) relating to the main activity of an installation or by 1 September 2034, whichever is the earlier.

Until the relevant date of application as referred to in the first subparagraph the installations mentioned in that subparagraph, which fall within the scope of Directive 2010/75/EU, in the version in force on the day before this Directive enters into force, shall comply with Directive 2010/75/EU in that version.

In relation to installations which are first permitted after the publication of decisions on BAT conclusions published after 1 July 2026 relating to the main activity of an installation in accordance with Article 13(5), the laws, regulations and administrative provisions adopted in accordance with this Directive shall apply to the granting of their permits from the date the BAT conclusions are published.

5. In relation to installations carrying out activities referred to in Annex Ia, Member States shall apply the laws, regulations and administrative provisions adopted in accordance with this Directive within:

(a) 4 years of the entry into force of the implementing act referred to in Article 70i (2), if the installation has a capacity of 600 LSU or more.

(b) 5 years of the entry into force of the implementing act referred to in Article 70i (2), if the installation has a capacity of 400 LSU or more.

(c) 6 years of the entry into force of the implementing act referred to in Article 70i (2), for all other installations covered by Annex Ia.

Until the relevant date of application, as referred to in the first subparagraph, the installations mentioned in that subparagraph which fall within the scope of Directive 2010/75/EU in the version in force on the day before this Directive enters into force, shall comply with Directive 2010/75/EU in that version.

6. Derogations granted by the competent authority in accordance with Article 15(5) before 1 July 2026 shall remain valid until the competent authority reassesses whether the derogation is justified under Article 15(5). The reassessment shall be carried out 4 years from 1 July 2026 or as part of the reconsideration of the permit conditions pursuant to Article 21, whichever is the earlier.

7. Derogations for the testing and use of emerging techniques granted by the competent authority in accordance with Article 15(7) of Directive 2010/75/EU in the version in force on 3 August 2024, before 1 July 2026 shall remain valid until the end of the period specified in the decision granting the derogation. After the period specified, the testing of the technique shall be stopped or the activity shall achieve at least the BAT-AELs.

Article 4

Transposition

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by 1 July 2026. They shall forthwith communicate to the Commission the text of those provisions.

When Member States adopt those provisions, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. Member States shall determine how such reference is to be made.

2. Member States shall communicate to the Commission the text of the main provisions of national law adopted in the fields covered by this Directive.

Article 5

This Directive shall enter into force on the twentieth day following that of its publication in the Official Journal of the European Union.

Article 6

This Directive is addressed to the Member States.

Done at Strasbourg, 24 April 2024.

For the European Parliament
The President
R. METSOLA
For the Council
The President
M. MICHEL

ANNEXES TO THE IED

Only Annexes I to VI are amended by the IED 2.0. Annex Ia is new.

ANNEX I

Categories of activities referred to in Article 10

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

The Commission shall establish guidance on:

(a) the relationship between waste management activities described in this Annex and those described in Annexes I and II to Directive 2008/98/EC; and

(b) the interpretation of the term 'industrial scale' regarding the description of chemical industry activities described in this Annex.

1. Energy industries

1.1. Combustion of fuels in installations with a total rated thermal input of 50 MW or more

1.2. Refining of mineral oil and gas

1.3. Production of coke

1.4. Gasification, liquefaction or pyrolysis of:

(a) coal;

(b) other fuels in installations with a total rated thermal input of 20 MW or more.

2. Production and processing of metals

2.1. Metal ore (including sulphide ore) roasting or sintering

2.2. Production of pig iron or steel (primary or secondary fusion) including continuous casting, with a capacity exceeding 2,5 tonnes per hour

2.3. Processing of ferrous metals:

(a) operation of hot-rolling mills with a capacity exceeding 20 tonnes of crude steel per hour;

(aa) operation of cold-rolling mills with a capacity exceeding 10 tonnes of crude steel per hour;

(b) operation of smitheries with hammers the energy of which exceeds 50 kilojoule per hammer~~, where the calorific power used exceeds 20 MW~~;

(ba) operation of smitheries with forging presses the force of which exceeds 30 mega-newton (MN) per press;

(c) application of protective fused metal coats with an input exceeding 2 tonnes of crude steel per hour.

2.4. Operation of ferrous metal foundries with a production capacity exceeding 20 tonnes per day

2.5. Processing of non-ferrous metals:

(a) production of non-ferrous crude metals from ore, concentrates or secondary raw materials by metallurgical, chemical or electrolytic processes;

(b) melting, including the alloyage, of non-ferrous metals, including recovered products and operation of non-ferrous metal foundries, with a melting capacity exceeding 4 tonnes per day for lead and cadmium or 20 tonnes per day for all other metals.

2.6. Surface treatment of metals or plastic materials using an electrolytic or chemical process where the volume of the treatment vats exceeds 30 m^3

2.7. Manufacture of batteries, other than exclusively assembling, with a production capacity of 15 000 tonnes of battery cells (cathode, anode, electrolyte, separator, capsule) or more per year.

3. Mineral industry

3.1. Production of cement, lime and magnesium oxide:

(a) production of cement clinker in rotary kilns with a production capacity exceeding 500 tonnes per day or in other kilns with a production capacity exceeding 50 tonnes per day;

(b) production of lime in kilns with a production capacity exceeding 50 tonnes per day;

(c) production of magnesium oxide in kilns with a production capacity exceeding 50 tonnes per day.

3.2. Production of asbestos or the manufacture of asbestos-based products

3.3. Manufacture of glass including glass fibre with a melting capacity exceeding 20 tonnes per day

3.4. Melting mineral substances including the production of mineral fibres with a melting capacity exceeding 20 tonnes per day

3.5. Manufacture of ceramic products by firing, in particular roofing tiles, bricks, refractory bricks, tiles, stoneware or porcelain with

(a) a production capacity exceeding 75 tonnes per day; and/or

(b) a kiln capacity exceeding 4 m^3 and a setting density per kiln exceeding 300 kg/m^3.

3.6. Extraction including on-site treatment operations, such as comminution, size control, beneficiation and upgrading, of the following ores on an industrial scale:

bauxite, chromium, cobalt, copper, gold, iron, lead, lithium, manganese, nickel, palladium, platinum, tin, tungsten and zinc.

4. Chemical industry

For the purpose of this section, production within the meaning of the categories of activities contained in this section means the production on an industrial scale by chemical or biological processing of substances or groups of substances listed in points 4.1 to 4.6

4.1. Production of organic chemicals, such as:

(a) simple hydrocarbons (linear or cyclic, saturated or unsaturated, aliphatic or aromatic);

(b) oxygen-containing hydrocarbons such as alcohols, aldehydes, ketones, carboxylic acids, esters and mixtures of esters, acetates, ethers, peroxides and epoxy resins;

(c) sulphurous hydrocarbons;

(d) nitrogenous hydrocarbons such as amines, amides, nitrous compounds, nitro compounds or nitrate compounds, nitriles, cyanates, isocyanates;

(e) phosphorus-containing hydrocarbons;

(f) halogenic hydrocarbons;

(g) organometallic compounds;

(h) plastic materials (polymers, synthetic fibres and cellulose-based fibres);

(i) synthetic rubbers;

(j) dyes and pigments;

(k) surface-active agents and surfactants.

4.2. Production of inorganic chemicals, such as:

(a) gases, such as ammonia, chlorine or hydrogen chloride, fluorine or hydrogen fluoride, carbon oxides, sulphur compounds, nitrogen oxides, hydrogen except when produced by electrolysis of water, sulphur dioxide, carbonyl chloride;

(b) acids, such as chromic acid, hydrofluoric acid, phosphoric acid, nitric acid, hydrochloric acid, sulphuric acid, oleum, sulphurous acids;

(c) bases, such as ammonium hydroxide, potassium hydroxide, sodium hydroxide;

(d) salts, such as ammonium chloride, potassium chlorate, potassium carbonate, sodium carbonate, perborate, silver nitrate;

(e) non-metals, metal oxides or other inorganic compounds such as calcium carbide, silicon, silicon carbide.

4.3. Production of phosphorous-, nitrogen- or potassium-based fertilisers (simple or compound fertilisers)

4.4. Production of plant protection products or of biocides

4.5. Production of pharmaceutical products including intermediates

4.6. Production of explosives

5. Waste management

5.1. Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving one or more of the following activities:

(a) biological treatment;

(b) physico-chemical treatment;

(c) blending or mixing prior to submission to any of the other activities listed in points 5.1 and 5.2;

(d) repackaging prior to submission to any of the other activities listed in points 5.1 and 5.2;

(e) solvent reclamation/regeneration;

(f) recycling/reclamation of inorganic materials other than metals or metal compounds;

(g) regeneration of acids or bases;

(h) recovery of components used for pollution abatement;

(i) recovery of components from catalysts;

(j) oil re-refining or other reuses of oil;

(k) surface impoundment.

5.2. Disposal or recovery of waste in waste incineration plants or in waste co-incineration plants:

(a) for non-hazardous waste with a capacity exceeding 3 tonnes per hour;

(b) for hazardous waste with a capacity exceeding 10 tonnes per day.

5.3. (a) Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day involving one or more of the following activities, and excluding activities covered by Council Directive 91/271/EEC*:

(i) biological treatment, such as anaerobic digestion or co-digestion;

(ii) physico-chemical treatment;

(iii) pre-treatment of waste for incineration or co-incineration;

(iv) treatment of slags and ashes;

(v) treatment in shredders of metal waste, including waste electrical and electronic equipment and end-of-life vehicles and their components.

(b) Recovery, or a mix of recovery and disposal, of non-hazardous waste with a capacity exceeding 75 tonnes per day involving one or more of the following activities, and excluding activities covered by Directive 91/271/EEC:

(i) biological treatment, such as anaerobic digestion;

(ii) pre-treatment of waste for incineration or co-incineration;

(iii) treatment of slags and ashes;

(iv) treatment in shredders of metal waste, including waste electrical and electronic equipment and end-of-life vehicles and their components.

When the only waste treatment activity carried out is anaerobic digestion, the capacity threshold for this activity shall be 100 tonnes per day.

* Council Directive 91/271/EEC of 21 May 1991 concerning urban waste-water treatment (OJ L 135, 30.5.1991, p. 40).';

5.4. Landfills, as defined in Article 2(g) of Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste ([40]), receiving more than 10 tonnes of waste per day or with a total capacity exceeding 25 000 tonnes, excluding landfills of inert waste

5.5. Temporary storage of hazardous waste not covered under point 5.4 pending any of the activities listed in points 5.1, 5.2, 5.4 and 5.6 with a total capacity exceeding 50 tonnes, excluding temporary storage, pending collection, on the site where the waste is generated

5.6. Underground storage of hazardous waste with a total capacity exceeding 50 tonnes

6. Other activities

6.1. Production in industrial installations of:

(a) pulp from timber or other fibrous materials;

(b) paper or card board with a production capacity exceeding 20 tonnes per day;

(c) one or more of the following wood-based panels: oriented strand board, particleboard or fibreboard with a production capacity exceeding 600 m^3 per day.

6.2. Pre-treatment (operations such as washing, bleaching, mercerisation), dyeing or finishing of textile fibres or textiles where the treatment capacity exceeds 10 tonnes per day.

