L.N. 172 of 2010

ENVIRONMENT PROTECTION ACT
(CAP. 435)

Large Combustion Plants Regulations, 2010.

BY virtue of the powers conferred by articles 9, 10(2) and 11 of the Environment Protection Act, the Prime Minister has made the following regulations:-

Citation, scope and applicability.

1. (1) The title of these regulations is the Large Combustion Plants Regulations, 2010.

(2) These regulations transpose 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.

(3) These regulations apply to combustion plants designed for production of energy with the exception of those which make direct use of the products of combustion in the manufacturing process, if their rated thermal input is equal to or greater than 50 MWTH, 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 heat, drying, or any other treatment of objects or materials e.g. reheating furnaces, furnaces for heat treatment;

(b) post-combustion plants i.e. any technical apparatus designed to purify the waste gases by combustion which is not operated as an independent combustion plant;

(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 used on offshore platforms;

(j) gas turbines for which development planning permission was issued before 27 November 2002 provided that they were put into operation no later than 27 November 2003 without prejudice to regulations 9(1), 14 and 17 thereof;

(k) plants powered by diesel engines irrespective of the fuel used or petrol and gas engines.

Definitions.

2. For the purpose of these regulations and unless the context otherwise requires:-

"biomass" means products consisting of any whole or part of vegetable matter from agriculture or forestry which can be used as a fuel for the purpose of recovering its energy content and the following waste used as fuel:

(a) vegetable waste from agriculture and industry;

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

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

(d) cork waste;

(e) 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;

"combustion unit" means any plant in which fuel is oxidised in order to use the heat thus generated;

"competent authority" means the Malta Environment and Planning Authority;

"director" means the Director of the Environment Protection Directorate of the Malta Environment and Planning Authority and includes any person or body of persons acting on his behalf or under his authority;

"emission" the discharge of substances from the combustion plant to air;

"emission limit value" means the permissible mass concentration of an air pollutant in the waste gas discharged by the combustion plant expressed in mg.Nm-3 or ng.Nm-3 as the case may be. The mass concentration measured in the waste gas shall be expressed at standard conditions according to the following equation:

$$[P]_s = \frac{T}{273} \times \frac{101.3}{P} \times \frac{100}{100 - W} \times \frac{20.94 - O_s}{20.94 - O_M} \times [P]_M$$

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 K, at a Pressure P in 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.

OS is the standard oxygen content 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.

O_M is the measured oxygen content in the flue gas;

"existing combustion plant" means one or more combustion units for which development planning permission was granted before 1 July 1987. Two or more combustion units shall be considered as a single combustion plant if their waste gases are *de facto* discharged through a common stack;

"flue" means a compartment or division of a stack for conveying waste gases from the combustion plant to the outer air;

"fuel" means any solid, liquid or gaseous combustible material used to fire the combustion unit with the exception of waste covered by Waste Management (Incineration) Regulations, 2001 or any subsequent regulations substituting those regulations;

"gas turbine plant" means any plant made up of a 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;

"multi-fuel firing combustion plant" means any combustion plant which may be fired simultaneously or alternately by two or more types of fuel;

"new combustion plant" means one or more combustion units for which development planning permission was granted on or after 1 July 1987. Two or more combustion units shall be considered as a single combustion plant if their waste gases are *de facto* discharged through a common stack or if taking technical and economic factors into account, their waste gases could in the judgement of the competent authority be discharged through a common stack;

"operator" means any natural or legal person who operates the combustion plant, or who has been delegated decisive economic power over it;

"permit" means the permit issued under regulation 4 of the the Integrated Pollution Prevention and Control Regulations, 2002 ;

L.N. 234 of 2002.

"pollutant" means a substance which has been directly or indirectly introduced into the atmosphere as a resulting of anthropogenic activity and which has deleterious effects of such a nature as to endanger human health, harm living resources, ecosystems and material property, and impair amenities or interfere with other legitimate uses of the Environment;

"stack or chimney" means the structure rising above roof level and which provides a conduit for waste gases from the combustion plant and which may embody one or more flues;

"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 (MWTH);

"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 Nm3.hr-1.

Conditions for 'new' plants permits.

