

REGULATION
as of 415/2012,

**on the permitted level of pollution and its ascertainment and on the implementation of
some further provisions of the Act on the protection of air**

The Ministry of the Environment states according to Section 4(9), Section 6(9), Section 12(8), Section 16(8), Section 17(7), Section 18(4), Section 32(9), and Section 34(5) of Act No .../2012 Coll., on the protection of air:

PART ONE
INTRODUCTORY PROVISIONS

Section 1
Subject of stipulation

This Regulation processes the respective regulations of the European Unit ¹⁾ and states:

- a) manner and frequency of the level of pollution by measurement, calculation and the scope, manner and conditions for recording, verification, evaluation and storage of results of the ascertainment of the pollution, manner of the ascertainment of duskiess of smoke;
- b) the list of methods of single measurement of emissions for which a certificate of accreditation is required,
- c) general emission limits, specific emission limits, manner of calculation of emission limits, permitted duskiess of smoke and technical conditions for the operation of stationary sources and methods of evaluation of their fulfilment,

1) Directive of the European parliament and the Council 2010/75/EU, on industrial emissions.

Council Directive 1999/32/EC, of 26 April 1999, relating to a reduction of the sulphur content of certain liquid fuels and amending Directive 93/12/EEC, as amendment by the Directive of the European Parliament and the Council 2005/33/EC of 6 June 2005, which changes the Directive 1999/32/EC, concerning the content of sulphur in marine fuel.

Directive of the European Parliament and the Council 94/63/EC, on the control of VOC emissions of on inspection of emissions of volatile matters originating during the storage of fuel and its distribution from the terminal to fuel stations.

Directive of the Council 1999/13/EC, on the limitation of emissions of volatile organic substances originating during the use of organic solvents in certain activities and installations.

Directive of the European Parliament and the Council 2004/42/EC on the limitation of volatile organic compounds originating during the use of organic compounds in some paints and varnishes and products for repairs of coatings for cars and on the change of Directive 1999/13/EC.

Directive of the European Parliament and the Council 2000/76/EC on incineration of waste.

Directive of the European Parliament and the council 2001/80/EC of 23 October 2001 on the limitation of emissions of certain pollutants into air from large combustion plants.

Directive of the Council 87/217/EEC of 19 March 1987 on the prevention and reduction of environmental pollution by asbestos.

Directive of the Council 92/112/EEC of 15 December 1992, on procedures for harmonising the programmes for the reduction and eventual elimination caused by waste from the titanium dioxide industry.

- d) manner of specification of the number of operating hours,
- e) requirements for the quality of fuel, requirements for the procedure for proving fulfilment and the format and the scope of reporting the fulfilment of these requirements,
- f) products with restricted content of organic solvents, limited content of volatile organic substances in these products and the manner of their marking, conditions under which products can be distributed and used with restricted content of organic solvents which do not fulfil limit values of the content of volatile organic substances, the form and the manner of keeping records concerning the handling of these products and analytical methods for determination of the content of volatile organic substances in products,
- g) manner of application of compensation measures and minimum value of the contribution of the stationary source to the level of pollution,
- h) requirements of the operating records and summary operating records, operating rules, professional expert opinion, dispersion study, protocol on single measurement of emissions.

(2) This Regulation was announced in accordance with the Directive of the European Parliament and the Council 98/34/EC of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations and rules on information society services, as amended by Regulation 98/48/EC.

Section 2

Basic terms

For the purpose of this Regulation, the following terminology is applied:

- a) biomass – product consisting of vegetable material from agriculture or forestry and which can be used as fuel for the purpose of harnessing its energy content and the consequent waste is used as fuel:
 - 1. vegetable waste from agriculture or forestry,
 - 2. vegetable waste from the food industry, if the heat produced is used,
 - 3. vegetable waste from the production of fresh fibre material and from the production of paper from cellulose if it is co-combusted in the place of production and the originated heat is used,
 - 4. cork waste,
 - 5. wooden waste with the exception of wooden waste which may contain halogen organic compounds or heavy metals due to treatment with substances for the protection of wood or coating materials mainly including such wooden wastes coming from wastes from building industry and from demolitions,
- b) emission factor – specific production emission typical for a certain group of stationary sources,
- c) mass flow – ratio of the weight of the polluting materials or the specified group of materials from the stationary sources into the air and the time during which this material or group of materials escapes into the air expressed in mass units per unit of time,

- d) specific production emission – ratio of the mass of polluting material or specified group of materials which has escaped from the stationary source into the air and related values.

PART TWO
ASCERTAINMENT OF THE LEVEL OF POLLUTION AND EVALUATION OF THE
FULFILMENT OF EMISSION LIMITS

Article 3
Frequency of single measurement

(1) The single measurement is performed after

- a) the first commissioning of the stationary source into operation,
- b) each change of fuel, raw material, or thermally processed waste in the permit for the operation,
- c) each intervention in the construction or equipment of the stationary source which could lead to the change of emissions,

no later than within three months from the origination of some of these facts or within the deadline specified in the permit for operation if the operator, on the basis of Part B, Part 4 of the Act does not have the obligation to measure the specified pollutant continually or if it does not concern the stationary source with the nominal heat input power up to 0.3 MW inclusive.

(2) Within the scope of Paragraph 1, the single measurement of emissions is performed at the following intervals:

- a) once a calendar year for stationary sources not mentioned in Letters b) and c),
- b) once in three calendar months
 1. for combustion stationary sources with total nominal heat input power from 1 MW to 5 MW combusting gas or liquid fuel and for combustion stationary sources with total nominal heat input power from 0.3 MW to 1 MW combusting solid fuel,
 2. for stationary sources mentioned in Annex 4 to this Regulation in Part II, Points 1.1., 1.2., 1.3., and 1.4. with the projected consumption of organic solvents within the range 0.6–15 t/year,
 3. for stationary sources mentioned in Annex 4 to this Regulation in Part II, Points 4.1., 4.2., and 7. with the projected consumption of organic solvents within the range 0.6–5 t/year,
 4. for stationary source mentioned in Annex 4 to this Regulation in Part II, Point 9 with the projected consumption of organic solvents within the range 0.6–20 t/year and Point 4,
 5. for stationary source mentioned in Annex 7 to this Regulation in Part II, Points 3.8.1., 4.1.1., 6.6., and 6.13.,
 6. for stationary sources mentioned in Annex 7 to the Regulation in Part II, Points 3.5.1. and 3.7.1., if the source is equipped with equipment for reducing emissions,

7. for stationary sources mentioned in Annex 7 to this Regulation in Part II, Point 3.4.2. with projected heat output from 1 MW to 5 MW inclusive, and point 3.5.2. with projected heat output from 0.3 MW to 5 MW inclusive,
 8. for stationary sources mentioned in Annex 7 to this regulation in Part II. of Point 4.2.2,
 9. for stationary sources mentioned in Annex 7 to this regulation in Part II. of Point 4.2.4,
 10. for stationary sources mentioned in Annex 7 to this Regulation in Part II, Point 4.2.5. with annual project capacity higher than 50 tonnes of ready products,
 11. for stationary sources for which the level of pollution achieved by modification of technological control of technological process or by the use of technology for reduction of emissions if, at the same time, the permit for the operation states the obligation of the continuous measurement and recording of one or more operating parameters stating the level of pollution; this frequency of measurement is not related to the combustion stationary sources with total nominal thermal input power of 50 MW and higher and stationary sources thermally processing wastes, or
 12. for stationary sources mentioned in Part A, Annex 4 of the Act,
- c) twice per calendar year, for stationary sources thermally processing wastes, in the case of heavy metals, polychlorinated dibenzodioxin (hereinafter “PCDD”) and polychlorinated dibenzofurans (hereinafter “PCDF”); during the first 12 months of operation, four measurements are performed for every three months of the operation of the stationary source.
- (3) Single measurement of emissions is performed according to Paragraph 2
- a) in cases mentioned in Letter a) no earlier than after the expiration of six months from the date of the previous single measurement,
 - b) in cases mentioned in Letter b) no earlier than after the expiration of eighteen months from the date of the previous single measurement,
 - c) in cases mentioned in Letter c) no earlier than after the expiration of three months from the date of the previous single measurement,
- (4) Instead of measurement of emissions of polluting materials according to Paragraph 2, the calculation will be used for determination of the level of pollution
- a) for combustion of stationary sources combusting gas and/or liquid fuel up to total nominal heat input power 1 MW,
 - b) for stationary sources mentioned in Annex 4 to this Regulation in Part II, Point 3,
 - c) for stationary sources mentioned in Annex 7 to this Regulation in Part II, Points 1.3., 2.1., 3.8.3., 3.8.4., 6.14., and 6.15. and
 - d) for stationary sources mentioned in Annex 7 to this Regulation in Part II, Points 3.5.1. and 3.7.1., if these sources are not equipped with equipment for reducing emissions, for stationary sources mentioned in Annex 7 to this Regulation in Part II, Point 4.2.5. with annual projected capacity up to 50 tonnes of ready products, inclusive, and for stationary sources mentioned in Annex 7 to this Regulation in Part II, Point 3.5.2.

(5) It is possible to abandon the measurement of emission of polluting materials according to Paragraph 2, on the basis of the decision of the regional office, according to Section 6(2) of the Act and to determine emissions by calculation at stationary sources mentioned in Part II of Annex 4 to this Regulation if they do not use the technology for reducing emissions.

Article 4

Performing of single measurements

(1) Methods of measurement and requirements for single measurement of emissions shall comply with the specified technical standards³⁾, unless specified by this Regulation otherwise.

(2) Single measurement of emissions is performed by manual methods with independent taking of individual follow-up samples or devices for continuous measurement of emissions. Within the single measurement of emissions, the single measurement is considered the taking of an individual sample and its evaluation. For the single measurement of emissions it is possible to use only measuring methods which enable to specify the concentration of polluting materials at least in the interval from 10 % to 200 % of the specific emission limit. Methods and procedures for sampling and determination of polluting materials and additional values for which the certificate on accreditation is required according to Section 6(9) of the Act are mentioned in Annex 9 to this Regulation.

(3) The single measurement by manual methods involves the performance of

- a) a minimum of three individual measurements for stationary sources with unchanged operating conditions,
- b) a minimum of six individual measurements for stationary sources with variable operating conditions,
- c) measurements under technical conditions for the operation and emission concentrations of polluting materials, concerning a specified number of individual follow-up measurements for stationary sources with periodical, interrupted, batch manner of production so that the measurement covers the whole time interval of the cycle or batch; the time of individual taking of measurements, subsequent measurements are adapted to the expected concentrations in accordance with technical procedures for single measurement and the requirements of this Regulation, specified technical standards and single measurements specified in the permit according to Section 11 of the Act,
- d) individual measurements during the period of a minimum of 30 minutes and a maximum of 8 hours in the case of heavy metals and a minimum of 6 hours and a maximum of 8 hours in the case of PCDD and PCDF, unless specified otherwise by the regulation or in the permit,
- e) departing from the provision in points a) and b) of individual measurement for
 1. stationary sources of thermally processed hazardous wastes with nominal capacity up to 1 tonnes of waste per hour,
 2. stationary sources of thermally processed communal wastes with nominal capacity up to 3 tonnes of waste per hour,

3. stationary sources of thermally processed waste other than hazardous wastes with nominal capacity of up to 50 tonnes per day, and
4. stationary sources of thermally processed wastes if during their processing there is no pollution by pollutants.

(4) The minimum period of single measurement according to Section 3(1), with the exception of the stationary sources mentioned in Paragraphs 6 and 7, and in the case of single measurement for the use of devices for continuous measurement is

- a) six hours for stationary sources for nominal output of the stationary source, or
- b) for stationary sources with periodical, interrupted or batch manner of production specified so that the single measurement is performed during the whole period of duration of one or more cycles or batches for the nominal output of the stationary source; if one cycle or batch lasts less than 4 hours inclusive, the single measurement includes a minimum the measurement of three cycles or batches if these measurements can be performed during one day; if one cycle or the batch lasts more than 4 hours or if it is not possible to perform measurements of three cycles or batches during one day, emissions are measured only during the duration of one cycle or batch.

If for the stationary source it is not possible to achieve the nominal output due to technical reasons, the single measurement will be performed at the maximum achievable output of the stationary source.

(5) The minimum period of single measurement according to Section 3(2), with the exception of stationary sources mentioned in Paragraphs 6 and 7, and in the case of single measurement for the use of devices for continuous measurement is

- a) six hours for stationary sources with unchanged or variable operating conditions at the usual operating output of the stationary source, or
- b) for stationary sources with periodical, interrupted or batch manner of production specified so that the single measurement is performed during the whole period of duration of one or more cycles or batches at the nominal output of the stationary source; if one cycle or batch lasts less than 4 hours inclusive, the single measurement includes a minimum of the measurement of three cycles or batches if these measurements can be performed during one day; if one cycle or the batch lasts more than 4 hours or if it is not possible to perform measurements of three cycles or batches during one day, emissions are measured only during the duration of one cycle or the batch.

(6) For combustion of stationary sources with total nominal input power up to 5 MW inclusive, mainly combusting light heating oil, diesel fuel, natural gas, degasifying gas, liquidised natural gas, hydrogen, or liquidised heating gases and their mixtures, it is possible to measure carbon monoxide and nitrogen oxide by direct measurement using a device with electrochemical cells. In this case, a minimum of the following actions are performed

- a) three individual measurements with a minimum duration of 15 minutes continuously with the period of saving of measured values equal to or shorter than 30 seconds for the stationary sources with unchanged operating conditions performed in the time interval of a minimum of 45 minutes,

b) six individual measurements with minimum duration of 15 minutes continuously with the period of saving of the measured value which is shorter than 30 seconds for stationary sources with variable operating conditions performed in the time interval of a minimum of 90 minutes,

(7) For stationary sources equipped with technology for reducing the emission of solid polluting materials with output concentration lower than 50 mg.m^{-3} under the operating stated conditions and with emission limit specified for solid polluting materials is performed by three individual measurements of the concentration of solid polluting materials. The time of taking partial, consecutive samples is adapted to the expected concentrations in accordance with requirements of this Regulation specified by technical standards for single measurement and conditions specified in the permit for operation, however, a minimum of 30 minutes without interruption for each partial measurement.

Article 5

Evaluation of single measurement

(1) The results of single measurement are evaluated

- a) when using manual methods as the value of the weighted average according to the time of individual sampling for the whole measurement for results of individual measurements expressed after the recalculation under the specified reference conditions,
- b) in departure from Point a) for stationary sources thermally processing hazardous wastes with installed technology for reducing emissions, the recalculation with respect to the reference content of oxygen is performed only if the ascertained content of oxygen during the time of measurement of emissions exceeds the specified reference value of the content of oxygen and also for all stationary sources of thermally processing wastes, the recalculation with respect to the reference content of oxygen is not used in the case of its combustion in an oxygen-enriched atmosphere .
- c) when using devices for continuous measurement as average value during each 30 minutes of measurement expressed after the calculation with respect to the specified state and reference conditions and as the arithmetic average of the value during the whole measurement,
- d) when using devices with electrochemical cells, as an average value during each 15 minutes of measurement expressed after calculation with respect to the specified state and reference conditions and as the arithmetic average of the value during the whole measurement,

(2) The evaluation of individual measurements contains data about the weight of concentrations of the pollutant, its mass flow, specific production emission processed so to be able to compare with emission limits, and the specification of operating and state conditions under which the measurement on stationary sources was performed.

Article 6

Evaluation of the fulfilment of emission limits

An emission limit is considered met if

- a) the average of results of individual measurements of concentrations of pollutant for the whole single measurement of emissions performed according to Section 4(3) to (7) is smaller or equal to the value of the specific emission limit and, at the same time, each value of concentration of the pollutant ascertained by the individual measurement is smaller than 120 % of the emission limit. A similar procedure is used for evaluation of the fulfilment of the emission limit if it is expressed by another measurable value than the value of the concentration of pollutant,
- b) for stationary sources thermally processing wastes, none of the average values during the sampling period of heavy metals, PCDD, and PCDF, shall exceed the values of the specific emission limits. .

Article 7

Performing continuous measurements

(1) Measuring methods and requirements for continuous measurement, its calibration, and verification of the correctness of the results of measurements are stipulated by technical standards², unless otherwise specified by this regulation. In the event that the specified technical standards do not contain a method of measurement or requirement for continuous measurement, the measuring method is specified by the regional office in the permit for the operation of the stationary source as a binding condition for the operation according to Section 12(4)(b) of the Act.

(2) For the continuous measurement of emissions, a device is used making it possible to determine weight concentrations I of polluting materials in the range from 10 % to 250 % of the specific emission limit or in the case of a stationary source equipped with technology for reducing the emission of solid pollution materials, at least within the range from 10 % to 250 % of the concentration guaranteed by the producer of this technology.

Article 8

Evaluation of continuous measurement

(1) For the evaluation of continuous measured emissions, the following procedure will be applied.

- a) the arithmetic average of mean values recorded during a minimum period of 20 minutes from the monitored 30-minute interval, the 30-minute mean value of the concentration of the respective pollutant at specified state conditions is calculated from values measured at intervals not shorter than 1 minute or also the 10-minute mean value of carbon monoxide for stationary sources thermally processing waste.

² Section 4a of the Act No 22/1997 Coll., on technical requirements for products and on the change and amendment of some acts, as amended by Act No 17/2000 Coll., of Act No 205/ 2002 Coll., and Act No 277/2003 Coll.

- b) the mean daily average value of the concentration of the pollutant is calculated from 30-minute mean values of the concentration and the emission limit being exceeded is recorded for the achievement of daily average values, more than 30-minute average values must not be emitted due to the failure or the maintenance of the continuous measurement per day,
- c) in departure from Letter b), for stationary sources thermally processing waste, the calculation for the reference content of oxygen will not be used in the case of the combustion in oxygen-enriched atmosphere; for stationary sources thermally processing hazardous waste, if emissions of polluting materials is reduced by cleaning the waste gas, the calculation is performed for the content of the reference oxygen only in the case if the measured content of oxygen in the same period in which there was measurement of polluting materials, exceeds the value of the specified reference content of oxygen,
- d) for the achievement of the validated average 30-minute and 10-minute average values, the value of the interval of reliability mentioned in Section 9(6) is deducted from the measured result. The validated average values and calculated average daily values of concentrations are evaluated only for the evaluation of the fulfilment of emission limits according to Section 9(1), (2), and (4).

(2) For the evaluation of continuous measurement of the volume flow of waste gas, the following procedure will be applied.

- a) the 30-minute mean value of the volume flow of waste gas will be calculated from values measured at intervals not shorter than 1 minute at specified state conditions, the 30-minute mean value is considered the arithmetic average of minute mean values recorded during a minimum period of 20 minutes from the monitored 30-minute interval, and
- b) the total volume of waste gas is calculated from 30-minute mean values of the volume flow of waste gas and the daily time of operation of the stationary source under the specified state and reference conditions emitted into the air per day; in the case of hourly averages of pollutants, an identical procedure to Paragraph 1(d) will be used.
- c) in a different manner from Point b), for stationary sources thermally processing wastes, the recalculation with respect to the reference content of oxygen is not used in the case of combustion in the an oxygen-enriched atmosphere ; if emissions of polluting materials are reduced by cleaning the waste gas for stationary sources thermally processing waste, the recalculation for the content of oxygen specified in the first sub-paragraph is calculated if the measured content of oxygen in the same period in which the measurement of polluting materials was performed, exceeds the reference content of oxygen.

(3) Daily results of the continuous measurement of emissions are stored on the electronic data media and are printed in cases when they document the emission limit being exceeded. On the last day of the calendar year, summary results per calendar year are processed and saved in electronic format.

Article 9

Evaluation of the fulfilment of emission limits

(1) For the continuous measurement of emissions on combusting stationary sources, the emission limit is considered fulfilled if the following conditions are met

- a) no monthly mean value shall exceed the value of the specific emission limit,
- b) no daily average value shall exceed 110 % of the value of the specific emission limit in the case of combustion stationary sources with the total thermal input power up to 50 MW and combusting only black coal no daily average value shall exceed 150 % of the value of the specific emission limit, and
- c) no valid half-hour average value shall exceed 200 % of the value of the specific emission limit.

(2) For the continuous measurement of emissions, for stationary sources thermally processing wastes, the emission limit is considered fulfilled if the following conditions are satisfied

- a) no valid daily average value shall exceed the values of specific emission limits,
- b) no valid 30-minute average values or in cases when it is relevant, 97 % of all 30-minute values in a calendar year shall not exceed any value of the specific emission limits,
- c) 97 % of all daily average values of the concentration of carbon monoxide in a calendar year shall not exceed the value of the specific emission limit,
- d) 95 % of the 10-minute average values or all 30-minute average values of the concentrations of carbon monoxide during 24 hours shall not exceed specific emission limits; for sources in which the temperature of the gas from the combustion process reaches a minimum of 1 100 °C during at least two seconds, it can be used for the evaluation of 10-minute averages of the 7-day evaluation period.
- e) during the calendar year, due to the failure or the maintenance of the system of continuous measurement no more than 10 valid daily average values are emitted.

(3) For continuous measurement of emissions from stationary sources using organic solvents, the emission limit is considered fulfilled if, at the same time, the following conditions are fulfilled

- a) no daily average value exceeds the values of specific emission limits,
- b) no hourly ratio exceeds 150 % of the value of specific emission limits.

(4) For stationary sources not mentioned in paragraphs 1 to 3 the emission limit is considered fulfilled if, at the same time, the following conditions are fulfilled

- a) no annual mean value shall exceed the value of the specific emission limit,
- b) no daily average value shall exceed 120 % of the value of the specific emission limit.
- c) no valid half-hour average value shall exceed 200 % of the value of the specific emission limit.

- (5) The values which are decisive for the evaluation of the fulfilment of emission limits do not include data ascertained at the time of commissioning the stationary source, at the time of its disconnection from the operation or during recovery from failure or accident. The length of the permitted duration of these states must be mentioned in the operating order. The commissioning of the stationary source and its disconnection from the operation is not considered the commencement and termination of cycles for stationary sources with periodical, interrupted or batch manner of production.
- (6) During the evaluation of the fulfilment of emission limits, the average values mentioned in Paragraph(1)(a) to (d), in the Paragraph 2(a) to (d) and in Paragraph 4(a) to (c) are considered the validated values according to Section 8(1), and values of 95 % interval of reliability of results of individual measurements at the level of daily average value shall not exceed the following ratios of specific emission limit: 10 % for carbon monoxide, 20 % for sulphur dioxide, 20 % for nitrogen oxide, 30 % for solid pollution materials, 30 % for total organic carbon, 40 % for hydrogen chloride, 40 % for hydrogen fluoride, 20 % for ammonia, and 40 % for hydrogen sulphide.
- (7) During the evaluation of the fulfilment of the emission limit, breakdowns of the continuous measurement are not taken into consideration if they do not exceed 5 % of the total operating time of the stationary source in a calendar year. This is not valid for stationary sources thermally processing wastes.

Permitted duskiess of smoke

Article 10

- (1) For the ascertainment of the duskiess of the smoke, the Ringelmann scale is used whose optical properties are guaranteed by the producer. The Ringelmann scale consists of six square fields consisting of a rectangular grid of black lines with the thickness and the density of the grid on a white background corresponding to the following level of the duskiess of the smoke:
- a) level 0 corresponds to 0 % of black colour on a white background with the defined reflection of the light 80 %,
 - b) level 1 corresponds to 20 % of black colour on a white background,
 - c) level 2 corresponds to 40 % of black colour on a white background,
 - d) level 3 corresponds to 60 % of black colour on a white background,
 - e) level 4 corresponds to 80 % of black colour on a white background,
 - f) level 5 corresponds to 100 % of black colour on a white background,
- (2) The level 5 on the Ringelmann scale is used to verify the optical properties. The black colour used for the printing of the scale must have 5 % reflection of the light.
- (3) For the validity of the measurement of the duskiess of smoke, the following conditions must be met:
- a) the distance 150 to 400 m from the operated chimney,
 - b) the direction of the smoke plume from the chimney is approximately at right angles to the observation,

c) the background of the smoke plume represents dispersed light from the sky during the day; it is not possible to perform measurements against the sun, estates or surrounding terrain, and

d) the observer holds the Ringelmann scale with a straight arm so that the grid of individual fields runs into the different scales of grey colour.

(4) During the evaluation of the measurement of the duskiness of the smoke using the Ringelmann scale, the Ringelmann scale is compared with the smoke plume at the place of exit of the smoke from the crown of the chimney and the level of duskiness of the smoke is determined. During the measurement, 30 determinations of the duskiness of the smoke are made at regular half-minute intervals. The length of one reading is 5 seconds. The measurement is evaluated as the average duskiness of the smoke from 30 readings. The evaluation does not include the commissioning of the source during the maximum time of 30 minutes.

Article 11

The permitted duskiness of the smoke is considered to conform if the out-flowing smoke is not darker or another colour than level 2 of the Ringelmann scale.

Article 12

Manner of ascertainment of the level of pollution by calculation

(1) For the purpose of the ascertainment of emissions, the calculation is performed once per calendar year using one of the following methods

a) the balance of the technological process as the difference between the weight of pollutant entering into the process and the weight of the pollution matter existing from the process by means of other ways than emissions into the open air (hereinafter “weight balance”), or

b) as the product of the emission factor mentioned for the corresponding group of stationary sources in the Bulletin of the Ministry of the Environment and the number of units of the respective related value for the stationary source in the required time segment.

