

SUBSIDIARY LEGISLATION 549.78

**INDUSTRIAL EMISSIONS
(LARGE COMBUSTION PLANTS) REGULATIONS**

7th January, 2013

LEGAL NOTICE 11 of 2013, as amended by Legal Notice 47 of 2017.

1. (1) The title of these regulations is the Industrial Emissions (Large Combustion Plants) Regulations. Citation.

(2) These regulations provide for the implementation in part of 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).

(3) These regulations also provide for the implementation of the Industrial Emissions (Framework) Regulations. S.L. 549.76

(4) These regulations lay down rules for the limitation of atmospheric emissions from large combustion plants and apply to combustion plants, if their total rated thermal input is equal to or greater (\geq) than 50 MW_{Th}, irrespective of the type of fuel used (solid, liquid or gaseous). These regulations 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 is 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 the paragraph (b) of the definition of "biomass" in regulation 5 of the Industrial Emissions (Framework) Regulations. S.L. 549.76

2. For the purpose of these regulations and unless the context otherwise requires: Interpretation.
Amended by:
L.N. 47 of 2017.

"combustion unit" means any technical apparatus in which fuels

are oxidised in order to use the heat thus generated;

"combustion plant" means any plant made up of one or more combustion units. Where a combustion plant is made up of more than one separate combustion unit which, *de facto*, discharge their waste gases through a common stack, the combination formed by these units shall be considered as a single combustion plant.

In addition combustion units which have been granted a permit for the first time on or after 1st July 1987, or the operators of which have submitted a complete application for a permit on or after that date shall be considered as forming part of the same combustion plant if in the judgement of the competent authority, they are installed in such a way that taking technical and economic factors into account their waste gases could be discharged through a common stack.

In both cases the capacities of the constituting combustion units (excluding those individual units having a rated thermal input below 15 MW_{Th}) are to be added up in order to calculate the total rated thermal input of the plant;

"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 Schedules I, III, and V, or, in the case of several fuels having the same emission limit value, the fuel having the highest thermal input amongst those fuels;

S.L. 549.76

"emission limit value" shall have the same meaning as in the Industrial Emissions (Framework) Regulations, and shall be expressed at standard conditions according to the following equation:

$$[P]_s = \frac{T}{273.15} \times \frac{101.3}{P} \times \frac{100}{100 - W} \times \frac{20.94 - O_s}{20.94 - O_M} \times [P]_M$$

Where:

$[P]_s$ is the mass concentration of the pollutant at standard conditions.

$[P]_M$ is the mass concentration of the pollutant measured at the temperature T in Kelvin (K), at a Pressure P in kilopascal (kPa), at a percentage flue gas water vapour content of W and at a flue gas oxygen content of O_M .

T is the actual flue gas temperature in K.

P is the actual flue gas pressure in kPa.

W is the percentage water vapour content of the flue gas.

O_S is the standard oxygen content by volume in the waste gas which shall be 3% in the case of liquid and gaseous fuels, 6% in the case of solid fuels and 15% in the case of gas turbines or gas engines.

O_M is the measured oxygen content in the flue gas;

"maximum continuous rating" means the maximum output in MW_E that a generating plant is capable of producing continuously under normal operating conditions over a period of time which shall not be less than one year;

"rated thermal input" means the rate at which fuel can be burned at the maximum continuous rating of the combustion plant multiplied by the net heat value of the fuel expressed as megawatts thermal (MW_{Th});

"waste gas" means the carrier gas together with any solid, liquid or gaseous emissions which are discharged with it; the waste gas volume flow rate shall be expressed in metres cubed per hour at standard conditions, i.e. at a temperature of 273K and at a pressure of 101.3 kPa, after correction for the water vapour content, and hereinafter referred to as normal metre cubed per hour or $Nm^3.hr^{-1}$.

3. (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 to safeguard human health and the environment.

Stack height.

(2) The minimum stack height shall be calculated using the dispersion modelling software and procedures deemed appropriate by the competent authority.

(3) For combustion plants permitted after 07 January 2013, the minimum stack height which shall be established during the initial permitting process, shall be such that the contribution from these combustion plants does not exceed 3% of the limit values in Annex 7 of the Ambient Air Quality Regulations, for the pollutants specified therein.

S.L. 549.59

4. (1) Permits for combustion plants which have been granted a permit before the 07 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 07 January 2014 shall include conditions related to emission limit values which shall not be higher than those in:

Emission limit values for plants granted a permit before 07 January 2013.

- (a) Schedule I for plants firing solid fuels; and
- (b) Schedule III for plants firing liquid fuels; and
- (c) Schedule V for plants firing gaseous fuels.

(2) Sub-regulation (1) shall be applicable as from 01 January 2016 for combustion plants which were permitted or in operation after 06 January 2011 and before 7 January 2013; prior to 1 January 2016, permits for such combustion plants shall include limit values which shall not be higher than those set in Schedules I to VII of the Large Combustion Plant Regulations, as applicable.

S.L. 549.56.

(3) Sub-regulation (1) shall be applicable as from 01 January 2020 for combustion plants which were permitted or in operation on 06 January 2011; prior to 1 January 2020, permits for such combustion plants shall include limit values which shall not be higher than those set in Schedules I to VII of the Large Combustion

S.L. 549.56.