6.3. Tanning of hides and skins where the treatment capacity exceeds 12 tonnes of finished products per day

6.4. (a) Operating slaughterhouses with a carcass production capacity greater than 50 tonnes per day

(b) Treatment and processing, other than exclusively packaging, of the following raw materials, whether previously processed or unprocessed, intended for the production of food or feed from:

(i) only animal raw materials (other than exclusively milk) with a finished product production capacity greater than 75 tonnes per day;

(ii) only vegetable raw materials with a finished product production capacity greater than 300 tonnes per day or 600 tonnes per day where the installation operates for a period of no more than 90 consecutive days in any year;

(iii) animal and vegetable raw materials, both in combined and separate products, with a

finished product production capacity in tonnes per day greater than:

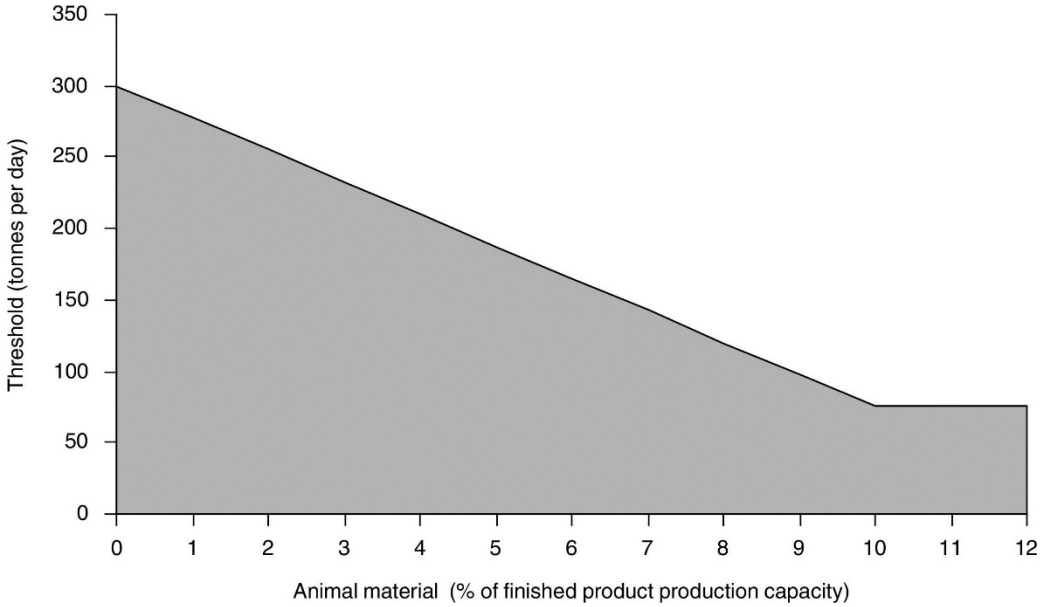
— 75 if A is equal to 10 or more; or,

— [300- (22,5 × A)] in any other case,

where 'A' is the portion of animal material (in percent of weight) of the finished product production capacity.

Packaging shall not be included in the final weight of the product.

This subsection shall not apply where the raw material is milk only.



(c) Treatment and processing of milk only, the quantity of milk received being greater than 200 tonnes per day (average value on an annual basis).

6.5. Disposal or recycling of animal carcases or animal by-products ~~waste~~ with a treatment capacity exceeding 10 tonnes per day.

6.6. Electrolysis of water for production of hydrogen where the production capacity exceeds 50 tonnes per day.

~~6.6. Intensive rearing of poultry or pigs:~~

~~(a) with more than 40 000 places for poultry;~~

~~(b) with more than 2 000 places for production pigs (over 30 kg), or~~

~~(c) with more than 750 places for sows.~~

6.7. Surface treatment of substances, objects or products using organic solvents, in particular for dressing, printing, coating, degreasing, waterproofing, sizing, painting, cleaning or impregnating, with an organic solvent consumption capacity of more than 150 kg per hour or more than 200 tonnes per year

6.8. Production of carbon (hard-burnt coal) or electrographite by means of incineration or graphitisation

6.9. Capture of CO_2 streams from installations covered by this Directive for the purposes of geological storage pursuant to Directive 2009/31/EC

6.10. Preservation of wood and wood products with chemicals with a production capacity exceeding 75 m^3 per day other than exclusively treating against sapstain

6.11. Independently operated treatment of waste water not covered by Directive 91/271/EEC and discharged by an installation covered by Chapter II

ANNEX Ia

Activities referred to in Article 70a

Installations fall within the scope of this annex if they fall within one or more of the following activity categories.

1. Rearing of pigs representing 350 LSU or more, excluding rearing activities that are carried out under organic production regimes in accordance with Regulation (EU) 2018/848, or where the stocking density is less than 2 LSU/hectare used only for grazing or growing fodder or forage used for feeding the animals and the animals are reared outside for a significant amount of time in a year or seasonally reared outside.

2. Rearing of only laying hens representing 300 LSU or more, or rearing of only other poultry categories representing 280 LSU or more. In installations rearing a mix of poultry including laying hens, the threshold shall be 280 LSU and the capacity shall be calculated using 0,93 as weighting factor* for laying hens.

3. Rearing of any mix of pigs or poultry representing 380 LSU or more, excluding rearing of pigs in installations operating under organic production regimes in accordance with Regulation (EU) 2018/848, or where the stocking density is less than 2 LSU/hectare used only for grazing or growing fodder or forage used for feeding the animals and the animals are reared outside for a significant amount of time in a year or seasonally reared outside.

The LSU level of an installation is calculated using the following conversion rates:

Pigs:
Breeding sows ≥ 50 kg … 0,500
Piglets ≤ 20 kg … 0,027
Other pigs … 0,300

Poultry:
Broilers … 0,007
Laying hens … 0,014
Turkeys … 0,030
Ducks … 0,010
Geese … 0,020
Ostriches … 0,350
Other poultry fowls… 0,001

* The weighting factor for laying hens has been calculated by dividing the other poultry threshold (280 LSU) by the laying hens threshold (300 LSU). This is 280/300 = 0,93 (rounded)

ANNEX II

Principles to be complied with when granting a derogation referred to in Article 15(5)

Derogations provided in accordance with Article 15(5) shall respect the following principles:

1. Costs

1.1. Costs referred to in Article 15(5) shall be the costs of complying with the emission levels associated with best available techniques and include both capital costs and operating costs. Wider social or economic costs shall not be included.

1.2. The evaluation of the costs shall be quantitative, and supported by a qualitative assessment.

1.3. Costs taken into account in the evaluation shall:

(a) represent net value costs, after deduction of any financial benefits from applying best available techniques;

(b) include the cost of accessing financial capital required to finance the best available techniques;

(c) be calculated using a discount rate to take account of differences in monetary value over time.

1.4. The application for a derogation shall clearly identify the source of the costs and the methods used to calculate them, including the discount rate mentioned in point 1.3(c) and the estimation of uncertainties associated with the costs evaluation.

1.5. Costs evaluated by the operator shall be assessed by the competent authority, based on information from other sources such as technology providers, peer-reviewed research, expert judgements or data from other installations where best available techniques were recently installed.

2. Environmental benefits

2.1. Environmental benefits referred to in Article 15(6) shall be environmental benefits of complying with the emission levels associated with best available techniques.

2.2. The evaluation of environmental benefits shall be quantitative (in monetary terms) and supported by a qualitative assessment. Established pollutant damage costs shall be used where available.

2.3. The evaluation of environmental benefits shall consider a discount rate applied to any monetised benefits which addresses differences in value to society over time.

2.4. The application for a derogation shall clearly identify the source of the environmental benefits information and the methods used to calculate the environmental benefits, including the discount rate mentioned in point 1.3(c) and the estimate of uncertainties associated with the evaluation of the environmental benefits.

2.5. Environmental benefits evaluated by the operator shall be assessed by the competent authority, based on expert judgement or data from other installations where the best available techniques were recently installed.

3. Disproportionality of costs compared to environmental benefits

3.1. For the purpose of determining if there is a disproportionality, the costs of complying with the emission levels associated with best available techniques, and the benefits of such compliance, shall be compared.

3.2. The comparison mechanism shall include the following elements:

(a) a method to address uncertainties in evaluating costs and environmental benefits;

(b) a specification of the margin by which the costs should exceed the environmental benefits.

~~***ANNEX II***~~

~~**List of polluting substances**~~

~~AIR~~

~~1. Sulphur dioxide and other sulphur compounds~~

~~2. Oxides of nitrogen and other nitrogen compounds~~

~~3. Carbon monoxide~~

~~4. Volatile organic compounds~~

~~5. Metals and their compounds~~

~~6. Dust including fine particulate matter~~

~~7. Asbestos (suspended particulates, fibres)~~

~~8. Chlorine and its compounds~~

~~9. Fluorine and its compounds~~

~~10. Arsenic and its compounds~~

~~11. Cyanides~~

~~12.Substances and mixtures which have been proved to possess carcinogenic or mutagenic properties or properties which may affect reproduction via the air~~

~~13. Polychlorinated dibenzodioxins and polychlorinated dibenzofurans~~

~~WATER~~

~~1.Organohalogen compounds and substances which may form such compounds in the aquatic environment~~

~~2. Organophosphorus compounds~~

~~3. Organotin compounds~~

~~4. Substances and mixtures which have been proved to possess carcinogenic or mutagenic properties or properties which may affect reproduction in or via the aquatic environment~~

~~5. Persistent hydrocarbons and persistent and bioaccumulable organic toxic substances~~

~~6. Cyanides~~

~~7. Metals and their compounds~~

~~8. Arsenic and its compounds~~

~~9. Biocides and plant protection products~~

~~10. Materials in suspension~~

~~11. Substances which contribute to eutrophication (in particular, nitrates and phosphates)~~

~~12. Substances which have an unfavourable influence on the oxygen balance (and can be measured using parameters such as BOD, COD, etc.)~~

~~13. Substances listed in Annex X to Directive 2000/60/EC~~

ANNEX III

Criteria for determining best available techniques

1. the use of low-waste technology;

2. the use of less hazardous substances, including less use of substances of very high concern;

3. the furthering of recovery and recycling of substances generated and used in the process and of waste, where appropriate;

4. comparable processes, facilities or methods of operation which have been tried with success on an industrial scale;

5. technological advances, including digital tools, and changes in scientific knowledge and understanding;

6. the nature, effects and volume of the emissions concerned;

7. the commissioning dates for new or existing installations;

8. the length of time needed to introduce the best available technique;

9. the consumption, nature of raw materials, including water, used in the process and ressource ~~energy~~ efficiency and reuse and decarbonisation;

10. the need to prevent or reduce to a minimum the overall impact of the emissions on the environment, including biodiversity, and the risks to it;

11. the need to prevent accidents and to minimise the consequences for the environment and human health;

12. information published by public international organisations.

ANNEX IV

Public participation in decision-making

1. The public shall be informed through public notices and on a webpage of the following matters early in the procedure for the taking of a decision or, at the latest, as soon as the information can reasonably be provided:

(a) the application for a permit or, as the case may be, the proposal for the updating of a permit or of permit conditions in accordance with Article 21, including the description of the elements listed in Article 12(1);

(b) where applicable, the fact that a decision is subject to a national or transboundary environmental impact assessment or to consultations between Member States in accordance with Article 26;

(c) details of the competent authorities responsible for taking the decision, those from which relevant information can be obtained, those to which comments or questions can be submitted, and details of the time schedule for transmitting comments or questions;

(d) the nature of possible decisions or, where there is one, the draft decision;

(e) where applicable, the details relating to a proposal for the updating of a permit or of permit conditions;

(f) an indication of the times and places where, or means by which, the relevant information will be made available;

(g) details of the arrangements for public participation and consultation made pursuant to point 5.

2. Member States shall ensure that, within appropriate time-frames, the following is made available to the public concerned:

(a) in accordance with national law, the main reports and advice issued to the competent authority or authorities at the time when the public concerned were informed in accordance with point 1;

(b) in accordance with Directive 2003/4/EC, information other than that referred to in point 1 which is relevant for the decision in accordance with Article 5 of this Directive and which only becomes available after the time the public concerned was informed in accordance with point 1.

3. The members of the public concerned shall be given early and effective opportunity ~~entitled~~ to express comments and opinions to the competent authority before a decision is taken.

4. The results of the consultations held pursuant to this Annex must be taken into due account in the taking of a decision.

5. ~~The detailed arrangements for informing the public (for example by bill posting within a certain radius or publication in local newspapers) and consulting the public concerned (for example by written submissions or by way of a public inquiry) shall be determined by the Member States.~~ Reasonable timeframes for the different phases shall be provided, allowing sufficient time to inform the public and for the members of the public concerned to prepare and participate effectively in environmental decision-making subject to this Annex.

ANNEX V

Technical provisions relating to combustion plants

Only Part 3 is amended

PART 1

Emission limit values for combustion plants referred to in Article 30(2)

1. All emission limit values shall be calculated at a temperature of 273,15 K, a pressure of 101,3 kPa and after correction for the water vapour content of the waste gases and at a standardised O_2 content of 6 % for solid fuels, 3 % for combustion plants, other than gas turbines and gas engines using liquid and gaseous fuels and 15 % for gas turbines and gas engines.

2. Emission limit values (mg/Nm^3) for SO_2 for combustion plants using solid or liquid fuels with the exception of gas turbines and gas engines

Total rated thermal input (MW)	**Coal and lignite and other solid fuels**	**Biomass**	**Peat**	**Liquid fuels**
50-100	400	200	300	350
100-300	250	200	300	250
> 300	200	200	200	200

Combustion plants, using solid fuels which were granted a permit before 27 November 2002 or the operators of which had submitted a complete application for a permit before that date, provided that the plant was put into operation no later than 27 November 2003, and which do not operate more than 1 500 operating hours per year as a rolling average over a period of 5 years, shall be subject to an emission limit value for SO_2 of 800 mg/Nm^3.