(2) For stationary sources mentioned in Part II of Annex 4 to this Regulation, the weight balance for volatile organic matters is performed according to Part IV of Annex 4 to this Regulation.

PART THREE FUEL COMBUSTION

Article 13

General provisions about fuel combustion

This part of the Regulation relates to the combustion stationary sources in which fuel is combusted, with the exception of

- a) stationary sources in which burnt gases are used for direct heating, drying, burning or other thermal treatment of the item or materials, in particular heating furnaces or furnaces for thermal processing,
- b) stationary sources for additional combustion designated for cleaning of waste gases by combustion if they are not operated as independent combustion stationary sources,
- c) stationary sources for regeneration of catalysts,
- d) stationary sources for the processing of hydrogen sulphide for sulphur,
- e) reactors used in the chemical industry,
- f) heating of coke batteries,
- g) stationary sources designated exclusively for thermal processing of waste,
- h) heaters of winds of blast furnaces,
- i) gas turbines located on mining platforms,
- j) stationary sources in which there is pyrolysis or gasification of fuel without the access of air.

Article 14

Specific emission limits, emission ceilings, and technical conditions of operation

(1) Specific emission limits for combustion stationary sources with a total nominal heat input power of 50 MW and more are mentioned in Part 1 of Annex 1 to this Regulation.

(2) For combusting stationary sources according to Section 4(6) of the Act, at least the minimum ratio of the weight of sulphur separated at the place of the combusting stationary source in the specified time period to the weight of sulphur contained in the fuel which was delivered to the combusting stationary source and burnt within the same time period (hereinafter the “level of desulphurisation”) specified in Part II of Annex 1 to this Regulation. The level of desulphurisation is considered fulfilled if the evaluation of performed measurements show that all mean values of the level of desulphurisation per specified calendar month achieved the specified level. The values which are decisive for the evaluation of the fulfilment of emission limits of desulphurisation do not include data ascertained at the time of commissioning of the stationary source, at the time of its disconnection from the operation or during recovering from failure or accident.

Specific emission limits for combustion stationary sources with total nominal heat input power 0.3 MW and lower than 50 MW are mentioned in Part III of Annex 1 to this Regulation.

(4) For the stationary combustion sources in which two or more kinds of fuel are combusted alternatively or at the same time, the values of specific emission limits are specified by the calculation mentioned in Part IV of Annex 1 to this Regulation. The use of other kinds of fuel during the commissioning of the stationary source or during the stabilisation of burning defined in the operating order, is not considered the burning of more kinds of fuel.

(5) Wooden chips, plywood, wooden-fibre board, or other sealed wood can be combusted only in the combustion stationary sources with total nominal heat input power 5 MW and higher only in the case that they do not contain halogenated organic compounds or heavy metals due to treatment of fibres for the protection of wood or surface treatment. In the place where this fuel is originated in the form of a side product of the production, it can be combusted also in stationary sources with total nominal heat input from 0.3 MW to 5 MW, equipped with automatic dosing of fuel and automatic control of the combustion process.

Article 15

Manner of specification of the number of operating hours

(1) For combustion of stationary sources with total nominal heat input power 50 MW and higher, the operating hours are specified as the time expressed in hours during which the stationary combustion source is in stabilised operation. In the case of two or more combustion stationary sources whose nominal heat input powers are summarised according to Section 4(7) and (8) or for which according to Part I of Annex 1 to this Regulation, a special emission limit is specified, the operating hours include each hour of the operation of any of these combustion stationary sources and the commissioning is considered the time of commissioning of the first of them and the time of disconnection of the disconnection from the operation of the last of them.

(2) The specification of the period of commissioning is performed by the determination of the values of operating parameters mentioned in Part V of the Annex 1 to this Regulation or minimum loading during which the stabilised operation is achieved enabling reliable delivery of energy into the distribution network, heat accumulator or industrial site. A similar procedure is applied in the case of specification of the time of disconnection from operation with the difference that the operating parameters or minimum loading state are determined during which the combustion stationary sources are not able to deliver the energy into the distribution network, heat accumulator or industrial site in a safe and stable manner. The manner of specification of the period of commissioning of combustion stationary sources and their disconnection is specified in Part V of Annex 1 to this Regulation.

(3) For two or more combustion stationary sources combusting more kinds of fuel or various kinds of fuel whose nominal heat input powers are summed according to Section 4(7) and (8) and the entire emissions are collected into the common chimney air duct,

- a) the values measured during the commissioning of the first combustion stationary source and during the disconnection of the last combustion stationary source from operation, are not taken into consideration during the evaluation of the continuous measurement of emissions,
- b) values specified during the commissioning of further combustion stationary sources into operation and during their disconnection from operation, are not taken into consideration only if they are measured or it is not possible to implement them for economic and technical reasons calculated separately for each combustion stationary source concerned.

(4) For one or more combustion stationary sources operated less than 1 500 operating hours per calendar year for which in Part I, Annex 1 to this Regulation, special emission limits are specified which collect waste gas through one or more chimney ducts within one chimney, the time of their commissioning, and the time of their disconnection from the operation can be specified separately. The operating hours of these combustion stationary sources are calculated in this case differently from Paragraph 1, separately for these combustion stationary sources.

PART FOUR REQUIREMENTS FOR THE QUALITY OF FUEL

Article 16 Requirements for the quality of fuel and the manner of proving their fulfilment

- (1) Requirements for the quality of fuel are specified in Part I of the Annex 2 to this Regulation.
- (2) The proving of the fulfilment of requirements for the quality of fuel is performed by documents on analyses of samples of fuel taken in accordance with procedures for sampling and performing analysis according to the specified technical standards²⁾ by a person accredited according to the other regulation³⁾.

Article 17 Reporting of data on the quality of fuel

- (1) Reporting of data on the quality of fuel according to Section 16(1) of the Act relates to any heating oil, gas oil, and solid fuel designated for the combustion stationary sources with nominal heat input up to 300 kW inclusive.
- (2) Requirements for the quality of fuel are specified in Part II of Annex 2 to this Regulation.

PART FIVE THERMAL PROCESSING OF WASTE

Article 18 General provisions about thermal processing of waste

- (1) This part of the Regulation concerns stationary sources in which waste is thermally processed, with the exception of

³ Act No 22/1997 Coll., on technical requirements for products and on the change and amendment of some acts, as amended.

- a) stationary sources in which only waste is processed which is classified under the definition of biomass according to Section 2(a), which also relates to part three of this Regulation, radioactive waste, bodies of dead animals, or waste originated during the survey and mining of deposits of crude oil and natural gas from marine equipment and combusted on board this equipment,
- b) stationary sources in which there is thermal processing of waste or gas products from thermal processing of waste if they are cleaned to such an extent that before their combustion waste is not involved whose combustion cannot originate other or larger emission than originated during the combustion of natural gas; these stationary sources are subject of part three of this Regulation,
- c) stationary sources used during research, development, and testing of new processes with the aim to improve the process of thermal processing of waste which process less than 50 tonnes of waste per year.

Article 19

Specific emission limits and technical conditions of operation

- (1) Specific emission limits for waste incineration plants and the state and related conditions are specified in Point 1., Part I, Annex 3 to this Regulation.
- (2) Manner of stating specific emission limits and state and related conditions for thermal processing of waste in stationary sources other than incineration plants is specified in Point 2, Part II, Annex 3 to this Regulation.
- (3) Technical conditions for the operation for stationary sources thermally processing waste are specified in Part II, Annex 3 to this Regulation.

PART SIX

HANDLING OF VOLATILE ORGANIC MATTER

Article 20

General provisions of handling of volatile organic matter

For the purpose of this Regulation, volatile matter is divided into

- a) volatile organic matter which is classified as carcinogenic, mutagenic and toxic for reproduction to which standard phrases on hazards H340, H350, H350i, H360D, or H360F are assigned or by which they must be marked, with the exception of fuel,
- b) halogenated volatile organic matter to which standard phrases on hazards H341 or H351 are assigned which must be marked by these phrases,
- c) fuel and volatile organic substances which are not classified under Letters a) or b).

Article 21

Specific emission limits, emission marginal values, and technical conditions of operation

(1) Specific emission limits, emission marginal values and technical conditions for operation of stationary source in which there is use of organic solvents are mentioned in Annex 4 to this Regulation.

(2) Specific emission limits, emission marginal values, and technical conditions for the operation of stationary sources in which there is use of fuel are mentioned in Annex 5 to this Regulation.

Article 22

Requirements for products containing volatile organic matter

(1) The list of selected paints, varnishes and products for repair of car coatings according to Section 18 of the Act (hereinafter “selected products”) is mentioned in Part I of Annex 6 to this Regulation.

(2) Limit values of the content of organic compounds or mixtures of organic compounds, with the exception of methane, whose initial boiling point is lower or equal to 250 °C, at normal atmospheric pressure of 101.3 kPa (hereinafter “volatile organic matter in the selected product”), in selected products, are specified in Part II of Annex 6 to this Regulation.

(3) Analytical methods for determining the content of volatile organic matter in selected products are stipulated by technical standards²⁾, unless specified by this Regulation otherwise.

(4) Selected products are equipped with an indication label

a) category and sub-category of selected product according to Part III of the Annex 6 to this Regulation,

b) limit values of the content of volatile organic matter in selected products in g/l according to Part II of Annex 6 to this Regulation, and

c) maximum content of volatile organic matter in selected products in the state prepared for use in g/l.

(5) For selected products to which organic solvents are added before use, the limit values of the content of volatile organic matter mentioned in Part II of Annex 6 to this Regulation, are related to the product in the state in which it is ready for use. The part of the content of volatile organic matter in selected products is not considered the weight of volatile matter which during drying chemically reacts while originating a protecting film of the coating substance.

(6) Products according to Section 16(3) of the Act are marked on the label or mentioned in the accompanying technical documentation

a) by the value on the total content of volatile organic matter according to Section 2(m) of the Act in the product expressed by the fraction by weight or percentage by weight.

b) in the case of coating substances, adhesive materials or printing paints mentioned in Annex 4 by the value on the content of matter in the product which, after evaporation of water or volatile organic matter will harden (hereinafter “non-volatile matter”) in percentage by weight or volume and on the density of the product in g/cm³, if the previous value is mentioned in percentage by volume.

PART SEVEN
OTHER STATIONARY SOURCES

Article 23
Specific emission limits and technical conditions of operation

Specific emission limits and technical conditions for the operation of stationary sources not mentioned in parts three, five, and six (hereinafter “other stationary sources”) are mentioned in Annex 7 to this Regulation.

PART EIGHT
COMPENSATION MEASURES

Article 24
Compensation measures

(1) The compensation measure is imposed for the stationary source and roads according to Section 11(1)(b) of the Act in the event that due to their location there is a growth in the level of pollution by more than 1 % of the emission limit over time averaging 1 calendar year.

(2) The contribution to the level of the pollution of air of newly located stationary source or the road according to Section 11(1)(b) of the Act is calculated as the product of the change of pollutant in tons per year and the coefficient of the importance of the contribution of the source to the pollution of air specified depending on the height at which there is emission of polluting materials into the air (hereinafter “coefficient of importance”). Coefficients of importance are mentioned in Annex 16 to this Regulation. The contribution for existing stationary sources will be calculated in the same manner for which there is application of compensation measures.

(3) The compensation measure is applied in sufficient manner if the decrease of the contribution of existing sources is greater than the contribution of newly located sources or mobile sources on the evaluated road.

(4) In the case of application of compensation measures in the form of insulating greenery, cleaning of roads, and other measures implemented outside the outlet of the source, the emission of polluting materials into the air is not considered, but removing pollution is considered.

PART NINE
GENERAL EMISSION LIMITS AND CONTEXTUAL REQUIREMENTS OF
DOCUMENTS

Article 25
General emission limits

General emission limits for the compensation of polluting materials at a pressure of 101.325 kPa and temperature 273.15 K in wet gas are specified in Annex 8 to this Regulation.

Article 26
Contextual requirements of documents

- (1) Requirements for the operating records are specified in Annex 10 to this Regulation.
- (2) Requirements for the summary operating records are specified in Annex 11 to this Regulation.
- (3) Requirements for the operating order are specified in Annex 12 to this Regulation.
- (4) Requirements for the professional expert opinion operating order are specified in Annex 13 to this Regulation.
- (5) Requirements for the protocol on single measurements are specified in Annex 14 to this Regulation.
- (6) Requirements for the dispersion study are specified in Annex 15 to this Regulation.

PART TEN
TRANSIENT AND FINAL PROVISIONS

Article 27
Transient provisions

- (1) For stationary sources for which on the basis of Section 3 there is newly originated or increased frequency of single measurements of emissions once a year, the first measurement is performed no later than by 31 December 2013.
- (2) Data of summary operating records according to Annex 11 to this Regulation is reported for the first time for 2013. Data of summary operating records for 2012 is reported according to the existing legislation.
- (3) The specific emission limits mentioned in Point 2, Part III of Annex 1 to the Regulation for combustion stationary sources combusting gas fuel, are applied from 1 January 2020. Up to 31 December 2019 for these combustion stationary sources, emission limits are valid mentioned in Point 1, Part III of Annex 1 to this Regulation.
- (4) For Lepol furnaces and long rotary furnaces, the Regional office may permit up to 1 January 2016 an exception to the fulfilment of limits for nitrogen oxide specified in Annex 3 to this Regulation if the emission limit specified in the permit for operation does not exceed 800 mg.m⁻³.
- (5) Volatile organic matter which is classified as carcinogenic, mutagenic and toxic for reproduction to which phrases are assigned about hazards H340, H350, H350i, H360D, or H360F, with the exception of fuel, may be marked up to 31 May 2015 by phrases indicating specific hazards R45, R46, R49, R60, or R61. Halogenated volatile organic matter to which

standard phrases on hazards H341 or H351 are assigned, may be marked up to 31 May 2015 by phrases indicating specific hazards R40 or R68.

(6) The provision of Section 8(1)(d) and Section 9(6) in the case of stationary sources other than stationary sources thermally processing wastes, will be applied no earlier than from 1 January 2016.

Article 28
Effectiveness

This Regulation comes into effect on 1 September 2012.

Ministry of the Environment

CONDITIONS FOR THE OPERATION OF COMBUSTION STATIONARY SOURCES

Part I

Specific emission limits for combustion stationary sources with total nominal heat input power of 50 MW and higher

Emission limits relate to the total nominal heat input and to standard state conditions and the dry gas with reference content of oxygen in waste gas of 6 % in the case of solid fuel and 3 % in the case of liquid and gas fuel.

Emission limits for gas turbines and piston combustion engines are related to the total nominal heat input power and to the standard state conditions and dry gas with reference content of oxygen in the waste gas of 15 %.

1. Specific emission limits valid up to 31 December 2015

1.1. Specific emission limits for the combustion sources for which the first permit for operation was issued or similar permit according to former legal regulations before 27 November 2002 or for which the complete application was issued for the first permit of the operation before this date and were commissioned no later than on 27 November 2003

Type of fuel	Emission limits [mg.m ⁻³]											
	50-100 MW				> 100-300 MW				> 300 MW			
	SO ₂	NO _x	TZL	CO	SO ₂	NO _x	TZL	CO	SO ₂	NO _x	TZL	CO
Solid fuel	2 000	600 ⁷⁾	100	250	2 000-1 200 ¹⁾	600 ⁷⁾	100	250	1 200-400 ¹⁾ 6) 400 ^{2) 6)}	600 ⁷⁾ 500 ^{2) 7)}	100 50 ²⁾	250
Liquid fuel	1 700	450 300 ⁵⁾	50 ⁴⁾	175 100 ⁵⁾	1700	450 300 ⁵⁾	50 ⁴⁾	175 100 ⁵⁾	1 700-400 ⁴⁾	400 300 ⁵⁾	50 ⁴⁾	175 100 ⁷⁾
Liquidised fuel	5	300	5	100	5	300	5	100	5	300 200 ²⁾	5	100
Gas fuel general	35	200 300 ⁵⁾	5	100	35	200 300 ⁵⁾	5	100	35	200 300 ⁵⁾	5	100
Natural gas	35	200	5	100	35	200	5	100	35	200	5	100
Coke gas	800	300	50	100	800	300	50	100	800	200	50	100
Blast furnace gas	800	300	10	100	800	300	10	100	800	300 200 ²⁾	10	100
Gas from gasification of refinery residues	800	300	5	100	800	300	5	100	800	200	5	100

Notes:

- 1) The emission limit is specified within this range by linear decrease so that the emission limit in mg.m⁻³ is equal to 2 400 - 4P, when P is the total nominal heat input power of the stationary sources in MW.
- 2) It only relates to combustion stationary sources with total nominal heat input power higher than 500 MW.
- 3) The emission limit is specified within this range by linear decrease so that the emission limit in mg.m⁻³ is equal to 3 650 – 6.5P, when P is the total nominal heat input power of the stationary sources in MW.
- 4) For combustion stationary sources with nominal heat input power < 500 MW, combustion liquid fuel with content of ash greater than 0.06 %, the emission limit of 100 mg.m⁻³ applies.
- 5) It only relates to gas turbines, including gas turbines with a combined cycle.
- 6) For combustion stationary sources whose nominal heat input power is 400 MW and higher and which will not be in operation until 31 December 2015 more than 2 000 operating hours per year, it will be calculated as a moving average for five years, the emission limit 800 mg.m⁻³ applies.
- 7) For combustion stationary sources combusting solid fuel with content of volatile combustible lower than 10 %, which was in operation a minimum of 12 months up to 1 January 2001, the emission limit of 1 200 mg.m⁻³ applies.

1.2. Specific emission limits for combustion stationary sources for which complete application was submitted for the first permit of the commissioning or similar permit according to the former legal regulations before 7 January 2013 and were commissioned no later than 7 January 2014

Type of fuel	Emission limits [mg.m ⁻³]											
	50-100 MW				> 100-300 MW				> 300 MW			
	SO ₂	NO _x	TZL	CO	SO ₂	NO _x	TZL	CO	SO ₂	NO _x	TZL	CO
Solid fuel, general	850	400	50	250	200	200	30	250	200	200	30	250
Biomass	200	400	50	250	200	300	30	250	200	200	30	250
Turf	850	400	50	250	200	200	30	250	200	200	30	250
Liquid fuel, general	850	400 120 ¹⁾	50	175	400-200 ²⁾	200 120 ¹⁾	30	175	200	200 120 ¹⁾	30	175
Liquidised fuel	5	200 50 ¹⁾	5	175	5	200 50 ¹⁾	5	175	5	200 50 ¹⁾	5	175
Gas fuel general	35	200 120 ¹⁾	5	100	35	200 120 ¹⁾	5	100	35	200 120 ¹⁾	5	100
Natural gas	35	150 50 ¹⁾	5	100	35	150 50 ¹⁾	5	100	35	100 50 ¹⁾	5	100
Coke gas	400	200 120 ¹⁾	30	100	400	200 120 ¹⁾	30	100	400	200 120 ¹⁾	30	100
Blast furnace gas	200	200 120 ¹⁾	10	100	200	200 120 ¹⁾	10	100	200	200 120 ¹⁾	10	100
Gas from gasification of refinery residues	35	200 120 ¹⁾	5	100	35	200 120 ¹⁾	5	100	35	200 120 ¹⁾	5	100

Notes:

- 1) It only relates to gas turbines, including gas turbines with combined cycle with nominal heat input power ≥ 50 MW and operating states during which 70 % of the installed heat input power is exceeded; for gas turbines used for combined production of heat and electricity with total efficiency higher than 75 %, for gas turbines with combined cycle with annual average total electrical efficiency higher than 55 % and for gas turbines for mechanical drive (gas turbines driving compressors of the distribution networks for supply of gas to the public), the emission limit 75 mg.m⁻³ applies; for other gas turbines which have an efficiency higher than 35 % (on the basis of the conditions of the International organisation for standardisation ISO) the emission limit 50 mg.m⁻³ applies.
- 2) The emission limit is specified within this range by linear decrease so that the emission limit is equal to 500 - 4P, when P is the total nominal heat input power of the stationary sources in MW.

1.3. Specific emission limits for the combustion stationary sources for which the complete application was submitted for the first permit of the operation on 7 January 2013 or later or were commissioned after 7 January 2014

Type of fuel	Emission limits [mg.m ⁻³]											
	50-100 MW				> 100-300 MW				> 300 MW			
	SO ₂	NO _x	TZL	CO	SO ₂	NO _x	TZL	CO	SO ₂	NO _x	TZL	CO
Solid fuel, general	400	300 400 ¹⁾	20	250	200	200	20	250	150 200 ²⁾	150 200 ¹⁾	10	250
Biomass	200	250	20	250	200	200	20	250	150	150	20	250
Turf	300	250	20	250	300 250 ²⁾	200	20	250	150 200 ²⁾	150	20	250
Liquid fuel, general	350	300 50 ⁵⁾	20	175 100 ⁵⁾	200	150 50 ⁵⁾	20	175 100 ⁵⁾	150	100 90 ⁵⁾	10	175 100 ⁵⁾
Liquidised fuel	5	300	20	175	5	150	20	175	5	150	10	175
Gas fuel general	35	100 50 ³⁾ 75 ⁴⁾	5	100	35	100 50 ³⁾ 75 ⁴⁾	5	100	35	100 50 ³⁾ 75 ⁴⁾	5	100
Natural gas	35	100 50 ³⁾ 75 ⁴⁾	5	100	35	100 50 ³⁾ 75 ⁴⁾	5	100	35	100 50 ³⁾ 75 ⁴⁾	5	100
Coke gas	400	100	30	100	400	100	30	100	400	100	30	100
Blast furnace gas	200	100	10	100	200	100	10	100	200	100	10	100
Gas from gasification of refinery residues	35	100	5	100	35	100	5	100	35	100	5	100

Notes:

- 1) Relates only to the combustion of powdered brown coal.
- 2) Relates only to the combustion in fluid bed.
- 3) Relates only to gas turbines with single cycle which have an efficiency greater than 35 % (specified on the basis of conditions of the International organisation for standardisation ISO) the emission limit at the level of $50 \times \eta / 35$ applies, where η is the efficiency of the gas turbine under conditions of basic loading according to ISO expressed as a percentage.
- 4) Relates only to piston combustion engines.
- 5) It only relates to gas turbines, including gas turbines with a combined cycle.

2. Specific emission limits valid up to 1 January 2016

2.1. Specific emission limits for combustion stationary sources for which complete application was submitted for the first permit of the commissioning or similar permit according to the former legal regulations before 7 January 2013 and were commissioned no later than 7 January 2014

Type of fuel	Emission limits [mg.m ⁻³]											
	50-100 MW				> 100-300 MW				> 300 MW			
	SO ₂	NO _x	TZL	CO	SO ₂	NO _x	TZL	CO	SO ₂	NO _x	TZL	CO
Solid fuel, general	400 ^{1) 2)}	300 ^{3) 4)}	30 ⁷⁾	250	250 ^{1) 2)}	200 ^{3) 7)}	25 ⁷⁾	250	200 ¹⁾	200 ^{3) 7)}	20 ⁷⁾	250
Biomass	200 ¹⁾	300 ^{3) 4)}	30	250	200 ¹⁾	250 ³⁾	20	250	200 ¹⁾	200 ³⁾	20	250
Turf	300 ¹⁾	300 ^{3) 4)}	30	250	300 ¹⁾	250 ³⁾	20	250	200 ¹⁾	200 ³⁾	20	250
Liquid fuel, general	350 ¹⁾	450 ^{3) 4)}	30 ⁷⁾	175 ⁸⁾	250 ¹⁾	200 ^{3) 6)}	25 ⁷⁾	175 ⁸⁾	200 ¹⁾	150 ^{3) 6)}	20 ⁷⁾	175 ⁸⁾
Liquidised fuel	5	200 ⁶⁾	5	100	5	200 ⁶⁾	5	100	5	200 ⁶⁾	5	100
Gas fuel general	35	200 ⁶⁾	5	100 ⁶⁾	35	200 ⁶⁾	5	100 ⁶⁾	35	200 ⁶⁾	5	100 ⁶⁾
Natural gas	35	100 ⁵⁾	5	100	35	100 ⁵⁾	5	100	35	100 ^{5) 6)}	5	100
Coke gas	400	200 ⁶⁾	30	100	400	200 ⁶⁾	30	100	400	200 ⁶⁾	30	100
Blast furnace gas	200	200 ⁶⁾	10	100	200	200 ⁶⁾	10	100	200	200 ⁶⁾	10	100
Gas from gasification of refinery residues	35 ²⁾	200 ⁶⁾	5	100	35 ²⁾	200 ⁶⁾	5	100	35 ²⁾	200 ⁶⁾	5	100

Notes:

- 1) For combustion stationary sources which are in operation more than 1 500 operating hours per year expressed as a moving average for five years for which a permit was issued or other similar permit according to the other legal regulations before 27 November 2002 or for which the operator submitted a full application for permit of operation before this date and were commissioned no later than 27 November 2003, the emission limits for SO₂ apply.
During the combustion of solid fuel, the emission limit is 800 mg.m⁻³, in the case of combustion of liquid fuel in these combustion stationary sources with total nominal heat input power not exceeding 300 MW, the emission limit is 850 mg.m⁻³ and in the case of combustion of stationary sources with total nominal heat input power higher than 300 MW the emission limit is 400 mg.m⁻³.
Emission limits mentioned in this note are also valid for individual combustion stationary sources of waste gases collected separately through only one smoke duct of the chimney and which are in operation more than 1 500 operating hours, expressed as a moving average for a period of five years if the ascertainment of emissions is performed separately.
- 2) For combustion stationary sources for which a permit for operation or another similar permit was issued according to the former legal regulations before 27 November 2002 or whose operator submitted full application for the permit for operation before this date and were commissioned no later than 27 November 2003, the emission limit for SO₂ of 800 mg.m⁻³ applies.
- 3) For combustion stationary sources which are not in operation more than 1 500 operating hours per year expressed as a moving average per five years, the following emission limits for NO_x apply.
During the combustion of liquid fuel in combustion stationary sources with total nominal heat input power higher than 500 MW, for which the first permit for operation was issued or similar permit according to the former regulations before 27 November 2002 or for which the complete application for the first permit for

operation before this date was submitted and were commissioned no later than on 27 November 2003, the emission limit is 400 mg.m^{-3} .