	Plant Regulations, 2010, as applicable.
Emission limit values for other plants.	<p>5. Permits for combustion plants not covered by regulation 4(1) shall include conditions related to emission limit values which shall not be higher than those in:</p> <ul style="list-style-type: none">(a) Schedule II for plants firing solid fuels; and(b) Schedule IV for plants firing liquid fuels; and(c) Schedule VI for plants firing gaseous fuels.
Applicability of limit values.	<p>6. The limit values in regulations 4 and 5 are not applicable to:</p> <ul style="list-style-type: none">(a) diesel engines irrespective of the fuel; and(b) recovery boilers within installations for the production of pulp.
Heavy metal and dioxin or furan limit values.	<p>7. Permits for combustion plants firing solid and liquid fuels, shall include conditions relating to compliance with the emission limit values for:</p> <ul style="list-style-type: none">(a) the heavy metals in Schedule VII; and(b) the dioxins and furans in Schedule VIII.
Conditions for gas turbines.	<p>8. (1) Permits for gas turbines which have been granted a permit before the 07 January 2013, or the operators of which have submitted a permit before that date, provided that such plants are put into operation no later than 07 January 2014 shall include conditions related to emission limit values which shall not be higher than those in Schedule IX.</p> <p>(2) Permits for other gas turbines outside the scope of sub-regulation (1) shall include conditions related to emission limit values, which shall not be higher than those in Schedule X.</p>
Extension or modification of a combustion plant.	<p>9. (1) If a combustion plant is extended, the emission limit values set out in regulation 5 and in regulation 8(2) 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.</p> <p>(2) In the case of a change to a plant, which may have consequences for the environment and which affects part of the plant having a rated thermal input of 50 MW_{Th} or more, the emission limit values set out in regulation 5 shall apply to the part of the plant which has changed in relation to the total rated thermal input of the whole plant.</p> <p>(3) The applicable limit value for carbon monoxide shall in no case be higher than 100 mg CO. Nm⁻³.</p>
Competent authority may impose stricter limit values.	<p>10. Notwithstanding the provisions in regulations 3, 4, 5 and 6, the competent authority may impose limit values stricter than the ones in these regulations or impose emission limit values on plants exempt from this requirement through regulation 1(3) or through regulation 9 in order to ensure compliance with:</p>

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- (a) the Ambient Air Quality Regulations, and any subsequent regulations dealing with the ambient levels of atmospheric pollutants; S.L. 549.59
- (b) any other regulations made under the Environment Protection Act and, or the Development Planning Act and deemed relevant by the competent authority. Cap. 549.
Cap. 552.

11. (1) Combustion plants within the scope of these regulations may be exempt from compliance with the limit values referred to in regulation 4 if the operator of these plants undertakes in a written declaration submitted to the competent authority by 01 October 2014, not to operate the plant for more than 17,500 hours, starting from the 01 January 2016 and ending no later than 31 December 2023. Limit value for emissions from plants operating for a limited time.

(2) The operator shall forward to the competent authority the information listed in Schedule XV together with the number of operating hours since January 2016 using the equation in the same Schedule.

(3) Combustion plants made up of more than one combustion unit shall be considered to be in operation when any part of them operates, irrespective of the load factor.

(4) Combustion plants under the derogation in sub-regulation (1) shall at least comply with the limit values for sulphur dioxide, nitrogen oxides and dust set out in the permit applicable on the 31 December 2015 issued in compliance with the requirements of the Large Combustion Plants Regulations, and the Integrated Pollution Prevention and Control Regulations. L.N. 172 of 2010.
L.N. 234 of 2002.

(5) If the combustion plant within the scope of sub-regulation (1) accounts for at least 35% of the electricity supply in Malta in 06 January 2011, and is incapable due to its technical characteristics to comply with the limit values in regulation 4, then the operating hours referred to in sub-regulation (1) shall be extended to 18,000 hours to be used from the 01 January 2020 and to be used up by no later than 31 December 2023. In this case the operator shall submit the written declaration to the competent authority by 01 October 2019 and shall start reporting the number of operating hours used up since 01 January 2020.

12. (1) The operators of combustion plants having a rated electrical output of 300 MW or more and which were permitted after the 13 May 2009, shall assess whether: Geological storage of carbon dioxide.

- (a) suitable geological storage sites for carbon dioxide are available; and
- (b) transport facilities are technically and economically feasible; and
- (c) it is technically and economically feasible to retrofit for carbon dioxide capture.

(2) If the conditions in sub-regulation (1) are met, the competent authority shall ensure that the permits include a clause on the setting aside of a suitable space on the installation site for the equipment necessary to capture and compress carbon dioxide.

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.

Emergency considerations.

13. (1) Permits for combustion plants within the scope of these regulations, shall include conditions on procedures relating to malfunction or break down of abatement equipment.

(2) In the case of a break down or malfunction of any abatement equipment, the operator shall operate the plant using low polluting fuels and if this is not enough to achieve the relevant limit values, the operator shall reduce or close down operations if a return to normal operations is not achieved within twenty-four hours.

(3) The competent authority shall be notified within forty-eight hours of the occurrence of such break down or malfunction.

(4) In no circumstance shall the cumulative duration of unabated operations in any twelve month period exceed one hundred and twenty hours. The Director of Environment Protection and any officials to whom this role is delegated may allow exceptions to the limits of twenty-four hours and one hundred and twenty hours above, in cases where in his judgment:

- (a) there is an overriding need to maintain energy supplies; or
- (b) the plant with the break down would be replaced for a limited period by another plant which would cause an overall increase in emissions.

(5) The Director of Environment Protection and any officials to whom this role is delegated may allow a suspension for a maximum of six months from the obligation to comply with the emission limit values provided for in regulations 4 and 5 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 these limit values due to an interruption in the supply of low-sulphur fuel resulting from a serious shortage.

(6) The Director of Environment Protection and any officials to whom this role is delegated may allow a suspension for a maximum of six months from the obligation to comply with the emission limit values provided for in regulations 4 and 5 for sulphur dioxide in cases where a plant which normally uses only gaseous fuel, and which would otherwise need to be equipped with a waste gas purification facility, has to resort exceptionally, and for a period not exceeding ten days except where there is an overriding need to maintain energy supplies, to the use of other fuels because of a sudden interruption in the supply of gas.

(7) In the cases mentioned in sub-regulations (5) and (6), the operator shall inform the Director of Environment Protection in writing of the need to apply for the exemptions provided for in these two sub-regulations as soon as the cases in question arise. In doing so the operator shall forward all the relevant technical

information deemed necessary by the competent authority. The competent authority shall at its discretion issue a temporary derogation according to the provisions of the above mentioned sub-regulations in accordance with the notification referred to in Schedule XII. The competent authority shall publish this notification together with all the information forwarded to it by the operator on the subsequent issue of the Gazette.

14. Permits for combustion plants made up of multi-firing units involving the simultaneous use of two or more fuels shall include conditions relating to compliance with emission limit values which shall be established as follows:

Multi-firing units.