Combustion plants using liquid fuels, which were granted a permit before 27 November 2002 or the operators of which had submitted a complete application for a permit before that date, provided that the plant was put into operation no later than 27 November 2003, and which do not operate more than 1 500 operating hours per year as a rolling average over a period of 5 years, shall be subject to an emission limit value for SO_2 of 850 mg/Nm^3 in case of plants with a total rated thermal input not exceeding 300 MW and of 400 mg/Nm^3 in case of plants with a total rated thermal input greater than 300 MW.

A part of a combustion plant discharging its waste gases through one or more separate flues within a common stack, and which does not operate more than 1 500 operating hours per year as a rolling average over a period of 5 years, may be subject to the emission limit values set out in the preceding two paragraphs in relation to the total rated thermal input of the entire combustion

plant. In such cases the emissions through each of those flues shall be monitored separately.

3.Emission limit values (mg/Nm^3) for SO_2 for combustion plants using gaseous fuels with the exception of gas turbines and gas engines

In general	35
Liquefied gas	5
Low calorific gases from coke oven	400
Low calorific gases from blast furnace	200

Combustion plants, firing low calorific gases from gasification of refinery residues, which were granted a permit before 27 November 2002 or the operators of which had submitted a complete application for a permit before that date, provided that the plant was put into operation no later than 27 November 2003, shall be subject to an emission limit value for SO_2 of 800 mg/Nm^3.

4. Emission limit values (mg/Nm^3) for NO_x for combustion plants using solid or liquid fuels with the exception of gas turbines and gas engines

Total rated thermal input (MW)	**Coal and lignite and other solid fuels**	**Biomass and peat**	**Liquid fuels**
50-100	300 450 in case of pulverised lignite combustion	300	450
100-300	200	250	200 ([1])
> 300	200	200	150 ([1])
([1]) The emission limit value is 450 mg/Nm^3 for the firing of distillation and conversion residues from the refining of crude-oil for own consumption in combustion plants with a total rated thermal input not exceeding 500 MW which were granted a permit before 27 November 2002 or the operators of which had submitted a complete application for a permit			

before that date, provided that the plant was put into operation no later than 27 November 2003.

Combustion plants in chemical installations using liquid production residues as non-commercial fuel for own consumption with a total rated thermal input not exceeding 500 MW which were granted a permit before 27 November 2002 or the operators of which had submitted a complete application for a permit before that date, provided that the plant was put into operation no later than 27 November 2003, shall be subject to an emission limit value for NO_x of 450 mg/Nm^3.

Combustion plants using solid or liquid fuels with a total rated thermal input not exceeding 500 MW which were granted a permit before 27 November 2002 or the operators of which had submitted a complete application for a permit before that date, provided that the plant was put into operation no later than 27 November 2003, and which do not operate more than 1 500 operating hours per year as a rolling average over a period of 5 years, shall be subject to an emission limit value for NO_x of 450 mg/Nm^3.

Combustion plants using solid fuels with a total rated thermal input greater than 500 MW, which were granted a permit before 1 July 1987 and which do not operate more than 1 500 operating hours per year as a rolling average over a period of 5 years, shall be subject to an emission limit value for NO_x of 450 mg/Nm^3.

Combustion plants using liquid fuels, with a total rated thermal input greater than 500 MW which were granted a permit before 27 November 2002 or the operators of which had submitted a complete application for a permit before that date, provided that the plant was put into operation no later than 27 November 2003, and which do not operate more than 1 500 operating hours per year as a rolling average over a period of 5 years, shall be subject to an emission limit value for NO_x of 400 mg/Nm^3.

A part of a combustion plant discharging its waste gases through one or more separate flues within a common stack, and which does not operate more than 1 500 operating hours per year as a rolling average over a period of 5 years, may be subject to the emission limit values set out in the preceding three paragraphs in relation to the total rated thermal input of the entire combustion plant. In such cases the emissions through each of those flues shall be monitored separately.

5. Gas turbines (including combined cycle gas turbines (CCGT)) using light and middle distillates as liquid fuels shall be subject to an emission limit value for NO_x of 90 mg/Nm^3 and for CO of 100 mg/Nm^3.

   Gas turbines for emergency use that operate less than 500 operating hours per year are not covered by the emission limit values set out in this point. The operator of such plants shall record the used operating hours.

6. Emission limit values (mg/Nm^3) for NO_x and CO for gas fired combustion plants

	NO_x	CO
Combustion plants firing natural gas with the exception of gas turbines and gas engines	100	100
Combustion plants firing blast furnace gas, coke oven gas or low calorific gases from gasification of refinery residues, with the exception of gas turbines and gas engines	200 (4)	—
Combustion plants firing other gases, with the exception of gas turbines and gas engines	200 (4)	—
Gas turbines (including CCGT), using natural gas (1) as fuel	50 (2) (3)	100
Gas turbines (including CCGT), using other gases as fuel	120	—
Gas engines	100	100

(1) Natural gas is naturally occurring methane with not more than 20 % (by volume) of inerts and other constituents.

(2) 75 mg/Nm^3 in the following cases, where the efficiency of the gas turbine is determined at ISO base load conditions:

(i) gas turbines, used in combined heat and power systems having an overall efficiency greater than 75 %;

(ii) gas turbines used in combined cycle plants having an annual average overall electrical efficiency greater than 55 %;

(iii) gas turbines for mechanical drives.

(3) For single cycle gas turbines not falling into any of the categories mentioned under note (2), but having an efficiency greater than 35 % – determined at ISO base load conditions – the emission limit value for NO_x shall be 50xη/35 where η is the gas turbine efficiency at ISO base load conditions expressed as a percentage.

(4) 300 mg/Nm^3 for such combustion plants with a total rated thermal input not exceeding 500 MW which were granted a permit before 27 November 2002 or the operators of which had submitted a complete application for a permit before that date, provided that the plant was put into operation no later than 27 November 2003.

For gas turbines (including CCGT), the NO_x and CO emission limit values set out in the table contained in this point apply only above 70 % load.

For gas turbines (including CCGT) which were granted a permit before 27 November 2002 or

the operators of which had submitted a complete application for a permit before that date, provided that the plant was put into operation no later than 27 November 2003, and which do not operate more than 1 500 operating hours per year as a rolling average over a period of 5 years, the emission limit value for NO_x is 150 mg/Nm^3 when firing natural gas and 200 mg/Nm^3 when firing other gases or liquid fuels.

A part of a combustion plant discharging its waste gases through one or more separate flues within a common stack, and which does not operate more than 1 500 operating hours per year as a rolling average over a period of 5 years, may be subject to the emission limit values set out in the preceding paragraph in relation to the total rated thermal input of the entire combustion plant. In such cases the emissions through each of those flues shall be monitored separately.

Gas turbines and gas engines for emergency use that operate less than 500 operating hours per year are not covered by the emission limit values set out in this point. The operator of such plants shall record the used operating hours.

7. Emission limit values (mg/Nm^3) for dust for combustion plants using solid or liquid fuels with the exception of gas turbines and gas engines.

Total rated thermal input (MW)	**Coal and lignite and other solid fuels**	**Biomass and peat**	**Liquid fuels (1)**
50-100	30	30	30
100-300	25	20	25
> 300	20	20	20
(1) The emission limit value is 50 mg/Nm^3 for the firing of distillation and conversion residues from the refining of crude oil for own consumption in combustion plants which were granted a permit before 27 November 2002 or the operators of which had submitted a complete application for a permit before that date, provided that the plant was put into operation no later than 27 November 2003.			

8.Emission limit values (mg/Nm^3) for dust for combustion plants using gaseous fuels with the exception of gas turbines and gas engines

In general	5
Blast furnace gas	10
Gases produced by the steel industry which can be used elsewhere	30

PART 2

Emission limit values for combustion plants referred to in Article 30(3)

1. All emission limit values shall be calculated at a temperature of 273,15 K, a pressure of 101,3 kPa and after correction for the water vapour content of the waste gases and at a standardised O_2 content of 6 % for solid fuels, 3 % for combustion plants other than gas turbines and gas engines using liquid and gaseous fuels and 15 % for gas turbines and gas engines.

   In case of combined cycle gas turbines with supplementary firing, the standardised O_2 content may be defined by the competent authority, taking into account the specific characteristics of the installation concerned.

2. Emission limit values (mg/Nm^3) for SO_2 for combustion plants using solid or liquid fuels with the exception of gas turbines and gas engines.

Total rated thermal input (MW)	**Coal and lignite and other solid fuels**	**Biomass**	**Peat**	**Liquid fuels**
50-100	400	200	300	350
100-300	200	200	300 250 in case of fluidised bed combustion	200
> 300	150 200 in case of circulating or pressurised fluidised bed combustion	150	150 200 in case of fluidised bed combustion	150

3.Emission limit values (mg/Nm^3) for SO_2 for combustion plants using gaseous fuels with the exception of gas turbines and gas engines

In general	35

Liquefied gas	5
Low calorific gases from coke oven	400
Low calorific gases from blast furnace	200

4. Emission limit values (mg/Nm^3) for NO_x for combustion plants using solid or liquid fuels with the exception of gas turbines and gas engines

Total rated thermal input (MW)	**Coal and lignite and other solid fuels**	**Biomass and peat**	**Liquid fuels**
50-100	300 400 in case of pulverised lignite combustion	250	300
100-300	200	200	150
> 300	150 200 in case of pulverised lignite combustion	150	100

5. Gas turbines (including CCGT) using light and middle distillates as liquid fuels shall be subject to an emission limit value for NO_x of 50 mg/Nm^3 and for CO of 100 mg/Nm^3

Gas turbines for emergency use that operate less than 500 operating hours per year are not covered by the emission limit values set out in this point. The operator of such plants shall record the used operating hours.

6. Emission limit values (mg/Nm^3) for NO_x and CO for gas fired combustion plants

	NO_x	**CO**
Combustion plants other than gas turbines and gas engines	100	100
Gas turbines (including CCGT)	50 (1)	100
Gas engines	75	100

([1]) For single cycle gas turbines having an efficiency greater than 35 % – determined at ISO base load conditions – the emission limit value for NO_x shall be 50xη/35 where η is the gas turbine efficiency at ISO base load conditions expressed as a percentage.

For gas turbines (including CCGT), the NO_x and CO emission limit values set out in this point apply only above 70 % load.

Gas turbines and gas engines for emergency use that operate less than 500 operating hours per year are not covered by the emission limit values set out in this point. The operator of such plants shall record the used operating hours.

7.Emission limit values (mg/Nm^3) for dust for combustion plants using solid or liquid fuels with the exception of gas turbines and gas engines

Total rated thermal input (MW)	
50-300	20
> 300	10 20 for biomass and peat

8.Emission limit values (mg/Nm^3) for dust for combustion plants using gaseous fuels with the exception of gas turbines and gas engines

In general	5
Blast furnace gas	10
Gases produced by the steel industry which can be used elsewhere	30

PART 3

Emission monitoring

1. The concentrations of SO2, NOx and dust in waste gases from each combustion plant with a total rated thermal input of 100 MW or more shall be measured continuously.

The concentration of CO in waste gases from each combustion plant firing gaseous fuels with a total rated thermal input of 100 MW or more shall be measured continuously.

2. The competent authority may decide not to require the continuous measurements referred to in point 1 in the following cases:

(a) for combustion plants with a life span of less than 10 000 operational hours;

(b) for SO2 and dust from combustion plants firing natural gas;

(c) for SO2 from combustion plants firing oil with known sulphur content in cases where there is no waste gas desulphurisation equipment;

(d) for SO2 from combustion plants firing biomass if the operator can prove that the SO2 emissions can under no circumstances be higher than the prescribed emission limit values.

3. Where continuous measurements are not required, measurements of SO2, NOx, dust and, for gas fired plants, also of CO shall be required at least once every 6 months.

4. For combustion plants firing coal or lignite, the emissions of total mercury shall be measured at least once per year.

5. As an alternative to the measurements of SO2 and NOx referred to in point 3, other procedures, verified and approved by the competent authority, may be used to determine the SO2 and NOx emissions. Such procedures shall use relevant CEN standards or, if CEN standards are not available, ISO, national or other international standards which ensure the provision of data of an equivalent scientific quality.