During the combustion of solid fuel in combustion stationary sources with total nominal heat input power higher than 500 MW, for which the first permit for operation was issued or similar permit according to the former legal regulations before 1 July 1987, the emission limit is 450 mg.m^{-3} .

During the combustion of solid or liquid fuel in combustion stationary sources with total nominal heat input power not exceeding 500 MW, for which the first permit for operation was issued or similar permit according to the former regulations before 27 November 2002 or for which the complete application for the first permit for operation before this date was submitted and were commissioned no later than 27 November 2003, the emission limit is 450 mg.m^{-3} .

Emission limits mentioned in this note are also valid for individual combustion stationary sources of waste gases collected separately through only one smoke duct of the chimney and which are in operation more than 1 500 operating hours, expressed as a moving average for a period of five years if the ascertainment of emissions is performed separately.

- 4) For the combustion of powdered brown coal in the combustion stationary sources with total nominal heat input power not exceeding 100 MW, the emission limit for NOx of 450 mg.m^{-3} applies.

For the combustion of solid and liquid residues from the distilling or processing of raw crude oil for own consumption in the combustion of stationary sources with total nominal heat input power not exceeding 500 MW, for which the first permit for operation was issued or similar permit according to the former legal regulations before 27 November 2002 or for which the complete application for the first permit for operation before this date was submitted and were commissioned no later than 27 November 2003, the emission limit 450 mg.m^{-3} is used.

For the combustion of non-commercial liquid residues from chemical production for own consumption in the combustion of stationary sources with total nominal heat input power not exceeding 500 MW in chemical facilities, for which the first permit for operation was issued or similar permit according to the former legal regulation before 27 November 2002 or for which the complete application for the first permit for operation before this date was submitted and were commissioned no later than 27 November 2003, the emission limit 450 mg.m^{-3} applies.

- 5) For gas turbines, including gas turbines with combined cycle, the emission limit is valid only in the case of loading greater than 70 %.

For gas turbines, including gas turbines with combined cycle combusting either liquid light fuel or medium distillates, the emission limit for NOx 90 mg.m^{-3} , 120 mg.m^{-3} applies if they combust other gases and 50 mg.m^{-3} if they combust natural gas.

For gas turbines working with basic loading in the case of combined production of heat and electricity with total efficiency higher than 75%, with combined cycle with the annual average total electrical efficiency higher than 55 % and for mechanical drive (gas turbines driving compressors of the distribution network of gas deliveries to the public, the emission limit for NOx of 75 mg.m^{-3} applies

For gas turbines with single cycle working in the basic loading which have efficiency higher than 35 % (specified on the basis of the conditions of the International organisation for standardisation ISO) the emission limit is valid at the level of $50 \times \eta / 35$, where η is the efficiency of the gas turbine under conditions of the basic loading according to ISO expressed as a percentage.

For gas turbines, including gas turbines with combined cycle with nominal heat input power lower than 500 MW, for which the first permit for operation was issued or similar permit according to legal regulations before 27 November 2002 or for which the complete application for the first permit of operation was submitted before this date and were commissioned no later than 27 November 2003, during the combustion of natural gas the emission limit 150 mg.m^{-3} applies and in the case of combustion of other gas fuel or liquid fuel, the emission limit 200 mg.m^{-3} .

- 6) For combustion stationary sources, with the exception of gas turbines and piston combustion engines with total nominal heat input power not exceeding 500 MW, using natural gas as fuel, for which the first permit for operation was issued or similar permit according to former legal regulations before 27 November 2002 or for which a complete application for the first permit of operation was submitted before this date and were commissioned no later than 27 November 2003, the emission limit is 300 mg.m^{-3} .

For the combustion of solid and liquid residues from the distilling or the processing of raw crude oil for own consumption in the combustion of stationary source for which the first permit for operation was issued or similar permit according to the former legal regulation before 27 November 2002 or for which the complete application for the first permit for operation before this date was submitted and were commissioned no later than 27 November 2003, the emission limit for TZL 50 mg.m^{-3} is used.

- 8) For gas turbines, including gas turbines with the combined cycle combusting as liquid fuel light and medium distillates, the emission limit for CO of 100 mg.m^{-3} is valid

2.2. Specific emission limits for combustion stationary sources for which the complete application was submitted for the first permit of the operation on 7 January 2013 or later or were commissioned after 7 January 2014

Type of fuel	Emission limits [mg.m ⁻³]											
	50-100 MW				> 100-300 MW				> 300 MW			
	SO ₂	NO _x	TZL	CO	SO ₂	NO _x	TZL	CO	SO ₂	NO _x	TZL	CO
Solid fuel, general	400	300 400 ¹⁾	20	250	200	200	20	250	150 200 ²⁾	150 200 ¹⁾	10	250
Biomass	200	250	20	250	200	200	20	250	150	150	20	250
Turf	300	250	20	250	300 250 ²⁾	200	20	250	150 200 ²⁾	150	20	250
Liquid fuel, general	350	300 50 ⁵⁾	20	175 100 ⁵⁾	200	150 50 ⁵⁾	20	175 100 ⁵⁾	150	100 90 ⁵⁾	10	175 100 ⁵⁾
Liquidised fuel	5	300	20	175	5	150	20	175	5	150	10	175
Gas fuel general	35	100 50 ³⁾ 75 ⁴⁾	5	100	35	100 50 ³⁾ 75 ⁴⁾	5	100	35	100 50 ³⁾ 75 ⁴⁾	5	100
Natural gas	35	100 50 ³⁾ 75 ⁴⁾	5	100	35	100 50 ³⁾ 75 ⁴⁾	5	100	35	100 50 ³⁾ 75 ⁴⁾	5	100
Coke gas	400	100	30	100	400	100	30	100	400	100	30	100
Blast furnace gas	200	100	10	100	200	100	10	100	200	100	10	100
Gas from gasification of refinery residues	35	100	5	100	35	100	5	100	35	100	5	100

Notes:

- 1) Relates only to the combustion of powdered brown coal.
- 2) Relates only to combustion in fluid beds.
- 3) Relates only to gas turbines with a single cycle which have efficiency greater than 35 % (specified on the basis of conditions of the International organisation for standardisation ISO), the emission limit at the level of $50 \times \eta / 35$ is valid, where η is the efficiency of the gas turbine under conditions of the basic loading according to ISO expressed as a percentage.
- 4) Relates only to piston combustion engines.
- 5) It only relates to gas turbines, including gas turbines with combined cycle.

Part II

Minimum levels of desulphurisation for combustion stationary sources with total nominal heat input power 50 MW and higher

1. Minimum levels of desulphurisation valid up to 31 December 2015

1.1 Minimum levels of desulphurisation for the combustion sources for which the first permit for operation was issued or similar permit according to former legal regulations, before 27 November 2002 or for which the complete application was issued for the first permit of the operation before this date and were commissioned no later than 27 November 2003

Total nominal heat input power	Level of desulphurisation [%]
50-100 MW	60
> 100-300 MW	75
> 300-500 MW	90
> 500 MW	94

1.2 Minimum level of desulphurisation for combustion stationary sources for which complete application was submitted for the first permit of the commissioning or similar permit according to the former legal regulations before 7 January 2013 and were commissioned no later than 7 January 2014

Total nominal heat input power	Level of desulphurisation [%]
50-300 MW	92
> 300 MW	95 ¹⁾

Note: 1) At the same time, the requirement of emission limit 400 mg.m⁻³ is valid, related to the reference content of oxygen 6 %, normal specified conditions and dry gas.

1.3 Specific levels of desulphurisation for the combustion stationary sources for which the complete application was submitted for the first permit of the operation on 7 January 2013 or later or were commissioned after 7 January 2014

Total nominal heat input power	Level of desulphurisation [%]
50-100 MW	93
> 100-300 MW	93
> 300 MW	97

2. Minimum levels of desulphurisation valid from 1 January 2016

2.1. Minimum levels of desulphurisation for the combustion sources for which the first permit for operation was issued or similar permit according to former legal regulations before 27 November 2002 or for which the complete application was issued for the first permit of the operation before this date and were commissioned no later than on 27 November 2003

Total nominal heat input power	Level of desulphurisation [%]
50-100 MW	80
> 100-300 MW	90
> 300 MW	96

2.2. Minimum level of desulphurisation for combustion stationary sources for which complete application was submitted for the first permit of the commissioning or similar permit according to the former legal regulations before 7 January 2013 and were commissioned no later than 7 January 2014

Total nominal heat input power	Level of desulphurisation [%]
50-100 MW	92
> 100-300 MW	92
> 300 MW	96

2.3. Specific levels of desulphurisation for the combustion stationary sources for which the complete application was submitted for the first permit of the operation on 7 January 2013 or later or were commissioned after 7 January 2014

Total nominal heat input power	Level of desulphurisation [%]
50-100 MW	93
> 100-300 MW	93
> 300 MW	97

Part III

Specific emission limits for combustion stationary sources with total nominal heat input power higher than 0.3 MW and lower than 50 MW

For boilers, emission limits relate to the total nominal heat input power and normal state conditions and dry gas with reference content of oxygen in waste gas of 6 % in the case of solid fuel generally, 11 % in the case of biomass and 3 % in the case of liquid and gas fuel.

For piston combustion engines, emission limits are related to the total nominal heat input power and normal state conditions and dry gas (for TZL related to wet gas), with reference content of oxygen of 5 %.

For gas turbines, emission limits relate to formal state conditions and dry gas with reference content of oxygen of 15 %.

For hot air combustion stationary sources, emission limits relate to the normal state conditions and dry gas with reference content of oxygen of 17 %.

1. Specific emission limits valid up to 31 December 2015

1.1. Specific emission limits for boilers and hot air direct heating combustion sources for which the complete application for the permit for the operation was submitted or similar permission according to former legal regulations before 1 September 2013 and were commissioned no later than on 1 September 2014

Type of fuel	Emission limits [mg.m ⁻³]											
	> 0.3 – 1 MW				> 1 – 5 MW				> 5 – 50 MW			
	SO ₂	NO _x	TZL	CO	SO ₂	NO _x	TZL	CO	SO ₂	NO _x	TZL	CO
Solid fuel, general	-	650 1 100 ²⁾	250	650	-	650 1100 ²⁾	250	650	2 500 800 ¹⁾	650 400 ¹⁾ 1 100 ²⁾	150 100 ¹⁾ 250 ⁵⁾	400 250 ¹⁾ 650 ⁵⁾
Fuel according to Section 14 para. 8	-	650	150	300	-	650	150	300	-	650	150	300
Liquid fuel	-	500	-	175	-	500	100	175	1700	450	100	175

Gas fuel and liquidised gas	-	200 300 ³⁾	-	100	-	200 300 ³⁾	-	100	900 ⁴⁾	200 300 ³⁾	50 ⁴⁾	100
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Notes:

- 1) Relates to combustion stationary sources with fluid bed.
- 2) Relates to the combustion of solid fuel in the heated fireplace.
- 3) Relates to the combustion of propane butane.
- 4) Relates to the combustion of fuel outside the public distribution networks.
- 5) Relates to the combustion of biomass.

1.2. Emission limits for boilers and hot air direct heating combustion sources for which the complete application for permission of operation was submitted by 1 September 2013 or later or were commissioned after 1 September 2014

Type of fuel	Emission limits [mg.m ⁻³]											
	> 0.3-1 MW				> 1-5 MW				> 5-50 MW			
	SO ₂	NO _x	TZL	CO	SO ₂	NO _x	TZL	CO	SO ₂	NO _x	TZL	CO
Solid fuel	-	600	100	400	-	500	50	300	1000 400 ¹⁾	400	30	300
Liquid fuel	-	130	-	80	-	130	50	80	-	130	30	80
Gas fuel and liquidised gas	-	100	-	50	-	100	-	50	-	100	-	50

Note: 1) Relates only to the combustion stationary sources with fluid bed.

1.3. Emission limits for piston combustion engines

1.3.1. Emission limits for piston combustion engines whose construction or reconstruction was commenced before 17 May 2006

Type of piston combustion engine	Type of fuel	Emission limit [mg.m ⁻³]								
		> 0.3 – 1 MW			> 1 – 5 MW			> 5 MW		
		NO _x	TZL	CO	NO _x	TZL	CO	NO _x	TZL	CO
Gas engine	Liquid fuel	500	-	650	500	130	650	500	130	650
	Natural gas and degasified gas	500	-	650	500	-	650	500	-	650
	Gas fuel general	1 000	-	1300	1 000	130	1300	500	130	650
Diesel engine	Liquid fuel	4 000	-	650	4 000	130	650	2 000	130	650
	Natural gas and degasified gas ¹⁾	4 000	-	650	4 000	-	650	2 000	-	650
	Gas fuel general	4 000	-	1 300	4 000	130	1 300	2 000	130	650

Note: 1) With injection ignition.

1.3.2. Emission limits for stationary combustion engines whose construction or reconstruction was commenced after 17 May 2006

Kind of piston combustion engine	Type of fuel	Emission limit [mg.m ⁻³]								
		> 0.3 – 1 MW			> 1 – 5 MW			> 5 MW		
		NO _x	TZL	CO	NO _x ¹⁾	TZL	CO	NO _x ¹⁾	TZL	CO
Gas engine	Liquid fuel	500	-	650	500	130	650	500	130	650
	Natural gas and degasified gas	500	-	650	500	-	650	500	-	650
	Gas fuel general	1 000	-	1 300	500	130	1300	500	130	650
Diesel engine	Liquid fuel	4 000	-	650	500 600 ²⁾	130	650	500 600 ²⁾	130	650
	Natural gas and degasified gas ¹⁾	4 000	-	650	500	-	650	500	-	650
	Gas fuel general	4 000	-	1 300	500	130	1 300	500	130	650

Notes: 1) With injection ignition.
2) Valid for heavy heating oil.

1.3.3. Emission limits for piston combustion engines for which the complete application for permission of operation was submitted by 1 September 2013 or later or were commissioned after 1 September 2014

Type of fuel	Emission limits [mg.m ⁻³]								
	> 0.3-1 MW			> 1-5 MW			> 5-50 MW		
	NO _x	TZL	CO	NO _x	TZL	CO	NO _x	TZL	CO
Liquid fuel	400	-	450	400	50	450	400	20	450
Gas fuel and liquidised gas	500	-	650	500	-	650	500	-	650

1.4. Emission limits for gas turbines

1.4.1. Emission limits for gas turbines for which the complete application for the first permit of operation was submitted or similar permission according to the former legal regulations before 1 September 2013 and were commissioned no later than 1 September 2014

Celkový jmenovitý tepelný příkon	Emisní limit [mg.m ⁻³]	
	NO _x	CO
> 0.3-5 MW	350	100 650 ¹⁾
> 5 MW	300	100 650 ¹⁾

Note: 1) Valid for gas turbines operated less than 100 hours per year.

1.4.2 Emission limits for gas turbines for which the complete application for the first perfusion of operation was submitted by 1 September 2013 or later or were commissioned after 1 September 2014

Type of fuel	Emission limits [mg.m ⁻³]					
	> 0.3-1 MW		> 1-5 MW		> 5-50 MW	
	NO _x	CO	NO _x	CO	NO _x	CO
Liquid fuel	300	100	300	100	300	100
Gas fuel and liquidised gas	250	100	50	100	50	100

2. Specific emission limits valid up to 1 January 2016

2.1. Emission limits for boilers and hot air direct heating stationary sources with the exception of backup energy sources for which complete application for permission of operation was submitted or similar permission according to former legal regulations before 1 September 2013 and were commissioned no later than by 1 September 2014

Type of fuel	Emission limits [mg.m ⁻³]											
	> 0.3-1 MW				> 1-5 MW				> 5-50 MW			
	SO ₂	NO _x	TZL	CO	SO ₂	NO _x	TZL	CO	SO ₂	NO _x	TZL	CO
Solid fuel	-	600	100	400	-	500	50	300	1000 400 ¹⁾	400	30	300
Liquid fuel	-	130	-	80	-	130	50	80	-	130	30	80
Gas fuel and liquidised gas	-	100	-	50	-	100	-	50	-	100	-	50

Note: 1) Relates only to combustion stationary sources with fluid bed.

2.2. Emission limits for piston combustion engines with the exception of backup energy sources for which the complete application for permission of operation was submitted or similar permission according to former legal regulations before 1 September 2013 and were commissioned no later than 1 September 2014

Type of fuel	Emission limits [mg.m ⁻³]								
	> 0.3-1 MW			> 1-5 MW			> 5-50 MW		
	NO _x	TZL	CO	NO _x	TZL	CO	NO _x	TZL	CO
Liquid fuel	400	-	450	400	50	450	400	20	450
Gas fuel and liquidised gas	500	-	650	500	-	650	500	-	650

2.3. Emission limits for gas turbines with the exception of backup energy sources for which the complete application for permission of operation was submitted or similar permission according to former legal regulations before 1 September 2013 and were commissioned no later than 1 September 2014

Type of fuel	Emission limits [mg.m ⁻³]					
	> 0.3-1 MW		> 1-5 MW		> 5-50 MW	
	NO _x	CO	NO _x	CO	NO _x	CO
Liquid fuel	300	100	300	100	300	100

Gas fuel and liquidised gas	250	100	50	100	50	100

Part IV

Specific emission limits for combustion stationary sources for combusting more kinds of fuel

1. For the combustion stationary source using at the same time two or more kinds of fuel, values of specific emission limits are used in the following manner:
 - a) assignment of the value of a specific emission limit corresponding to each individual fuel and the pollutant depending on the total nominal heat input power of the combusting stationary sources,
 - b) subsequent determination of the weighted value of specific emission limits according to individual kinds of fuel so that individual values of specific emission limits are multiplied by the heat input power of each fuel and this product is divided by the sum of heat inputs delivered by all fuels, and
 - c) adding up the weighted values of specific emission limits for individual fuels.
2. For combustion of the stationary source combusting more kinds of fuel in which residues from distillation and the processing of crude oil are used independently or with other kinds of fuel for own consumption, the requirements are valid irrespective of the provision of Point 1 for the combustion of the fuel with the highest specific emission limit if during the operation of the stationary source the percentage contribution that this fuel makes to the sum of heat input powers delivered by all fuels is at least 50 %. If the percentage of this fuel is lower than 50 %, the value of the specific emission limit is determined on the basis of the relative percentage of heat input power contributed by individual fuels to the sum of heat input powers of all fuels by the following procedure:
 - a) assignment of the value of the specific emission limit corresponding to each individual fuel and the respective pollutant depending on the total nominal heat input power of the combusting stationary sources,
 - b) subsequent calculation of the value of the specific emission limit for the fuel with the highest value of the specific emission limit and in the case of two fuels with the same value of the specific emission limit, the fuel with the higher heat input power (hereinafter "standard fuel"); this value is achieved by the multiplication of the value of the specific emission limit of the respective fuel by two and from this product, the value of the specific emission limit of the fuel is subtracted with the lowest value of the specific emission limit.
 - c) subsequently, weighted values of specific emission limits for individual fuels are determined which are calculated by multiplying the calculated value of the specified emission limit of the fuel by the heat input power of the standard fuel and the other individual values of the specific emission limits are multiplied by the input power delivered by each fuel and the result of the multiplication is divided by the sum of heat input powers delivered by all fuels, and
 - d) the weighted values of specific emission limits for individual fuels are added up.
3. As an alternative to Point 2 it is possible to use the following average values of the specific emission limits for sulphur dioxide (irrespective of the used combination of fuel)
 - a) for combustion stationary sources commissioned before 27 November 2003, inclusive, on average $1\,000\text{ mg/m}^3$ from all such burning stationary sources within the refinery;

b) for combustion stationary sources commissioned after 27 November 2003 on average 600 mg/m⁻³ for all such combustion stationary sources within the refinery with the exception of gas turbines and piston combustion engines.

Part V

The manner of determination of the time of the commissioning of the source and times of its disconnections from the operation

During the specification of the time of commissioning of the source and its disconnection, according to the purpose of the combustion of the stationary source the following rules must be respected:

- a) the criteria and operating parameters must be transparent, externally controlled, must enable a stable production process and ensure the protection of health and safety.
- b) the values for the loading of the commissioning of the combustion stationary source and the commencement of its removal from operation with respect to the installed technology, clearly and easily inspected partial processes or values of operating parameters related to the end of the commissioning of the stationary source and the commencement of its removal from operation.
- d) measures are specified which ensure that these periods will be minimised and the technology for reduction of emissions will be commissioned as soon as possible,
- e) the monitoring of technological and operating parameters is ensured and technical requirements for ensuring the operation of installed technologies to reduce emissions.

1. Specification of the commissioning of the stationary source and its disconnection by means of the level of loading for combustion of the stationary source for the production of electricity or for mechanical drives

For the combustion stationary sources for the production of electricity or for mechanical drives, the time of the commissioning of the stationary source terminates at the moment of reaching minimum loading for stable production.

The time of the disconnection of the combustion stationary source starts from the moment of termination of the delivery of the fuel after reaching minimum loading for stable production from which the produced electricity is not delivered into the network or is not used for mechanical driving.

The minimum loading for the definition of the end of the commissioning of the stationary source for the production of electricity and for the starting of its disconnection is expressed as a percentage of the installed electric output. The minimum loading for the definition of the end of the commissioning of the stationary source for mechanical drives and for the definition of the starting of its disconnection is expressed as a percentage of mechanical output.

2. Determination of the commissioning of the stationary source and its disconnection by means of the level of loading for combustion stationary sources for the production of heat

For combustion stationary sources for the production of heat, the time of the commissioning of the combustion stationary source terminates at the moment of reaching minimum loading for the stable production and heat which can be delivered reliably and in a safe manner into the distribution network, heat accumulator or directly used in the local industrial operation.

The time of the disconnection of the combustion stationary source for the production of heat starts at the moment of the termination of the delivery of fuel after reaching minimum loading for the stable production from which the produced heat cannot be delivered in a safe and reliable

manner into the distribution network or used directly in the local industrial operation. The minimum loading for the definition of the end of the commissioning of the stationary source for the production of heat and for the definition of the starting of its disconnection is expressed as a percentage of the nominal electrical output. The time during which the heat is accumulated from the heat storage facility and is not passed on, is not considered the commissioning of the stationary source or its disconnection and is included in the operating hours.

3. Determination of the commissioning of the stationary source and its disconnection by means of the level of loading for combustion stationary sources for the production of electricity and heat

For combustion stationary sources for the production of electricity and heat, the time of the commissioning of the stationary source and its disconnection from the operation is determined in accordance with Point 1 and Point 2.

4. Determination of the time of commissioning of the stationary source and its disconnection by means of operating parameters and partial processes

The minimum loading for stable production during the commissioning of the stationary source and its disconnection from operation is specified by means of at least three criteria and the end of commissioning of the stationary source and the beginning of its disconnection is considered the moment when at least two of the following criteria are fulfilled. Partial processes and the values of the operating parameters are specified in Points 4.1. and 4.2. and it is also possible to use the other adequate partial processes or the operating parameters if they better correspond to the technical properties of the combustion stationary source.

4.1. Partial processes related to the minimum loading for the stable production during the commissioning of the source

For boilers combusting solid fuel, it concerns the complete transfer from the use of auxiliary stabilising burners or additional heating burners for the operation only with normal fuel. For boilers combusting liquid fuel it concerns the start of the main fuel pump and the moment when the pressure of the oil burner becomes stable, and as the indicator it is possible to use the flow of the fuel. For gas turbines, the moment when the combustion regimes pass into the regime of fully stable status of combustion with the sufficiently mixed combustion mixture or idle running.