- (a) by taking the emission limit value relevant to each individual fuel and pollutant corresponding to the rated thermal input of the combustion plant as given in Schedules I, II, III, IV, V and VI as applicable;
- (b) by determining fuel-weighted emission limit values, which are obtained by multiplying the above individual emission limit value by the thermal input delivered by each fuel, the product of multiplication being divided by the sum of the thermal inputs delivered by all fuels; and
- (c) by aggregating the fuel-weighted limit values.

15. (1) The operator shall monitor the concentrations of sulphur dioxide, oxides of nitrogen, dust, carbon monoxide, heavy metals (in accordance with Schedule VII), dioxins and furans (in accordance with Schedule VIII) polycyclic aromatic hydrocarbons - PAHs (in accordance with Schedule XI) in the waste gases of the combustion plants within the scope of these regulations.

Monitoring.
Amended by:
L.N. 47 of 2017.

(2) Concentrations of sulphur dioxide, oxides of nitrogen, dust and of carbon monoxide shall be monitored continuously.

(3) The installation and functioning of the automated measuring equipment shall be subject to control and annual surveillance tests as set out in Schedule XIII.

(4) The operator shall make sure that all monitoring results are 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. To this end the permit shall include a template, which is to be used by the operator in order to report the monitoring results to the competent authority.

(5) In addition to the parameters in sub-regulation (2), the operator shall monitor the relevant process operation parameters of oxygen content, temperature, pressure and water vapour content. The continuous measurement of the water vapour content shall not be necessary if the sampled exhaust gas is dried prior to analysis.

(6) The operator shall monitor the flue gases of the combustion plants within the scope of these regulations discontinuously for heavy metals, PAHs and dioxins and furans.

(7) With the exception of dioxins and furans, discontinuous

measurements shall be carried out at least every six months for a minimum sampling time of at least six hours.

(8) Dioxins and furans shall be measured discontinuously at least once yearly. The minimum sampling time shall be of six hours.

(9) The competent authority may waive the requirement for the measurement of dioxins and furans if it results that the concentration of dioxins and furans in the waste gases of the combustion plants is consistently below the limit value stipulated by the permit.

(10) Combustion plants using gas or light and middle distillates as their fuel shall not be required to monitor for dioxins and furans, heavy metals and PAHs.

(11) The sampling and analysis of the relevant pollutants and process parameters as well as reference measurement methods to calibrate automated measurement systems shall be carried out in accordance with CEN standard methods. If CEN standards are not available, ISO standards or any national standard method from any of the Member States of the European Union can be used. In addition, continuous measuring systems shall be subject to control by means of parallel measurements with the reference methods at least every year.

(12) The operator shall carry out any discontinuous monitoring in accordance with the relevant CEN standards. In the absence of a CEN standard method an ISO standard method or any national standard method from any of the European Union Member States can be used.

(13) Automated measuring systems are subject to the requirements in Schedule XIII.

(14) The operator shall inform the competent authority of any 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 sub-regulations (1) to (13) are still adequate or require adaptation.

Timely
communication of
monitoring results.

16. The operator shall inform the competent authority of the results of the continuous measurements, the checking of the measurement equipment, the individual measurements and all other measurements within the time frames set by the permit.

Compliance with
the emission limit
values.
Amended by:
L.N. 47 of 2017.

17. (1) The limit values set out in Schedules I, II, III, IV, V, VI, VII, VIII, IX, and X shall be regarded as having been complied with if the evaluation of results indicates, for operating hours within a calendar year, that all the following conditions have been met:

- (a) no validated monthly average value exceeds the relevant emission limit values set out in Schedules I, II, III, IV, V, VI, VII, VIII, IX and X; and
- (b) no validated daily average value exceeds 110% of the relevant emission limit values set out in Schedules I,

II, III, IV, V, VI, VII, VIII, IX and X; and

- (c) validated average values are determined as set out in paragraphs 4 and 5 of Schedule XIII; and
- (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 Schedules I, II, III, IV, V, VI, VII, VIII, IX and X.

For the purpose of the calculation of the average emission values, the values measured during the periods referred to in regulation 13 as well as during start up and shut down periods shall be disregarded.

(2) Without prejudice to sub-regulation (1), for combustion plants composed only of boilers using coal with a total rated thermal input below 50 MW, no validated daily average value shall exceed 150% of the limit values in Schedules I and II.

18. (1) The operator shall forward an emissions inventory on a combustion plant by combustion plant basis taking into account the definition in regulation 2. The inventory shall include the energy input, and the loads of sulphur dioxide, nitrogen oxides and dust (as total suspended particulates). The pollutant loads (in Mg) shall be calculated by adding the mass of pollutant emitted by the combustion plant in question each day, on the basis of volumetric flow rates of waste gases.

Reporting obligations.

(2) The emissions inventory shall include the information in Schedule XIV.

(3) For combustion plants operating on the derogation in regulation 4(2), the operator shall report to the competent authority on a yearly basis the operating time for each combustion plant operating on this derogation. The report shall include the information in Schedule XV.

19. A person shall be guilty on an offence under these regulations if:

Offences under these regulations.

- (a) he fails to comply with any order lawfully given in terms of any provision of these regulations; or
- (b) he contravenes any restriction, prohibition or requirement imposed by or under these regulations; or
- (c) he acts in contravention of any of the provisions of these regulations; or
- (d) he conspires or attempts, or aids, or abets, any other person by whatever means, including advertising, counselling or procurement to contravene the provisions of these regulations or to fail to comply with any such provisions, including any order lawfully given in terms of any of the provision of these regulations, or to contravene any restriction, prohibition or requirement imposed by or under the said regulations.

Penalties.

20. Any person who commits an offence against these regulations shall, on conviction, be liable:

- (a) on a first conviction to a fine (*multa*) of not less than twenty-three thousand euro (€23,000) and not exceeding two hundred and thirty-three thousand euro (€233,000) or to imprisonment for a term not exceeding two years or both such fine and imprisonment;
- (b) on a second or subsequent convictions, to a fine (*multa*) of not less than forty-six thousand euro (€46,000) and not exceeding four hundred and sixty-six thousand euro (€466,000) or to imprisonment for a term not exceeding two years, or to both such fine and imprisonment:

Provided that whenever any person is found guilty of committing an offence under these regulations by means of a vehicle, the owner of the said vehicle, where applicable, is held liable in the same manner and degree:

Provided further that the court shall order any person who has been found guilty of committing an offence against these regulations to pay for the expenses incurred by the public entities and, or other persons acting on their behalf involved in the implementation of these regulations and restitution of the environment as a result of the said offence, the revocation of the permit issued by the competent authority and the confiscation of the *corpus delicti*, including the vehicle, if applicable.