6. The competent authority shall be informed of significant changes in the type of fuel used or in the mode of operation of the plant. The competent authority shall decide whether the monitoring requirements laid down in points 1 to 4 are still adequate or require adaptation.

7. The continuous measurements carried out in accordance with point 1 shall include the measurement of the oxygen content, temperature, pressure and water vapour content of the waste gases. The continuous measurement of the water vapour content of the waste gases shall not be necessary, provided that the sampled waste gas is dried before the emissions are analysed.

8. Sampling and analysis of relevant polluting substances and measurements of process parameters as well as the quality assurance of automated measuring systems and the reference measurement methods to calibrate those systems shall be carried out in accordance with CEN standards. If CEN standards are not available, ISO, national or other international standards which ensure the provision of data of an equivalent scientific quality shall apply.

The automated measuring systems shall be subject to control by means of parallel measurements with the reference methods at least once per year.

The operator shall inform the competent authority about the results of the checking of the automated measuring systems without undue delay.

9. At the emission limit value level, the values of the 95 % confidence intervals of a single measured result shall not exceed the following percentages of the emission limit values:

Carbon monoxide	10 %
Sulphur dioxide	20 %
Nitrogen oxides	20 %
Dust	30 %

10. The validated hourly and daily average values shall be determined from the measured valid hourly average values after having subtracted the value of the confidence interval specified in point 9.

Any day in which more than three hourly average values are invalid due to malfunction or the maintenance of the automated measuring system shall be invalidated. If more than 10 days in a year are invalidated for such situations, the competent authority shall require the operator to take adequate measures to improve the reliability of the automated measuring system without undue delay.

11. In the case of plants which must comply with the rates of desulphurisation referred to in Article 31, the sulphur content of the fuel which is fired in the combustion plant shall also be regularly monitored. The competent authorities shall be informed of substantial changes in the type of fuel used.

PART 4

Assessment of compliance with emission limit values

1. In the case of continuous measurements, the emission limit values set out in Parts 1 and 2 shall be regarded as having been complied with if the evaluation of the measurement results indicates, for operating hours within a calendar year, that all of the following conditions have been met:

(a) no validated monthly average value exceeds the relevant emission limit values set out in Parts 1 and 2;

(b) no validated daily average value exceeds 110 % of the relevant emission limit values set out in Parts 1 and 2;

(c) in cases of combustion plants composed only of boilers using coal with a total rated thermal input below 50 MW, no validated daily average value exceeds 150 % of the relevant emission limit values set out in Parts 1 and 2,

(d) 95 % of all the validated hourly average values over the year do not exceed 200 % of the relevant emission limit values set out in Parts 1 and 2.

The validated average values are determined as set out in point 10 of Part 3.

For the purpose of the calculation of the average emission values, the values measured during the periods referred to in Article 30(5) and (6) and Article 37 as well as during the start-up and shut-down periods shall be disregarded.

2. Where continuous measurements are not required, the emission limit values set out in Parts 1 and 2 shall be regarded as having been complied with if the results of each of the series of measurements or of the other procedures defined and determined according to the rules laid down by the competent authorities do not exceed the emission limit values.

PART 5

Minimum rate of desulphurisation

1. Minimum rate of desulphurisation for combustion plants referred to in Article 30(2)

Total rated thermal input (MW)	**Minimum rate of desulphurisation**	
	Plants which were granted a permit before 27 November 2002 or the operators of which had submitted a complete application for a permit before that date, provided that the plant was put into operation no later than 27 November 2003	**Other plants**
50-100	80 %	92 %
100-300	90 %	92 %
> 300	96 % ([1])	96 %
([1]) For combustion plants firing oil shale, the minimum rate of desulphurisation is 95 %.		

2. Minimum rate of desulphurisation for combustion plants referred to in Article 30(3)

Total rated thermal input (MW)	**Minimum rate of desulphurisation**
50-100	93 %
100-300	93 %
> 300	97 %

PART 6

Compliance with rate of desulphurisation

The minimum rates of desulphurisation set out in Part 5 of this Annex shall apply as a monthly average limit value.

PART 7

Average emission limit values for multi-fuel firing combustion plants within a refinery

Average emission limit values (mg/Nm^3) for SO_2 for multi-fuel firing combustion plants within a refinery, with the exception of gas turbines and gas engines, which use the distillation and conversion residues from the refining of crude-oil for own consumption, alone or with other fuels:

(a) for combustion plants which were granted a permit before 27 November 2002 or the operators of which had submitted a complete application for a permit before that date, provided that the plant was put into operation no later than 27 November 2003: 1 000 mg/Nm^3;

(b) for other combustion plants: 600 mg/Nm^3.

These emission limit values shall be calculated at a temperature of 273,15 K, a pressure of 101,3 kPa and after correction for the water vapour content of the waste gases and at a standardised O_2 content of 6 % for solid fuels and 3 % for liquid and gaseous fuels.

ANNEX VI

Technical provisions relating to waste incineration plants and waste co-incineration plants

Only Part 6 is amended

PART 1

Definitions

For the purpose of this Annex the following definitions shall apply:

(a) ‘existing waste incineration plant’ means one of the following waste incineration plants:

(i) which was in operation and had a permit in accordance with applicable Union law before 28 December 2002,

(ii) which was authorised or registered for waste incineration and had a permit granted before 28 December 2002 in accordance with applicable Union law, provided that the plant was put into operation no later than 28 December 2003,

(iii) which, in the view of the competent authority, was the subject of a full request for authorisation before 28 December 2002, provided that the plant was put into operation not later than 28 December 2004;

(b) ‘new waste incineration plant’ means any waste incineration plant not covered by point (a).

PART 2

Equivalence factors for dibenzo-p-dioxins and dibenzofurans

For the determination of the total concentration of dioxins and furans, the mass concentrations of the following dibenzo-p-dioxins and dibenzofurans shall be multiplied by the following equivalence factors before summing:

	Toxic equivalence factor
2,3,7,8 — Tetrachlorodibenzodioxin (TCDD)	1
1,2,3,7,8 — Pentachlorodibenzodioxin (PeCDD)	0,5

1,2,3,4,7,8 — Hexachlorodibenzodioxin (HxCDD)	0,1
1,2,3,6,7,8 — Hexachlorodibenzodioxin (HxCDD)	0,1
1,2,3,7,8,9 — Hexachlorodibenzodioxin (HxCDD)	0,1
1,2,3,4,6,7,8 — Heptachlorodibenzodioxin (HpCDD)	0,01
Octachlorodibenzodioxin (OCDD)	0,001
2,3,7,8 — Tetrachlorodibenzofuran (TCDF)	0,1
2,3,4,7,8 — Pentachlorodibenzofuran (PeCDF)	0,5
1,2,3,7,8 — Pentachlorodibenzofuran (PeCDF)	0,05
1,2,3,4,7,8 — Hexachlorodibenzofuran (HxCDF)	0,1
1,2,3,6,7,8 — Hexachlorodibenzofuran (HxCDF)	0,1
1,2,3,7,8,9 — Hexachlorodibenzofuran (HxCDF)	0,1
2,3,4,6,7,8 — Hexachlorodibenzofuran (HxCDF)	0,1
1,2,3,4,6,7,8 — Heptachlorodibenzofuran (HpCDF)	0,01
1,2,3,4,7,8,9 — Heptachlorodibenzofuran (HpCDF)	0,01
Octachlorodibenzofuran (OCDF)	0,001

PART 3

Air emission limit values for waste incineration plants

1. All emission limit values shall be calculated at a temperature of 273,15 K, a pressure of 101,3 kPa and after correcting for the water vapour content of the waste gases.

They are standardised at 11 % oxygen in waste gas except in case of incineration of mineral waste oil as defined in point 3 of Article 3 of Directive 2008/98/EC, when they are standardised at 3 % oxygen, and in the cases referred to in Point 2.7 of Part 6.

1.1 Daily average emission limit values for the following polluting substances (mg/Nm^3)

Total dust	10
Gaseous and vaporous organic substances, expressed as total organic carbon (TOC)	10
Hydrogen chloride (HCl)	10
Hydrogen fluoride (HF)	1
Sulphur dioxide (SO_2)	50
Nitrogen monoxide (NO) and nitrogen dioxide (NO_2), expressed as NO_2 for existing waste incineration plants with a nominal capacity exceeding 6 tonnes per hour or new waste incineration plants	200
Nitrogen monoxide (NO) and nitrogen dioxide (NO_2), expressed as NO_2 for existing waste incineration plants with a nominal capacity of 6 tonnes per hour or less	400

1.2 Half-hourly average emission limit values for the following polluting substances (mg/Nm^3)

	(100 %) A	**(97 %) B**
Total dust	30	10
Gaseous and vaporous organic substances, expressed as total organic carbon (TOC)	20	10
Hydrogen chloride (HCl)	60	10
Hydrogen fluoride (HF)	4	2
Sulphur dioxide (SO_2)	200	50
Nitrogen monoxide (NO) and nitrogen dioxide (NO_2), expressed as NO_2 for existing waste incineration plants with a nominal capacity exceeding 6 tonnes per hour or new waste incineration plants	400	200

1.3 Average emission limit values (mg/Nm^3) for the following heavy metals over a sampling period of a minimum of 30 minutes and a maximum of 8 hours

Cadmium and its compounds, expressed as cadmium (Cd)	Total: 0,05
Thallium and its compounds, expressed as thallium (Tl)	
Mercury and its compounds, expressed as mercury (Hg)	0,05
Antimony and its compounds, expressed as antimony (Sb)	Total: 0,5
Arsenic and its compounds, expressed as arsenic (As)	
Lead and its compounds, expressed as lead (Pb)	
Chromium and its compounds, expressed as chromium (Cr)	
Cobalt and its compounds, expressed as cobalt (Co)	
Copper and its compounds, expressed as copper (Cu)	
Manganese and its compounds, expressed as manganese (Mn)	
Nickel and its compounds, expressed as nickel (Ni)	
Vanadium and its compounds, expressed as vanadium (V)	

These average values cover also the gaseous and the vapour forms of the relevant heavy metal emissions as well as their compounds.

1.4 Average emission limit value (ng/Nm^3) for dioxins and furans over a sampling period of a minimum of 6 hours and a maximum of 8 hours. The emission limit value refers to the total concentration of dioxins and furans calculated in accordance with Part 2.

Dioxins and furans	0,1

1.5 Emission limit values (mg/Nm^3) for carbon monoxide (CO) in the waste gases:

(a) 50 as daily average value;

(b) 100 as half-hourly average value;

(c) 150 as 10-minute average value.

The competent authority may authorise exemptions from the emission limit values set out in

this point for waste incineration plants using fluidised bed technology, provided that the permit sets an emission limit value for carbon monoxide (CO) of not more than 100 mg/Nm^3 as an hourly average value.

2. Emission limit values applicable in the circumstances described in Article 46(6) and Article 47.

The total dust concentration in the emissions into the air of a waste incineration plant shall under no circumstances exceed 150 mg/Nm^3 expressed as a half-hourly average. The air emission limit values for TOC and CO set out in points 1.2 and 1.5(b) shall not be exceeded.

3. Member States may lay down rules governing the exemptions provided for in this Part.

PART 4

Determination of air emission limit values for the co-incineration of waste

1.The following formula (mixing rule) shall be applied whenever a specific total emission limit value ‘C’ has not been set out in a table in this Part.

The emission limit value for each relevant polluting substance and CO in the waste gas resulting from the co-incineration of waste shall be calculated as follows:

$$\frac{V_{waste} \times C_{waste} + V_{proc} \times C_{proc}}{V_{waste} + V_{proc}} = C$$

V_{waste}:waste gas volume resulting from the incineration of waste only determined from the waste with the lowest calorific value specified in the permit and standardised at the conditions given by this Directive.

If the resulting heat release from the incineration of hazardous waste amounts to less than 10 % of the total heat released in the plant, V_{waste} must be calculated from a (notional) quantity of waste that, being incinerated, would equal 10 % heat release, the total heat release being fixed.

C_{waste} :emission limit values for waste incineration plants set out in Part 3

V_{proc}:waste gas volume resulting from the plant process including the combustion of the authorised fuels normally used in the plant (wastes excluded) determined on the basis of oxygen contents at which the emissions must be standardised as set out in Union or national law. In the absence of legislation for this kind of plant, the real oxygen content in the waste gas without being thinned by addition of air unnecessary for the process

must be used.