3. (1) Permits for 'new' combustion plants which have been granted development planning consent before 27 November 2002 provided that they are in operation no later than 27 November 2003, shall include conditions relating to compliance with the emission limit values which shall not be higher than those in:-

(a) Schedule I for plants firing solid fuels;

(b) Schedule III for plants firing liquid fuels;

and

(c) Schedule V for plants firing gaseous fuels;

(2) Permits for 'new' combustion plants not covered by sub-regulation (1) of these regulations shall include conditions relating to compliance with the emission limit values which shall not be higher than those in:-

(a) Schedule II for plants firing solid fuels;

(b) Schedule IV for plants firing liquid fuels;

and

(c) Schedule VI for plants firing gaseous fuels.

Conditions for 'existing' plants permits.

4. (1) Permits for 'existing' plants shall include conditions relating to compliance with the emission limit values which shall not be higher than those in:-

(a) Schedule I for plants firing solid fuels;

(b) Schedule III for plants firing liquid fuels;

and

(c) Schedule V for plants firing gaseous fuels;

(2) By way of derogation from sub-regulation (1), 'existing' combustion plants may be exempted from compliance with the above mentioned requirements if the operator has submitted by 30 June 2004 a written declaration to the competent authority stating that the plants in question will not be operated for more than 20000 operational hours starting on the 1 January 2008 and ending no later than 31 December 2015.

(3) The operators of 'existing' combustion plants covered by the exemption in sub-regulation (2) of this regulation are required to submit to the competent authority a record of the used and unused time allowed for the plants' operational life. In calculating the operational time used by the 'existing' combustion plant the operator shall consider the combustion plant to be operating when any part of it operates, irrespective of the load factor.

Conditions for 'new' gas turbines permits.

5. Permits for gas turbines within the scope of this regulation, shall include conditions relating to compliance with the emission limit values which shall not be higher than those in Schedule VII.

Compliance with various regulations.

6. The competent authority may impose limit values stricter than those in regulations 3, 4, and 5 or impose emission

limit values on plants exempt from this requirement through sub-regulation (2) of regulation 4 in order to ensure compliance with:-

(a) the Ambient Air Quality Assessment and Management Regulations, 2001 and any subsequent regulations dealing with the ambient levels of atmospheric pollutants; L.N. 216 of 2001.

(b) any additional requirements arising out of the Integrated Pollution Prevention and Control Regulations, 2002 particularly the requirement to use the best available techniques; L.N. 234 of 2002.

and

(c) any other regulations issued under the Environment Protection Act and deemed relevant by the competent authority.

Limit value for emissions from plants operating for a limited time.

7. (1) Combustion plants, of a rated thermal input equal to or greater than 400 MW, shall be subject to a limit value for sulphur dioxide emissions of 800 mg $SO_2.Nm^{-3}$ if they do not operate for more than the following number of hours a year (rolling average over a period of five years):-

(a) 2,000 hours till 31 December 2015;

(b) 1,500 hours from the 1 January 2016 onwards.

(2) This regulation shall not apply to combustion plants subject to the permitting requirements in sub-regulation (2) of regulation 3.

Combined heat and power.

8. Operators of combustion plants subject to the permitting requirements of sub-regulation (2) of regulation 3 shall investigate the technical and economic feasibility of providing for the combined generation of heat and power. Should this feasibility be confirmed the operators will be required to develop their installations accordingly, keeping in mind the market and distribution situation.

Emergency considerations.

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

(2) In the case of a breakdown 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 operation is not achieved within 24 hours.

(3) The competent authority shall be notified within 48 hours of the occurrence of such breakdown or malfunction.

(4) In no circumstance shall the cumulative duration of unabated operation in any twelve month period exceed 120 hours. The Director may allow exceptions to the limits of 24 hours and 120 hours above in cases where in his judgement:-

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

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

(5) The Director may allow a suspension for a maximum of six months from the obligation to comply with the emission limit values provided for in regulations 3 and 4 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 may allow a derogation from the obligation to comply with the emission limit values provided for in regulations 3 and 4 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 10 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. The competent authority shall immediately be informed of each specific case as it arises.