4.2. Operation parameters

- a) Content of oxygen in the waste gas
- b) Temperature of the waste gas
- c) Steam pressure
- d) For combustion stationary sources for the production of heat — enthalpy and the flow of the heat-carrying medium
- e) For combustion stationary sources combusting liquid and gas fuel — consumption of fuel,
- f) For steam boilers — temperature of the steam at the output from the boiler

REQUIREMENTS FOR THE QUALITY OF FUEL AND REPORTING ON THE QUALITY OF FUEL

Part I Requirements for the quality of fuel

1. Requirements for the quality of fuel valid up to 31 December 2013

1.1. Requirements for the quality of solid fuel for combustion stationary sources with total nominal heat input power up to 5 MW, inclusive

Qualitative index	Unit	Specification of the limit value of the qualitative index according to the total nominal heat input power of the specified stationary source.	
		≤ 0.3 MW	> 0.3-5 MW
Content in water-free status			
Calorific value	MJ·kg ⁻¹	> 12	> 10
Specific sulphur content of coal ¹⁾	g·MJ ⁻¹	< 0.9 < 0.5 ²⁾	< 0.9 < 0.5 ²⁾

Notes:

- 1) The specific sulphur content means the total content of sulphur in the original state related to the calorific value of the combusted fuel in the original state expressed in g·MJ⁻¹
- 2) Relates only to compressed pieces of coal

1.2. Requirements for the quality of fuel liquid

Qualitative index	Unit	Specification of the limit value of the qualitative index according to the specified stationary source		
		Combustion stationary sources with total nominal heat input power		Other stationary sources
		≤ 5 MW	> 5 MW	
Content in water-free status				
Calorific value	MJ·kg ⁻¹	> 32 ¹⁾	.	-
Content of sulphur and its compounds	% hm.	< 0,1 ¹⁾	< 0,1 ²⁾	< 0,1 ²⁾
Content of PCB and its compounds	g·MJ ⁻¹	< 5	< 5	< 5

Notes:

- 1) Relates only to fuel for the combustion of stationary source with total nominal heat input output up to 5 MW.
- 2) Does not relate to heavy oil for which the maximum content of sulphur and its compounds must not exceed 1 % hm. This requirement does not relate to combusted heavy heating oil
 - a) in combusting stationary sources with total nominal heat input power 50 MW and higher,
 - b) in refineries, if the monthly average of emissions of sulphur dioxide from all stationary combustion sources in the refinery with the exception of combustion stationary sources classified under Letter a), irrespective of the kind of the fuel or combination of used fuel, does not exceed 1 700 mg/m³ and this condition is specified in the permit for the operation

- c) in other stationary sources, if the emission limit for sulphur dioxide specified for them in the permit for the operation does not exceed $1\,700\text{ mg}\cdot\text{m}^{-3}$ with the content of the oxygen in burnt gases 3 % by volume, related to dry gas.

2. Requirements for the quality of fuel valid from 1 January 2014

2.1. Requirements for the quality of solid fuel

2.1.1. Requirements for the quality of solid fuel with the exception of coal, biomass and pressed pieces from coal or biomass

Qualitative index	Unit	Specification of the limit value of the qualitative index according to the specified stationary source	
		Combustion stationary sources and other stationary sources	Cement and lime kilns
Water	% hm.	$< 15^{1)}$	< 20
Content in water-free status			
Calorific value	$\text{MJ}\cdot\text{kg}^{-1}$	$> 15^{1)}$	> 15
Content of ash	% hm.	$< 25^{1)}$	-
Content of sulphur and its compounds	% hm.	< 0.3	< 8
Content of chlorine and its compounds	$\text{mg}\cdot\text{kg}^{-1}$	< 50	$< 10\,000$
Content of arsenic and its compounds	$\text{mg}\cdot\text{kg}^{-1}$	< 1	< 10
Content of cadmium and its compounds	$\text{mg}\cdot\text{kg}^{-1}$	< 0.5	< 5
Content of mercury and its compounds	$\text{mg}\cdot\text{kg}^{-1}$	< 0.05	< 0.05
Content of lead and its compounds	$\text{mg}\cdot\text{kg}^{-1}$	< 10	< 300

Notes:

- 1) Relates only to fuel for the combustion of stationary sources with total nominal heat input output up to 5 MW.

2.1.2. Requirements for the quality of coal and pressed pieces from coal for combustion stationary sources with total nominal heat input power up to 5 MW, inclusive

Qualitative index	Unit	Specification of the limit value of the qualitative index according to the total nominal heat input power of the specified stationary source.	
		$\leq 0.3\text{ MW}$	$> 0.3\text{-}5\text{ MW}$
Water	% hm.	< 33	< 35
Content in water-free status			

Calorific value	MJ·kg ⁻¹	> 15	> 15
Content of ash	% hm.	< 13	< 20
Specific sulphur content ¹⁾	g·MJ ⁻¹	< 0,65 ²⁾ < 0,5 ³⁾	< 0,75 ²⁾ < 0,5 ³⁾

Notes:

1) The specific sulphur content means the total content of sulphur in the original state related to the calorific value of the combusted fuel in the original state expressed in g.MJ⁻¹

2) The specific sulphur content of brown coal with the exception of coal pressed pieces can be higher by 31 December 2013 than 0.75 g.MJ⁻¹, however, it must not exceed 0.95 g.MJ⁻¹.

3) Relates only to pressed pieces from coal

2.1.3. Requirements for the quality of pressed pieces for combustion stationary sources with total nominal heat input power up to 5 MW, inclusive

Qualitative index	Unit	Specification of the limit value of the qualitative index according to the total nominal heat input power of the specified stationary source.	
		≤ 0.3 MW	> 0.3-5 MW
Water	% hm.	< 15 ¹⁾	< 20
Content in water-free status			
Calorific value	MJ·kg ⁻¹	> 15	> 13
Content of ash	% hm.	< 10	< 25
Content of chlorine and its compounds	mg·kg ⁻¹	< 10 000	< 10 000
Content of arsenic and its compounds	mg·kg ⁻¹	< 5	< 5
Content of cadmium and its compounds	mg·kg ⁻¹	< 1.05	< 1.5
Content of mercury and its compounds	mg·kg ⁻¹	< 0.05	< 0.05
Content of lead and its compounds	mg·kg ⁻¹	< 10	< 10

2.2. Requirements for the quality of fuel liquid

Qualitative index	Unit	Specification of limit value of qualitative index
Water	% hm.	< 2 ¹⁾
Content in water-free status		
Calorific value	MJ·kg ⁻¹	> 32 ¹⁾
Content of sulphur and its compounds	% hm.	< 0.1 ²⁾
Content of chlorine and its compounds	mg·kg ⁻¹	< 50
Content of arsenic and its compounds	mg·kg ⁻¹	< 10
Content of cadmium and its compounds	mg·kg ⁻¹	< 0.1
Content of mercury and its compounds	mg·kg ⁻¹	< 0.05
Content of lead and its compounds	mg·kg ⁻¹	< 10

Content of PCB and its compounds	mg·kg ⁻¹	< 5
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Notes:

- 1) Relates only to fuel for the combustion of stationary source with total nominal heat input output up to 5 MW.
- 2) Does not relate to heavy oil for which the maximum content of sulphur and its compounds must not exceed 1 % hm. This requirement does not relate to combusted heavy heating oil
 - a) in combustion stationary sources with total nominal heat input power 50 MW and higher,
 - b) in refineries, if the monthly average of emissions of sulphur dioxide from all stationary combustion sources in the refinery with the exception of combustion stationary sources classified under Letter a), irrespective of the kind of the fuel or combination of used fuel, does not exceed 1 700 mg/m³ and this condition is specified in the permit for the operation
 - c) in other stationary sources if the emission limit for sulphur dioxide specified for them in the permit for the operation does not exceed 1 700 mg.m⁻³ with the content of the oxygen in burnt gases 3 % by volume, related to dry gas.

2.3. Requirements for the quality of gas fuel for stationary sources with total nominal heat input power up to 5 MW inclusive, with the exception of natural and degasifying gas

Qualitative index	Unit	Specification of limit value of qualitative index
Content in water-free status		
Content of sulphur and its compounds	mg·m ⁻³	< 1 000 ¹⁾
Content of chlorine and its compounds	mg·m ⁻³	< 50

Note:

- 1) Expressed as a quarter average from a minimum of 3 samples taken proportionally in time.

Part II

Report on the quality of fuel

For the purpose of this part of the Annex, the following definitions apply

a) gas oil is any liquid fuel produced from crude oil which is not vessel fuel⁴⁾, indicated under Codes 2710 19 25, 2710 19 29, 2710 19 45, or 2710 19 49 of the combined nomenclature⁵⁾, or any liquid fuel, which is not vessel fuel²⁾, from which it is possible to pre-distil up to a temperature 250 °C according to the method of technical standard ČSN EN ISO 3405 less than 65 % by volume, including losses and from a temperature 350 °C a minimum of 85 % by volume is pre-distilled, including losses.

b) heavy heating oil is any liquid oil from crude oil which is not vessel fuel²⁾ or gas oil mentioned under Codes 2710 19 51 to 2710 19 69 of the combined nomenclature³⁾, where due to its distillation range it is classified into the category of heavy heating oils designated for the use of fuel from which it is possible to pre-distil up to a temperature 250 °C according to the method of technical Standard ČSN EN ISO 3405 less than 65 % volume, including losses; if it is not possible to perform distillation according to this method, the product is considered heavy heating oil.

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⁴⁾ Regulation No /2012 Coll., on stating the requirements for the quality of fuel used for inland and marine vessels from the viewpoint of air protection.

5 ⁵⁾ Council Regulation (EEC) No 2658/87 of 23 July 1987 on the tariff and statistical nomenclature and on the Common Customs Tariffs, as amended.

Reported year										
Indication of person mentioned in Section 16(1) of the Act ¹⁾										
Address ²⁾										
ID number (IČ)/date of birth ³⁾										
Type of fuel	Data on the volume of fuel (t/year)			Data about results of fuel analysis						
	Manufacturing	Import ⁴⁾	Distribution ⁵⁾	Number of analysed samples	Content of sulphur (% by weight, g.MJ ⁻¹ .)			Calorific value (MJ.kg ⁻¹)		
					Annual average	Minimum	Maximum	Annual average	Minimum	Maximum
Heavy heating oil with content of sulphur ≤ 1 % by weight										
Heavy heating oil with content of sulphur ≤ 1-3 % by weight										
Heavy heating oil with content of sulphur > 3 % by weight										
Gas oil										
Type of solid fuel ⁶⁾										

Notes:

1) In the case of a corporate body – name and legal form; in the case of a natural person – name and surname.

- 2) In the case of a corporate body, address of the registered office, in the case of a natural person, address of residence; in the case of a foreign person, for natural persons, address of the place of stay or the address of residence and for corporate bodies, address of the registered office outside the Czech Republic.
- 3) Identification number is mentioned if it has been assigned; in the case of a natural person to whom the identification number was not assigned, the date of birth is mentioned.
- 4) Deliveries from import from countries outside the European Community.
- 5) Deliveries from cross-border transport from countries of the European Community for the purpose of distribution in the Czech Republic
- 6) The specific type of fuel is indicated, e.g. brown coal, black coal, coke, biomass (wooden pellets, wooden briquettes, pellets from phytomass, briquettes from phytomass, etc.), etc.

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CONDITIONS FOR THE OPERATION FOR STATIONARY SOURCES THERMALLY PROCESSING WASTE

Part I Specific emission limits

1. Specific emission limits for combustion of waste

Emission limits for waste incineration plants to the total nominal capacity and the normal state conditions and dry gas with reference content of oxygen in the waste gas of 11 %. For the combustion of waste oils, the emission limits relate to the reference content of oxygen in the waste gas of 3 %.

1.1. Emission limits for polluting materials determined primarily by continuous measurement

Polluting substances	Emission limit ¹⁾ [mg.m ⁻³]			
	Daily average	Half-hour averages		10-minute average
		97%	100%	
TZL	10	10	30	
NO _x	400 ²⁾ 200	200	400	
SO ₂	50	50	200	
TOC	10	20	30	
HCl	10	10	60	
HF	1	2	4	
CO	50		100 ³⁾	150 ³⁾

Notes:

- 1) In the case of failure, under any circumstances, specific emission limits must not be exceeded for the total organic carbon and carbon monoxide specified according to this table and concentration of solid polluting materials of 150 mg.m⁻³, expressed as the average half-hour value.
- 2) It only relates to stationary sources thermally processing wastes with total nominal capacity lower than 6 t.h⁻¹, permitted for thermal processing of waste before 28 November 2002 and commissioned no later than 28 December 2003 or if the operator submitted the full application for the permit before 28 December 2002 under the condition that the stationary source was commissioned no later than 28 December 2004. The obligation to fulfil half-hour averages of concentrations of NO_x does not relate to these stationary sources. .
- 3) For waste incineration plants with fluid beds, the competent body may permit exceptions from the emissions limits for CO, if, at the same time, in the permit there is an emission limit expressed as the average hourly value with a maximum of 100 mg.m⁻³.

1.2. Emission limits for polluting materials determined primarily by single measurement

Polluting materials	Emission limit
Cd+Tl and their compounds ¹⁾	0.05 mg.m ⁻³
Hg and its compounds ¹⁾	0.05 mg.m ⁻³
Sb+As+Pb+Cr+Co+Cu+Mn+Ni+V and their compounds ¹⁾	0.5 mg.m ⁻³
PCDD/F ²⁾	0.1 ng TEQ.m ⁻³

2. Specific emission limits for stationary sources thermally processing waste together with fuel, other than waste incinerators

2.1 Specific emission limits for cement furnaces thermally processing waste together with the fuel

Emission limits relate to normal state conditions, dry gas, and a reference content of oxygen of 10 % and represent, in the case of continuous measurement, the average daily value. In addition, emission limits are applied to heavy metals and PCDD/F as in Point 1.2, Part I of this Annex

Polluting substances	Emission limit
TZL	30
NO _x	800 ¹⁾ 500
SO ₂	50 ²⁾
TOC	10 ²⁾
HCl	10
HF	1

Notes:

- 1) It relates to equipment which is in operation and was permitted up to 28 December 2002 according to the legal regulation valid before 1 July 2002, or which is not in operation, but was permitted for thermal processing of waste up to 28 December 2002 according to the legal regulations valid before 1 July 2002 and was commissioned up to 28 December 2003, or which is not in operation, but the application was submitted for permit of operation according to the legal regulations valid before 1 July 2002.
- 2) In the event that during the combustion of waste, emissions of sulphur dioxide are not originated in a proven manner or the total organic carbon by the combustion of waste, the regional office may state emission limits for these polluting materials according to Annex 8 to this Regulation.

2.2 Specific emission limits for stationary sources thermally processing waste together with fuel other than waste incineration plants and cement rotary furnaces

Specific emission limits for combustion stationary sources relate to the total nominal heat input power and normal state conditions, dry gas, for solid fuel they relate to the calculated reference content of oxygen.

Emission limits specified as daily averages for TZL, NO_x, SO₂, TOC, HCl, and HF for thermal processing of waste, together with the fuel, are calculated according to the following formula:

V_{odpad}	:	The volume of waste gas originated by thermal processing only from the waste specified according to the waste with the lowest calorific value specified in the permit and recalculated according to the respective conditions specified in this Regulation. If the heat released during the thermal processing of hazardous waste is lower than 10 % of the total heat released in this equipment, the value V_{odpad} is calculated from the (theoretical) volume of waste by combustion of which, 10 % of the released heat would be reached at the specified value of the total released heat.
C_{odpad}	:	Emission limits specified in Part I of this Annex.
V_{proc}	:	Volume of waste gas originated in the stationary source by the combustion of permitted fuel specified on the basis of the reference content of oxygen to which emissions must be recalculated in accordance with this Regulation. If for the type of stationary source, the reference content of oxygen is not specified, the actual content of oxygen in the waste gas will be used, not diluted by the addition of air which is excessive for own process.
C_{proc}	:	Emission limits specified in this part or if these values do not exist, emission limits specified by this regulation for combustion of fuel or specified in the permit for the operation. If for some industrial activities these emission limits are not specified, actual mass concentrations will be used.
C	:	Emission limits related to the reference content of oxygen specified in Part 2 of this Annex or if such values do not exist, emission limits with which emission limits specified in specific annexes of this Regulation are replaced. The total content of oxygen by which the content of oxygen is replaced after the recalculation, is calculated on the basis of the content of oxygen when respecting partial volumes.

In addition, emission limits are applied to heavy metals and PCDD/F as in Part I 1.2 of this Regulation.

In other stationary sources permitted for thermal processing of waste, the emission limit for Sb+As+Pb+Cr+Co+Cu+Mn+Ni+V will not be applied, the emission limits of Part I 1.2 are mentioned for these stationary part without the calculation for the reference content of oxygen. For combustion stationary sources thermally processing waste for which, due to the properties of the combusted coal used in the Czech Republic and specifically constructed for this fuel, it is not possible to fulfil specific emission limits for sulphur dioxide resulting from this annex, at least the level of desulphurisation must be fulfilled specified in Part II of Annex 2 to this regulation. The required levels of desulphurisation are considered fulfilled if the conditions are fulfilled specified in Section 14(2).

2.2.1. The values C_{proc} , expressed as daily average values for combustion stationary sources with the exception of gas turbines and gas engines valid up to 31 December 2015

Type of fuel	Emission limits [$mg.m^{-3}$]											
	< 50 MW			50-100 MW			> 100-300 MW			> 300 MW		
	SO ₂	NO _x	TZL	SO ₂	NO _x	TZL	SO ₂	NO _x	TZL	SO ₂	NO _x	TZL
Solid fuel, general	-	-	50	850	400	50	200	200	30	200	200	30
Biomass	-	-	50	200	350	50	200	300	30	200	200	30
Liquid fuel	-	-	50	850	400	50	400-200 ¹⁾	200	30	200	200	30

Note: 1) The value C_{proc} is specified in this range by linear decrease so that it is equal to 500 - P, where P is the total nominal heat input power of combustion stationary sources in MW.

2.2.2. Values C_{proc} for combustion stationary sources with the exception of gas turbines and gas engines valid from 1 January 2016

2.2.2.1. Values C_{proc} , expressed as daily average values for stationary combustion sources for which the complete application for the first permit of operation was submitted before 7 January 2013 and were commissioned no later than 7 January 2014

Type of fuel	values C_{proc} [$mg \cdot m^{-3}$]											
	< 50 MW			50-100 MW			> 100-300 MW			> 300 MW		
	SO ₂	NO _x	TZL	SO ₂	NO _x	TZL	SO ₂	NO _x	TZL	SO ₂	NO _x	TZL
Solid fuel, general	-	-	50	400	300 400 ¹⁾	30	200	200	25	200	200	20
Turf	-	-	50	300	400	30	200	200	20	200	200	20
Biomass	-	-	50	200	300	30	200	250	20	200	200	20
Liquid fuel	-	-	50	350	400	30	250	200	25	200	150	20

Note: 1) Valid for powdered brown coal

2.2.2.2. The values C_{proc} for combustion sources for which the complete application for the first commissioning was submitted on 7 January 2013 or later or were commissioned after 7 January 2014

Type of fuel	Values C_{proc} [$mg \cdot m^{-3}$]											
	< 50 MW			50-100 MW			> 100-300 MW			> 300 MW		
	SO ₂	NO _x	TZL	SO ₂	NO _x	TZL	SO ₂	NO _x	TZL	SO ₂	NO _x	TZL
Solid fuel, general	-	-	50	400	300	20	200	200	20	150 200 ¹⁾	150 200 ²⁾	10
Turf	-	-	50	300	250	20	300 250 ³⁾	200	20	150 200 ³⁾	150	20
Biomass	-	-	50	200	250	20	200	200	20	150	150	20
Liquid fuel	-	-	50	350	300	20	200	150	20	150	100	10

Notes:

- 1) Valid for circulation or pressure combustion in the fluid bed
- 2) Valid for the combustion of powdered brown coal
- 3) Valid for combustion in the fluid bed

2.3. Specific emission limits for stationary sources thermally processing waste other than waste incineration plants, cement furnaces and combustion stationary sources

These stationary sources are subject to emission limits for PCDD/F, mercury, cadmium, and thallium mentioned in Part I. 1.2 expressed as the average value without recalculation according to the reference content of oxygen.

Part II

Technical conditions for operation

(1) In the storage tank of stationary sources thermally processing communal waste, permanent underpressure is kept and the exhausted air is supplied into the fireplace. If the combustion is not running, the air exhausted from the storage tank of waste is collected into air duct approved in the permit for the operation.

(2) Stationary sources thermally processing waste are constructed and operated in the manner which ensures that

- a) sufficient time for the residence of the processed waste in the space is ensured where there is thermal processing for the purpose of perfect combustion of thermal decomposition so that the clinker and ash contain less than 3 % of the total organic carbon or that the loss by annealing must be lower than 5 % of the weight of the dry material.
- b) the waste gas, after the last injection of the combustion air in a controlled manner, is heated in all places of the profile of the flow of waste gas even under the least favourable conditions, at a temperature of 850 °C during a minimum time of two seconds, measured near the inside wall or in another representative place of the combustion chamber approved with the permit for operation; if hazardous waste is combusted with the content of organic compounds of chlorine higher than 1 %, this temperature must reach a minimum of 1 100 °C during the minimum time of two seconds,
- c) in the incineration plant, a minimum of one auxiliary burner is activated in each combustion chamber which must not combust the fuel the combustion of which would produce higher emissions than the combustion of gas oil, liquidised gas, or natural gas in the following cases:
 - 1st during the commissioning of the stationary source thermally processing waste and its disconnection with the aim to ensure that the specified temperature in the space in which there is thermal processing of waste will be maintained during the whole of this time as long as in the space where there is thermal processing of waste, there is some non-combusted waste,
 - 2nd if the temperature of the waste gas after the last injection of the combustion air drops below the specified temperature of 850 °C or 1 100 °C according to the thermally processed waste, or
 - 3rd if the continuous measurement of emissions shows that some of the specific emission limits according to Point 1.1, Part I of this annex are exceeded;
- d) during the commissioning of the stationary source and during its disconnection, in the case of the temperature dropping below the specified minimum limit according to Letter b) or in the case any of the specific emission limits being exceeded, there will be automatic prevention of the supply of waste into the space where there is thermal processing of waste by direct oxidation.

(3) On request by the operator and in the case that the other requirements stated by this Regulation are fulfilled and specific emission limits for the total organic carbon and carbon monoxide, it is possible to mention in the permit for the operating conditions for certain

categories and kinds of waste and certain technological procedures in a different manner to the conditions specified in Point 2(a) to (d), if these changes do not result in the production of a greater volume of solid residues or a higher content of organic matter in solid residues than when meeting the conditions according to Point 1 and if in the permit there is a specification of continuous measurement of these parameters

(4) Waste from medical and veterinary care for which special requirements are specified for collection and disposal, is doped without the necessity to mix it with other kinds of wastes or to handle it in a special manner.

(5) A minimum of once during the first commissioning of the stationary source in which thermal processing of waste is permitted, in the case of the least favourable operating conditions, the time of the presence of waste gas is verified at the specified minimum temperature after the last supply of the combustion air according to Point 2. At the same time, the content of the oxygen in the waste gas is ascertained.

(6) Without the application of the provision of Point 2(d), the time of the duration of the operation of stationary sources thermally processing waste in the case of exceeding of specific emission limits must not exceed 4 continuous hours and, at the same time, the time of duration of the operation in the case that specific emission limits are exceeded in one calendar year must not exceed 60 hours. This applies to all stationary sources where waste gases are collected into the same technology for reducing emissions.

**SPECIFIC EMISSION LIMITS, EMISSION CEILINGS, AND TECHNICAL
CONDITIONS FOR THE OPERATION OF STATIONARY SOURCES IN WHICH
THERE IS USE
OF ORGANIC SOLVENTS, THE METHOD OF PERFORMING THE ANNUAL
WEIGHT BALANCE OF VOLATILE ORGANIC MATTER**

**Part I
General provisions and terms**

1. For the purpose of this annex, the following abbreviations and terms are used:

- i. **TOC – total organic carbon**
- ii. **VOC – volatile organic matter**
- iii. **TZL – solid pollutant**
- iv. Fugitive emissions of volatile organic matter which means any emission of volatile organic matter which does not escape into the air through the chimney or outlet.
- v. The term activity used in this annex also includes cleaning of the process equipment and the cleaning of working premises; however, it does not include cleaning of products, unless specified otherwise below.
- vi. Consumption of organic solvents/VOC/powdered plastics which means the total input volume of organic solvents/VOC/powdered plastics to the source per calendar or current year decreased by all organic solvents/VOC/powdered plastics which were regenerated within the specified source for repeated use as the input in the specified source.

2. Requirements for the fulfilment of specific emission limits

- i. For stationary sources emitting volatile organic matter according to Section 20(a), in the case of the total mass flow of these polluting materials not greater than 10 g/h, the emission limit for volatile organic matter of 2 mg/m³ must not be exceeded which is expressed as the total concentration by weight.
- ii. For stationary sources emitting volatile organic matter according to Section 20(a), in the case of the total mass flow of these polluting materials not greater or equal to 100 g/h, the emission limit for volatile organic matter of 20 mg/m³ must not be exceeded which is expressed and the total weight concentration. This emission limit does not relate to the chemical cleaning mentioned under Point 3 of this part of the annex.
- iii. The emission limit specified in this annex is not applied if for the stationary source, despite the use of the best technology, it is not economically and technically possible to achieve the specified emission limit VOC, expressed as the ratio of the weight of fugitive emission and the weight of input organic solvents and, at the same time, this does not produce significant risks to human health or the environment.
- iv. Emission limits are applied under normal conditions in wet gas.