C_{proc}: emission limit values as set out in this Part for certain industrial activities or in case of the absence of such values, emission limit values of plants which comply with the national laws, regulations and administrative provisions for such plants while burning the normally authorised fuels (wastes excluded). In the absence of these measures the emission limit values set out in the permit are used. In the absence of such permit values the real mass concentrations are used.

C: total emission limit values at an oxygen content as set out in this Part for certain industrial activities and certain polluting substances or, in case of the absence of such values, total emission limit values replacing the emission limit values as set out in specific Annexes of this Directive. The total oxygen content to replace the oxygen content for the standardisation is calculated on the basis of the content above respecting the partial volumes.

All emission limit values shall be calculated at a temperature of 273,15 K, a pressure of 101,3 kPa and after correcting for the water vapour content of the waste gases.

Member States may lay down rules governing the exemptions provided for in this Part.

2. Special provisions for cement kilns co-incinerating waste

2.1. The emission limit values set out in points 2.2 and 2.3 apply as daily average values for total dust, HCl, HF, NO_x, SO_2 and TOC (for continuous measurements), as average values over the sampling period of a minimum of 30 minutes and a maximum of 8 hours for heavy metals and as average values over the sampling period of a minimum of 6 hours and a maximum of 8 hours for dioxins and furans.

All values are standardised at 10 % oxygen.

Half-hourly average values shall only be needed in view of calculating the daily average values.

2.2 C – total emission limit values (mg/Nm^3 except for dioxins and furans) for the following – polluting substances

Polluting substance	**C**
Total dust	30
HCl	10

HF	1
NO_x	500 ([1])
Cd + Tl	0,05
Hg	0,05
Sb + As + Pb + Cr + Co + Cu + Mn + Ni + V	0,5
Dioxins and furans (ng/Nm^3)	0,1
([1]) Until 1 January 2016, the competent authority may authorise exemptions from the limit value for NO_x for Lepol kilns and long rotary kilns provided that the permit sets a total emission limit value for NO_x of not more than 800 mg/Nm^3.	

2.3. C – total emission limit values (mg/Nm^3) for SO_2 and TOC

Pollutant	**C**
SO_2	50
TOC	10

The competent authority may grant derogations for emission limit values set out in this point in cases where TOC and SO_2 do not result from the co-incineration of waste.

2.4. C- total emission limit values for CO

The competent authority may set emission limit values for CO.

3. Special provisions for combustion plants co-incinerating waste

3.1 C_{proc} expressed as daily average values (mg/Nm^3) valid until the date set out in Article 82(5)

For determining the total rated thermal input of the combustion plants, the aggregation rules as

defined in Article 29 shall apply. Half-hourly average values shall only be needed in view of calculating the daily average values.

C_{proc} for solid fuels with the exception of biomass (O_2 content 6 %):

Polluting substances	**< 50 MWth**	**50-100 MWth**	**100 to 300 MWth**	**> 300 MWth**
SO_2	—	850	200	200
NO_x	—	400	200	200
Dust	50	50	30	30

C_{proc} for biomass (O_2 content 6 %):

Polluting substances	**< 50 MWth**	**50 to 100 MWth**	**100 to 300 MWth**	**> 300 MWth**
SO_2	—	200	200	200
NO_x	—	350	300	200
Dust	50	50	30	30

C_{proc} for liquid fuels (O_2 content 3 %):

Polluting substances	**< 50 MWth**	**50 to 100 MWth**	**100 to 300 MWth**	**> 300 MWth**
SO_2	—	850	400 to 200 (linear decrease from 100 to 300 MWth)	200
NO_x	—	400	200	200
Dust	50	50	30	30

3.2 C_{proc} expressed as daily average values (mg/Nm^3) valid from the date set out in Article 82(6)

For determining the total rated thermal input of the combustion plants, the aggregation rules as defined in Article 29 shall apply. Half-hourly average values shall only be needed in view of calculating the daily average values.

3.2.1. C_{proc} for combustion plants referred to in Article 30(2), with the exception of gas turbines and gas engines

C_{proc} for solid fuels with the exception of biomass (O_2 content 6 %):

Polluting substance	**< 50 MWth**	**50-100 MWth**	**100 to 300 MWth**	**> 300 MWth**
SO_2	—	400 for peat: 300	200	200
NO_x	—	300 for pulverised lignite: 400	200	200
Dust	50	30	25 for peat: 20	20

C_{proc} for biomass (O_2 content 6 %):

Polluting substance	**< 50 MWth**	**50 to 100 MWth**	**100 to 300 MWth**	**> 300 MWth**
SO_2	—	200	200	200
NO_x	—	300	250	200
Dust	50	30	20	20

C_{proc} for liquid fuels (O_2 content 3 %):

Polluting substance	< 50 MWth	50 to 100 MWth	100 to 300 MWth	> 300 MWth
SO_2	—	350	250	200
NO_x	—	400	200	150
Dust	50	30	25	20

3.2.2 C_{proc} for combustion plants referred to in Article 30(3), with the exception of gas turbines and gas engines

C_{proc} for solid fuels with the exception of biomass (O_2 content 6 %):

Polluting substance	< 50 MWth	50-100 MWth	100 to 300 MWth	> 300 MWth
SO_2	—	400 for peat: 300	200 for peat: 300, except in the case of fluidised bed combustion: 250	150 for circulating or pressurised fluidised bed combustion or, in case of peat firing, for all fluidised bed combustion: 200
NO_x	—	300 for peat: 250	200	150 for pulverised lignite combustion: 200
Dust	50	20	20	10 for peat: 20

C_{proc} for biomass (O_2 content 6 %):

Polluting substance	< 50 MWth	50 to 100 MWth	100 to 300 MWth	> 300 MWth
SO_2	—	200	200	150

NO_x	—	250	200	150
Dust	50	20	20	20

C_{proc} for liquid fuels (O_2 content 3 %):

Polluting substance	**< 50 MWth**	**50 to 100 MWth**	**100 to 300 MWth**	**> 300 MWth**
SO_2	—	350	200	150
NO_x	—	300	150	100
Dust	50	20	20	10

3.3 C — total emission limit values for heavy metals (mg/Nm^3) expressed as average values over the sampling period of a minimum of 30 minutes and a maximum of 8 hours (O_2 content 6 % for solid fuels and 3 % for liquid fuels)

Polluting substances	**C**
Cd + Tl	0,05
Hg	0,05
Sb + As + Pb + Cr + Co + Cu + Mn + Ni + V	0,5

3.4 C — total emission limit value (ng/Nm^3) for dioxins and furans expressed as average value measured over the sampling period of a minimum of 6 hours and a maximum of 8 hours (O_2 content 6 % for solid fuels and 3 % for liquid fuels)

Polluting substance	**C**
Dioxins and furans	0,1

4. Special provisions for waste co-incineration plants in industrial sectors not covered under Points 2 and 3 of this Part

4.1.C — total emission limit value (ng/Nm^3) for dioxins and furans expressed as average value measured over the sampling period of a minimum of 6 hours and a maximum of 8 hours:

Polluting substance	**C**
Dioxins and furans	0,1

4.2.C – total emission limit values (mg/Nm^3) for heavy metals expressed as average values over the sampling period of a minimum of 30 minutes and a maximum of 8 hours:

Polluting substances	**C**
Cd + Tl	0,05
Hg	0,05

PART 5

Emission limit values for discharges of waste water from the cleaning of waste gases

Polluting substances	**Emission limit values for unfiltered samples (mg/l except for dioxins and furans)**	
1. Total suspended solids as defined in Annex I of Directive 91/271/EEC	(95 %)	(100 %)
	30	45
2. Mercury and its compounds, expressed as mercury (Hg)	0,03	
3. Cadmium and its compounds, expressed	0,05	

as cadmium (Cd)	
4. Thallium and its compounds, expressed as thallium (Tl)	0,05
5. Arsenic and its compounds, expressed as arsenic (As)	0,15
6. Lead and its compounds, expressed as lead (Pb)	0,2
7. Chromium and its compounds, expressed as chromium (Cr)	0,5
8. Copper and its compounds, expressed as copper (Cu)	0,5
9. Nickel and its compounds, expressed as nickel (Ni)	0,5
10. Zinc and its compounds, expressed as zinc (Zn)	1,5
11. Dioxins and furans	0,3 ng/l

PART 6

Monitoring of emissions

1. Measurement techniques

1.1. Measurements for the determination of concentrations of air and water polluting substances shall be carried out representatively.

1.2. Sampling and analysis of all polluting substances including dioxins and furans, as well as the quality assurance of automated measuring systems and the reference measurement methods to calibrate them, shall be carried out according to CEN-standards. If CEN standards are not available, ISO, national or other international standards which ensure the provision of data of an equivalent scientific quality shall apply. This applies also to the quality assurance system of the laboratory performing the sampling and analysis. Automated measuring systems shall be subject to control by means of parallel measurements with the reference methods at least once per year.

1.3. At the daily emission limit value level, the values of the 95 % confidence intervals of a single measured result shall not exceed the following percentages of the emission limit values:

Carbon monoxide:	10 %
Sulphur dioxide:	20 %
Nitrogen dioxide:	20 %
Total dust:	30 %
Total organic carbon:	30 %
Hydrogen chloride:	40 %
Hydrogen fluoride:	40 %.

Periodic measurements of the emissions into air and water shall be carried out in accordance with points 1.1 and 1.2.

2. Measurements relating to air polluting substances

2.1. The following measurements relating to air polluting substances shall be carried out:
(a) continuous measurements of the following substances: NO_x, provided that emission limit values are set, CO, total dust, TOC, HCl, HF, SO_2;

(b) continuous measurements of the following process operation parameters: temperature near the inner wall or at another representative point of the combustion chamber as authorised by the competent authority, concentration of oxygen, pressure, temperature and water vapour content of the waste gas;

(c) at least two measurements per year of heavy metals and dioxins and furans; one measurement at least every 3 months shall, however, be carried out for the first 12 months of operation.

2.2. The residence time as well as the minimum temperature and the oxygen content of the waste gases shall be subject to appropriate verification, at least once when the waste incineration plant or waste co-incineration plant is brought into service and under the most unfavourable operating conditions anticipated.

2.3. The continuous measurement of HF may be omitted if treatment stages for HCl are used which ensure that the emission limit value for HCl is not being exceeded. In that case the emissions of HF shall be subject to periodic measurements as laid down in point 2.1(c).

2.4. The continuous measurement of the water vapour content shall not be required if the sampled waste gas is dried before the emissions are analysed.

2.5. The competent authority may decide not to require continuous measurements for HCl, HF and SO_2 in waste incineration plants or waste co-incineration plants and require periodic measurements as set out in point 2.1(c) or no measurements if the operator can prove that the emissions of those pollutants can under no circumstances be higher than the prescribed emission limit values.

The competent authority may decide not to require continuous measurements for NO_x and require periodic measurements as set out in point 2.1(c) in existing waste incineration plants with a nominal capacity of less than 6 tonnes per hour or in existing waste co-incineration plants with a nominal capacity of less than 6 tonnes per hour if the operator can prove on the basis of information on the quality of the waste concerned, the technologies used and the results of the monitoring of emissions, that the emissions of NO_x can under no circumstances be higher than the prescribed emission limit value.

2.6. The competent authority may decide to require one measurement every 2 years for heavy metals and one measurement per year for dioxins and furans in the following cases:
(a) the emissions resulting from co-incineration or incineration of waste are under all circumstances below 50 % of the emission limit values;

(b) the waste to be co-incinerated or incinerated consists only of certain sorted combustible fractions of non-hazardous waste not suitable for recycling and presenting certain characteristics, and which is further specified on the basis of the assessment referred to in point (c);

(c) the operator can prove on the basis of information on the quality of the waste concerned and the monitoring of the emissions that the emissions are under all circumstances significantly below the emission limit values for heavy metals and dioxins and furans.

2.7. The results of the measurements shall be standardised using the standard oxygen concentrations mentioned in Part 3 or calculated according to Part 4 and by applying the formula given in Part 7.

When waste is incinerated or co-incinerated in an oxygen-enriched atmosphere, the results of the measurements can be standardised at an oxygen content laid down by the competent authority reflecting the special circumstances of the individual case.

When the emissions of polluting substances are reduced by waste gas treatment in a waste incineration plant or waste co-incineration plant treating hazardous waste, the standardisation with repect to the oxygen contents provided for in the first subparagraph shall be done only if the oxygen content measured over the same period as for the polluting substance concerned exceeds the relevant standard oxygen content.