Applicability of the
Criminal Code.
Cap. 9.

21. The provisions of article 23 and 30(1) of the Criminal Code shall, *mutatis mutandis*, apply to proceedings, in respect of offences against these regulations, so however that the disqualification from holding or obtaining a license, permit or authority shall in no case be for less than one year.

Cap. 9.

(2) Notwithstanding the provisions of article 370 of the Criminal Code, proceedings for an offence against these regulations shall be taken before the Court of Magistrates (Malta) or the Court of Magistrates (Gozo), as the case may be, and shall be in accordance with the provisions of the Criminal Code regulating the procedure before the said courts as courts of criminal judicature.

Cap. 9.

(3) Notwithstanding the provisions of the Criminal Code, the Attorney General shall always have a right of appeal to the Court of Criminal Appeal from any judgment given by the Court of Magistrates (Malta) or the Court of Magistrates (Gozo) in respect of proceedings for any offence against these regulations.

Language of
Schedules.

22. Schedules I to XV to these regulations are being published in the English language in the English text of these regulations.

Revocation of the
Large Combustion
Plants Regulations,
2010.
L.N. 172 of 2010.

23. (1) The Large Combustion Plants Regulations, 2010, hereinafter referred to as "the revoked regulations", are revoked with effect from 1 January 2016; however regulations 1(3)(j), 3 and 4 as well as Schedules I to VII of the revoked regulations shall be

applicable to the combustion plants within the scope of regulation 5(3) of these regulations, until the 01 January 2020.

(2) References to the revoked regulations shall be construed as references to these regulations.

Amended by:
L.N. 47 of 2017.

SCHEDULE I
EMISSION LIMIT VALUES FOR SOLID FUELS

Emission limit values expressed in mg.Nm^{-3} and shall be calculated at a temperature 273.15 K, a pressure of 101.3 kPa and at an oxygen content of 6% to be applied by combustion plants pursuant to regulation 5.

The emission limit values set out in this schedule apply to the emissions of each common stack in relation to the total rated thermal input of the entire combustion plant.

Where emission limit values in this schedule 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.

A. Emission Limit values for SO_2

Rated Thermal Input (P_{Th})	Emission Limit Values in $\text{mg SO}_2.\text{Nm}^{-3}$		
	Coal, Lignite and other solid fuels	Biomass	Peat
$50\text{MW}_{Th} \leq P_{Th} \leq 100 \text{MW}_{Th}$	400 ⁽¹⁾	200 ⁽¹⁾	300 ⁽¹⁾
$100\text{MW}_{Th} < P_{Th} \leq 300\text{MW}_{Th}$	250 ⁽¹⁾	200 ⁽¹⁾	200 ⁽¹⁾
$P_{Th} > 300\text{MW}_{Th}$	200 ⁽¹⁾	200 ⁽¹⁾	200 ⁽¹⁾

Note:

(1) 800 $\text{mg SO}_2.\text{Nm}^{-3}$ in the case of combustion plants which were granted a permit prior to the 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 1500 operating hours per year as a rolling average over a 5 year period.

B. Emission limit values for NO_x measured as NO_2 .

Rated Thermal Input (P_{Th})	Emission Limit Values in $\text{mg NO}_2.\text{Nm}^{-3}$		
	Coal, Lignite and other solid fuels	Biomass	Peat
$50\text{MW}_{Th} \leq P_{Th} \leq 100 \text{MW}_{Th}$	300 ⁽¹⁾ ⁽²⁾ ⁽³⁾	300 ⁽²⁾ ⁽³⁾	300 ⁽²⁾ ⁽³⁾
$100\text{MW}_{Th} < P_{Th} \leq 300\text{MW}_{Th}$	200 ⁽²⁾ ⁽³⁾	250 ⁽²⁾ ⁽³⁾	250 ⁽²⁾ ⁽³⁾
$P_{Th} > 300\text{MW}_{Th}$	200 ⁽²⁾ ⁽³⁾	200 ⁽²⁾ ⁽³⁾	200 ⁽²⁾ ⁽³⁾

Note:

(1) 450 $\text{mg NO}_2.\text{Nm}^{-3}$ in the case of pulverised lignite combustion.

(2) 450 $\text{mg NO}_2.\text{Nm}^{-3}$ in the case of combustion plants with a rated total thermal input $\leq 500 \text{MW}_{Th}$ if they were granted a permit prior to 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 1500 operating hours per year as a rolling average over a 5 year period.

(3) 450 $\text{mg NO}_2.\text{Nm}^{-3}$ in the case of combustion plants with a rated total thermal input $> 500 \text{MW}_{Th}$ if they were granted a permit before 1 July 1987 and which do not operate more than 1500 operating hours per year as a rolling average over a period of 5 years.

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 1500 operating hours per calendar year as a rolling average over a period of 5 years, may be subject to the emission limit values set out in: Notes ⁽¹⁾ to paragraph A for SO₂ and to the emission limit values in Notes ⁽²⁾ and ⁽³⁾ to paragraph B for NO₂, in relation to the total rated thermal input of the entire combustion plant. In such cases emissions through each of those flues shall be monitored separately.

C. Emission limit values for dust

Rated Thermal Input (P _{Th})	Emission Limit Values in mg dust.Nm ⁻³		
	Coal, Lignite and other solid fuels	Biomass	Peat
50MW _{Th} ≤ P _{Th} ≤ 100 MW _{Th}	30	30	30
100MW _{Th} < P _{Th} ≤ 300MW _{Th}	25	20	20
P _{Th} > 300MW _{Th}	20	20	20

D. Emission limit values for CO.

For all plants 150 mg CO.Nm⁻³.

SCHEDULE II
EMISSION LIMIT VALUES FOR SOLID FUELS

*Amended by:
L.N. 47 of 2017.*

Emission limit values expressed in mg.Nm⁻³ and shall be calculated at a temperature 273.15 K, a pressure of 101.3 kPa and at an oxygen content of 6% to be applied by combustion plants pursuant to regulation 6.