(7) In the cases mentioned in sub-regulations (5) and (6) of this regulation, the operator shall inform the Director 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 as well as any other information deemed necessary by the competent authority. The competent authority shall, at its discretion issue the temporary derogation according to the provisions of the above mentioned sub-regulations as per notification in Schedule VIII. 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.

Multi-firing units.

10. (1) 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:-

(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, VI and VII;

(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.

(2) In multi-firing units using distillation and conversion residues from crude-oil refining for own consumption, alone or with other fuels, the provisions for the fuel with the highest emission limit value (determinative fuel) shall apply notwithstanding sub-regulation (1) of this regulation, if during the operation of the combustion plant the proportion contributed by that fuel to the sum of the thermal inputs delivered by all fuels is at least 50%. Where the proportion of the determinative fuel is lower than 50%, the emission limit value is determined on a *pro rata* basis of the heat input supplied by individual fuels in relation to the sum of the thermal inputs delivered by all fuels as follows:-

(a) by taking the emission limit value relevant for each individual fuel and pollutant corresponding to the rated thermal input of the combustion plant as given in Schedules I, II, III, IV, V, VI and VII;

(b) by calculating the emission limit value of the determinative fuel (fuel with the highest emission limit value

according to Schedules I, II, III, IV, V, VI and VII and in the case of two fuels having the same emission limit value, the fuel with the higher thermal input); this value is obtained by multiplying the emission limit value laid down in Schedules I, II, III, IV, V, VI and VII for that fuel by a factor of two, and subtracting from this product the emission limit value of the fuel with the lowest emission limit value;

(c) by determining the fuel-weighted emission limit values, which are obtained by multiplying the calculated fuel emission limit value by the thermal input of the determinative fuel and other individual emission limit values 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

(d) by aggregating the fuel-weighted emission limit values.

(3) As an alternative to sub-regulation (2) of this regulation, the following average emission limit values for sulphur dioxide may be applied (irrespective of the fuel combination used):-

(a) for the plants referred to in regulations 3(1) and 4(1): 1000 mg SO_2.Nm^{-3}, averaged all over such plants within the refinery; and

(b) for the 'new' plants referred to in regulation 3(2): 600 mg SO_2.Nm^{-3}, averaged all over such plants within the refinery, with the exception of gas turbines.

Provided that the competent authority shall ensure that the application of this provision does not lead to an increase in emissions from existing plants.

(4) In the case of combustion plants with multi-firing units involving the alternative use of two or more fuels, the emission limit values to be included in the permit shall be those in Schedules I, II, III, IV, V, VI and VII corresponding to each fuel used.

(5) The emission limit values determined according to the procedures prescribed by sub-regulations (1) to (4) of these regulations are the highest permissible limit values. Permits

issued under regulation 4 of Integrated Pollution Prevention and Control Regulations, 2002 may include stricter emission limit values, particularly in order to ensure compliance with the BAT requirement.

Geological storage of carbon dioxide.

11. (1) The operators of combustion plants having a rated electrical output of 300 MW or more and which were issued with a permit after the 13 May 2009, shall assess whether:-

(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) of this regulation are met, the competent authority shall ensure that the permits issued after the 13 May 2009 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.

Stack height.

12. (1) Permits for combustion plants within the scope of these regulations shall include conditions related to the minimum stack height in order to safeguard human health and the environment.

(2) The stack height shall be calculated according to the guidance document issued by the competent authority.

Extension of the combustion plant.

13. Where a combustion plant is extended by at least 50 MW_{TH}, the applicable emission limit values shall not be higher to those set out in Schedules II, IV and VI in respect of sulphur dioxide, nitrogen oxides and dust.

Monitoring.

14. (1) The operator shall monitor the concentrations of sulphur dioxide, oxides of nitrogen and dust in the waste gases of the combustion plants within the scope of these regulations.

(2) The operator shall monitor continuously through the use of automated measurement systems the flue gases of the combustion plants within the scope of these regulations for sulphur dioxide, oxides of nitrogen and dust if the rated thermal input of the combustion plant is 100 MW or more.

(3) In addition to the parameters in sub-regulation (2) of this regulation, 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.

(4) The operator shall monitor the flue gases of the combustion plants within the scope of these regulations discontinuously for sulphur dioxide, oxides of nitrogen and dust if they are not covered by the monitoring requirement in sub-regulation (2) of this regulation.