3. Measurements relating to water polluting substances

3.1. The following measurements shall be carried out at the point of waste water discharge:
(a) continuous measurements of pH, temperature and flow;

(b) spot sample daily measurements of total suspended solids or measurements of a flow proportional representative sample over a period of 24 hours;

(c) at least monthly measurements of a flow proportional representative sample of the discharge over a period of 24 hours of Hg, Cd, TI, As, Pb, Cr, Cu, Ni and Zn;

(d) at least every 6 months measurements of dioxins and furans; however, one measurement at least every 3 months shall be carried out for the first 12 months of operation.

3.2. Where the waste water from the cleaning of waste gases is treated on site collectively with other on-site sources of waste water, the operator shall take the measurements:
(a) on the waste water stream from the waste gas cleaning processes prior to its input into the collective waste water treatment plant;

(b) on the other waste water stream or streams prior to its or their input into the collective waste water treatment plant;

(c) at the point of final waste water discharge, after the treatment, from the waste incineration plant or waste co-incineration plant.

PART 7

Formula to calculate the emission concentration at the standard percentage oxygen concentration

$$E_S = \frac{21 - O_S}{21 - O_M} \times E_M$$

E_S = calculated emission concentration at the standard percentage oxygen concentration

E_M = measured emission concentration

O_S = standard oxygen concentration

O_M = measured oxygen concentration

PART 8

Assessment of compliance with emission limit values

1. Air emission limit values

1.1. The emission limit values for air shall be regarded as being complied with if:
(a) none of the daily average values exceeds any of the emission limit values set out in point 1.1 of Part 3 or in Part 4 or calculated in accordance with Part 4;

(b) either none of the half-hourly average values exceeds any of the emission limit values set out in column A of the table under point 1.2 of Part 3 or, where relevant, 97 % of the half-hourly average values over the year do not exceed any of the emission limit values set out in column B of the table under point 1.2 of Part 3;

(c) none of the average values over the sampling period set out for heavy metals and dioxins and furans exceeds the emission limit values set out in points 1.3 and 1.4 of Part 3 or in Part 4 or calculated in accordance with Part 4;

(d) for carbon monoxide (CO):

(i) in case of waste incineration plants:

— at least 97 % of the daily average values over the year do not exceed the emission limit value set out in point 1.5(a) of Part 3; and,

— at least 95 % of all 10-minute average values taken in any 24-hour period or all of the half-hourly average values taken in the same period do not exceed the emission limit values set out in points 1.5(b) and (c) of Part 3; in case of waste incineration plants in which the gas resulting from the incineration process is raised to a temperature of at least 1 100 °C for at least two seconds, Member States may apply an evaluation period of 7 days for the 10-minute average values;

(ii) in case of waste co-incineration plants: the provisions of Part 4 are met.

1.2. The half-hourly average values and the 10-minute averages shall be determined within the effective operating time (excluding the start-up and shut-down periods if no waste is being incinerated) from the measured values after having subtracted the value of the confidence interval specified in point 1.3 of Part 6. The daily average values shall be determined from those validated average values.

To obtain a valid daily average value no more than five half-hourly average values in any day shall be discarded due to malfunction or maintenance of the continuous measurement system. No more than ten daily average values per year shall be discarded due to malfunction or maintenance of the continuous measurement system.

1.3. The average values over the sampling period and the average values in the case of periodical measurements of HF, HCl and SO_2 shall be determined in accordance with the requirements of Articles 45(1)(e), 48(3) and point 1 of Part 6.

2. Water emission limit values

The emission limit values for water shall be regarded as being complied with if:
(a) for total suspended solids 95 % and 100 % of the measured values do not exceed the respective emission limit values as set out in Part 5;

(b) for heavy metals (Hg, Cd, TI, As, Pb, Cr, Cu, Ni and Zn) no more than one measurement per year exceeds the emission limit values set out in Part 5; or, if the Member State provides for more than 20 samples per year, no more than 5 % of these samples exceed the emission limit values set out in Part 5;

(c) for dioxins and furans, the measurement results do not exceed the emission limit value set out in Part 5.

ANNEX VII

Technical provisions relating to installations and activities using organic solvents

PART 1

Activities

1. In each of the following points, the activity includes the cleaning of the equipment but not the cleaning of products unless specified otherwise.

2. Adhesive coating

Any activity in which an adhesive is applied to a surface, with the exception of adhesive coating and laminating associated with printing activities.

3. Coating activity

Any activity in which a single or multiple application of a continuous film of a coating is applied to:

(a) either of the following vehicles:

(i) new cars, defined as vehicles of category M1 in Directive 2007/46/EC of the European Parliament and of the Council of 5 September 2007 establishing a framework for the approval of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles (41) and of category N1 in so far as they are coated at the same installation as M1 vehicles;

(ii) truck cabins, defined as the housing for the driver, and all integrated housing for the technical equipment, of vehicles of categories N2 and N3 in Directive 2007/46/EC;

(iii) vans and trucks, defined as vehicles of categories N1, N2 and N3 in Directive 2007/46/EC, but not including truck cabins;

(iv) buses, defined as vehicles of categories M2 and M3 in Directive 2007/46/EC;

(v) trailers, defined in categories O1, O2, O3 and O4 in Directive 2007/46/EC;

(b) metallic and plastic surfaces including surfaces of airplanes, ships, trains, etc.;

(c) wooden surfaces;

(d) textile, fabric, film and paper surfaces;

(e) leather.

Coating activities do not include the coating of substrate with metals by electrophoretic and chemical spraying techniques. If the coating activity includes a step in which the same article is printed by whatever technique used, that printing step is considered part of the coating activity. However, printing activities operated as a separate activity are not included, but may be covered by Chapter V of this Directive if the printing activity falls within the scope thereof.

4. Coil coating

Any activity where coiled steel, stainless steel, coated steel, copper alloys or aluminium strip is coated with either a film forming or laminate coating in a continuous process.

5. Dry cleaning

Any industrial or commercial activity using volatile organic compounds in an installation to clean garments, furnishing and similar consumer goods with the exception of the manual removal of stains and spots in the textile and clothing industry.

6. Footwear manufacture

Any activity of producing complete footwear or parts thereof.

7. Manufacturing of coating mixtures, varnishes, inks and adhesives

The manufacture of the above final products, and of intermediates where carried out at the

same site, by mixing of pigments, resins and adhesive materials with organic solvent or other carrier, including dispersion and predispersion activities, viscosity and tint adjustments and operations for filling the final product into its container.

8. Manufacturing of pharmaceutical products

The chemical synthesis, fermentation, extraction, formulation and finishing of pharmaceutical products and, where carried out at the same site, the manufacture of intermediate products.

9. Printing

Any reproduction activity of text and/or images in which, with the use of an image carrier, ink is transferred onto whatever type of surface. It includes associated varnishing, coating and laminating techniques. However, only the following sub-processes are subject to Chapter V:

(a) flexography – a printing activity using an image carrier of rubber or elastic photopolymers on which the printing areas are above the non-printing areas, using liquid inks which dry through evaporation;

(b) heatset web offset – a web-fed printing activity using an image carrier in which the printing and non-printing area are in the same plane, where web-fed means that the material to be printed is fed to the machine from a reel as distinct from separate sheets. The non-printing area is treated to attract water and thus reject ink. The printing area is treated to receive and transmit ink to the surface to be printed. Evaporation takes place in an oven where hot air is used to heat the printed material;

(c) laminating associated to a printing activity – the adhering together of two or more flexible materials to produce laminates;

(d) publication rotogravure – a rotogravure printing activity used for printing paper for magazines, brochures, catalogues or similar products, using toluene-based inks;

(e) rotogravure – a printing activity using a cylindrical image carrier in which the printing area is below the non-printing area, using liquid inks which dry through evaporation. The recesses are filled with ink and the surplus is cleaned off the non-printing area before the surface to be printed contacts the cylinder and lifts the ink from the recesses;

(f) rotary screen printing – a web-fed printing activity in which the ink is passed onto the surface to be printed by forcing it through a porous image carrier, in which the printing area is open and the non-printing area is sealed off, using liquid inks which dry only through evaporation. Web-fed means that the material to be printed is fed into the machine from a reel as distinct from separate sheets;

(g) varnishing – an activity by which a varnish or an adhesive coating for the purpose of later sealing the packaging material is applied to a flexible material.

10. Rubber conversion

Any activity of mixing, milling, blending, calendering, extrusion and vulcanisation of natural or synthetic rubber and any ancillary operations for converting natural or synthetic rubber into a finished product.

11. Surface cleaning

Any activity except dry cleaning using organic solvents to remove contamination from the surface of material including degreasing. A cleaning activity consisting of more than one step before or after any other activity shall be considered as one surface cleaning activity. This activity does not refer to the cleaning of the equipment but to the cleaning of the surface of products.

12. Vegetable oil and animal fat extraction and vegetable oil refining activities

Any activity to extract vegetable oil from seeds and other vegetable matter, the processing of dry residues to produce animal feed, the purification of fats and vegetable oils derived from seeds, vegetable matter and/or animal matter.

13. Vehicle refinishing

Any industrial or commercial coating activity and associated degreasing activities performing either of the following:
(a) the original coating of road vehicles as defined in Directive 2007/46/EC or part of them with refinishing-type materials, where this is carried out away from the original manufacturing line;

(b) the coating of trailers (including semi-trailers) (category O in Directive 2007/46/EC).

14. Winding wire coating

Any coating activity of metallic conductors used for winding the coils in transformers and motors, etc.

15. Wood impregnation

Any activity giving a loading of preservative in timber.

16. Wood and plastic lamination

Any activity to adhere together wood and/or plastic to produce laminated products.

PART 2

Thresholds and emission limit values

The emission limit values in waste gases shall be calculated at a temperature of 273,15 K, and a pressure of 101,3 kPa.

	Activity (solvent consumption threshold in tonnes/year)	**Threshold (solvent consumption threshold in**	**Emission limit values in waste**	**Fugitive emission limit values (percentage of solvent input)**		**Total emission limit values**		**Special provisions**
				New	**Existing**	**New**	**Existing**	

		tonnes/year)	**gases (mg C/Nm³)**	**installations**	**installations**	**installations**	**installations**	
1	Heatset web offset printing (> 15)	15—25 > 25	100 20	30 (1) 30 (1)				(1) Solvent residue in finished product is not to be considered as part of fugitive emissions.
2	Publication rotogravure (> 25)		75	10	15			
3	Other rotogravure, flexography, rotary screen printing, laminating or varnishing units (> 15) rotary screen printing on textile/cardboard (> 30)	15—25 > 25 > 30 (1)	100 100 100	25 20 20				(1) Threshold for rotary screen printing on textile and on cardboard.
4	Surface cleaning using compounds specified in Article 59(5). (> 1)	1—5 > 5	20 (1) 20 (1)	15 10				(1) Limit value refers to mass of compounds in mg/Nm³, and not to total carbon.
5	Other surface cleaning (> 2)	2—10 > 10	75 (1) 75 (1)	20 (1) 15 (1)				(1) Installations which demonstrate to the competent

							authority that the average organic solvent content of all cleaning material used does not exceed 30 % by weight are exempt from application of these values.
6	Vehicle coating (< 15) and vehicle refinishing	> 0,5	50 (1)	25			(1) Compliance in accordance with point 2 of Part 8 shall be demonstrated based on 15 minute average measurements.
7	Coil coating (> 25)		50 (1)	5	10		(1) For installations which use techniques which allow reuse of recovered solvents, the emission limit value shall be 150.