3. Technical conditions for the operation of stationary sources

The operator of the stationary source mentioned in this annex using volatile organic matter according to Section 20(a) or mixtures containing this matter, replaces this matter or mixtures containing this matter as soon as possible and to the maximum extent possible by less hazardous matter or mixtures

Part II

Specific emission limits and technical conditions of operation

1. Printing industry (Codes 9.1. to 9.4. of Annex 2 to the Act)

Printing activities in Sub-points 1.1.–1.4. include processes and operations of the reproduction of text or image in which the printed form of image or text is used and where printing paint is transferred to any type of surfaces. These activities also include related procedures, production of printed form, and its transfer, laminating, coating, and varnishing.

The printing paint means a mixture, including all organic solvents or mixtures containing organic solvents necessary for its correct use which is used for printing of text or images on certain surfaces.

1.1. Offset printing with projected consumption of organic solvents from 0.6 t/year

The projected consumption of organic solvents [t/year]	Emission limit	
	TOC [mg/m ³]	VOC ¹⁾ [%]
0.6 – 15	50	-
> 15	20	30

Note: 1) The ratio of weight of fugitive emissions to the weight of input organic solvents, and residues or organic solvents in end-products are not considered part of fugitive emissions.

1.2. Publication gravure printing with projected consumption of organic solvents from 0.6 t/year

The projected consumption of organic solvents [t/year]	Emission limit	
	TOC [mg/m ³]	VOC ¹⁾ [%]
0.6 – 15	50	-
> 15	50	10

Note: 1) Ratio of the weight of fugitive emissions and weight of input organic solvents.

1.3. Other printing activities with projected consumption of organic solvents from 0.6 t/year

Activity	The projected consumption of organic solvents [t/year]	Emission limit	
		TOC [mg/m ³]	VOC ¹⁾ [%]
rotary screen printing on textiles and cardboard	0.6 – 15	50	-
	> 15 – 30	50	25
	> 30	50	20

rotary roll screen printing, other gravure printing, rubber printing, laminating, coating, varnishing	0.6 – 15	50	-
	> 15 – 25	50	25
	> 25	50	20

Note: 1) Ratio of the weight of fugitive emissions and weight of input organic solvents.

1.4. Book printing with projected consumption of organic solvents from 0.6 t/year

The projected consumption of organic solvents [t/year]	Emission limit	
	TOC [mg/m ³]	VOC ¹⁾ [%]
0.6 – 15	50	-
> 15	50	15

Note: 1) Ratio of the weight of fugitive emissions and weight of input organic solvents.

2. Degreasing and cleaning of surfaces (code 9.5.–9.6. of Annex 2 to the Act)

Sub-activities 2.1. and 2.2. include any processes during which organic solvents are used to remove dirt from the surface of materials, degreasing, removing of coatings, removing of varnish, and other surface treatment of production semi-products and products.

These activities do not relate to chemical cleaning which is listed as an independent activity in Point 3. Moreover, these activities are not related to the cleaning of working premises and cleaning of the process equipment.

2.1. Degreasing and cleaning of surfaces by detergents containing volatile organic matter according to Section 20(a) with projected consumption of solvents from 0.01 t/year; degreasing and cleaning of surfaces by detergents containing volatile organic matters according to

Section 20(b) with projected consumption of organic solvents from 0.1 t/year

These activities must not be performed outside devices which are equipped with a system for capturing vapours with recycling of organic solvents.

Projected consumption of organic solvents [t/year]	Emission limit		
	VOC [mg/m ³]	mass flow [g/h]	VOC ²⁾ [%]
>1 - 5	20 2 ¹⁾	100 10 ¹⁾	15
> 5	20 2 ¹⁾	100 10 ¹⁾	10

Notes:

1) Valid for stationary sources using organic solvents containing volatile organic matter according to Section 20(a).

2) The ratio of the weight of fugitive emissions and weight of input organic solvents.

2.2. Degreasing and cleaning of the surface by media containing volatile organic matter which are mentioned under Code 2.1., with projected consumption of organic solvents from 0.6 t/year

Projected consumption of organic solvents [t/year]	Emission limit	
	TOC [mg/m ³]	VOC ²⁾ [%]
> 2 - 10	75 ¹	20 ¹
>10	50 ¹	15 ¹

Notes:

- 1) The emission limit is not applied in the case that during the operation, cleaning detergents are exclusively used with average content of organic solvents not exceeding 30 % by weight.
- 2) The ratio of the weight of fugitive emissions and weight of input organic solvents.

The degreasing and cleaning of surfaces may be performed in the specified premises, mainly with the use of degreasing tables or similar equipment where it is technically possible. The used organic solvents are collected, stored, and handed over for the further use or removing.

2.2.1. Single activities of degreasing and cleaning which, due to the excessive size of the degreased surfaces are performed outside premises of degreasing units or paint shops and their consumption of organic solvents is greater than 0.1 tons

During these activities the following technical conditions of the operating unit must be met: the average content of organic solvents in all cleaning detergents used does not exceed 30 % by weight in cases where it is possible, and organic solvents are not used containing volatile organic matter according to Section 20(a) or (b). The organic solvents used are collected, stored and handed over for further use or removal.

3. Chemical cleaning (Code 9.7. Annex 2 to the Act))

Chemical cleaning includes activities using organic solvents in equipment for cleaning of cloth, equipment of flats and small consumer items with the exception of manual removal of spots and dirt in the textile and clothing industry which are classified under the activities mentioned in Sub-points 2.1. and 2.2. of this Annex.

This equipment must be equipped with a system for collection of vapours with full recycling of organic solvents.

Projected consumption of organic solvents [t/year]	Emission limit
	VOC ¹⁾ [g/kg]
> 0	20

Note:

- 1) Ratio of weight of emissions of organic matters and the total weight of cleaned and dried product.

4. Application of coating materials (Code 9.8–9.14. of the Annex 2 to the Act)

The application of coating materials means any activity which includes the simple or multiple application of a continuous film of coating materials on various types of surface, including related processes of exhaust, drying, and burning.

If the application of coating materials includes the operation during which the same product is imprinted by high-quality printing technology, this printing operation is considered coating. However, printing activities are not included into these activities.

The coating substance means any mixture, including transparent varnish and all organic solvents or mixtures containing organic solvents necessary for the correct use, creation of films with decorative, or other functional effect on certain surfaces.

4.1. Application of coating materials, including cataphoretic application, are not classified under activities mentioned in Sub-points 4.2. to 4.7., with projected consumption of solvents from 0.6 t/year

Activity	Projected consumption of organic solvents [t/year]	Emission limit	
		TOC ^(1), 2) [g/m ²]	VOC ⁽³⁾ [%]
application of coating materials	0.6 – 5	90	-
	> 5	60	20
application of coating materials – mass and continuous	> 5	45	20

Notes:

- 1) The ratio of weight of emissions of volatile organic matters expressed as TOC to the total size of the area if the end-product with the coat irrespective of the number of applied coats.
- 2) If it is not **technically and economically** to achieve the specified values of the emission limit in g/m², or if it is not possible to state the size of the treated surface, the emission limit TOC 50 mg/m³ must not be exceeded in any duct for waste gas from individual areas — application, exhaust, drying, burning
- 3) The ratio of the weight of fugitive emissions and weight of input organic solvents.

4.1.1. Single applications of coating materials which, due to excessive size of the coated surfaces are performed outside premises of paint shops whose consumption of organic solvents is higher than 0.1 tonne

These activities include single application coating materials, such as coating of over-sized parts outside premises of paint shops at the site of the operating units or coating of inside and outside areas, in particular, buildings, constructions, pylons, etc.

Technical condition for operation:

Taking suitable measures to minimise emission of heavy volatile organic matter, e.g. by the use of coating materials with reduced content of organic solvents, selection of the suitable application technology (application of coating materials by rolling brush), restriction of over-spraying.

4.2. Coatings of wooden surfaces with projected consumption of organic solvents from 0.6 t/year

Projected consumption of organic solvents [t/year]	Emission limit	
	TOC [mg/m ³]	VOC ⁽³⁾ [%]
0.6 – 5	100	-
> 5	50 ¹⁾ 75 ²⁾	20

Notes:

- 1) Valid for drying processes
- 2) Valid for the process of the application of coating materials.
- 3) The ratio of the weight of fugitive emissions to the weight of input organic solvents.

4.3. Spraying of cars — repair industry with projected consumption of organic solvents from 0.5 t/year and coatings during the production of new road and railway vehicles with projected consumption of organic solvents lower than 15 tonnes/year

Any activity which includes single or multiple application of continuous coating films and related operations of degreasing whereby

- a) the application of coatings is performed on road and railways vehicles and their parts performed as part of repairs, preservation, or decoration of vehicles outside the original manufacturing facility,
- b) application of original coatings on road and railway vehicles and their parts with the use of products designated for the spraying of vehicles which is performed outside the manufacturing facility,
- c) application of coatings on trailers (including semi-trailers),
- d) Coatings during the production of new road and railway vehicles with projected consumption of organic solvents less than 15 tonnes per year.

Projected consumption of organic solvents [t/year]	Emission limit	
	TOC [mg/m ³]	VOC ¹⁾ [%]
> 0.5	50 ²⁾	25 ²⁾

Notes:

- 1) The ratio of the weight of fugitive emissions to the weight of input organic solvents.
- 2) The emission limit is not applied in the case of the source mentioned in Letter a), during the operation of the source, selected products are exclusively used which are mentioned in Part I, Category B of Annex 6 to this Regulation which fulfil limit values of the content of VOC specified for these products in Point 2, Part II of Annex 6 to this Regulation.

From the effective date of 1 January 2014 the sources classified under the activity mentioned under the Letter a), this technical condition is applied instead of the above-mentioned emission limits TOC and VOC: In the mentioned sources selected, sources are exclusively used in Part I of Category B of Annex 6 to this regulation fulfilling limit values of the content of VOC specified for these products in Point 2, Part II of Annex No. 6 to this Regulation.

4.4. Application of powdered plastics

Projected consumption of organic solvents [t/year]	Emission limit
	TOC ¹⁾ [mg/m ³]
≥ 1	50

Note: 1) It concerns the burning and cooling of products.

4.5. Coating of leather with projected consumption of organic solvents from 5 t/year

Projected consumption of organic solvents [t/year]	Emission limit
	VOC ¹⁾ [g/m ²]
> 5	75 150 ²⁾

Notes:

- 1) Ratio of weight of emissions of volatile organic substances to the total area of the product.
- 2) Valid for coatings of flat accessories and small items, such as bags, wallets, belts, and others.

4.6. Coats of belts and rolls

Any activity during which a continuous film is applied on the belt rolls of metal and other materials.

Projected consumption of organic solvents [t/year]	Emission limit	
	TOC [mg/m ³]	VOC ²⁾ [%]
> 5	50 150 ¹⁾	5

Notes:

- 1) Valid for stationary sources which repeatedly use regenerated organic solvents.
- 2) The ratio of the weight of fugitive emissions to the weight of input organic solvents.

4.7. Coatings during the production of road and railway vehicles with projected consumption of organic solvents from 15 t/year

The area of the product provided with the coating in the case of the products mentioned in this part is defined as

- a) the area of the surface calculated as the part of the total area of the surface provided with an electrophoretic applied layer of the coating matter and the area of all parts connected to the product in the further phases of production which are coated with the same coating system, or
- b) total area of the surface of the product provided with coating materials in the specified facility.

The area of the surface provided with an electrophoretic application layer of the coating matter is calculated from the formula:

$$[2 \times \text{weight of the body}] / [\text{average thickness of metal sheet} \times \text{density of material of the metal sheet}]$$

It is possible to use this method also for other products made of metal sheet. For the calculation of the total area of the surface of the product provided in the specified equipment with a layer of the coating material, it is possible to use software systems or other equivalent methods. The unit for the calculation of the area of the surface is m².

For coatings during the production of road and railway vehicles with the annual projected consumption of organic solvents from 15 tonnes/year, values in the following table are valid. For coatings during the production of new road and railways vehicles with annual projected consumption of organic solvents lower than 15 t/year, requirements are specified in Sub-point 4.3. of this annex — Spraying of vehicles - repair industry.

Activity	Annual production [pieces]	Emission limit
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		VOC ^{1), 2)} [g/m ²]
coatings of new passenger cars	> 5 000	45
	≤ 5 000 self-bearing bodies or > 3 500 bodies mounted on the chassis	90
coatings of new bodies of vehicles and vans	≤ 5 000	65
	> 5 000	55
coatings of new vehicles	≤ 2 500	90
	> 2 500	70
coatings of new buses, trolley-buses, and railway vehicles	≤ 2 000	90
	> 2 000	70

Notes:

- 1) Ratio of the weight of emissions of volatile organic substances to the total area of the product. The value of the ratio is related to all phases of the process operated in the same facility by electrophoretic application or any other type of process for application of coating materials, including final preservation by wax and polishing of the upper coat, including the use of organic solvents for cleaning of the operating equipment.
- 2) If it is not possible to achieve these values, the emission limit TOC 50 mg/m³ must not be exceeded.

5. Winding wires with projected consumption of organic solvents from 0.6 tonnes per year (Code 9.15. of Annex 2 to the Act)

Any activity of coating metal conductors used for winding coils in transformers, motors, etc.

Projected consumption of organic solvents [t/year]	Emission limit	
	VOC ¹⁾ [g/kg]	
> 5	10 ²⁾	5 ³⁾

Notes:

- 1) Ratio of weight of emissions of volatile organic matter to the total area of the product.
- 2) It is valid for coating of wire with diameter smaller than 0.1 mm.
- 3) Valid in other cases.

6. Application of adhesive material with projected consumption of organic solvents from 0.6 tonnes per year (Code 9.16. of Annex 2 to the Act)

Any activities which involve the application of adhesive materials on surfaces, including subsequent pressing of these materials, with the exception of coatings and lamination in the printing industry.

If the application of adhesive materials involves the operation while the same product is imprinted by some printing technology, this printing operation is considered part of the application of adhesive materials. However, printing activities are not included in these activities.

The adhesive material means any mixture, including organic solvents and including elements necessary for its correct application which is used for the binding of individual parts of products.

Projected consumption of organic solvents [t/year]	Emission limit	
	TOC [mg/m ³]	VOC ²⁾ [%]

> 5 - 15	50 150 ¹⁾	25
> 15	50 150 ¹⁾	20

Notes:

- 1) **Valid for stationary sources which repeatedly use regenerated organic solvents.**
- 2) The ratio of the weight of fugitive emissions to the weight of input organic solvents.

7. Impregnation of wood with projected consumption of organic solvents from 0.6 tonnes per year (Code 9.17. of Annex 2 to the Act)

Any activity providing protection to the wood.

Projected consumption of organic solvents [t/year]	Emission limit		
	VOC ¹⁾ [kg/m ³]	TOC ²⁾ [mg/m ³]	VOC ³⁾ [%]
0.6 - 5	11	100	-
> 5	11	100	45

Notes:

- 1) Ratio of weight of emissions of volatile organic matter to the total area of the impregnated wood. This emission limit is not applied at the same time as the other emission limits TOC and VOC.
- 2) The above-mentioned emission limit TOC is not valid for equipment using creosote for impregnation.
- 3) Ratio of weight of VOC emissions to the weight of input organic solvents.

8. Lamination of wood and plastics with projected consumption of organic solvents from 0.6 tonnes per year (Code 9.18. of Annex 2 to the Act)

Any activity involving the joining of layers of wood and/or plastics for the production of laminates.

Projected consumption of organic solvents [t/years]	Emission limit	
	VOC ¹⁾ [g/m ²]	TZL ²⁾ [mg/m ³]
> 5	30	3

Notes:

- 1) Ratio of weight of emissions of volatile matter to the total size of the surface of the final laminated area from which there is release of volatile organic matter into the air.
- 2) **It is valid in the case of grinding and cutting of laminates within the given source.**

9. The production of composites with the use of liquid unsaturated polyester resins with styrene content with projected consumption of volatile organic matter from 0.6 tons per year (Code 9.19. of Annex 2 to the Act)

Any activity during which liquid unsaturated polyester resins containing styrene are used for the production of composites.

Projected consumption VOC ¹⁾ [t/year]	Emission limit		
	VOC ²⁾ [kg/t]	TOC [mg/m ³]	TZL ³⁾ [mg/m ³]

0.6 – 5	180 ⁴⁾	85 ⁴⁾	3 ⁴⁾
> 5 – 20	160 140 ⁴⁾	85	3 ⁴⁾
> 20 – 200	120 100 ⁴⁾	85	3 ⁴⁾
> 200	100 80 ⁴⁾	85	3 ⁴⁾

Notes:

- 1) The projected consumption of VOC also includes the total volume of styrene contained in the input raw material.
- 2) The ratio of the weight of VOC emissions to the total number of consumed input raw materials with the content of VOC (resin, gelcoat, acetone and others).
- 3) It is valid in the case of grinding and cutting of composite products within the given source.
- 4) Valid from 1 January 2013.

10. Selection of coating substances, adhesive material and printing paints with projected consumption of organic solvents from 10 t/year (Code 9.20. of Annex 2 to the Act)

Production of final products or semi-products or coating materials, **adhesive materials, and printing paints** produced in the same place by mixing of pigments, resins, or adhesive materials with organic solvents or with other media, including the process of dispersion and preparation pre-dispersing activities, including treatment of the viscosity or the colour and operations of the filling of final product into packages.

Projected consumption of organic solvents [t/year]	Emission limit		
	TOC[mg/m ³]	VOC ¹⁾ [%]	VOC ²⁾ [%]
>100 – 1 000	150	5	5
> 1 000	150	3	3

Notes:

- 1) Ratio of weight of fugitive emissions to the weight of input organic solvents and the weight of organic solvents belonging to the coating materials sold in hermetically closed vessels is not considered part of fugitive emissions.
- 2) Ratio of weight of VOC emissions to the weight of input organic solvents. This emission limit is not applied at the same time with the other emission limits TOC and VOC.

11. Production of shoes with projected consumption of organic solvents from 0.6 t/year (Code 9.21. of Annex 2 to the Act)

Any activity of the production of shoes or their parts.

Projected consumption of organic solvents [t/year]	VOC ¹⁾ [g/pair]
> 5	25

Note: 1) Ratio of weight of emissions of volatile organic matter to the number of produced pairs.

12. Production of pharmaceutical mixtures (Code 9.22. Annex 2 to the Act)

Chemical synthesis, fermentation, extraction, composition, and completion of pharmaceutical mixtures and in cases when they are produced in the same place, also production of semi-products.

Projected consumption of organic solvents [t/year]	Emission limit		
	TOC [mg/m ³]	VOC ²⁾ [%]	VOC ³⁾ [%]
> 50	20 150 ¹⁾	5	5

Notes:

- 1) Valid for stationary sources which repeatedly use regenerated organic solvents.
- 2) Ratio of weight of fugitive emissions to the weight of input organic solvents and the weight of organic solvents which belong to products sold in hermetically closed vessels is not considered part of fugitive emissions.
- 3) Ratio of weight of VOC emissions to the weight of input organic solvents. This emission limit is not applied at the same time with the other emission limits TOC and VOC.

13. Processing of India rubber, production of rubber with projected consumption of organic solvents from 5 t/year (Code 9.23. of Annex 2 to the Act)

Operation of plasticisation of India rubber and production of India rubber mixtures by mixing, kneading, calendaring, crushing, milling, colouring, operations concerning the processing of India rubber mixtures, extruding, pressing, injection by pressing, operations of vulcanisation, and any other auxiliary operations which are part of the process of changing natural or synthetic India rubber into the final rubber product.

Projected consumption of organic solvents [t/year]	Emission limit		
	TOC [mg/m ³]	VOC ²⁾ [%]	VOC ³⁾ [%]
> 15	20 150 ¹⁾	25	25

Notes:

- 1) Valid for stationary sources which repeatedly use regenerated organic solvents.
- 2) Ratio of weight of fugitive emissions to the weight of input organic solvents and the weight of organic solvents which belong to products sold in hermetically closed vessels is not considered part of fugitive emissions.
- 3) Ratio of weight of VOC emissions to the weight of input organic solvents. This emission limit is not applied at the same time with the other emission limits TOC and VOC.

14. Extraction and refinery of vegetable and animal oils (Code 9.24. Annex 2 to the Act)

Extraction of vegetable oils from seeds or other vegetable materials, processing of dry (extracted) residue plants for animal feed, cleaning of fats and oils obtained from seeds, from vegetable or animal materials.

Activity – extraction and refining from the following materials	Projected consumption of organic solvents [t/year]	VOC ¹⁾ [kg/t]
animal fat	> 10	1.5
ricin	> 10	3
rape seed or sunflower seeds	> 10	1
soya beans – normal crush	> 10	0.8
soya beans – white flakes	> 10	1.2
other seeds and other vegetable materials	> 10	3
other seeds and other vegetable materials - processes of fractionation with the exception of acacia gum or resin from oils	> 10	1.5
other seeds and other vegetable materials –	> 10	4

Part III Emission ceiling and the manner of its calculation

- 1) The emission limit does not exceed the maximum volume of emissions of volatile matter during the period of one year which would be produced in the case of the application of the emission limit mentioned in Part I of this annex
- 2) In departure from Paragraph 1 the procedure is applied in the case of stationary sources mentioned in Part I of this annex, and Point 4.1. where the emissions of volatile materials cannot be collected and collected in a controlled manner through chimneys or outlets from equipment for reducing emissions of volatile organic matter and whose emissions are quite fugitive (e.g. cars or planes), for which the fulfilment of the requirement of an emission ceiling according to Paragraph 1 is not technically and economically feasible. In this case, the emission limit is considered fulfilled if the best achievable technology is used for emissions of volatile organic matter.
- 3) In the case of the application of coating substances, adhesive materials, or printing paints, it is possible to use the following procedure for the determination of the emission ceiling.

Emission ceiling = total weight of volatile matter in the consumed materials x K_1 x K_2

Activity	<i>factor K_1</i>
publication gravure printing	4
rotary roll screen printing	1.5
other printing activities (with the exception of gravure printing and rotary roll screen printing)	2,5
application of coating materials to wood, textiles, fabric, films, foils, and paper	4
application of adhesive materials	3
coating and varnishing of strip and roll materials	2.5
spraying of cars – repair industry	2.5
coatings for contact with food, coatings in the aviation industry	2.33
application of coating substances to other materials	1.5

In the event that during the operation of the source, higher efficiency in the use of volatile matter is achieved contained in coating materials, adhesive materials, and printing paints, the value of the factor K_1 for individual sources can be modified.

The value of the factor K_2 is determined from the value of the emission limit for fugitive emissions for individual activities in Part I of this annex as follows:

$$K_2 = [\text{emission limit for fugitive emissions} + 15] / 100$$

for activities mentioned in Point 4.3. of Part I of this annex, for activities mentioned in Point 4.1. of Part I of this annex with projected consumption of organic solvents < 15 t/year and for activities mentioned in Point 4.2. of Part I of this annex with projected consumption of organic solvents < 25 t/year

or

$K_2 = [\text{emission limit for fugitive emissions} + 5] / 100$ for all other activities.

Part IV

Manner of verification of the annual weight balance of volatile matter

1. Values of the annual weight balance

The balance is performed for organic solvents expressed as VOC. In the case of the value O1 measured as TOC the calculation for VOC is performed. The recalculation is performed on the basis of knowledge of the composition of the measured emissions. In the case that the composition of measured emissions is not known, the recalculation is performed on the basis of the formula: $\text{VOC} = \text{TOC} / 0.8$.

inputs (I)	
I1	The total weight of organic solvents in clean form or in mixtures which were purchased and used as inputs into processes within the time period in which this weight balance is calculated.
I2	The total weight of organic solvents in clean form or in mixtures which were internally regenerated and used again (recycling) as inputs into processes in the time period in which this weight balance is calculated (recycled solvents are always considered when they are used in the operation of the given source)
outputs (O)	
O1	Emissions of volatile organic matter in waste gases
O2	The weight of organic solvents found in the waste water; in some cases during the calculation of the value O5 it is recommended to take into consideration the manner of processing the waste water
O3	The weight of organic solvents contained as impurities or residues in the end-products
O4	Weight of uncaptured volatile organic substances escaped into the air due to ventilation of rooms when these emissions escape into the air from the working environment through windows, door, ventilation holes, etc.
O5	The weight of organic solvents consumed during chemical and physical processes, for example, combustion, sorption, etc., if this weight was not included in the values O6, O7, and O8
O6	The weight of organic solvents contained in the collected wastes
O7	The weight of organic solvents in clean form or in mixtures sold or designated for sale as commercial products
O8	The weight of organic solvents which were internally regenerated from the mixture for re-use within the operation of the given source which were not re-used as input I2 within the time frame for which this balance was prepared
O9	The weight of organic solvents escaped into the environment in another manner

2. Basic balance calculations

a) The consumption of organic solvents C is calculated according to the formula:
 $C = I1 - O8$ (mentioned in weight units – g, kg, or tonnes)

- b) Fugitive emissions F are calculated according to some of the following equations:
 $F = I1 - O1 - O5 - O6 - O7 - O8$ or $F = O2 + O3 + O4 + O9$
(indicated in weight units – g, kg, or tonnes)
- c) Emissions E are calculated from the formula:
 $E = F + O1$ (indicated in weight units – g, kg, or tonnes)
- d) The specific manufacturing emission is calculated as the ratio of the volume of emissions of volatile organic matter and the quantity or the volume of production (indicated in g/kg, g/m², kg/m³, g/pair, or in kg/t).
- e) The emission ratio of fugitive emissions is calculated as the ratio of the volume of fugitive emissions and the input volume of organic solvents I, where $I = I1 + I2$ (indicated as %). The emission ratio of fugitive emissions can be specified on the basis of a representative single measurement which is not necessary to repeat if there is no intervention in the construction or equipment of the stationary source which could lead to a change in the emissions.
- f) The emission ratio of emissions is calculated as the ratio of the volume of emissions to the input volume of organic solvents (indicated as %).
- g) In the case of the fulfilment of the emission ceiling specified by calculation according to Part II, Point 3 of this annex, the total volume of non-volatile matter N contained in the consumed coating materials, adhesive materials, or printing paints is calculated from the formula:
 $N = \text{total annual consumption of material} \times \text{content of volatile matter in the material}$
(indicated in weight units – g, kg, or tonnes)

The completed balance sheet is filed by operators in their operating records and on request, provided to the competent bodies for air protection together with all source materials necessary for the verification of the correctness of the input data used for the calculations.

