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)

ANNEX VI

Technical provisions relating to waste incineration plants and waste co-incineration plants

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:

[X1

$$\frac{V_{waste} \times C_{waste} + V_{proc} \times C_{proc}}{V_{waste} + V_{proc}} = C$$

]

Editorial Information

X1 Substituted by Corrigendum to Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (Official Journal of the European Union L 334 of 17 December 2010).

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[a]
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

a 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