8	Other coating, including metal, plastic, textile ([5]), fabric, film and paper coating (> 5)	5—15 > 15	100 ([1]) ([4]) 50/75 ([2]) ([3]) ([4])	25 ([4]) 20 ([4])			([1]) Emission limit value applies to coating application and drying processes operated under contained conditions. ([2]) The first emission limit value applies to drying processes, the second to coating application processes.
							([3]) For textile coating installations which use techniques which allow reuse of recovered solvents, the emission limit value applied to coating application and drying processes taken together shall be 150. ([4]) Coating

						activities which cannot be carried out under contained conditions (such as shipbuilding, aircraft painting) may be exempted from these values, in accordance with Article 59(3). (5) Rotary screen printing on textile is covered by activity No 3.
9	Winding wire coating (> 5)				10 g/kg (1) 5 g/kg (2)	(1) Applies for installations where average diameter of wire ≤ 0,1 mm. (2) Applies for all other installations.
10	Coating of wooden surfaces (> 15)	15—25 > 25	100 (1) 50/75 (2)	25 20		(1) Emission limit value applies to coating

						application and drying processes operated under contained conditions. (2) The first value applies to drying processes, the second to coating application processes.
11	Dry cleaning				20 g/kg (1) (2)	(1) Expressed in mass of solvent emitted per kilogram of product cleaned and dried. (2) The emission limit value in point 2 of Part 4 does not apply for this activity.
12	Wood impregnation (> 25)		100 (1)	45	11 kg/m3	(1) Emission limit value does not apply for impregnation with creosote.
1	Coating of	10—25			85 g/m2	Emission limit values

3	leather (> 10)	> 25 > 10 (1)			75 g/m2 150 g/m2	are expressed in grams of solvent emitted per m2 of product produced. (1) For leather coating activities in furnishing and particular leather goods used as small consumer goods like bags, belts, wallets, etc.
14	Footwear manufacture (> 5)				25 g per pair	Total emission limit value is expressed in grams of solvent emitted per pair of complete footwear produced.
15	Wood and plastic lamination (> 5)				30 g/m2	
16	Adhesive coating (> 5)	5—15 > 15	50 (1) 50 (1)	25 20		(1) If techniques are used which allow reuse of

						recovered solvent, the emission limit value in waste gases shall be 150.
17	Manufacture of coating mixture, varnishes, inks and adhesives (> 100)	100—1 000 > 1 000	150 150	5 3	5 % of solvent input 3 % of solvent input	The fugitive emission limit value does not include solvent sold as part of a coatings mixture in a sealed container.
18	Rubber conversion (> 15)		20 (1)	25 (2)	25 % of solvent input	(1) If techniques are used which allow reuse of recovered solvent, the emission limit value in waste gases shall be 150. (2) The fugitive emission limit value does not include solvent sold as part of products or mixtures in a sealed container.

19	Vegetable oil and animal fat extraction and vegetable oil refining activities (> 10)					Animal fat: 1,5 kg/tonne Castor: 3 kg/tonne Rape seed: 1 kg/tonne Sunflower seed: 1 kg/tonne Soya beans (normal crush): 0,8 kg/tonne Soya beans (white flakes): 1,2 kg/tonne Other seeds and other vegetable matter: 3 kg/tonne (1) 1,5 kg/tonne (2) 4 kg/tonne (3)		(1) Total emission limit values for installations processing individual batches of seeds and other vegetable matter should be set by the competent authority on a case-by-case basis, applying the best available techniques. (2) Applies to all fractionation processes excluding de-gumming (the removal of gums from the oil). (3) Applies to de-gumming.
20	Manufacturing of pharmaceutical products (> 50)		20 (1)	5 (2)	15 (2)	5 % of solvent input	15 % of solvent input	(1) If techniques are used which allow reuse of recovered solvent, the

								emission limit value in waste gases shall be 150. (2) The fugitive emission limit value does not include solvent sold as part of products or mixtures in a sealed container.

PART 3

Emission limit values for installations of the vehicle coating industry

1.The total emission limit values are expressed in terms of grams of organic solvent emitted in relation to the surface area of product in square metres and in kilograms of organic solvent emitted in relation to the car body.

2.The surface area of any product dealt with in the table under point 3 is defined as the surface area calculated from the total electrophoretic coating area, and the surface area of any parts that might be added in successive phases of the coating process which are coated with the same coatings as those used for the product in question, or the total surface area of the product coated in the installation.

The surface of the electrophoretic coating area is calculated using the following formula:

$$\frac{2 \times \text{total weight of product shell}}{\text{average thickness of metal sheet} \times \text{density of metal sheet}}$$

This method shall also be applied for other coated parts made out of sheets.

Computer aided design or other equivalent methods shall be used to calculate the surface area of the other parts added, or the total surface area coated in the installation.

3. The total emission limit values in the table below refer to all process stages carried out at the same installation from electrophoretic coating, or any other kind of coating process, through to the final wax and polish of topcoating inclusive, as well as solvent used in cleaning of process equipment, including spray booths and other fixed equipment, both during and outside of production time.

Activity (solvent consumption threshold in tonnes/year)	Production threshold (refers to annual production of coated item)	Total emission limit value	
		New installations	Existing installations
Coating of new cars (> 15)	> 5 000	45 g/m² or 1,3 kg/body + 33 g/m²	60 g/m² or 1,9 kg/body + 41 g/m²
	≤ 5 000 monocoque or > 3 500 chassis-built	90 g/m² or 1,5 kg/body + 70 g/m²	90 g/m² or 1,5 kg/body + 70 g/m²
		Total emission limit value (g/m²)	
Coating of new truck cabins (> 15)	≤ 5 000	65	85
	> 5 000	55	75
Coating of new vans and trucks (> 15)	≤ 2 500	90	120
	> 2 500	70	90
Coating of new buses (> 15)	≤ 2 000	210	290
	> 2 000	150	225

4. Vehicle coating installations below the solvent consumption thresholds mentioned in the table under point 3 shall meet the requirements for the vehicle refinishing sector set out in Part 2.

PART 4

Emission limit values relating to volatile organic compounds with specific risk phrases

1. For emissions of the volatile organic compounds referred to in Article 58 where the mass flow of the sum of the compounds causing the labelling referred to in that Article is greater than, or equal to, 10 g/h, an emission limit value of 2 mg/Nm³ shall be complied with. The emission limit value refers to the mass sum of the individual compounds.

2. For emissions of halogenated volatile organic compounds which are assigned or need to carry the hazard statements H341 or H351, where the mass flow of the sum of the compounds causing the hazard statements H341 or H351 is greater than, or equal to, 100 g/h, an emission limit value of 20 mg/Nm³ shall be complied with. The emission limit value refers to the mass sum of the individual compounds.

PART 5

Reduction scheme

1. The operator may use any reduction scheme, specially designed for his installation.

2. In the case of applying coatings, varnishes, adhesives or inks, the following scheme can be used. Where the following method is inappropriate, the competent authority may allow an operator to apply any alternative scheme achieving equivalent emission reductions to those achieved if the emission limit values of Parts 2 and 3 were to be applied. The design of the scheme shall take into account the following facts:
(a) where substitutes containing little or no solvent are still under development, a time extension shall be given to the operator to implement his emission reduction plans;

(b) the reference point for emission reductions should correspond as closely as possible to the emissions which would have resulted had no reduction action been taken.

3. The following scheme shall operate for installations for which a constant solid content of product can be assumed:
(a) The annual reference emission is calculated as follows:

(i) The total mass of solids in the quantity of coating and/or ink, varnish or adhesive consumed in a year is determined. Solids are all materials in coatings, inks, varnishes and adhesives that become solid once the water or the volatile organic compounds are evaporated.

(ii) The annual reference emissions are calculated by multiplying the mass determined in (i) by the appropriate factor listed in the table below. Competent authorities may adjust these factors for individual installations to reflect documented increased efficiency in the use of solids.

Activity	**Multiplication factor for use in item (a)(ii)**
Rotogravure printing; flexography printing; laminating as part of a printing activity; varnishing as part of a printing activity; wood coating; coating of textiles, fabric film or paper; adhesive coating	4
Coil coating, vehicle refinishing	3
Food contact coating, aerospace coatings	2,33
Other coatings and rotary screen printing	1,5

(b) The target emission is equal to the annual reference emission multiplied by a percentage equal to:

(i) (the fugitive emission limit value + 15), for installations falling within item 6 and the lower threshold band of items 8 and 10 of Part 2,

(ii) (the fugitive emission limit value + 5) for all other installations.

(c) Compliance is achieved if the actual solvent emission determined from the solvent management plan is less than or equal to the target emission.

PART 6

Emission monitoring

1.Channels to which abatement equipment is connected, and which at the final point of discharge emit more than an average of 10 kg/h of total organic carbon, shall be monitored continuously for compliance.

2.In the other cases, Member States shall ensure that either continuous or periodic measurements are carried out. For periodic measurements at least three measurement values shall be obtained during each measurement exercise.

3.Measurements are not required in the case where end-of-pipe abatement equipment is not needed to comply with this Directive.

PART 7

Solvent management plan

1. Principles

The solvent management plan shall be used to:
(a) verify compliance as specified in Article 62;

(b) identify future reduction options;

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

2. Definitions

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

Inputs of organic solvents (I):

I1 The quantity of organic solvents or their quantity in mixtures purchased which are used as input into the process in the time frame over which the mass balance is being calculated.

I2 The quantity of organic solvents or their quantity in mixtures recovered and reused as solvent input into the process. The recycled solvent is counted every time it is used to carry out the activity.

Outputs of organic solvents (O):

O1 Emissions in waste gases.

O2 Organic solvents lost in water, taking into account waste water treatment when calculating O5.

O3 The quantity of organic solvents which remains as contamination or residue in products output from the process.

O4 Uncaptured emissions of organic solvents into air. This includes the general ventilation of rooms, where air is released to the outside environment via windows, doors, vents and similar openings.

O5 Organic solvents and/or organic compounds lost due to chemical or physical reactions (including those which are destroyed, by incineration or other waste gas or waste water treatments, or captured, as long as they are not counted under O6, O7 or O8).

O6 Organic solvents contained in collected waste.

O7 Organic solvents, or organic solvents contained in mixtures, which are sold or are intended to be sold as a commercially valuable product.

O8 Organic solvents contained in mixtures recovered for reuse but not as input into the process, as long as not counted under O7.

O9 Organic solvents released in other ways.

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

The use made of the solvent management plan shall be determined by the particular requirement which is to be verified, as follows:
(a) verification of compliance with the reduction scheme as set out in Part 5, with a total emission limit value expressed in solvent emissions per unit product, or otherwise stated in Parts 2 and 3.

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

C = I1 – O8

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

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

E = F + O1

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

(iii) for assessing compliance with the requirements of point (b)(ii) of Article 59(6), the solvent

management plan shall be drawn up annually to determine total emissions from all activities concerned, and that figure shall then be compared with the total emissions that would have resulted had the requirements of Parts 2, 3 and 5 been met for each activity separately.

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

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

$F = I1 – O1 – O5 – O6 – O7 – O8$

or

$F = O2 + O3 + O4 + O9$

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

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

$I = I1 + I2$

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

PART 8

Assessment of compliance with emission limit values in waste gases

1. In the case of continuous measurements the emission limit values shall be considered to be complied with if:
(a) none of the arithmetic averages of all valid readings taken during any 24-hour period of operation of an installation or activity except start-up and shut-down operations and maintenance of equipment exceeds the emission limit values,

(b) none of the hourly averages exceeds the emission limit values by more than a factor of 1,5.

2. In the case of periodic measurements the emission limit values shall be considered to be complied with if, in one monitoring exercise:
(a) the average of all the measurement values does not exceed the emission limit values,

(b) none of the hourly averages exceeds the emission limit value by more than a factor of 1,5.

3. Compliance with Part 4 shall be verified on the basis of the sum of the mass concentrations of the individual volatile organic compounds concerned. For all other cases, compliance shall be verified on the basis of the total mass of organic carbon emitted unless otherwise specified in Part 2.

4. Gas volumes may be added to the waste gas for cooling or dilution purposes where technically justified but shall not be considered when determining the mass concentration of the pollutant in the waste gas.

ANNEX VIII

Technical provisions relating to installations producing titanium dioxide

PART 1

Emission limit values for emissions into water

1. In case of installations using the sulphate process (as an annual average):

550 kg of sulphate per tonne of titanium dioxide produced.

2.In case of installations using the chloride process (as an annual average):
(a) 130 kg chloride per tonne of titanium dioxide produced using neutral rutile,

(b) 228 kg chloride per tonne of titanium dioxide produced using synthetic rutile,

(c) 330 kg chloride per tonne of titanium dioxide produced using slag. Installations discharging into salt water (estuarine, coastal, open sea) may be subject to an emission limit value of 450 kg chloride per tonne of titanium dioxide produced using slag.

3.For installations using the chloride process and using more than one type of ore, the emission limit values in point 2 shall apply in proportion to the quantity of the ores used.

PART 2

Emission limit values into air

1.The emission limit values which are expressed as concentrations in mass per cubic meter (Nm^3) shall be calculated at a temperature of 273,15 K, and a pressure of 101,3 kPa.