**SPECIFIC EMISSION LIMITS AND TECHNICAL CONDITIONS FOR THE
OPERATION FOR STATIONARY SOURCES, IN WHICH THERE IS
HANDLING OF FUEL**

1. Definitions

For the purpose of this annex, the following definitions apply:

- a) fuel – any oil product with additives or without additives which is designated for use as fuel for motor cars, with the exception of liquid propane-butane with saturated vapours at a temperature of 20 °C having a pressure which is greater or equal to 1.32 kPa,
- b) fuel vapours – all gas compounds which are evaporated from the fuel
- c) fuel stations – equipment for delivery of fuel from stationary storage tanks into fuel tanks of motor vehicles
- d) semi-storage of vapours – space in the tank with a firm roof in which fuel vapours are collected for the purpose of transport to the unit for limiting emissions in another terminal. The transport of these vapours between individual storage facilities in the terminal is not considered semi-storage of vapours pursuant to this annex,
- e) mobile container – cistern for the transport of fuel on the road, railways, or waterways from one terminal to another terminal or from the terminal to the fuel station,
- f) filling bench – any construction at the terminal from which it is possible to fill the fuel into individual road cisterns,
- g) filling equipment – any equipment at terminal for the filling of the fuel into mobile containers,
- h) annual turnover of the fuel – the maximum total volume of fuel taken from the storage equipment of the terminal into mobile containers during the previous three years,
- i) system of recovery of fuel vapours of Stage I – equipment for recovery of fuel from vapours of storage equipment of terminals, including all balancing storage systems in the terminal,
- j) system of recovery of fuel vapours of Stage II – equipment ensuring the recovery of fuel vapours displaced from fuel tanks of motor vehicles during the pumping of fuel at the pumping station and transferred fuel vapours into the storage tank at the pumping station or back into the fuel pumping equipment for re-sale,
- k) terminal – equipment for the storage and filling of fuel into mobile containers, including technological accessories at the place of this equipment,
- l) efficiency of capturing fuel vapours – volume of fuel vapours captured by the system of recovery of fuel vapours of Stage II compared with the volume of fuel vapours which, otherwise, would have escaped into the air if such a system did not exist and which is expressed as a percentage ratio,

2. Requirements for the storage equipment of terminals

- a) For terminals whose storage facility is equipped with the system of recovery of fuel vapours of Stage I, the emission limit 150 mg/m³ at the outlet of the chimney is expressed as the concentration by weight of the total organic carbon with the exception of methane, related to normal state conditions and wet gas.

- b) The roof and outside walls of tanks above the level of the terrain must be equipped with suitable insulation and reflex coat with the total reflection of the radiated thermal energy less than 70 %. This provision does not apply to tanks connected to the system of recovery of fuel vapours of Stage I which fulfils the requirements mentioned in Letter a).
- c) Tanks with inside or outside floating roofs must be equipped with a primary sealing to cover the annular space between the wall of the tank and the outside perimeter of the floating roof and the secondary sealing located above the primary sealing. This sealing is performed so that the efficiency of capturing fuel vapours is less than 95 % compared with a similar tank with firm roof without the controlled capture of fuel vapours (i.e. tanks with firm roof with a safety valve).
- d) This provision does not apply to tanks connected to the system of recovery of fuel vapours of Stage I which fulfils the requirements mentioned in Letter a).
- e) Requirements for restricting the escape of fuel vapours mentioned in Letter d) do not apply to tanks with a firm roof in terminals where semi-storage is permitted according to Point 3 of this annex.

3. Requirements for equipment for filling and discharging

- a) Vapours displaced from filled mobile containers must be collected by steam-proof piping into the system for recovery of fuel vapours of Stage I of the terminal. This provision is not related to mobile containers with upper filling during the validity of the permit for this filling system.
- b) In terminals where the fuel is filled into boats, the system for recovery of fuel vapours of Stage I can be replaced by the unit for combustion of vapours if recovery of vapours is not safe or technically impossible due to the volume of suppressed vapours. requirements for emissions into the air from units for limiting fuel vapours which are mentioned in Letter a) of Point 2. of this annex, apply also to the unit for combustion of vapours.
- c) In terminals with annual turnover of fuel up to 25 000 tonnes, the system for recovery of fuel vapours of Stage I can be replaced by semi-storage of vapours.
- d) In terminals where the system of recovery of fuel vapours of Stage I is replaced by semi-storage, the suppressed vapours must be collected through gas-proof piping into semi-storage of vapours with an efficiency of at least 99 %. The filling of the mobile container by fuel must not be started until both tanks are properly connected by piping for the collection of vapours and as long as the proper function of the system for pumping of vapours is not ensured.
- e) In the case of escape of fuel vapours, the filling must be immediately stopped. On the filling bench of the terminal there is a valve by which it is possible to stop the filling at any time.
- f) During the filling of mobile containers with upper filling, the filling arm must be secured so that its inflow is at the bottom of the container and the spraying of fuel must be prevented.

4. Requirements for equipment for lower filling, collection of vapours and protection against overfilling of road cistern vehicles.

4.1 Piping couplings

- a) Fast-couplings for the filling of fuel on the filling arm and on the vehicle must conform to the specified directive API Recommended Practice 1004, 7th issue, November 1988: “Lower

filling and recovery of vapours for cistern road vehicles MC-306”, Part 2.1.1.1 – Type of piping coupling for lower filling.

- b) Fast-couplings for the collection of fuel vapours on the filling bench and on the vehicle must conform to the specified directive API Recommended Practice 1004, 7th issue, November 1988: “Lower filling and recovery of vapours for cistern road vehicles MC-306”, Part 4.1.1.2 – Connection for collection of vapours.

4.2. Conditions for filling

- a) The usual flow of fuel through one arm during the filling is 2 300 l/min; the maximum permitted flow is 2 500 l/min.
- b) In the case of maximum loading of the terminal, at the connection point on the vehicle, a maximum overpressure of 5.5 kPa is permitted.
- c) All approved vehicles with lower filling are equipped with a metal identification plate indicating the maximum permitted number of filling arms which can be operated at the same time so as to prevent the escape of vapours through safety valves at a maximum permitted overpressure of 5.5 kPa. In addition, the identification plate indicates the type of sensors installed for the detection of the upper level (i.e. two-conductor or semi-conductor sensors) on the vehicle.

4.3. Connection of signalling of earthing and overfilling.

The filling bench is equipped with a control unit for signalling of overfilling. If this unit after connection to the vehicle does not indicate the filling of the cistern, it must send a signal enabling the filling of the cistern.

- a) The vehicle is connected to the control unit by the standard ten-pole electric connector. The ten pin connector is connected to the vehicle and the plug on the movable line (socket) is connected to the control unit on the filling bench.
- b) The level sensors on the vehicle must be either two-conductor terminal sensors, two-conductor optical sensors, five-conductor optical sensors, or other compatible reliable sensors
- c) The control unit on the filling bench must enable connection with two-conductor, as well as five-conductor vehicle systems.
- d) The common conductor of sensors must be connected to pin 10 on the connector and to the chassis of the vehicle. Pin 10 on the socket is connected to the cover of the control unit which is connected to the earthing of the filling bench.

4.4. Location of couplings

- a) The construction of equipment for filling of fuel and collection of vapours on the filling bench must fulfil the following requirements.
 - 1. the height of the fast-coupling for the filling of fuel is a maximum of 1.4 m (unloaded vehicle) and a minimum of 0.5 m (loaded vehicle); the recommended height is 0.7 m to 1.0 m,
 - 2. the horizontal gap between the fast coupling for the filling of fuel must not be smaller than 0.25 m; the recommended minimum size of the gap is 0.3 m,
 - 3. all fast couplings for filling of fuel are covered in the space whose length does not exceed 2.5 m,

4. the connection for the collection of vapours is located on the right, if possible, of fast couplings for the filling of fuel at a height not exceeding 1.5 m (for unloaded vehicles) and no lower than 0.5 m (for loaded vehicles),
- b) the connector of the signalling of earthing and overfilling must be located on the right of fast couplings for the filling of fuel and collection of vapours at a height not exceeding 1.5 m (for unloaded vehicles) and not lower than 0.5 m (for loaded vehicles),
- c) all fast couplings and connectors must be located on one side of the vehicle.

4.5. Safety blocking

- a) The signalling of earthing and overfilling – filling of the cistern must be blocked until the control unit for earthing and overfilling sends the respective signal. In the case of overfilling or the failure of the earthing of the vehicle, the control unit is closed by a stop valve on the filling bench.
- b) Signalling of the collection of vapours – filling the cistern must be blocked if the hose is not connected to the vehicle for the collection of vapours and as long as the free flow of these vapours into the collecting terminal system is not ensured.

5. Requirements for filling and storage equipment in pumping stations and terminals where there is semi-storage of vapours

Vapours suppressed by the compressed fuel from filled storage equipment in pumping stations and in the tanks with a firm roof used for semi-storage of vapours must be returned by the piping with seam-proof joints into the mobile cistern supplying the fuel. The filling must not be started if these systems are not prepared and if their correct function is not ensured.

The annual losses of motor fuel produced during the performance of storage facilities in pumping stations must be lower than 1.01 % by weight of the annual turnover of the motor fuel.

6. Conditions for the operation of pumping stations

6.1. Conditions for the operation of pumping stations

All stands for delivering fuel must be equipped with a visible warning notifying customers of the necessity to fully insert the filling nozzle into the filling neck of the tank of the motor vehicle.

Fuel stations must be equipped with a system of recovery of fuel vapours of Stage II which must work with a minimum efficiency of capturing fuel vapours equal to 85 %, which the producer will confirm in accordance with the European technical standards or approval procedures or if there are any such standards or procedures, in accordance with any respective national standard. The ratio of the volume of collected fuel vapours at atmospheric pressure to the total volume of fuel pumped into the fuel tank of the motor vehicle is within the range 0.95 to 1.05.

Checking the functionality of recovery of fuel vapours of Stage II at fuel stands must be performed once per shift. If the fuel pump is equipped with an automatic monitoring system, this system must automatically determine failures in the function of recovery of fuel vapours of Stage II and the automatic monitoring system must signal failures to the operators of the fuel station and to automatically stop the flow of fuel from the defective fuel pump if the failure has not been removed within seven days. For fuel pumps which are not equipped with an automatic monitoring system, the correct functionality of recovery of fuel vapours of Stage II must be checked by testing mechanical recovery.

6.2. Checking the system for recovery of fuel vapours of Stage II.

The checking of the system for recovery of fuel vapours of Stage II is performed by an employee of the service organisation which is authorised for assembly and interventions by the manufacturer of this equipment. The inspection is performed once per calendar year and also in the case of any suspicion of erroneous functioning of the equipment.

For the inspection of the operating of the system for recovery of fuel vapours of Stage II, two procedures are used:

1. Procedure for public fuel pumps where the air pump is driven by an electric motor of the pump without electronic control of the system of back collection of vapours. The test is performed during the pumping of the fuel into the suitable measuring vessel at 50 % and at 100 % of the nominal flow of the fuel. The measurement of this system is performed exclusively by a gas meter designated for this purpose.
2. The procedure for fuel pumps with electronically controlled system of recovery of fuel vapours of Stage II which enables the performance of the test without pumping the fuel. For multi-product fuel dispensers only one side of the fuel dispenser is measured and adjusted. The test is performed by a device approved for this purpose.

SELECTED PRODUCTS, LIMIT VALUES FOR THE CONTENT OF VOLATILE ORGANIC MATTER IN THESE PRODUCTS, AND ANALYTICAL METHODS FOR DETERMINATION OF THE CONTENT OF VOLATILE MATTER IN THESE PRODUCTS

Part I

Classification of selected products

Category A

Coating materials designated for buildings, their equipment, and accessories and related constructions,

and serving for decorative, functional, and protective purposes, with the exception of aerosols.

Sub-category

- a) matt coating materials for walls and ceilings in interiors are coating materials designated for the application on inside walls and ceilings with the level of brilliance $\leq 25@60^\circ$,
- b) glossy coating materials for walls and ceilings in interiors are coating materials designated for the application on inside walls and ceilings with the level of gloss $\leq 25@60^\circ$,
- c) coating materials for outdoor walls from mineral base are coating materials designated for the application on outdoor walls and bricked, concrete, or plaster walls.
- d) inside/outside coating materials on wood, metal, or plastics for equipment and tiling of buildings are coating materials creating non-transparent films and are designated for wooden, metal, or plastic bases. This sub-category includes coating materials and coating substances for semi-layers,
- e) inside/outside varnishes and stains are coating materials designated for the application on buildings and their equipment and creating transparent or semi-transparent films for the purpose of decoration or the protection of wood, metals, and plastics. This sub-category also includes glazing materials for wood which means coating materials creating a thick-layer film and serving for decoration or protection of wood against atmospheric influences according to the standard EN 927-1 (semi-stable category),
- f) non-film-producing stains are stains which in accordance with Standard EN 927-1:1996 forms a layer with average thickness smaller than $5 \mu\text{m}$, measured by method 5A according to Standard ISO 2808:1997,
- g) primary coating materials are coating materials with sealing and/or insulating effect designated for the use on wood or walls and ceilings.

- h) penetration coating materials are coating materials designated for the stabilisation of free particles of the base or for the achievement of hydrophobic properties and/or for the protection of wood against going blue,
- i) single component special coating materials are coating materials with a special function using film-producing substances. They are designated for applications with special requirements, such as primary and top coats on plastics, primary coats on metal bases, primary coats on light metals, such as zinc and aluminium, anti-corrosion coats, coating materials for floors, including wooden and concrete floors, protection against graffiti, fire-proof coats and coats conforming to hygiene standards in the food processing industry and in health facilities.
- j) multi-component special coating materials are coating materials for the same use as single-component coating materials with special functions, however, with the second element (e.g. tertiary amines) added before use,
- k) multi-colour coating materials are coating materials which during the first application directly create two-colour or multi-colour effects,
- l) coating materials with decorative effects are coating materials designated for the creation of special aesthetical effects on specially treated, primary coated bases, or foundation coats with subsequent processing with various tools during the drying phase.

Category B

Products designated for repairs and spraying of road vehicles according to Directive 70/156/EEC or their parts, maintenance, or for the purpose of decoration performed outside manufacturing facilities.

Sub-category

- a) products for preparatory and cleaning operations designated for mechanical or chemical removal of old coats and corrosion or for the preparation of new coats:
 - i) preparatory means include cleaning detergents for tools (products designated for cleaning of spraying pistols and other equipment), removers of coats, degreasing agents (including anti-static detergents for plastics), and re-greasing agents of silicone,
 - ii) a cleaning detergent is a product for removing surface dirt during preparation for the application of coating materials and before their application,
- b) body fillers and seals are viscosity materials designated for filling of deep roughness on the surface before the application of a levelling coat,
- c) primary coating materials are all coating materials designated for the application on the naked surface of metal or on existing coats as a protection against corrosion before the application of coating materials
 - i) levelling coating materials are coating materials designated for the application immediately before the application of the upper coat for increasing resistance against corrosion and adhesion of the upper coat and for the achievement of uniform quality of the surface by filling minor surface roughness.
 - ii) primary coating materials for metal are coating materials designated for application as the primary coat, such as activators of adhesion, fillers, levelling coating materials, base coating materials, primary coating materials for plastics,

coating materials for the application using the wet-to-wet, fillers not designated for grinding, and spraying fillers,

- iii) reactive primary coating materials are coating materials containing a minimum of 0.5 % by weight of phosphoric acid designated for direct application on the naked surface for ensuring resistance to corrosion and adhesion, coating materials used as weldable primary coating materials, and staining solutions for galvanised and rink-coated surfaces.
- d) top coating materials are pigmented coating materials designated for application in one or more layers for the achievement of gloss and durability; they include all products used for these purposes, such as base coating materials and varnishes
 - i) base coating materials are pigmented coating materials designated for the achievement of requested colour shades and optical effects, however, not gloss or resistance of the surface of the coating system,
 - ii) varnishes are transparent coating materials designated for the creation of final gloss and resistance to the coating system,
- e) special top coating materials are coating materials designated for the application as top coats with special properties in one layer, such as metallic and pearly effects, highly resistant colours or transparent coatings (e.g. coats resistant to scraping and fluorinated transparent coats), reflex base coats, top coats with structural effects (e.g. beaten effects), antiskid coats, fillers for lower parts of bodies, protected coats against shocks, coats of interiors, and aerosols.

Part II

Limit values for the content of volatile organic substances in selected products

1. Limit values of the content of volatile organic matter for products classified under Category A.

	Sub-category of products	type	VOC g/l*
A	matt coating materials for walls and ceilings in interiors (level of gloss $\leq 25@60^\circ$)	VŘNH	30
		RNH	30
b	glossy coating materials for walls and ceilings in interiors (level of gloss $> 25@60^\circ$)	VŘNH	100
		RNH	100
c	coating materials for outside walls with a mineral base	VŘNH	40
		RNH	430
d	inside/outside coating materials on wood, metal, or plastics for equipping and tiling of buildings	VŘNH	130
		RNH	300
e	inside/outside varnishes and stains, including thick-layer glazing materials on wood, inside and outside non-adhesive stains	VŘNH	130
		RNH	400

F +	inside/outside non-film stains	VŘNH	130
		RNH	700
g	primary coating materials	VŘNH	30
		RNH	350
h	penetrating coating materials	VŘNH	30
		RNH	750
(i)	single component coating substances with special function	VŘNH	140
		RNH	500
j	multi-component coating materials with special function	VŘNH	140
		RNH	500
fo r	multi-colour coating materials	VŘNH	100
		RNH	100
l	coating materials with decorative effects	VŘNH	200
		RNH	200
<p><u>Explanations:</u> * content of volatile matter in the product prepared for use.</p> <p>VŘNH – water based coating materials RNH – solvent-based coating materials</p>			

2. Limit values for the content of volatile organic matter for products classified under Category B.

	Sub-category of products	Products	VOC g/l*
A	products for preparatory and cleaning operations	preparatory means	850
		cleaning detergents	200
B	body fillers and seals	all types	250
C	primary coating materials	levelling coating materials and base coating materials (for metal)	540
		reactive primary coating materials	780
d	top coating materials	all types	420
e	special top coating materials	all types	840
<p><u>Explanation:</u> * content of volatile matter in the product prepared for use. Possible content of water in the product prepared for the use is subtracted, with the exception of products in Sub-category a.</p>			

CONDITIONS FOR OPERATION OF OTHER STATIONARY SOURCES

Part I

General provisions, technical conditions for operation

1. General provisions

Related conditions A for the emission limit – concentration of the respective substance during normal state conditions in dry gas, sometimes with the indication of the reference content of some substance in the waste gas, usually oxygen,

Related conditions B for the emission limit – concentration of the respective substance during normal state conditions in wet gas, sometimes with the indication of the reference content of some substance in the waste gas, usually oxygen,

Related conditions C for the emission limit – concentration of the respective substance in waste gas under normal operating conditions.

Direct process heating is heating for which polluting materials produced by the combustion of fuel are collected together with the polluting materials escaped into the air by the technological process.

2. Technical condition for operation

Flares

Flare equipment is equipment for reducing the level of pollution operating as an emergency outlet of gas into the open air during the connection of technological space to the outside air or during permanent and poorly processed excess of gases.

All technological equipment including emergency equipment for the liquidation of waste gases is constructed so that during the combustion of waste gases the optimal running of the combustion regime is ensured and the reduction in the level of pollution.

Such equipment is evaluated individually with respect to its construction, localisation, and combustion gas medium. During the evaluation, preference should be given to assisted fire flares, i.e. flares which are designed to influence the volume of supplied air and temperature of combustion.

Part II

Specific emission limits and technical conditions of operation

1. HANDLING OF WASTES AND WASTE WATER

1.1 Composting plants and equipment for biological modification of waste with projected capacity greater or equal to 10 tonnes per one batch or greater than 150 tonnes of the processed waste per year (Code 2.3. of Annex 2 to the Act)

Technical conditions for operation

- a) Feeding bunkers have closed construction with the chamber for vehicles, for open halls,

and during unloading of collecting vehicles with waste, gases must be exhausted and collected into facilities for cleaning waste gases.

b) Condensed vapours and water produced during the composting process (maturing of composts) may be used for construction of open and not covered composting plants for watering of compost only in cases that they will not increase the dust load of the surrounding environment.

c) waste gases from maturing of composts in closed halls of composting plants are collected into facilities for cleaning of waste gases

1.2 Biodegradation and solidification equipment (Code 2.4. of Annex 2 to the Act)

Technical conditions of the operation valid from 1 January 2013:

In the case of processing materials which can produce emissions of polluting materials with disturbing odour, technical-organisational measures must be ensured for the reducing these materials, e.g. covering biodegradation areas and collection of waste gases into facilities for the cleaning of waste gases.

1.3. Redevelopment facilities (removing of oil and chlorinated hydrocarbons from contaminated earth) with projected annual output higher than 1 t VOC inclusive (Code 2.5. Annex 2 to the Act)

Valid for redevelopment facilities operated in “ex situ”.

Emission limit [mg/m³]	Related conditions
VOC	
50	C

1.4. Water treatment plants; facilities designated for the operation of technologies producing waste water not transferable to equivalent inhabitants in a volume greater than 50 m³/day (Code 2.6. Annex 2 to the Act)

Technical conditions of the operation valid from 1 January 2014:

For the purpose of reducing emissions of polluting materials with disturbing odour, the use of measures for reducing emissions of these matters, e.g. performing exhaustion of waste gases into the facility for reducing emissions, covering of pits and conveyers, closing of objects, and regular removal of sediments of organic nature from equipment for pre-treatment of waste water.

1.5. Waste water treatment plants with projected capacity for 10 000 and more equivalent inhabitants (Code 2.7. Annex 2 to the Act)

Technical conditions of the operation valid from 1 January 2014:

For the purpose of reducing emissions of polluting materials with disturbing odour, use of measures for reducing emissions of these materials, e.g. performing exhaustion of waste gases into the facility for limiting emissions, covering of pits and conveyers, closing of objects, and regular removal of sediments of organic nature from equipment for pre-treatment of waste water.

2. POWER ENGINEERING SECTOR – OTHER

2.1. Defreezing units with direct process heating (Code 3.2. Annex 2 to the Act)

Emission limits [mg/m ³]		Related conditions
NO _x	CO	
400	800	A

2.2. Sorting and treatment of coal, briquetting plants

2.2.1. Sorting and other cold treatment of coal (Code 3.3. Annex 2 to the Act)

Emission limit [mg/m ³]	Related conditions
TZL	
100 20 ¹⁾	C

Note: 1) Valid from 1 January 2020.

2.2.2. Thermal processing of coal (briquetting plants, low-temperature carbonising, drying) (Code 3.4. Annex 2 to the Act)

Emission limits [mg/m ³]		Related conditions
TZL	VOC	
100 20 ¹⁾	50	C B ¹⁾

Note: 1) Valid from 1 January 2020.

2.3. Production of coke

2.3.1. – 2.3.3. (Codes 3.5.1, 3.5.2, 3.5.4. Annex 2 to the Act)

Emission limits [mg/m ³]				O _{2R} [%]	Related conditions
TZL	SO ₂	NO _x	PAH		
2.3.1. Heating of coke batteries (Code 3.5.1. Annex 2 to the Act)					
20 ¹⁾	500	500		5	B
2.3.2. Preparation of coal batch (Code 3.5.2. Annex 2 to the Act)					
50					C

2.3.3 Suppression of coke (Code 3.5.3. Annex 2 to the Act)

50			0,2		B
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Note: 1) Valid from 1 January 2016.