(5) 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 Sates 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.

(6) 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.

(7) Automated measuring systems are subject to the requirements in Schedule IX.

Communication of monitoring results.

15. 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.

16. (1) In the event of continuous measurements of the, the emission limit values set out in Schedules I, III and V shall be

regarded as having been complied with if the evaluation of results indicates, for operating hours within a calendar year, that:-

(a) none of the calendar monthly mean values exceeds the emission limit values; and

(b) in the case of:

(i) sulphur dioxide and dust: 97% of all the 48 hourly mean values do not exceed 110% of the emission limit values; and

(ii) nitrogen oxides: 95% of all the 48 hourly mean values do not exceed 110% of the emission limit values.

(2) In the event of discontinuous measurements, the emission limit values set out in Schedules I, II, III, IV, V, VI and VII shall be regarded as having been complied with if the results of each of the series of measurements do not exceed the emission limit values.

(3) The emission limit values set out in Schedules II, IV,VI and VII shall be regarded, for operating hours within a calendar year, as complied with if:

(a) no validated daily average exceeds the relevant figures prescribed in Schedules II, IV, VI and VII;

(b) 95% of all the validated hourly averages over the year do not exceed 200% of the relevant figures prescribed in Schedules II, IV and VI.

Validated values are determined as set out in Schedule IX of these regulations.

(4) Provided that for the purpose of compliance with sub-regulations (1) and (3) of this regulation, the periods referred to in regulation 9 as well as start up and shut down periods shall be disregarded.

Reporting obligations.

17. (1) The operator shall forward an emissions inventory on a combustion plant basis by combustion plant basis, for sulphur dioxide, nitrogen oxides and dust (as total suspended particulate). 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.

(2) Where discontinuous measurements are used, the operator shall establish appropriate estimation procedures to the satisfaction of the competent authority.

(3) The emissions inventory shall include the information in Schedule X.

(4) For combustion plants operating on the derogation in sub-regulation (2) of regulation 4, 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 XI.

Offences under these regulations.

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

(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 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.

19. 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 one thousand two hundred euro (€1,200) but not exceeding two thousand three hundred euro (€2,300).

(b) on a second or subsequent convictions, to a fine (*multa*) of not less than two thousand three hundred euro (€2,300), but not exceeding eleven thousand six hundred

euro(€11,600) 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 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*.

Applicability of the Criminal Code. Cap. 9.

20. (1) The provisions of article 23 and sub-article (1) of article 30 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.

(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.

(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.

Revokes L.N. 329 of 2002.

21. The Limitations of Emissions of Certain Pollutants into the Air from Large Combustion Plants Regulations, 2002 are hereby being revoked.

SCHEDULE I

EMISSION LIMIT VALUES FOR SOLID FUELS

Emission limit values expressed in $mg.Nm^{-3}$ (at an oxygen content of 6%) to be applied by 'new' and 'existing' plants pursuant to Regulation 3(1) and Regulation 4(1):

A. Emission Limit values for SO_2

Rated Thermal Input (P_{TH})	**Emission Limit Value (ELV)**
$50MW_{TH} \leq P_{TH} \leq 100\ MW_{TH}$	2000 Mg $SO_2.Nm^{-3}$
$100MW_{TH} < P_{TH} \leq 500MW_{TH}$	calculated using the equation: ELV(mg $SO_2.Nm^{-3}$) = $-4P_{TH} + 2400$
$P_{TH} > 500MW_{TH}$	400mg $SO_2.Nm^{-3}$.