The emission limit values set out in this schedule apply to the emissions of each common stack in relation to the total rated thermal input of the entire combustion plant.

A. Emission Limit values for SO₂.

Rated Thermal Input (P _{Th})	Emission Limit Values in mg SO ₂ .Nm ⁻³		
	Coal, Lignite and other solid fuels	Biomass	Peat
50MW _{Th} ≤ P _{Th} ≤ 100 MW _{Th}	400	200	300
100MW _{Th} < P _{Th} ≤ 300MW _{Th}	200	200	300 ⁽¹⁾
P _{Th} > 300MW _{Th}	150 ⁽²⁾	150	150 ⁽³⁾

Note:

(1) 250 mg SO₂.Nm⁻³ in the case of fluidized bed combustion.

(2) 200 mg SO₂.Nm⁻³ in the case of circulating or pressurized fluidized bed combustion.

(3) 200 mg SO₂.Nm⁻³ in the case of fluidized bed combustion.

B. Emission Limit values for NO_x measured as NO₂.

Rated Thermal Input (P _{Th})	Emission Limit Values in mg NO ₂ .Nm ⁻³		
	Coal, Lignite and other solid fuels	Biomass	Peat
50MW _{Th} ≤ P _{Th} ≤ 100 MW _{Th}	300 ⁽¹⁾	250	250
100MW _{Th} < P _{Th} ≤ 300MW _{Th}	200	200	200
P _{Th} > 300MW _{Th}	150 ⁽²⁾	150	150

Note:

(1) 400 mg NO₂.Nm⁻³ in the case of pulverised lignite combustion.(2) 200 mg NO₂.Nm⁻³ in the case of pulverised lignite combustion.

C. Emission Limit values for dust.

Rated Thermal Input (P _{Th})	Emission Limit Values in mg dust.Nm ⁻³		
	Coal, Lignite and other solid fuels	Biomass	Peat
50MW _{Th} ≤ P _{Th} ≤ 300 MW _{Th}	20	20	20
P _{Th} > 300MW _{Th}	10		

D. Emission Limit values for CO.

For all plants 150 mg CO.Nm⁻³.Amended by:
L.N. 47 of 2017.SCHEDULE III
EMISSION LIMIT VALUES FOR LIQUID FUELS

Emission limit values expressed in mg.Nm⁻³ and shall be calculated at a temperature 273.15 K, a pressure of 101.3 kPa and at an oxygen content of 3% to be applied by combustion plants pursuant to regulation 5.

A. Emission Limit values for SO₂

Rated Thermal Input (P _{Th})	Emission Limit Value (ELV)
50MW _{Th} ≤ P _{Th} ≤ 100 MW _{Th}	350 mg SO ₂ .Nm ⁻³ ⁽¹⁾
100MW _{Th} < P _{Th} ≤ 300MW _{Th}	250 mg SO ₂ .Nm ⁻³ ⁽¹⁾
P _{Th} > 300MW _{Th}	200 mg SO ₂ .Nm ⁻³ ⁽²⁾

Note:

(1) 850 mg SO₂.Nm⁻³ for combustion plants which were granted a permit prior to the 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 1500 operating hours per year as a rolling average over a 5 year period, if their rated thermal input ≤ 300 MW_{Th}.

(2) 400 mg SO₂.Nm⁻³ for combustion plants which were granted a permit prior to the 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 1500 operating hours per year as a rolling average over a 5 year period, if their rated thermal input > 300 MW_{Th}.

B. Emission limit values for NO_x measured as NO₂.

Rated Thermal Input (P _{Th})	Emission Limit Value (ELV)
50MW _{Th} ≤ P _{Th} ≤ 100 MW _{Th}	450 mg NO ₂ .Nm ⁻³ ⁽¹⁾ ⁽²⁾
100MW _{Th} < P _{Th} ≤ 300MW _{Th}	200 mg NO ₂ .Nm ⁻³ ⁽¹⁾ ⁽²⁾
P _{Th} > 300MW _{Th}	150mg NO ₂ .Nm ⁻³ ⁽¹⁾ ⁽²⁾ ⁽³⁾

Note:

(1) 450 mg NO₂.Nm⁻³ for the firing of distillation and conversion residues from the refining of crude oil for own consumption in combustion plants or combustion plants used in chemical installations using liquid production residues as a non commercial fuel, with a total rated thermal input not exceeding 500 MW_{Th} which were granted a permit before 27 November 2002 or the operators of which had submitted a complete application for permit before that date provided that the plant was put in operation no later than 27 November 2003.

(2) 450 mg NO₂.Nm⁻³ in the case of combustion plants with a rated total thermal input ≤ 500 MW_{Th}, if they were granted a permit prior to 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 1500 operating hours per year as a rolling average over a 5 year period.

(3) 400 mg NO₂.Nm⁻³ for combustion plants with a rated thermal input > 500 MW_{Th}, if they were granted a permit prior to the 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 1500 operating hours per year as a rolling average over a 5 year period.

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 1500 operating hours per calendar year as a rolling average over a period of 5 years, may be subject to the emission limit values set out in: Notes ⁽¹⁾ and ⁽²⁾ to paragraph A for SO₂ and to the emission limit values in Notes ⁽²⁾ and ⁽³⁾ to paragraph B for NO₂, in relation to the total rated thermal input of the entire combustion plant. In such cases emissions through each of those flues shall be monitored separately.

C. Emission limit values for dust.

Rated Thermal Input (P _{Th})	Emission Limit Values
50MW _{Th} ≤ P _{Th} ≤ 100 MW _{Th}	30 mg dust.Nm ⁻³
100MW _{Th} < P _{Th} ≤ 300MW _{Th}	25 mg dust.Nm ⁻³
P _{Th} > 300MW _{Th}	20 mg dust.Nm ⁻³

Note:

(1) The emission limit value of 50 mg dust.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 operator of which had submitted a complete application for a permit before that date provide that the plant was put into operation no later than 27 November 2003.

D. Emission limit values for CO.

For all plants 100 mg CO.Nm⁻³

Amended by:
L.N. 47 of 2017.

SCHEDULE IV
EMISSION LIMIT VALUES FOR LIQUID FUELS

Emission limit values expressed in mg.Nm^{-3} and shall be calculated at a temperature 273.15 K, a pressure of 101.3 kPa and at an oxygen content of 3% to be applied by combustion plants pursuant to regulation 6.