Technical conditions for operation:

- a) For the heating of coke chambers, it is possible to use only processed coke gas.
- b) Filling gases during the filling of coke chambers are collected into the raw coke gas or other coke chamber. The conditions of the operating cycle are stated in the operating order.
- c) The equipment of the chemical operations of coke plants are secured against escape of VOC into the open air. Water from the direct cooling of the gas must not be in direct contact with the air.
- d) The content of hydrogen sulphide in coke gas at the output from chemical operating units must not exceed 500 mg/m³. The content of hydrogen sulphide is ascertained by permanent operating measurement.
- e) Escape of coke gas into the air is not permitted. Conditions for its possible managed combustion in accordance with Part I must be stated in the operating order.
- f) The tightness of the door of coke chambers must be permanently ensured by regular cleaning, adjustment, repairs, and in other ways so that there are no visible emissions evaluated at a distance of about 30 m for more than 10 % of the doors on the machine and coke side.
- g) During the suppression of the coke from chambers, waste gases must be collected and directed to the de-dusting facility.
- h) In the case of failure of the exhaustion of raw coke gas from batteries and in the case of the necessity of combustion in flares, the suppression and filling of chambers must be suspended.

2.3.4. Sorting of coke (Code 3.5.5. Annex 2 to the Act)

Emission limit [mg/m ³]	Related conditions
TZL	
50	C

2.3.5. Cooling of the coke (Code 3.5.6. Annex 2 to the Act)

Technical conditions for operation:

The extinguishing towers must be equipped with partition walls for reducing emissions. For new extinguishing towers, their minimum height must be at least 30 m.

2.4. Treatment of coal and production of gases and oils

2.3.1. Gasification and fluidisation of coal, production, and refinery of gases and mineral oils, production of energy gases (generator gas, coal gas) and synthetic gases (Code 3.6. Annex 2 to the Act)

Emission limits [mg/m ³]						Related conditions
TZL	SO ₂	NO _x	CO	hydrogen sulphide	ammonia	
150 50 ¹⁾	2 500	500	800	10	50	A

Note: 1) Valid from 1 January 2020.

3. PRODUCTION AND PROCESSING OF METALS AND PLASTICS

3.1. Burning or sintering of metal ore, including sulphide ore

3.1.1. Preparation of batches (Code 4.1.1. Annex 2 to the Act)

Emission limit [mg/m ³]	Related conditions
TZL	
50	C

3.1.2. Sintering belts for agglomeration (Code 4.1.2. Annex 2 to the Act)

Emission limits [mg/m ³]					O _{2R} [%]	Related conditions
TZL	SO ₂	NO _x	CO	gas compounds of mercury		
50	400	400	8 000	1	19	A

3.1.3. Manipulation with sinter as cooling, crushing, milling, sorting (Code 4.1.3. Annex 2 to the Act)

Emission limit [mg/m ³]	Related conditions
TZL	
50	C

3.1.4. Pelletising operating units (crushing, drying, pelletising) (Code 4.1.4. Annex. 2 to the Act)

Emission limits [mg/m ³]	Related conditions
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TZL	SO₂	
Crushing, drying		
25	-	C
Hardening belt		
40	100 ¹⁾	A

Note: 1) Valid from 1 January 2020.

3.2. Production of iron

Emission limits [mg/m ³]				O _{2R} [%]	Related conditions
TZL	SO ₂	NO _x	CO		
3.2.1. Transport and manipulation with blast furnace batch (Code 4.2.1. Annex 2 to the Act)					
50	-	-	-	-	C
3.2.2. Casting (blast furnace) (Code 4.2.2. Annex 2 to the Act)					
50	-	-	-	-	A
3.2.3. Wind heaters (Code 4.2.3. Annex 2 to the Act)					
	2 500 2 000 ¹⁾	400 100 ¹⁾	4 000	7	A

Note: 1) Valid from 1 January 2020.

Technical conditions of the operation valid from 1 January 2016:

Blast furnace gas must be collected, de-dusted, and used; the concentration of the remaining dust in cleaned blast furnace gas must not exceed 10 mg/m³ in dry gas under normal conditions.

3.3. Production of steel

3.3.1. Transport and manipulation with blast furnace batch (Code 4.3.1. Annex 2 to the Act)

Emission limits [mg/m ³]	Related conditions
TZL	
50 ¹⁾	C

Note: 1) Also valid for milling and sorting of clinker

Technical conditions for operation:

Definition of the method of exhaustion and separation of polluting materials during the separation of heavy metal waste by cutting oxygen.

3.3.2. Hearth furnaces with intensification by oxygen (Code 4.3.2. Annex 2 to the act)

Emission limits [mg/m ³]			Related conditions
TZL	SO ₂	NO _x	
50	400	400	B

3.3.3. Oxygen converters (Code 4.3.3. Annex 2 to the Act)

Emission limits [mg/m ³]	Related conditions
TZL	
50 20 ¹⁾	A

Note: 1) Valid for secondary de-dusting from 1 January 2020.

Technical conditions for operation:

- a) The convertor gas must be collected to the extent of the possibilities of the process and being able to use it.
- b) The hall of the steel plant must be de-dusted with an efficiency of 90 %. This condition is valid from 1 January 2020.

3.3.4. – 3.3.6. (Codes 4.3.4.–4.3.6. Annex 2 to the Act)

Emission limits [mg/m ³]						Related conditions
TZL	SO ₂	NO _x	CO			
3.3.4. Electric arc furnaces (code 4.3.4. Appendix No. 2 to the Act)						
20	-	400	1 000			A
3.3.5. Pot furnaces (Code 4.3.5. Annex 2 to the Act)						
50 20 ¹⁾	400	400	1 000		-	A
3.3.6. Electrical induction furnaces with projected output above 2.5 t/hour (Code 4.3.6. Annex 2 to the Act)						
50	-	400	1 000		-	A

Note: 1) Valid from 1 January 2020.

3.4. Processing of ferrous metals in rolling mills and forge shops

The above-mentioned emission limits are valid for furnaces with direct process heating or when using a special protective atmosphere.

The emission limit for SO₂ is not valid for furnaces using only natural gas as the fuel.

3.4.1. Hot and cold rolling mills, including heating furnaces and furnaces for thermal processing (Code 4.4. Annex 2 to the Act)

Emission limits [mg/m ³]			Related conditions
SO ₂	NO _x	CO	
500 400 ¹⁾	400	800	A

Note: 1) Valid from 1 January 2016.

3.4.2. Forge shops – heating furnaces and furnaces for thermal processing with projected heat output from 1 MW, inclusive (Code 4.5. Annex 2 to the Act)

Emission limits [mg/m ³]			Related conditions
SO ₂	NO _x	CO	
500 400 ¹⁾	400	800	A

Note: 1) Valid from 1 January 2016.

3.5. Foundries of ferrous metals (iron casts)

3.5.1. Transport and handling of batches or products (Code 4.6.1. Annex 2 to the Act)

Including the other technological nodes, such as treatment facilities, production of moulds and cores, casting, cleaning of cast pieces, finishing operations.

Emission limits [mg/m ³]	Related conditions
TZL	
100 20 ¹⁾	C

Note: 1) Valid from 1 January 2020 for foundries of ferrous metals with production capacity greater than 20 t per day.

Technical condition for operation:

Restriction of VOC emissions produced in the production of moulds and cores by commonly accessible means, e.g. minimising the consumption of binders, substitution of alcohol-based coats with water-based coats, the use of solvents for the cold-box production of cores, which are based on aromatic hydrocarbons.

3.5.2. Annealing and drying furnaces (Code 4.6.2. Annex 2 to the Act)

Emission limits ¹⁾ [mg/m ³]			Related conditions
SO ₂	NO _x	CO	

400 ²⁾	400	800	A
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Notes:

- 1) Valid for units with nominal heating power from 0.3 MW inclusive
- 2) Not valid for furnaces using natural gas as fuel.

3.5.3. – 3.5.7. (Codes 4.6.3.–4.6.7. according to Annex 2 of the Act)

Emission limits [mg/m³]					Related conditions
TZL	SO₂	NO_x	CO	TOC	
3.5.3. Smelting in electric arc furnaces (Code 4.6.3. according to Annex 2 of the Act)					
20	-	400	1 000	-	A
3.5.4. Smelting in electric induction arc furnace (Code 4.6.4. according to Annex 2 of the Act)					
20	-	-	-	-	A
3.5.5. Cupola furnaces (Code 4.6.5. according to Annex 2 of the Act)					
20	400	400	1 000 ¹⁾	50 ²⁾	A
3.5.6. Melting in other arc furnaces – liquid fuel (Code 4.6.6. according to Annex 2 of the Act)					
30 20 ³⁾	1 700	400	300	-	A
3.5.7. Melting in other arc furnaces – gas fuel (Code 4.6.7. according to Annex 2 of the Act)					
20		400	200	-	A

Notes:

- 1) Valid in the chimney after the recuperator in hot-wind cupola furnaces.
- 2) Valid for cold-wind cupola furnaces.
- 3) Valid from 1 January 2016.

Technical conditions for operation:

For cold-wind cupola furnaces, the restriction of CO emissions by available means, e.g. improvement of the heat efficiency of the cupola furnaces, control of the quality of coke, additional combustion, use of biofilters.

3.6. Metallurgy of ferrous metals

3.6.1. Treatment of non-ferrous metals (Code 4.7. according to Annex 2 of Act)

Emission limits [mg/m ³]	Related conditions
TZL	
50 10 ¹⁾	A

Note: 1) **During the processing** of ores for collecting lead.

3.7. Production of smelting of non-ferrous metals, including foundry of alloys and drawing of products, refining, and production of casts

3.7.1. Transport and manipulation with batch or the product (Code 4.8.1. Annex 2 to the Act)

Including the other technological nodes, such as treatment facilities, production of moulds and cores, casting, cleaning of cast pieces, finishing operations, etc.

Emission limits [mg/m ³]	Related conditions
TZL	
50 20 ¹⁾	C

Note: 1) Valid from 1 January 2016 for the operation of foundries of non-ferrous metals with capacity of smelting greater than 4 t per day.

Technical conditions for operation:

Restriction of VOC emissions originating in the production of moulds and cores e.g. minimising the consumption of binders, substitution of alcohol-based coats water-based coats, the use of solvents for the cold-box production of cores, which are not based on aromatic hydrocarbons.

3.7.2. Furnace aggregates for the production of non-ferrous metals (Code 4.8.2. according to Annex 2 of the Act)

Emission limits [mg/m ³]			Related conditions
TZL	NO _x	TOC	
10 ¹⁾ 20 ²⁾ 50 ³⁾ 30 ⁴⁾	400	50	A

Notes:

- 1) Valid during the production of lead
- 2) Valid during the production of copper and zinc, including Imperial Smelting furnaces.
- 3) Valid for other productions.
- 4) Valid for other productions from 1 January 2016.

3.7.3. Electrolytic production of aluminium (Code 4.9. according to Annex 2 of the act)

Emission limits [mg/m ³]		Related conditions
TZL	HF	
30 20 ¹⁾	2	A
Emission limits [kg/t of aluminium] determined from daily averages		
TZL	HF	
5	0,5	

Note: 1) Valid from 1 January 2016.

3.7.4. Smelting and casting of non-ferrous metals and their alloys (Code 4.10. according to Annex 2 of the Act)

Technical conditions for operation:

During the smelting of aluminium, organic compounds containing chlorine must not be used.

Emission limits [mg/m ³]				Related conditions
TZL	SO ₂	NO _x	Zn	
10	200 ¹⁾	400	10 ²⁾	A

Notes:

1) Valid from 1 January 2016.

2) Valid for melting and casting of zinc and its alloys.

3.8. Surface treatment of metals and plastic and other non-metal items

3.8.1. Surface treatment of metals and plastics and other non-metal items and their processing with the volume of the bath up to 30 m³ inclusive (with the exception of flushing), processes without the use of bath (Code 4.12. according to Annex 2 of the Act)

Valid for metal coating and non-ferrous items but does not apply to the application of coating materials. Valid for processes of pickling, galvanic coating, phosphatising and polishing with the use of electrolytic or chemical procedures and also enamelling, blasting, metal plating and related operations.

Emission limits [mg/m ³]			Related conditions
TZL	NO _x ¹⁾	HCl ¹⁾	
50 ²⁾	1500 ³⁾	10 ⁴⁾	C

Notes:

1) Emission limits valid for bath with volume from 3 m³ to 30 m³ inclusive, with the exception of flushing.

2) Not valid for processes with the use of a bath in an aqueous environment.

3) Valid for the use of nitric acid in continuously working equipment.

4) Valid during the use of HCl for surface treatment.

Technical conditions for the operation valid for surface treatment by blasting.

The space of the blasting is secured against emission of solid polluting materials, e.g. by sealing by under-pressure, etc.

3.8.2. Surface treatment of metals and plastics and other non-metal items and their processing with the volume of bath above 30 m³ (with the exception of flushing) (Code 4.12. according to Annex 2 of the Act)

Emission limits [mg/m ³]						Related conditions
SO ₂	NO _x	H ₂ SO ₄	HCl	HF		
Measurement by means of HCl						
-	-	-	10	-		B
Pickling by means of H ₂ SO ₄						
-	20	-	2	-	-	B
Pickling by means of HNO ₃ +HF acid						
-		650	-	-	5	B

3.8.3. Metal tools (grinding shops and tooling shops) and plastics with total electric input power higher than 100 kW (Code 4.13. according to Annex 2 of the act)

Emission limit [mg/m ³]	Related conditions
TZL	
50 ¹⁾	C

Note: 1) The emission limit is valid only for dry tooling.

3.8.4. Welding of metal materials with total electric input power equal or higher than 1 000 kVA (Code 4.14. according to Annex 2 of the act)

Emission limit [mg/m ³]	Related conditions
TZL	
50 ¹⁾	C

Note: 1) Not valid for resistance welding.

3.8.5. Application of protective coats from melted metals with projected output smaller than 1 tonnes of the metal-plated steel per hour, inclusive (Code 4.15. according to Annex 2 of the Act)

The above-mentioned emission limits are valid for furnaces with direct process heating or when using a special protective atmosphere.

Technological heating of process baths

Emission limits [mg/m ³]		Related conditions
TZL	NO ₂	
50	400	A

3.8.6. Application of protective coats from melted metals – processed baths with projected output smaller than 1 tonnes of the metal-plated steel per hour (Code 4.16. according to Annex 2 of the Act)

The above-mentioned emission limits are valid for furnaces with direct process heating or when using a special protective atmosphere.

Technological heating of process baths

Emission limits [mg/m ³]		Related conditions
TZL	NO ₂	
50 20 ¹⁾	400	A

Note: 1) Valid from 1 January 2016.

3.8.7. Hot-dip galvanising (Code 4.16. according to Annex 2 of the Act)

Emission limits [mg/m ³]		Related conditions
TZL	zinc	
10 ¹⁾	10 5 ¹⁾	A

Note: 1) Valid from 1 January 2016

4. PROCESSING OF MINERAL RAW MATERIALS (Code 5. according to Annex 2 of the Act)

4.1. Production of cement clinker, lime, treatment of fireproof claystones, and the processing of desulphurisation products

4.1.1. Manipulation with raw materials and product, including storage and dispatching (Code 5.1.1. according to Annex 2 of the Act)

Including crushing, sorting and milling of lime stones; cooling, milling, and hydration of burnt lime.

Emission limits [mg/m ³]		Related conditions
TZL		
50 30 ¹⁾		C

Note: 1) Valid from 1 January 2016. Does not apply to hydrating burnt lime.

4.1.2. Production of cement clinker in rotary furnaces (Code 5.1.2. according to Annex 2 of the act)

Emission limits [mg/m ³]			O _{2R} [%]	Related conditions
TZL	SO ₂	NO _x		
30	400	800 500 ¹⁾	10	A

Note: 1) Valid from 1 January 2016.

4.1.3. Other technological equipment for the production of cement (Code 5.1.3. according to Annex 2 of the Act)

Emission limit [mg/m ³]	Related conditions
30	C

4.1.4. Production of lime in rotary furnaces (Code 5.1.4. according to Annex 2 of the Act)

Emission limits [mg/m ³]		Related conditions
TZL	NO _x	
30	1 200	A

4.1.5. Production of lime in shaft and other furnaces (Code 5.1.5. according to Annex 2 of the Act)

Emission limits [mg/m ³]		Emission limit [% obj.]	Related conditions
TZL	NO _x	CO	
50 30 ¹⁾	1200	3 ²⁾	A

Notes:

- 1) Valid from 1 January 2016.
- 2) Valid only for the production of lime in shaft coke furnaces

4.1.6. Furnaces for processing of products of desulphurisation (Code 5.1.6. according to Annex 2 of the act)

Emission limits ¹⁾ [mg/m ³]				Related conditions
TZL	NO _x	SO ₂	CO	
50	200	100	100	A

Note: 1) Valid for furnaces working independently on the operation of own desulphurisation.

4.1.7. Modification and treatment of fire-proof clay stones and china stones in rotary furnaces (Code 5.1.7. according to Annex 2 of the act)

Emission limits [mg/m ³]		Related conditions
TZL	NO _x	
75	500	B

4.2. Production of glass, including glass fibres

Emission limits [mg/m ³]					O _{2R} [%]	Related conditions
TZL	SO ₂	NO _x	CO	other		
4.2.1. Products of glass, fibres, glass products, enamelled and glazed frits, and glass for costume jewellery processing with projected capacity of melting higher than 150 t/year (Code 5.3. according to Annex 2 of the Act)						
100 ¹⁾ 50 ²⁾²¹⁾	500 ³⁾ 1 600 ^{4), 21)}	2 000 ⁵⁾ 1 000 ⁶⁾ 1 200 ^{7), 8)}	800 ⁹⁾	5 ^{10), 11)} 2 ¹²⁾ 50 ¹³⁾ 30 ¹⁴⁾	8 ¹⁵⁾ 13 ^{6), 16)}	A
4.2.2. Products of glass, fibres, glass products, enamelled and glazed frits, and glass for costume jewellery processing with projected capacity of melting lower than 150 t/year (Code 5.3. according to Annex 2 of the Act)						
100 ¹⁾ 50 ²⁾	500 ³⁾ 1 600 ⁴⁾	2 000			13 ¹⁶⁾	A
4.2.3. Production of composite glass fibres with the use of organic binders (Code 5.4. according to Annex 2 of the Act)						
50 ¹⁷⁾ 75 ¹⁸⁾	800 ³⁾ 1 600 ⁴⁾	2 000		50 ¹⁹⁾		C
4.2.4. Processing of treated glass (melting from semi-products or cullets, production of jewellery, etc.) (Code 5.5. according to Annex 2 of the Act)						
100 ²⁰⁾		500 ²⁰⁾	800 ²⁰⁾			

Notes:

- 1) Applies to mass flow lower than 2.5 kg/h
- 2) Applies to mass flow higher or equal to 2.5 kg/h
- 3) Applies to burning of natural gas
- 4) Valid other fuel.
- 5) Valid for regeneration continuous melting aggregates
- 6) Valid for discontinuous melting aggregates

- 7) Valid for recovering continuous melting aggregates
- 8) During nitrate clarification the respective concentration of nitrogen oxide by weight must not exceed double the above-mentioned values.
- 9) Applies to mass flow equal to or greater than 5 kg/h.
- 10) Valid for lead, antimony, vanadium, tin, copper (with the mass flow of all these substances equal to or greater than 0.05kg/h.)
- 11) Valid for cobalt, nickel, chromium, cadmium, selenium (with the mass flow of these substances equal to or greater than 0.01kg/h.) up to 31 December 2015.
- 12) Valid for cobalt, nickel, chromium, arsenic, cadmium, selenium (with the mass flow of these substances equal to or greater than 0.01kg/h.) up to 1 January 2016.
- 13) Valid for HF (with mass flow which is equal to or greater than 0.05kg/h.)
- 14) Valid for HCl (with mass flow which is equal to or greater than 0.05 kg/h.)
- 15) Valid for continuous smelting aggregates.
- 16) Recalculation for O2R is not performed for discontinuous aggregates for the time when there is no combustion process in them and it is not performed during oxygen smelting and for furnaces with electric heating.
Then, recalculation for O2R is not performed for polluting materials whose concentration is decreased by the installed separator for which, after cooling, the mixing of burnt gases with the air is performed.
- 17) In waste gases from exhaustion, handling with batch and other equipment which emit TZL.
- 18) In waste gases from sedimentation, hardening and drying of fibres with organic binders.
- 19) Valid for VOC.
- 20) Valid for smelting from semi-products or cullets
- 21) Valid for sources whose deadlines for overhaul repairs are mentioned in decisions according to other legal regulation⁶⁾, valid for performing of overhaul repairs.

4.2.5. Chemical varnishing of glass (Code 5.6. according to Annex 2 of the Act)

Emission limit [mg/m ³]	Related Conditions
HF	
5	C

4.3. Smelting of mineral materials, including production of mineral fibres

4.3.1. Processing of magnesite and production on the basis of fire-proof materials, quartz rock, etc. (Code 5.7. according to Annex 2 of the Act)

Emission limits [mg/m ³]			Related Conditions
TZL	SO ₂	NO _x	
20 ¹⁾ 10 ²⁾	400 ¹⁾	1 000 ³⁾ 1 500 ^{4,5)}	A

Notes:

- 1) Valid for burning and drying of materials.
- 2) Valid for other operations (handling raw materials, handling products, etc.)
- 3) valid from 1 January 2016 at temperatures lower than 1 300°C inclusive.
- 4) Valid from 1 January 2016 at temperatures higher than 1 300°C.
- 5) Valid up to 31 December 2015 for firing from the material. .

6) Act No 76/2002 Coll., on integrated prevention and limiting of pollution, on integrated recording of pollution and on the change of some acts (on integrated prevention), as amended by subsequent regulations.

4.3.2. Smelting of mineral materials in cupola furnaces (Code 5.8. according to Annex 2 of the Act)

Emission limits [mg/m ³]				Related Conditions
TZL	SO ₂	HF	HCl	
20	2 500	10	50	A

4.3.3. Production of composite mineral fibres with the use of organic binders (Code 5.9. according to Annex 2 of the Act)

Emission limits [mg/m ³]		Related Conditions
TZL	VOC	
20	50	A

4.4. Production of ceramic products

4.4.1. Production of ceramic products by firing, in particular cover tiles, bricks, fire-proof shaped units, plates, aggregate, or china glass with projected output higher than 75 t/day (Code 5.10. according to Annex 2 of the Act)

Emission limits [mg/m ³]					Related conditions
TZL	SO ₂	NO _x	CO	VOC	
150 75 ¹⁾	2500 1500 ¹⁾	500	800	50	B

Note: 1) Valid from 1 January 2020.

Technical conditions of the operation valid from 1 January 2014:

Restriction of the escape of solid polluting materials into the open air according to the nature of the process, e.g. by closing dusty processes, such as milling, screening, and mixing; covering and ventilation of mixers, filtering of air during the filling of mixers or dosing equipment; use of storage silos with sufficient capacity, covering of transport belts for possible dusty raw materials, handling materials in closed systems, or using under-pressure and de-dusting of exhausted air.

4.5. Production of construction substances, exploitation of stone, minerals, and fuel from surface mines.

4.5.1. Quarries and processing of stone, fine stone production, exploitation, treatment, and processing of aggregates — natural and artificial, with projected output higher than 25m³/day (Code 5.11. according to Annex 2 of the Act)

4.5.2. Preparation of construction materials and concrete, recycling lines of construction materials with projected output higher than 25m³/day (Code 5.12. according to Annex 2 of the Act)

4.5.3. Surface mines of fuel, ores, non-ore raw materials, and their processing, mainly mining, drilling, blasting, sorting, crushing and transport, with projected capacity higher than 25m³/day (Code 5.13. according to Annex 2 of the act)

Technical conditions for the operation for Points 4.5.1–4.5.2.:

Reducing emissions of polluting materials according to the nature of the process, e.g. by covering of sorting and crushing lines, all transport routes, by the use of mist or foaming equipment during dust-producing operations, location of depots or loose material on the downwind side, regular maintenance of equipment, roads, etc.

4.6. Mixing plants of asphalt and mixing plants of resin, recycling of asphalt surfaces (Code 5.14. according to Annex 2 of the Act)

Emission limits [mg/m ³]			O _{2R} [%]	Related conditions
TZL	NO _x	CO		
20	500	800	17	A

Technical conditions of the operation valid from 1 January 2014:

For the purpose of prevention of emissions of polluting materials with a disturbing odour, using measures for the reducing these materials, e.g. covering all transport routes and conveyers of hot mixtures, exhaustion of waste gases from asphalt storage tanks and from mixers of the mixture into equipment for reducing materials with odour, covering of transport vehicles.

5. CHEMICAL INDUSTRY

5.1. Production and processing of organic matter and products containing organic matter

5.1.1. Production of 1,2-dichlorethane and vinyl chloride (Code 6.1. according to Annex 2 of the Act)

Emission limits [mg/m ³]			Related conditions
	1,2-ethylene chloride	vinyl chloride	
Production of 1,2-ethylene chloride			
	5		C
Production of vinyl chloride			
	5	5	C

5.1.2. Production and processing of polymers on the basis of polyacrylonitrile (Code 6.3. according to Annex 2 of the Act)

Emission limit for acrylonitrile [mg/m ³]	Related conditions
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behind equipment for reducing emissions	from drying plants	
0,2 ^{1), 2)} 5 ^{2), 3)}		C
10 ⁴⁾	20 ⁴⁾	
10 ^{5), 6)} 35 ^{7), 5)}	25 ⁸⁾	

Notes:

- 1) Valid for equipment for reducing emissions by burning
- 2) Valid for production of fibres.
- 3) Valid at the output from other facilities for reducing emissions.
- 4) Valid for the production and processing of CAN polymers.
- 5) Valid for wool spinning
- 6) Valid during the wet process of spinning
- 7) Valid during the dry process of spinning
- 8) Valid for the production of ABS polymers (materials).