See figure 1 below

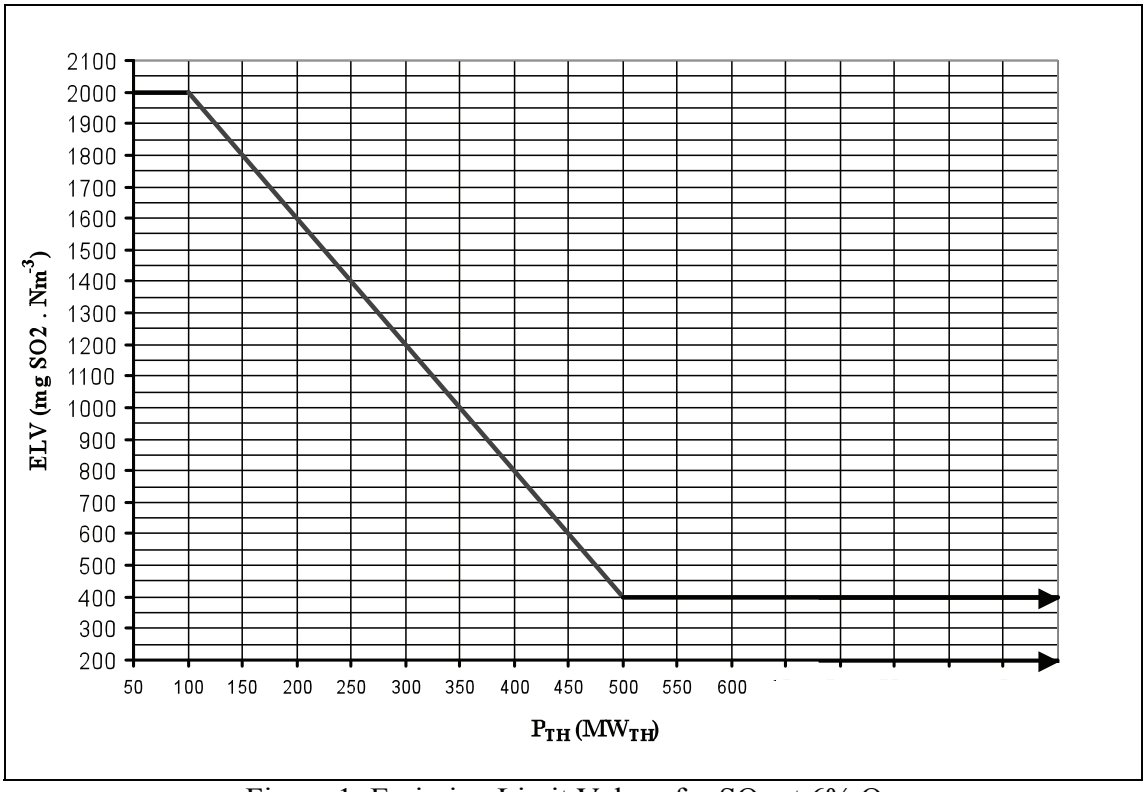

Figure 1: Emission Limit Values for SO_2 at 6% O_2.

B. Emission limit values for NO_X measured as NO_2.

Rated Thermal Input (P_{TH})	**Emission Limit Value (ELV)**	**Emission Limit Value (ELV) as from 01 January 2016**
$50MW_{TH} \leq P_{TH} \leq 100\ MW_{TH}$	600 mg $NO_2.Nm^{-3}$	600 mg $NO_2.Nm^{-3}$
$P_{TH} > 500MW_{TH}$	500 mg $NO_2.Nm^{-3}$	200 mg $NO_2.Nm^{-3}$

C. Emission limit values for dust.

Rated Thermal Input (P_{TH})	**Emission Limit Value (ELV)**
$P_{TH} < 500\ MW_{TH}$	100 mg dust .Nm^{-3}
$P_{TH} \geq 500\ MW_{TH}$	50 mg dust .Nm^{-3} ([1])

[1]A limit value of 100 mg dust.Nm^{-3} may be applied to plants permitted pursuant to Regulation 4(1) with a rated thermal input greater or equal to 500 MW_{TH} burning solid fuel with a heat content less than 5800 $kJ.kg^{-1}$ (net heat value), a moisture content greater than 45% by weight, a combined moisture and ash content greater than 60% and a calcium oxide content greater than 10%.