The emission limit values set out in this schedule apply to the emissions of each common stack in relation to the total rated thermal input of the entire combustion plant.

A. Emission Limit values for SO_2 .

Rated Thermal Input (P_{Th})	Emission Limit Value (ELV)
$50\text{MW}_{\text{Th}} \leq P_{\text{Th}} \leq 100 \text{MW}_{\text{Th}}$	$350 \text{ mg SO}_2.\text{Nm}^{-3}$
$100\text{MW}_{\text{Th}} < P_{\text{Th}} \leq 300\text{MW}_{\text{Th}}$	$200 \text{ mg SO}_2.\text{Nm}^{-3}$
$P_{\text{Th}} > 300\text{MW}_{\text{Th}}$	$150 \text{ mg SO}_2.\text{Nm}^{-3}$

B. Emission Limit values for NO_x measured as NO_2 .

Rated Thermal Input (P_{Th})	Emission Limit Value (ELV)
$50\text{MW}_{\text{Th}} \leq P_{\text{Th}} \leq 100 \text{MW}_{\text{Th}}$	$300 \text{ mg NO}_2.\text{Nm}^{-3}$
$100\text{MW}_{\text{Th}} < P_{\text{Th}} \leq 300\text{MW}_{\text{Th}}$	$150 \text{ mg NO}_2.\text{Nm}^{-3}$
$P_{\text{Th}} > 300\text{MW}_{\text{Th}}$	$100 \text{ mg NO}_2.\text{Nm}^{-3}$

C. Emission Limit values for dust.

Rated Thermal Input (P_{Th})	Emission Limit Value (ELV)
$50\text{MW}_{\text{Th}} \leq P_{\text{Th}} \leq 300 \text{MW}_{\text{Th}}$	$20 \text{ mg dust.Nm}^{-3}$
$P_{\text{Th}} > 300\text{MW}_{\text{Th}}$	$10 \text{ mg dust.Nm}^{-3}$

D. Emission Limit value for CO.

For all plants $100 \text{ mg CO.Nm}^{-3}$.

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SCHEDULE V
EMISSION LIMIT VALUES FOR GASEOUS FUELS

Emission limit values expressed in mg.Nm^{-3} and shall be calculated at a temperature 273.15 K, a pressure of 101.3 kPa and at an oxygen content of 3% (for combustion plants other than gas turbines and gas engines) and an oxygen content of 15% for gas engines, to be applied by combustion plants pursuant to regulation 5.

The emission limit values set out in this schedule apply to the emissions of each common stack in relation to the total rated thermal input of the entire combustion plant.

Where emission limit values in this schedule 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.

A. Emission Limit values for SO₂.

Type of Fuel	Emission Limit Value (ELV)
Gaseous fuels in general	35 mg SO ₂ .Nm ⁻³
Liquefied gas	5 mg SO ₂ .Nm ⁻³
Low calorific gases from coke oven	400 mg SO ₂ .Nm ⁻³ ⁽¹⁾
Low calorific gases from blast furnace	200 mg SO ₂ .Nm ⁻³ ⁽¹⁾

Note:

(1) 800 mg SO₂.Nm⁻³ for combustion plants, firing low calorific gases from the gasification of refinery residues, which were granted a permit prior to 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.

B. Emission Limit values for NO_x.

Type of Fuel	Emission Limit Value (ELV)
Natural gas ⁽¹⁾	100 mg NO ₂ .Nm ⁻³
Blast furnace gas, coke oven gas, low calorific gases from gasification of refinery residues	200 ⁽²⁾ mg NO ₂ .Nm ⁻³
Other gases	200 ⁽²⁾ mg SO ₂ .Nm ⁻³

Note:

(1) Natural gas is naturally occurring methane with not more than 20% (by volume) of inerts and constituents.

(2) 300 mg NO₂.Nm⁻³ for such combustion plants with a total rated thermal input not exceeding 500MW_{Th} which were granted a permit before 27 November 2002 or the operator of which had submitted a complete application for a permit before that date, provided that the plant was put in operation no later than 27 November 2003.

The limit values for gas engines shall be 100 mg NO₂.Nm⁻³.

C. Emission Limit values for dust.

Type of Fuel	Emission Limit Value (ELV)
In general	5 mg dust.Nm ⁻³
For blast furnace gas	10 mg dust.Nm ⁻³
For gases produced by the steel industry which can be used elsewhere	30 mg dust.Nm ⁻³

D. Emission limit values for CO.

	Emission Limit Value (ELV)
Gas fired plants excluding gas turbines and gas engines	100 mg CO.Nm ⁻³

The limit values in section D of this schedule do not apply to combustion plants firing blast furnace gas, coke oven gas or low calorific gases from gasification of refinery residues and to combustion plants firing any other gas.

The emission limit values in this schedule do not apply to gas engines that operate less than 500 operating hours per year. The operator of such plants shall record the used operating hours.

Amended by:
L.N. 47 of 2017.

SCHEDULE VI
EMISSION LIMIT VALUES FOR GASEOUS FUELS

Emission limit values expressed in mg.Nm^{-3} and shall be calculated at a temperature 273.15 K, a pressure of 101.3 kPa and at an oxygen content of 3% (for combustion plants other than gas turbines and gas engines) and an oxygen content of 15% for gas engines, to be applied by combustion plants pursuant to regulation 6.

The emission limit values set out in this schedule apply to the emissions of each common stack in relation to the total rated thermal input of the entire combustion plant.

A. Emission Limit values for SO_2 .

Type of Fuel	Emission Limit Value (ELV)
Gaseous fuels in general	$35 \text{ mg SO}_2.\text{Nm}^{-3}$
Liquefied gas	$5 \text{ mg SO}_2.\text{Nm}^{-3}$
Low calorific gases from coke oven	$400 \text{ mg SO}_2.\text{Nm}^{-3}$
Low caloric gases from blast furnaces	$200 \text{ mg SO}_2.\text{Nm}^{-3}$

B. Emission Limit values for NO_x .

	Emission Limit Value (ELV)
In general	$100 \text{ mg NO}_2.\text{Nm}^{-3}$

The limit values for gas engines shall be $75 \text{ mg NO}_2.\text{Nm}^{-3}$.