2.For dust: 50 mg/Nm^3 as an hourly average from major sources and 150 mg/Nm^3 as an hourly average from any other source.

3.For gaseous sulphur dioxide and trioxide discharged from digestion and calcination, including acid droplets calculated as SO2 equivalent:
(a) 6 kg per tonne of titanium dioxide produced as an annual average;

(b) 500 mg/Nm3 as an hourly average for plants for the concentration of waste acid.

4. For chlorine in the case of installations using the chloride process:
(a) 5 mg/Nm3 as a daily average;

(b) 40 mg/Nm3 at any time.

PART 3

Emission monitoring

The monitoring of emissions into air shall include at least the continuous monitoring of:
(a) gaseous sulphur dioxide and trioxide discharged from digestion and calcination from plants for the concentration of waste acid in installations using the sulphate process;

(b) chlorine from major sources within installations using the chloride process;

(c) dust from major sources.

ANNEX IX

PART A

Repealed Directives with their successive amendments

(referred to in Article 81)

Council Directive 78/176/EEC (OJ L 54, 25.2.1978, p. 19).	
Council Directive 83/29/EEC (OJ L 32, 3.2.1983, p. 28).	
Council Directive 91/692/EEC (OJ L 377, 31.12.1991, p. 48).	only Annex I, point (b)
Council Directive 82/883/EEC (OJ L 378, 31.12.1982, p. 1).	
Act of Accession of 1985	only Annex I, point X.1(o)
Act of Accession of 1994	only Annex I, point VIII.A.6
Council Regulation (EC) No 807/2003 (OJ L 122, 16.5.2003, p. 36).	only Annex III, point 34
Regulation (EC) No 219/2009 of the European Parliament and of the Council (OJ L 87, 31.3.2009, p. 109).	only Annex, point 3.1
Council Directive 92/112/EEC (OJ L 409, 31.12.1992, p. 11).	
Council Directive 1999/13/EC (OJ L 85, 29.3.1999, p. 1).	
Regulation (EC) No 1882/2003 of the European Parliament and of the Council (OJ L 284, 31.10.2003, p. 1).	only Annex I, point 17
Directive 2004/42/EC of the European Parliament and of the Council (OJ L 143, 30.4.2004, p. 87).	only Article 13(1)

Directive 2008/112/EC of the European Parliament and of the Council (OJ L 345, 23.12.2008, p. 68).	only Article 3
Directive 2000/76/EC of the European Parliament and of the Council (OJ L 332, 28.12.2000, p. 91).	
Regulation (EC) No 1137/2008 of the European Parliament and of the Council (OJ L 311, 21.11.2008, p. 1).	only Annex, point 4.8
Directive 2001/80/EC of the European Parliament and of the Council (OJ L 309, 27.11.2001, p. 1).	
Council Directive 2006/105/EC (OJ L 363, 20.12.2006, p. 368).	only Annex, part B, point 2
Directive 2009/31/EC of the European Parliament and of the Council (OJ L 140, 5.6.2009, p. 114).	only Article 33
Directive 2008/1/EC of the European Parliament and of the Council (OJ L 24, 29.1.2008, p. 8).	
Directive 2009/31/EC of the European Parliament and of the Council (OJ L 140, 5.6.2009, p. 114).	only Article 37

PART B

List of time-limits for transposition into national law and application

(referred to in Article 81)

Directive	**Time-limit for transposition**	**Time-limit for application**
78/176/EEC	25 February 1979	
82/883/EEC	31 December 1984	
92/112/EEC	15 June 1993	
1999/13/EC	1 April 2001	
2000/76/EC	28 December 2000	28 December 2002 28 December 2005

2001/80/EC	27 November 2002	27 November 2004
2003/35/EC	25 June 2005	
2003/87/EC	31 December 2003	
2008/1/EC	30 October 1999 (1)	30 October 1999 30 October 2007
(1) Directive 2008/1/EC is a codified version of Council Directive 96/61/EC of24 September 1996 concerning integrated pollution prevention and control (OJ L 257, 10.10.1996, p. 26) and the time-limits for transposition and application remain in force.		

ANNEX X

Correlation Table

Directive 78/176/EEC	**Directive 82/883/EEC**	**Directive 92/112/EEC**	**Directive 2008/1/EC**	**Directive 1999/13/EC**	**Directive 2000/76/EC**	**Directive 2001/80/EC**	**This Directive**
Article 1(1)	Article 1	Article 1					Article 66
—	—	—	—	—	—	—	Article 2
Article 1(2), point (a)			Article 2(2)				Article 3(2)
Article 1(2), point (b)					Article 3(1)		Article 3(37)
Article 1(2), points (c), (d) and (e)							—
—	—	—	—	—	—	—	Article 66
Article 2							Article 67
Article 3							Article 11, points (d) and (e)
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					Article 11(7), second part of first sentence of first subparagraph		Annex VI, Part 6, point 2.6(a)
					Article 11(7), second		—

					sentence of first subparagraph		
					Article 11(7), second subparagraph		—
					Article 11(7), point (a)		Annex VI, Part 6, point 2.6(b)
					Article 11(7), points (b) and (c)		—
					Article 11(7), point (d)		Annex VI, Part 6, point 2.6(c)
					Article 11(7), points (e) and (f)		—
					Article 11(8), first subparagraph, points (a) and (b)		Annex VI, Part 3, point 1
					Article 11(8), first subparagraph, point (c) and second subparagraph		Annex VI, Part 6, second subparagraph of point 2.7
					Article 11(8), first subparagra		Annex VI, Part 4, point 2.1,

					ph, point (d)		second subparagraph
					Article 11(9)		Article 48(4)
					Article 11(10)		Annex VI, Part 8, point 1.1
					Article 11(11)		Annex VI, Part 8, point 1.2
					Article 11(12)		Annex VI, Part 8, point 1.3
					Article 11(13)		Article 48(5)
—	—	—	—	—	—	—	Article 49
					Article 11(14)		Annex VI, Part 6, point 3.1
					Article 11(15)		Article 45(1), point (e)
					Article 11(16)		Annex VI, Part 8, point 2
					Article 11(17)		Article 8(2), point (a)
					Article 12(1)		Article 55(1)
					Article 12(2), first and second sentence		Article 55(2)
					Article 12(2), third sentence		Article 55(3)

					Article 13(1)		Article 45(1), point (f)
					Article 13(2)		Article 47
					Article 13(3)		Article 46(6)
					Article 13(4)		Annex VI, Part 3, point 2
					Article 14		—
					Article 15		—
					Article 16		—
					Article 20		—
					Annex I		Annex VI, Part 2
					Annex II, first part (without numbering)		Annex VI, Part 4, point 1
					Annex II, point 1, introductory wording		Annex VI, Part 4, point 2.1
					Annex II, points 1.1 and 1.2		Annex VI, Part 4, points 2.2 and 2.3
—	—	—	—	—	—	—	Annex VI, Part 4, point 2.4
					Annex II, point 1.3		—
					Annex II, point 2.1		Annex VI, Part 4,

							point 3.1
—	—	—	—	—	—	—	Annex VI, Part 4, point 3.2
					Annex II, point 2.2		Annex VI, Part 4, point 3.3 and 3.4
					Annex II, point 3		Annex VI, Part 4, point 4
					Annex III		Annex VI, Part 6, point 1
					Annex IV, table		Annex VI, Part 5
					Annex IV, final sentence		—
					Annex V, point (a), table		Annex VI, Part 3, point 1.1
					Annex V, point (a), final sentences		—
					Annex V, point (b), table		Annex VI, Part 3, point 1.2
					Annex V, point (b), final sentence		—
					Annex V, point (c)		Annex VI, Part 3, point 1.3

					Annex V, point (d)		Annex VI, Part 3, point 1.4
					Annex V, point (e)		Annex VI, Part 3, point 1.5
					Annex V, point (f)		Annex VI, Part 3, point 3
					Annex VI		Annex VI, Part 7
						Article 1	Article 28, first subparagraph
						Article 2(2)	Annex V, Part 1, point 1 and Part 2, point 1, first subparagraph
—	—	—	—	—	—	—	Annex V, Part 1, point 1 and Part 2, point 1, second subparagraph
						Article 2(3) second part	Annex V, Part 1, point 1 and Part 2, point 1, first subparagraph
—	—	—	—	—	—	—	Annex V, Part 1,

							point 1 and Part 2, point 1, second subparagraph
						Article 2(4)	—
						Article 2(6), first part	Article 3(24)
						Article 2(6), second part	Article 28, second subparagraph, point (j)
						Article 2(7), first subparagraph	Article 3(25)
						Article 2(7), second subparagraph, first sentence	—
						Article 2(7), second subparagraph, second sentence and points (a) to (i)	Article 28, second subparagraph and points (a) to (i)
						Article 2(7), second subparagraph, point (j)	—
						Article 2(	—

						7), third subparagraph	
—	—	—	—	—	—	—	Article 29(1)
						Article 2(7), fourth subparagraph	Article 29(2)
—	—	—	—	—	—	—	Article 29(3)
						Article 2(8)	Article 3(32)
						Article 2(9)	—
						Article 2(10)	—
						Article 2(11)	Article 3(31)
						Article 2(12)	Article 3(33)
						Article 2(13)	—
						Article 3	—
						Article 4(1)	—
						Article 4(2)	—
						Article 4(3)to 4(8)	
						Article 5(1)	Annex V, Part 1, point 2, second subparagrap

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							Annex V, Part 1, point 2, first, third and fourth subparagraphs
						Article 5(2)	—
						Article 6	—
						Article 7(1)	Article 37
						Article 7(2)	Article 30(5)
						Article 7(3)	Article 30(6)
						Article 8(1)	Article 40(1)
						Article 8(2), first part of first subparagraph	Article 40(2), first part of first subparagraph
						Article 8(2), second part of first subparagraph	—
—	—	—	—	—	—	—	Article 40(2), second part of first subparagraph
—	—	—	—	—	—	—	Article 40(2

							), second subparagraph
—	—	—	—	—	—	—	Article 40(3)
—	—	—	—	—	—	—	Article 41
						Article 8(2), second subparagraph	—
						Article 8(3) and (4)	—
						Article 9	Article 30(1)
—	—	—	—	—	—	—	Article 30(2), (3) and (4)
						Article 9a	Article 36
						Article 10, first paragraph, first sentence	Article 30(7), first sentence
—	—	—	—	—	—	—	Article 30(7), second sentence
—	—	—	—	—	—	—	Article 30(8) and (9)
—	—	—	—	—	—	—	Article 31 to 35
						Article 10, first paragraph, second sentence	—
						Article 10	—

						, second paragraph	
						Article 12, first sentence	Article 38(1)
						Article 12, second sentence	—
—	—	—	—	—	—	—	Article 38(2), (3) and (4)
—	—	—	—	—	—	—	Article 39
						Article 13	Annex V, Part 3, third part of point 8
						Article 14	Annex V, Part 4
—	—	—	—	—	—	—	Annex V, Part 5, 6 and 7
						Article 15	—
						Article 18 (2)	—
						Annex I	—
						Annex II	—
						Annex III and IV	Annex V, point 2 of Part 1 and Part 2
						Annex V A	Annex V, Part 1, point 3
						Annex V B	Annex V, Part 2,

							point 3
						Annex VI A	Annex V, Part 1, points 4 and 6
—	—	—	—	—	—	—	Annex V, Part 1, point 5
						Annex VI B	Annex V, Part 2, points 4 and 6
—	—	—	—	—	—	—	Annex V, Part 2, point 5
						Annex VI I A	Annex V, Part 1, points 7 and 8
						Annex VI I B	Annex V, Part 2, points 7 and 8
						Annex VI II A point 1	—
						Annex VI II A point 2	Annex V, Part 3, first part of point 1 and points 2, 3 and 5
—	—	—	—	—	—	—	Annex V, Part 3, second part of point 1
—	—	—	—	—	—	—	Annex V, Part 3,

							point 4
						Annex VI II A point 3	—
						Annex VI II A point 4	Annex V, Part 3, point 6
						Annex VI II A point 5	Annex V, Part 3, points 7 and 8
						Annex VI II A point 6	Annex V, Part 3, points 9 and 10
—	—	—	—	—	—	—	Annex V, Part 3, point 11
—	—	—	—	—	—	—	Annex V, Part 4
						Annex VI II B	—
						Annex VI II C	—
			Annex VI			Annex IX	Annex IX
			Annex VII			Annex X	Annex X