SCHEDULE II

EMISSION LIMIT VALUES FOR SOLID FUELS

Emission limit values expressed in $mg.Nm^{-3}$ (at an oxygen content of 6%) to be applied by 'new' plants pursuant to regulations 3(2):

A. Emission Limit values for SO_2.

Type of Fuel	**50 $MW_{TH} \leq P_{TH} \leq 100$ MW_{TH}**	**100 $MW_{TH} < P_{TH} \leq 300$ MW_{TH}**	**$P_{TH} > 300$ MW_{TH}**
Biomass	200 mg $SO_2.Nm^{-3}$	200 mg $SO_2.Nm^{-3}$	200 mg $SO_2.Nm^{-3}$
General case	850 mg $SO_2.Nm^{-3}$	200 mg $SO_2.Nm^{-3}$	200 mg $SO_2.Nm^{-3}$

B. Emission Limit values for NO_X.

Type of Fuel	**50 $MW_{TH} \leq P_{TH} \leq 100$ MW_{TH}**	**100 $MW_{TH} < P_{TH} \leq 300$ MW_{TH}**	**$P_{TH} > 300$ MW_{TH}**
Biomass	400 mg $NO_2.Nm^{-3}$	300 mg $NO_2.Nm^{-3}$	200 mg $NO_2.Nm^{-3}$
General case	400 mg $NO_2.Nm^{-3}$	200 mg $NO_2.Nm^{-3}$	200 mg $NO_2.Nm^{-3}$

Where P_{TH} is the rated thermal input of the combustion plant in MW_{TH}.

C. Emission Limit values for dust.

Rated Thermal Input (P_{TH})	**Emission Limit Value (ELV)**
$50 \geq P_{TH} \leq 100$ MW_{TH}	50 mg dust $.Nm^{-3}$
$P_{TH} > 100$ MW_{TH}	30 mg dust $.Nm^{-3}$ ([1])

SCHEDULE III

EMISSION LIMIT VALUES FOR LIQUID FUELS

Emission limit values expressed in $mg.Nm^{-3}$ (at an oxygen content of 3%) to be applied by 'new' and 'existing' plants pursuant to Regulation 3(1) and Regulation 4(1).

A. Emission Limit values for SO_2

Rated Thermal Input (P_{TH})	**Emission Limit Value (ELV)**
$50MW_{TH} \leq P_{TH} \leq 300\ MW_{TH}$	1700 Mg $SO_2.Nm^{-3}$
$300MW_{TH} < P_{TH} \leq 500MW_{TH}$	calculated using the equation: ELV(mg $SO_2.Nm^{-3}$) = $-6.5P_{TH} + 3650$
$P_{TH} > 500MW_{TH}$	400mg $SO_2.Nm^{-3}$.

