# Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (Recast) (Text with EEA relevance)

# 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 6 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 this 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.

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.

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 noncommercial 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).

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<sup>3</sup>.

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.

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.

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 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.

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<sup>(1)</sup>, 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 12month 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.

(**1**) OJ L 140, 5.6.2009, p. 114.