C. Emission Limit values for dust.

Type of Fuel	Emission Limit Value (ELV)
In general	$5 \text{ mg dust.Nm}^{-3}$
Blast furnace gas	$10 \text{ mg dust.Nm}^{-3}$
Gases produced by the steel industry which can be used elsewhere	$30 \text{ mg dust.Nm}^{-3}$

D. Emission Limit values for CO.

	Emission Limit Value (ELV)
Gas fired plants excluding gas turbines	$100 \text{ mg CO.Nm}^{-3}$
Gas engines	$100 \text{ mg CO.Nm}^{-3}$

The emission limit values in this schedule do not apply to gas engines for emergency use that operate less than 500 operating hours per year. The operator of such plants shall record the used operating hours.

Amended by:
L.N. 47 of 2017.

SCHEDULE VII
HEAVY METAL EMISSION LIMIT VALUES

Yearly limit values for heavy metals shall be expressed in mg.Nm⁻³ and shall be calculated at a temperature of 273 K, a pressure of 101.3 kPa and an oxygen content of 6% for solid fuels and 3% for liquid fuels and shall be measured as shown below:

Heavy Metals	Emission Limit Value (ELV)
Cadmium and thallium together	
Arsenic, chromium, cobalt, copper, manganese, nickel, lead, antimony, vanadium together	

For a combustion plant firing coal or lignite, the emissions of total mercury shall not exceed 0.03 mg. Nm⁻³.

SCHEDULE VIII
DIOXIN AND FURAN EMISSION LIMIT VALUES

The limit values for dioxins and furans of the combustion plants firing solid or liquid fuels shall be set for total dioxin and furan concentration and shall be normalized at a temperature of 273 K, a pressure of 101.3 kPa and an oxygen content of 6% for solid fuels and 3% for liquid fuels. Total dioxin and furan concentration is calculated by determining the concentration of the substances in the table below, multiplying these by the equivalence factors in the same table and then summing up the products of substance concentration and equivalence factor.

Substance	Equivalence Factor
2,3,7,8-Tetrachlordibenzodioxin (TCDD)	1
1,2,3,7,8-Pentachlordibenzodioxin (PeCDD)	0.5
1,2,3,4,7,8-Hexachlordibenzodioxin (HxCDD)	0.1
1,2,3,7,8,9-Hexachlordibenzodioxin (HxCDD)	0.1
1,2,3,6,7,8-Hexachlordibenzodioxin (HxCDD)	0.1
1,2,3,4,6,7,8-Heptachlordibenzodioxin (HpCDD)	0.01
Octachlordibenzodioxin (OCDD)	0.001
2,3,7,8-Tetrachlordibenzofuran (TCDF)	0.1
2,3,4,7,8-Pentachlordibenzofuran (PeCDF)	0.5
1,2,3,7,8-Pentachlordibenzofuran (PeCDF)	0.05
1,2,3,4,7,8-Hexachlordibenzofuran (HxCDF)	0.1
1,2,3,7,8,9-Hexachlordibenzofuran (HxCDF)	0.1
1,2,3,6,7,8-Hexachlordibenzofuran (HxCDF)	0.1
2,3,4,6,7,8-Hexachlordibenzofuran (HxCDF)	0.1
1,2,3,4,6,7,8-Heptachlordibenzofuran (HpCDF)	0.01
1,2,3,4,7,8,9-Heptachlordibenzofuran (HpCDF)	0.01

Octachlordibenzofuran (OCDF)	0.001
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Amended by:
L.N. 47 of 2017.

SCHEDULE IX
EMISSION LIMIT VALUES FOR GAS TURBINES

Emission limit values expressed in mg.Nm^{-3} and shall be calculated at a temperature 273.15 K, a pressure of 101.3 kPa and at an oxygen content of 15%, to be applied by gas turbines pursuant to regulation 8(1). The limit values apply only above 70% load.

The emission limit values set out in this schedule apply to the emissions of each common stack in relation to the total rated thermal input of the entire combustion plant.

Where emission limit values in this schedule 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.

A. Emission limit values for NO_x .

Fuels	Emission Limit Value (ELV)
Natural gas (naturally occurring methane with not more than 20% (by volume) of inerts and other constituents)	50 $\text{mg NO}_2.\text{Nm}^{-3}$ ⁽¹⁾⁽²⁾⁽³⁾
Liquid fuels (emission limit value applies to gas turbines firing light and middle distillates)	90 $\text{mg NO}_2.\text{Nm}^{-3}$ ⁽⁴⁾
Gaseous fuels other than natural gas	120 $\text{mg NO}_2.\text{Nm}^{-3}$ ⁽⁴⁾

Note:

(1) 75 $\text{mg NO}_2.\text{Nm}^{-3}$ in the following cases, where the efficiency of the gas turbine is determined at ISO base load conditions:

- a. gas turbines used in combined heat and power systems having an overall efficiency greater than 75%;
- b. gas turbines used in combined cycle plants having an annual overall electrical efficiency greater than 55%;
- c. gas turbines for mechanical drives.

(2) 1.42η $\text{mg NO}_2.\text{Nm}^{-3}$ (where η is the gas turbine efficiency expressed as a percentage and at ISO base load conditions) for single gas turbines not falling into any of the above categories mentioned under note (1), but having an efficiency greater than 35% (determined at ISO base load conditions).

(3) 150 $\text{mg NO}_2.\text{Nm}^{-3}$ for gas turbines (including CCGT) which were granted a permit before 27 November 2002 or the operators of which submitted a complete application for a permit before the date, provided that the plant was put into operation no later than 27 November 2003 and which do not operate more than 1500 hours per year as a rolling average over a period of 5 years.

(4) 200 $\text{mg NO}_2.\text{Nm}^{-3}$ for gas turbines (including CCGT) which were granted a permit before 27 November 2002 or the operators of which submitted a complete application for a permit before the date, provided that the plant was put into operation no later than 27 November 2003 and which do not operate more than 1500 hours per year as a rolling average over a period of 5 years.