See figure 2 below

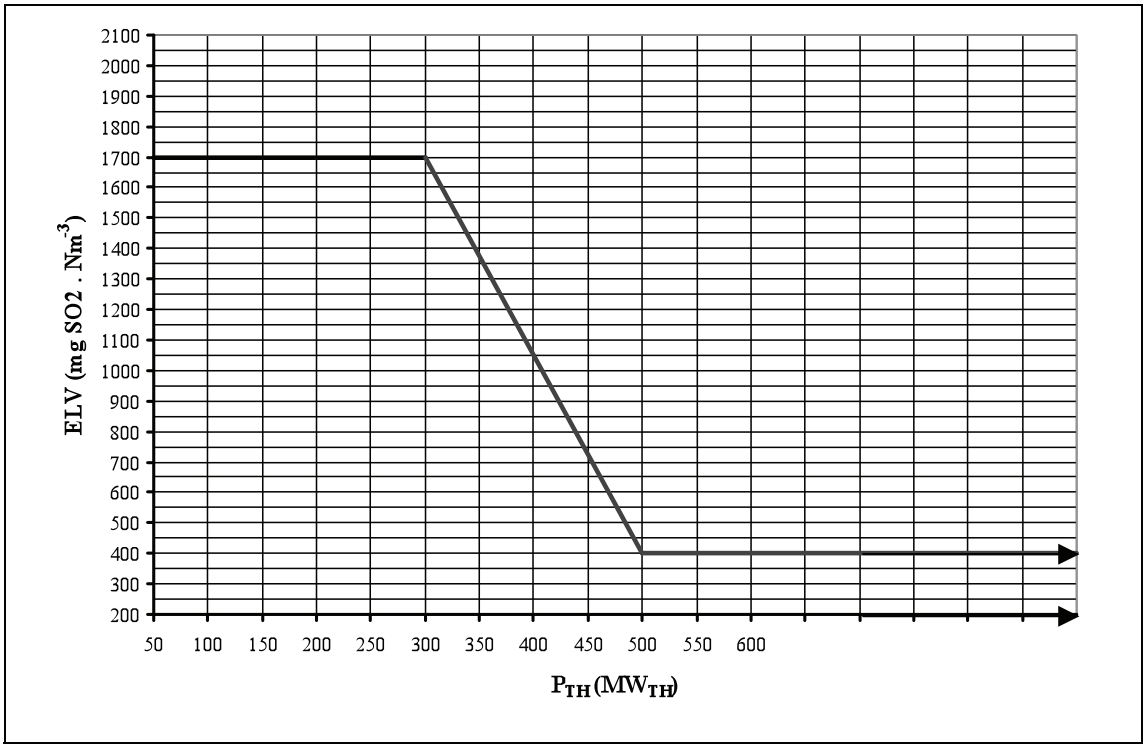

Figure 2: Emission Limit Values for SO_2 at 3% O_2.

B. Emission limit values for NO_X measured as NO_2.

Rated Thermal Input (P_{TH})	**Emission Limit Value (ELV)**
$50MW_{TH} \leq P_{TH} \leq 500\ MW_{TH}$	450 mg $NO_2.Nm^{-3}$
$P_{TH} > 500MW_{TH}$	400 mg $NO_2.Nm^{-3}$

C. Emission limit values for dust.

Rated Thermal Input (P_{TH})	**Emission Limit Value (ELV)**
ALL plants	50 mg dust $.Nm^{-3}$

SCHEDULE IV

EMISSION LIMIT VALUES FOR LIQUID FUELS

Emission limit values expressed in $mg.Nm^{-3}$ (at an oxygen content of 3%) to be applied by 'new' and 'existing' plants pursuant to Regulation 3(2).

A. Emission Limit values for SO_2.

Rated Thermal Input (P_{TH})	**Emission Limit Value (ELV)**
$50MW_{TH} \leq P_{TH} \leq 100\ MW_{TH}$	850 mg $SO_2.Nm^{-3}$
$100MW_{TH} < P_{TH} \leq 300MW_{TH}$	calculated using the equation: ELV(mg $SO_2.Nm^{-3}$) = $-P_{TH} + 500$
$P_{TH} > 300MW_{TH}$	200mg $SO_2.Nm^{-3}$.

B. Emission Limit values for NO_X.

Rated Thermal Input (P_{TH})	**Emission Limit Value (ELV)**
$50MW_{TH} \leq P_{TH} \leq 100\ MW_{TH}$	400mg $NO_2.Nm^{-3}$.
$100MW_{TH} < P_{TH} \leq 300MW_{TH}$	200mg $NO_2.Nm^{-3}$.
$P_{TH} > 300MW_{TH}$	200mg $NO_2.Nm^{-3}$.

C. Emission Limit values for dust.

Rated Thermal Input (P_{TH})	**Emission Limit Value (ELV)**
$50 \geq P_{TH} \leq 100\ MW_{TH}$	50 mg dust $.Nm^{-3}$
$P_{TH} > 100\ MW_{TH}$	30 mg dust $.Nm^{-3}$ ([1])

Where P_{TH} is the rated thermal input of the combustion plant in MW_{TH}.

SCHEDULE V

EMISSION LIMIT VALUES FOR GASEOUS FUELS

Emission limit values expressed in $mg.Nm^{-3}$ (at an oxygen content of 3%) to be applied by 'new' plants pursuant to Regulation 3(1) and Regulation 4(1).

A. Emission Limit values for SO_2.

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 gasification of refinery residues, coke oven gas, blast furnace gas	800 mg $SO_2.Nm^{-3}$
Gas from the gasification of coal	35 mg SO_2 $.Nm^{-3}$

B. Emission Limit values for NO_X.

Rated Thermal Input (P_{TH})	**Emission Limit Value (ELV)**
$50\ MW_{TH} \leq P_{TH} \leq 500\ MW_{TH}$	300 mg $NO_2.Nm^{-3}$
$P_{TH} > 500\ MW_{TH}$	200 mg $NO_2.Nm^{-3}$

C. Emission Limit values for dust.

Type of Fuel	**Emission Limit Value (ELV)**
As a rule	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	50 mg dust $.Nm^{-3}$

SCHEDULE VI

EMISSION LIMIT VALUES FOR GASEOUS FUELS

Emission limit values expressed in $mg.Nm^{-3}$ (at an oxygen content of 3%) to be applied by 'new' plants pursuant to Regulation 3(2).

A. Emission Limit values for SO_2.

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 $SO_2.Nm^{-3}$
Low caloric gases from blast furnaces	200 mg $SO_2.Nm^{-3}$

B. Emission Limit values for NO_X.

Type of Fuel	**50 $MW_{TH} \leq P_{TH} \leq$ 300 MW_{TH}**	**$P_{TH} >$ 300 MW_{TH}**
Natural gas (naturally occurring methane with no more than 20% by volume of inerts and other constituents).	150 mg $NO_2.Nm^{-3}$	100 mg $NO_2.Nm^{-3}$
Other gases	200 mg $NO_2.Nm^{-3}$	200 mg $NO_2.Nm^{-3}$

Where P_{TH} is the rated thermal input of the combustion plant in MW_{TH}.

C. Emission Limit values for dust.

Type of Fuel	**Emission Limit Value (ELV)**
As a rule	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 $.Nm^{-3}$

Schedule VII

EMISSION LIMIT VALUES FOR GAS TURBINES

Emission limit values are expressed in $mg.m^{-3}$ (at an oxygen content of 15%) to be applied by a single gas turbine unit pursuant to regulation. The limit values apply only above 70% of the load.

Fuels	**Emission Limit Value (ELV)**
Natural gas (naturally occurring methane with not more than 20% (by volume) of inerts and other constituents).	50 mg $NO_2.Nm^{-3}$ ([1]).
Liquid fuels (emission limit value applies to gas turbines firing light and middle distillates).	120 mg $NO_2.Nm^{-3}$.
Gaseous fuels other than natural gas.	120 mg $NO_2.Nm^{-3}$.

([1]) 75 mg $NO_2.Nm^{-3}$ in the following cases:

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%;

and

c. gas turbines for mechanical drives.

For single gas turbines not falling into any of the above categories, but having an efficiency greater than 35% (determined at ISO base load conditions), the emission limit value shall be 1.42η where η is the gas turbine efficiency expressed as a percentage (and at ISO base load conditions).

Gas turbines for emergency use that operate less than 500hrs per year are excluded from these limit values. The operator of such plants is required to submit each year to the competent authority a record of such used time.

Schedule VIII

DEROGATIONS AS PER SUB-REGUALTIONS (5) AND (6) OF REGULATION 9.

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 IX

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

The value of the 95% confidence interval of a single measured result shall not exceed the following percentages of the emission limit values:

Sulphur dioxide	20%
Nitrogen oxides	20%
Total dust	30%

The validated hourly and daily mean values shall be determined from the measured hourly average values after having subtracted the value of the confidence interval specified above.

Any day in which more than three hourly average values are invalid due to malfunction 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.

Schedule X

INFORMATION TO BE REPORTED WITH THE EMISSIONS INVENTORY

Emissions inventories prepared by the operator under regulation 17, shall include the following information:

1 Name of the Installation;

2 Name of the combustion plant;

3 Fuel Burn for the combustion plant ($Mg.yr^{-1}$)

4 Heat Value of the fuel fired by the combustion plant ($GJ.Mg^{-1}$)

5 Total annual load of sulphur dioxide for the combustion plant ($Mg.yr^{-1}$).

6 Total annual load of nitrogen oxides for the combustion plant ($Mg.yr^{-1}$).

7 Total annual load of dust for the combustion plant ($Mg.yr^{-1}$).

Total annual pollutant loads shall be calculated as follows:

$$\sum_{d=1}^{d=365}\left(WGF_d \times [P]_d^{avg}\right) \text{ [for leap years d=366]}$$

Where:

WGF_d is the daily waste gas flow rate in Nm^3

$[P]_d^{avg}$ is the daily average concentration of the pollutant in $mg.Nm^{-3}$.

Schedule XI

INFORMATION TO BE REPORTED WITH THE OPERATING TIME

Reports on combustion plants operating time prepared by the operator under regulation 17, 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:

$T_R = 20000 – T_O$

VERŻJONI ELETTRONIKA

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