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 1500 operating hours per calendar year as a rolling average over a period of 5 years, may be subject to the emission limit values set out in Notes ⁽³⁾ and ⁽⁴⁾ to paragraph B in relation to the total rated thermal input of the entire combustion plant. In such cases emissions through each of those flues shall be monitored separately.

B. Emission limit values for CO.

Fuels	Emission Limit Value (ELV)
Liquid fuels (emission limit value applies to gas turbines firing light and middle distillates)	100 mg CO.Nm ⁻³
Natural gas (naturally occurring methane with not more than 20% (by volume) of inerts and other constituents)	100 mg CO.Nm ⁻³

The limit values in part B of this schedule do not apply to gas turbines firing gaseous fuel unless the fuel is natural gas.

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 schedule. The operation of such plants shall record the used operating hours.

SCHEDULE X
EMISSION LIMIT VALUES FOR GAS TURBINES

*Amended by:
L.N. 47 of 2017.*

Emission limit values expressed in mg.Nm⁻³ and shall be calculated at a temperature 273.15 K, a pressure of 101.3 kPa and at an oxygen content of 15%, to be applied by gas turbines pursuant to regulation 8(2). The limit values apply only above 70% load.

The emission limit values set out in this schedule apply to the emissions of each common stack in relation to the total rated thermal input of the entire combustion plant.

A. Emission limit values for NO_x.

Fuels	Emission Limit Value (ELV)
Gaseous Fuels including (CCGT)	50 mg NO ₂ .Nm ⁻³ ⁽¹⁾
Liquid fuels (emission limit value applies to gas turbines firing light and middle distillates)	50 mg NO ₂ .Nm ⁻³

(1) 1.42η mg NO₂. Nm⁻³ (where η is the gas turbine efficiency expressed as a percentage and at ISO base load conditions) for single cycle gas turbines having an efficiency greater than 35% - determined at ISO base load conditions.

B. Emission limit values for CO.

Fuels	Emission Limit Value (ELV)
Gaseous Fuels including (CCGT)	100 mg CO.Nm ⁻³
Liquid fuels (emission limit value applies to gas turbines firing light and middle distillates)	100 mg CO.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 schedule. The operation of such plants shall record the used operating hours.

SCHEDULE XI

LIST OF PAHs TO BE MEASURED AS PER REGULATION 15

Naphthalene
Anthracene
Phenatrene
Flouranthene
Benzo(a)anthracene
Chrysene
Benzo(a)pyrene
Benzo(ghi)perylene
Benzo(k)fluoranthene
Indeno(1,2,3-cd)pyrene
Sum of the 10 PAHs above

SCHEDULE XII

DEROGATIONS AS PER REGULATION 13

Notification of a temporary derogation from compliance with
Large Combustion Plants Emission Limit Values.

In view of the written request by [person submitting the request] on behalf of [operator], dated [date], I [Name of Director], in my capacity as Director of Environment Protection have examined all the information handed by [operator] together with the above mentioned request and have decided to allow for a

derogation from [type of derogation to be applied to plant] for the [name of the plant] operated by [name of operator] having its registered address at [registered address of the operator] and subject to the IPPC Permit [IPPC permit number] issued on the [date of issue of the permit] for a period not exceeding [time].

This derogation is subject to the following conditions:

[Signature]

[Name, SURNAME]

Director of Environment Protection

Attached a copy of the request for derogation and technical information related to the case.

SCHEDULE XIII

*Amended by:
L.N. 47 of 2017.*

REQUIREMENTS FOR THE AUTOMATED MEASURING SYSTEMS AND FOR THE VALIDATION OF RESULTS

1. All sampling, analysis and measurement of the pollutants and the measurement of the relevant process parameters as well as the quality assurance of automated measurement systems and the reference methods to calibrate those systems shall be carried out according to CEN standards, in their absence ISO standards or standards from any EU Member State can be used if they ensure the provision of data of an equivalent scientific quality.

2. Automated measuring systems shall be subject to control by means of parallel measurements with the reference method at least once a year. The results of the verification of the automated measurement systems together with any relevant certification shall be forwarded to the competent authority.

3. The value of the 95% confidence interval 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%
Total dust	30%

4. The validated hourly and daily mean values shall be determined from the measured hourly average values after having subtracted a factor determined according to the procedure established by the relevant part of EN14181 and which shall in no case exceed the 95% confidence interval specified in 3 above.

5. Any day in which more than three hourly average values are invalid due to malfunction or maintenance of the automated measuring system shall be invalidated. If more than 10 days 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.

6. Combustion plants firing natural gas shall be exempt from the monitoring of SO₂.

SCHEDULE XIV

INFORMATION TO BE REPORTED WITH THE EMISSIONS INVENTORY

Emissions inventories prepared by the operator under Regulation 19, shall include the following information:

- 1 Name of the Installation;
- 2 Name of the combustion plant;
- 3 Date of the start of operation of the combustion plant;
- 4 The type of fuel fired by the combustion plant;
- 5 Fuel Burn for the combustion plant (Mg.yr⁻¹);
- 6 Heat Value of the fuel fired by the combustion plant (GJ.Mg⁻¹);
- 7 Total rated thermal input of the combustion plant (MW_{Th});
- 8 Total annual load of sulphur dioxide for the combustion plant (Mg.yr⁻¹);
- 9 Total annual load of nitrogen oxides for the combustion plant (Mg.yr⁻¹);
- 10 Total annual load of dust for the combustion plant (Mg.yr⁻¹);

Total annual pollutant loads shall be calculated as follows:

$$d = 12$$

$$\sum_{d=1}^{d=12} \left(\text{WGF}_m \times [\text{P}]_m^{\text{avg}} \right)$$

$$d = 1$$

Where:

WGF_m is the monthly waste gas flow rate in Nm³

- $[P]_m^{avg}$ is the monthly average concentration of the pollutant in $mg.Nm^{-3}$.
and the
11 Total annual operating hours of the combustion plant (hours).
-

SCHEDULE XV

INFORMATION TO BE REPORTED WITH THE OPERATING TIME

Reports on combustion plants operating time prepared by the operator under regulation 19, shall include the following information:

- 1 Name of the Installation;
- 2 Name of the combustion plant;
- 3 T_O , the total combustion plant operating time (hr);
- 4 T_R , the remaining combustion plant operating time (hr);

Where:

$$T_R = 20000 - T_O$$