Technical conditions for operation:

Collection of all gases containing acrylonitrile during fibre spinning, gases from reactors, collecting bins on suspension, and washing filters containing acrylonitrile and butadiene into facilities for limiting emissions

5.1.3. Production of polyvinylchloride (Code 6.4. according to Annex 2 of the Act)

Emission limits [mg/m ³]	Specific production emission [g/t]	Related conditions
Vinyl chloride		
5	10 ¹⁾ 100 ²⁾	C

Notes:

- 1) Valid for vinyl chloride for ready products per unit PVC
- 2) Valid for residual content of vinyl chloride in the place for transfer from the closed system for modification or for drying in the open system as monthly average, in the suspension of polymer per PVC unit.

5.1.4. Production and processing of other synthetic polymers and production of composites, with the exception of composites listed elsewhere (Code 6.5. according to Annex 2 of the Act)

Emission limits ¹⁾ [mg/m ³]		Related Conditions
TOC	NH ₃	

85 ²⁾ 50 ³⁾	50 ⁴⁾	C
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Notes:

- 1) Valid from 1 January 2020.
- 2) Valid for the processing of liquid epoxy resin with amines
- 3) Valid for equipment for the production of urethane parts, construction materials using urethane, does not apply to hydrocarbon blown urethane (e.g. pentane)
- 4) Valid for equipment for the production of items by thermal processing with the use of aminoplastics or phenoplastics, like, e.g. furan, urea formaldehyde, phenol, or xylene resins.

Technical conditions of the operation valid from 1 January 2016:

For the purpose of preventing emissions of polluting materials with disturbing odour, using measures for reducing emissions of these materials, e.g. collection of emissions of organic matter per unit of thermal burning.

5.1.5. Production and processing of viscose (Code 6.6. according to Annex 2 of the act)

Emission limits [mg/m ³]			Related conditions
H ₂ S	CS ₂	H ₂ S and CS ₂ total	
10 50 ¹⁾	100 400 ¹⁾	200 ²⁾	C

Notes:

- 1) Valid for the production of silk cord.
- 2) Valid for the production of staple fibre and textile silk.

Technical conditions for operation:

- a) The specific production emission of carbon disulphide in the production batch and textile silk is 200 000 g/t.
- b) Collection of waste gas from the production of viscose, preparation of the spinning bath and according to technical possibilities also from other operations with the equipment for reducing emissions, closing of the spinning machine during continuous spinning mode, exhaustion of gases produced, and their collection by the equipment for reducing emissions, e.g. the catalyst combustion unit.

5.1.6. Production of rubber auxiliary products (Code 6.7. according to Annex 2 of the Act)

Emission limits [mg/m ³]		O _{2R} [%]	Related conditions
TZL	NO _x		
20	700 ^{1),2)}	11 ²⁾	B

Notes:

1) Valid if waste gases are combusted in another manner than in flares.

2) Not valid for technological equipment on the basis of soot.

Technical conditions for operation:

Production of soot must be equipped with continually operated equipment for additional burning of waste gases.

5.1.7. Production and processing of expanded polystyrene (Code 6.9. according to Annex 2 of the act)

Technical conditions for operation:

During the production of expanded polystyrene, using a maximum of 50 % of the ratio of raw materials containing max. 5 % pentane.

5.1.8. Production of acetylene by the wet method (Code 6.10. according to Annex 2 of the Act)

Emission limit [mg/m ³]	Related conditions
VOC	
200	B

5.2. Production of inorganic matter

5.2.1. Production of chlorine (Code 6.11. according to Annex 2 of the Act)

waste gas from electrolysis and catalytic oxidation

Emission limit [mg/m ³]	Emission limit ¹⁾ [g/t]	Related conditions
Cl	mercury	
3	1 0,01 ²⁾	A

Notes:

1) Related to the annual projected capacity of the production of chlorine.

2) Valid for sources for which a lawful building permit or other similar decision was issued after 14 August 2002.

5.2.2. Production of hydrochloric acid (Code 6.12. according to Annex 2 of the Act)

Emission limit [mg/m ³]	Emission limit ¹⁾ [g/t]	Related conditions
HCl		
25	50	A

Note: 1) Determined from the monthly average of production, recalculated to 36 % hydrochloric acid.

5.2.3. Production of sulphur (Claus process) (Code 6.13. according to Annex 2 of the Act)

Emission limit [mg/m ³]	Emission limit [%]	Related Conditions
H₂S	Compounds of sulphur expressed as elementary sulphur	
10	4 ¹⁾ 2 ²⁾ 1.5 ³⁾ 0.5 ⁴⁾	A

Notes:

- 1) Valid for equipment with projected output up to 20 t/day of sulphur, inclusive.
- 2) Valid for equipment with projected output higher than 20 t/day up to 50 t/day of sulphur, inclusive.
- 3) Valid for equipment with projected output higher than 50 t/day of sulphur.
- 4) Valid for equipment with projected output higher than 50 t/day of sulphur permitted after 1 January 2007.

Technical conditions for operation:

Waste gases containing hydrogen sulphide must be combusted.

5.2.4. Production of liquid sulphur dioxide (Code 6.14. according to Annex 2 of the act)

Technical conditions for operation:

waste gas from the production of liquid sulphur dioxide is supplied for the processing into equipment for the production of sulphuric acid or other processing or desulphurisation equipment.

5.2.5. Production of sulphuric acid (Code 6.15. according to Annex 2 of the Act)

Emission limit ¹⁾ [kg/t]	Related Conditions
SO₂	
2.2	C

Note: 1) Determination from the monthly average of the production recalculated to 100 % sulphuric acid.

5.2.6. Production of ammonia (Code 6.16. according to Annex 2 of the Act)

Emission limit¹⁾ [kg/t]	Related Conditions
NH₃	
0.2	C

Note: 1) Ascertained from monthly average of the production of ammonia.

5.2.7. Production of nitric acid and its salts (Code 6.17. according to Annex 2 of the Act)

Emission limits [mg/m³]		Emission limit¹⁾ [kg/t]	Related conditions
NO₂	ammonia	NO₂	
350 ²⁾	300 ³⁾	1,6	A ⁴⁾ C ⁴⁾

Notes:

- 1) Recalculated to 65 % nitric acid.
- 2) Is not valid for units for modifying the concentration of nitric acid,
- 3) In the case of the use of selective reduction of nitrogen oxide by ammonia,
- 4) Related conditions A are valid for NO₂, related conditions C are valid for ammonia.

5.2.8. Production of fertilizers (Code 6.18. according to Annex 2 of the Act)

Emission limits [mg/m³]						Related conditions
TZL	SO₂	NO_x	ammonia	HCl	HF	
50 20 ¹⁾	2 500 ²⁾	500	50	50 ³⁾	10 ⁴⁾	B

Notes:

- 1) Valid for crushed phosphate rock from 1 January 2016.
- 2) Valid when using sulphuric acid
- 3) Valid for production of NPK fertilizers (multi-component industrial fertilizers containing nitrogen, phosphorus, and potassium).
- 4) Valid for production of fertilizers from phosphate rock.

5.2.9. Sulphate process during production of titanic oxide (Code 6.21. according to Annex 2 of the Act)

Emission limits [mg/m³]	Emission limit [kg/t]	Related conditions
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TZL	SO₂¹⁾	SO₂¹⁾	
50 ²⁾ 150 ³⁾	500 ⁴⁾	6	B

Notes:

- 1) Valid for sulphur dioxide and sulphur trioxide escaping in the phase of decomposition and calcination, including drops of acid recalculated to equivalent of SO₂.
- 2) Valid for main outlets
- 3) Valid for side outlets
- 4) Valid for equipment for the concentration of acid waste.

Technical conditions of the operation from 1 January 2014:

The process must be equipped with equipment for the prevention of emissions of sulphuric acid.

5.2.10. Chloride process during the production of titanium dioxide (Code 6.22. according to Annex 2 of the Act)

Emission limits [mg/m³]		Related conditions
TZL	chlorine	
50 ¹⁾ 150 ²⁾	5	B

Notes:

- 1) Valid for main outlets
- 2) Valid for side outlets

5.2.11. Production of other pigments (Code 6.23. according to Annex 2 of the Act)

Emission limit [mg/m³]	Related conditions
TZL	
50 100 ¹⁾	C

Note:

- 1) Valid for the production of lithopone, permanent white (blanc fix), and production of ferric pigments.

Technical conditions for operation:

For calcination where the exhaust is connected to the separator or other technology, the calcination is in operation only with the assistance of this separation equipment.

5.3. Oil refinery, production, processing, and the storage of petrochemical products and other volatile liquid organic materials.

5.3.1. Oil refinery, production, and processing of petrochemical products (Code 6.24. according to Annex 2 of the Act)

Valid for the processing of crude oil and its oil fractions, such as heavy and light fuel, gases, gas oils, kerosene, black oil, etc., and for the production of alkenes and dienes, aromatic compounds and synthetic gas.

Technical conditions of the operation valid from 1 January 2016:

For the purpose of preventing emissions of polluting materials with disturbing odour, using measures for reducing emissions of polluting materials, e.g. collection of emissions of organic matter to the unit of thermal combustion (temperature for combustion at least 720 °C), etc.

5.3.2. Storage of petrochemical products and other volatile liquid organic matter with a volume above 1 000 m³ or storage tanks with annual filling volume 10,000 m³ and handling (not designated for car fuel) (Code 6.25. of Annex 2 of the Act)

Technical condition for operation:

- a) Arrangement and equipping of storage tanks with volume equal to or greater than 1 000 m³ or storage tanks with annual turnover equal to or greater than 10 000 m³ during the storage of raw materials, semi-products and products which have pressure greater than 1.32 kPa at temperature of 293.15 K:
1. Storage tanks with outside floating roof must be equipped with effective primary and secondary sealing of the edges of the roof.
 2. Tanks with firm roof
 - 2.1 must be equipped with an inside roof with sealing which ensures the reduction of emissions at least by 90 % compared with emissions from a tank with firm roof without any measures, or
 - 2.2 capture must be ensured, returning and removal of vapours of the above-mentioned liquids with an efficiency of at least 99 %; to achieve this efficiency, the burning must be ensured besides cases when back liquidising of vapours is hazardous or technically cannot be performed; the burning can be used as the second level of cleaning.
 3. It is necessary to equip tanks with suitable insulation. In the event that the surface of insulation of the tank insufficiently reflects the radiated heat or the insulation was not performed, then the tanks must also be equipped with a reflection coating for the purpose of reducing volume changes due to the variation in ambient temperature. For the storage tanks for sources with volume less than 1 000 m³ or for sources with annual turnover less than 10 000 m³ this measure is valid within the adequate range.
- b) Conditions for the operation during the pumping of materials with pressure greater than 1.32 kPa at a temperature of 293.15 K, mainly during their filling from mobile storage tanks or during the filling of mobile storage tanks from the storage tanks,
1. The capture, return, and removal of vapours of these materials must be ensured with a minimum efficiency of 99 %.
 2. Pumps must be used without the escape of pumped materials, for example with a mechanical seal.
 3. At least one equipment unit for filling mobile storage tanks must be adapted for filling storage tanks from the bottom; this requirement does not concern handling equipment for which the installation and the use of the filling from the bottom would jeopardise conditions for work safety (e.g. filling of carcinogenic and other hazardous matters).

4. The handling equipment for filling mobile storage tanks from the top must be secured so that the end of the filling pipeline is kept at the bottom of the mobile storage tank during the filling.

Note:

Technical conditions of the operation according to Letter a), Point 3 is valid from 1 January 2017.

6. FOOD, WOOD-PROCESSING AND OTHER INDUSTRIES

6.1 Slaughter with slaughter capacity greater than 50 t per day (Code 7.1. according to Annex 2 of the Act)

Technical conditions for operation valid from 1 January 2013:

For the purpose of reducing emissions of polluting materials with disturbing odour, using measures for reducing emissions of polluting materials, e.g. operation of equipment for the modification of side products and wastes, slaughter line, unloading, and moving in closed premises, during the discharging of tanks with blood, using exhaustion of gases, ensuring regular cleaning of storage tanks with blood, collection into facilities for cleaning of waste gases, waste gas from the storage of slaughter wastes and side products in closed storage tanks, waste gas from production equipment and from facilities for treatment and the storage of slaughter by-products and waste

6.2 Equipment for the production and processing for the purpose of production of food from plant raw materials with projected capacity of 75 t of ready products daily and higher (Code 7.2. according to Annex 2 of the Act)

Technical conditions for operation:

- a) In the event that there is emission of solid pollutants, e.g. during the modification of seeds, in the drying section, for silos for extracting pelletising meal and for reloading extracted meal, it is necessary to collect waste gas and to use the equipment for reducing TZL with an efficiency of at least 80 %.
- b) During the production of oils, using measures for reducing emissions of polluting materials with disturbing odour.
- c) For equipment with projected capacity of 100 t of ready products per day and higher, these conditions are valid from 1 January 2013.
- d) For equipment with projected capacity from 75 t of ready products per day, including up to 100 t, these conditions are valid from 1 January 2014.

6.3 Equipment for production and processing for the purpose of production of food from animal raw materials (other than milk) with projected capacity of 50 t of ready products daily and higher (Code 7.3. according to Annex 2 of the Act)

Technical conditions for operation:

For the purpose of reducing the emission of polluting materials with disturbing odour, using measures for the reducing these materials, e.g. raw products and semi-products, storage in closed storage tanks and premises (or cooling the premises), collecting waste gas from technological equipment into facilities for the cleaning of waste gases.

For equipment with projected capacity of 75 t of ready products per day and higher, these conditions are valid from 1 January 2013.

For equipment with projected capacity from 75 t of ready products per day, including up to 100 t, these conditions are valid from 1 January 2014.

6.4 Coffee roasters with projected output greater than 1 t/day (Code 7.5. according to Annex 2 of the Act)

Technical conditions of the operation valid from 1 January 2013:

Reducing emissions of solid polluting materials and with respect to technical possibilities and the nature of the process, perform, e.g. unloading of material in closed premises of halls, collection of waste gases at the place of origination into the facilities for reducing emissions (for roasting facilities, including cooling air, vacuum equipment, silos), etc.

6.5 Smoke houses with projected output for the processing of more than 1 000 kg products daily (Code 7.6. according to Annex 2 of the act)

Technical conditions of the operation valid from 1 January 2013:

For the purpose of preventing emissions of polluting materials with disturbing odour and TZL emissions, collect waste gas at the place of origination and collect it into the facility for reducing emissions, ensure technical-organisational measures for reducing emissions, e.g. store manufacturing wastes in closed storage tanks, or possibly cool the premises, etc.

6.6. Industrial processing of wood with projected annual consumption of material greater than 150 m³ inclusive (Code 7.7. according to Annex 2 of the Act)

Not valid for gas operating units in the so-called manipulation of dispatching warehouses (shortening of stems)

Emission limits [mg/m ³]		Related conditions
TZL	TOC ³⁾	
50 30 ¹⁾ 10 ²⁾	300 250 ¹⁾	C2 ⁾ B3 ⁾

Notes:

1) Valid from 1 January 2018

2) Valid for grinding.

3) Valid for drying of chips and wooden fibres.

Technical condition for operation:

The temperature during the drying of chips and saw dust must be restricted so as to prevent their smouldering.

6.7. Production of chipboard, wood-fibre and OSB boards (Code 7.8. according to Annex 2 of the Act)

Emission limits [mg/m ³]			Related conditions
TZL	TOC ³⁾	Formaldehyde ⁴⁾	
50 30 ¹⁾ 10 ²⁾	300 250 ¹⁾	15	C ²⁾⁴⁾ B ³⁾

Notes:

1) Valid from 1 January 2018.

2) Valid for grinding.

3) Valid for drying of chips and wooden fibres.

4) Valid from 1 January 2018 for pressing of chipboard, wood-fibre and OSB boards when formaldehyde-based resins are used.

Technical condition for operation:

The temperature during the drying of chips and saw dust must be limited so as to prevent them smouldering.

6.8. Production of cellulose and paper from virgin cellulose (Code 7.9. according to Annex 2 of the Act)

Emission limits [mg/m ³]	Emission limits [g/t]	O _{2R} [%]	Related conditions
TZL	sulphur and its compounds ¹⁾		
50 ²⁾	2 000 ³⁾ 350 ⁴⁾	5 ²⁾	A

Notes:

1) Expressed as sulphur per weight unit of the produced absolutely dry cellulose.

2) Valid from 1 January 2016 for regeneration boilers and lime kilns.

3) Valid for the sulphite method of production, including emissions from the combustion of sulphite extracts.

- 4) Valid for the sulphite method of production during the central removal of materials with odour.

Technical conditions for operation:

For the purpose of preventing emissions of polluting materials with disturbing odour, use measures for reducing emissions of polluting materials, e.g. performing local or central exhaustion of waste gases from boiling plants, evaporators, boiling columns into equipment for reducing emissions.

6.9. Production of paper and cardboard which are not classified under Point 6.8. (Code 7.10. according to Annex 2 of the act)

Valid for the production of paper and cardboard, paper technology which does not directly relate to the production of cellulose or the production of cardboard from paper

Emission limits [mg/m ³]	Related conditions
TOC ¹⁾	B
40	

Note:

1) Valid during impregnation using volatile organic matter and during production of special papers with the use of organic matter in the manufacturing process.

6.10. Pre-modifications (operations such as washing, bleaching, mercerisation) or colouring of fibres of textiles (Code 7.11. according to Annex 2 of the Act)

Technical conditions of the operation valid from 1 January 2014:

For the purpose of preventing emissions of polluting materials with disturbing odour, ensure, e.g. exhaustion of waste gases to the facility for reducing emissions, replacement of mineral oils in auxiliary preparation units (such as induction and dressing agents, spinning lubricants, knitting oils) with less volatile alternative, i.e. ester-based.

6.11. Fur and skin tanning (Code 7.12. according to Annex 2 of the Act)

Technical conditions of the operation valid from 1 January 2013:

For the purpose of preventing emissions of polluting materials with disturbing odour, ensure, e.g. regular maintenance and cleaning of manufacturing equipment and storage premises, raw leather and store wastes in closed premises or cool premises, managed exhaustion of emissions of these materials into the facility for reducing emissions (e.g. wet washing machine, bio-filter).

Technical conditions for the operation is not valid for operations with projected capacity lower than 12 t of ready products per year.

6.12. Equipment for production of carbon (blast-furnace carbonisation of coal) or electric graphite by burning or graphiting and processing of carbonaceous material (Code 7.14. of the Annex 2 of the act)

Emission limits [mg/m ³]	Related conditions
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TZL	TOC	PAH	
50	100 ¹⁾ 200 ²⁾ 50 ³⁾	0,2	C

Notes:

- 1) Valid for forming and mixing equipment in which pitch is processed, tar or other liquid binders at increased temperature.
- 2) Valid for round furnaces for graphite electrodes, carbon electrodes, and carbon bricks,
- 3) Valid for individual chamber furnaces, linked chamber and tunnel furnaces from impregnation equipment in which tar-based impregnating procedures are used.

Technical conditions for operation:

Collection of emissions of VOC from thermal processes during the production of carbonaceous material into equipment for reducing emissions.

6.13. Crematoriums (Code 7.15. according to Annex 2 of the Act)

Valid for veterinary incineration plants in the case of exclusive combustion of bodies of animals and animal parts.

Emission limits [mg/m³]				O_{2R} [%]	Related conditions
TZL	NO_x	CO	VOC		
50	350	100	15	17	A

Technical conditions for operation:

Keeping such temperature in the combustion space after the last air supply which ensures thermal and oxidation destruction of all escaping pollutants (at least 850 °C) with the time of duration of burnt gases less than 2 s.

6.14. Veterinary renovation equipment (Code 7.16. of the Annex 2 of the Act)

Valid for the collection and processing of animal bodies and production of feed or technical fats from side products of slaughter, e.g. bones, hair, plumage, heads, hooks, blood, etc.

Technical conditions of the operation valid from 1 January 2013:

For the purpose of preventing emissions of polluting materials with disturbing odour, ensure, e.g. exhaustion of waste gas into facilities for reducing emissions, storage in closed storage tanks and cleaning of transport storage bins in closed premises.

6.15. Regeneration and activation of catalysts for catalytic fission in a fluid layer (Code 7.17. according to Annex 2 of the Act)

Emission limits [mg/m ³]			O _{2R} [%]	Related conditions
TZL	SO ₂	NO _x		
50	1700	700	17	A

7. BREEDING OF FARM ANIMALS

7.1. Breeding of farm animals with total emission of ammonia above 5 t inclusive (Code 8 of the Annex 2 of the Act)

Technical conditions for operation:

For the purpose of preventing the emission of polluting materials with disturbing odour, ensure technical-organisational measures for reducing these emissions, e.g. by the use of reduction technologies listed in the Bulletin of the Ministry of the Environment

GENERAL EMISSION LIMITS

Part I

General emission limits for stationary sources for which the complete application for the permit of the operation was submitted no later than 31 December 2014 and were commissioned no later than 31 December 2015

1. General emission limits valid up to 31 December 2014

Name of polluting material	Mass flow [g/h]	Concentration by weight [mg/m ³]
1. Solid polluting materials		
1.1 group		
solid polluting materials	≤ 2 500	200
	> 2 500	150
2. Elements and their compounds expressed as the respective element		
2.1 group		
mercury; thallium; cadmium; beryllium	>1	0,2
2.2 group		
arsenic; cobalt; nickel; selenium; tellurium; hexavalent chrome	>10	2
2.3 group		
chromium (without hexavalent chromium); lead; zinc; copper; manganese; vanadium; tin	>50	5
3. Gas inorganic compounds		
3.1 group		
cyanides	>50	5
3.2 group		
stiban; arsine; phosphine; cyanogen chloride; carbonyl dichloride (phosgene)	>10	2
3.3 group		
hydrogen cyanide; hydrogen sulphide; strong inorganic acids (with the exception of HCl) expressed as H ⁺ ; fluorine and its inorganic compounds expressed as HF; bromine and its inorganic compounds expressed as HBr;	>100	10
3.4 group		
chlorine and inorganic compounds of chlorine (with the exception of cyanogen chloride) expressed as HCl	>500	50
3.5 group		
ammonia and ammonium salts expressed as ammonia	>500	50
3.6 group		
sulphur oxide expressed as sulphur dioxide	>20 000	2500
3.7 group		
oxides of nitrogen expressed as dioxide of nitrogen	> 10 000	500
3.8 group		
carbon monoxide	>5 000	800
4. Organic compounds expressed as total organic carbon		

4.1. group		
2-naphthylamine;	>1	0,2
4.2. group		
1,2-dibromoethane, buta-1,3-diene, acrylonitrile, benzene, epichlorohydrin (1-chloro-2,3-epoxypropane) oxirane (epoxyethane) hydrazine; Methyloxiran 2-(1,2-epoxypropane), vinyl chloride (Chloroethylene)	>50	5
4.3. group		
N-nitrosodimethylamine, 1,2-dichloroethane (ethylene dichloride) toluidines (2-methylaniline, 3-and 4-methylaniline methyl aniline), carbon tetrachloride, trichloromethane (chloroform), 1,1-dichloroethylene (vinylidene chloride); benzyl chloride, perchloroethylene, trichloroethylene, 1,2-dichloroethylene, acetaldehyde (ethanal), acrylic acid (propenylic acid), ethyl, methylacrylate, diethylamine, dimethylamine, methylamine, formaldehyde (methanal), formic acid, 3-nitrotoluene, 4-nitrotoluene, pyridine, carbon disulphide, 1,1,2,2-tetrachloroethane, aniline, 2-aminoethan-1-ol phenol; phenyl hydrazine, cresols (hydroxyl derivatives of toluene), thiols (mercaptans), nitrobenzene, tetrachloroethane, 2-nitrophenol, 3-nitrophenol; 4-nitrophenol; nitrocresols, nitro compounds, sulphides (thioethers)	>100	20
4.4. group		
1,4-dichlorobenzene, benzaldehyde; butyl aldehyde (butanal), ethylbenzene; 2-furaldehyde (furfural), chlorobenzene, 2-chloro-butadiene (chloroprene); isopropylbenzene (cumene), methyl acetate, methyl methacrylate, acetic acid, styrene, toluene, vinyl acetate, xylenes (dimethylbenzeno) naphthalene; 2-methylnaphthalene, 1-methylnaphthalene, 2-chloropropane	>2 000	100
4.5. group		
dichloromethane (methylene chloride); chloroethane (ethyl chloride) butan-2-one (ethylmethyl ketone) propane-2-one (acetone, dimethyl ketone), butyl acetate, ethyl acetate, ethane-1,2-diol (ethylene glycol) 4-hydroxy-4-methylpentane-2-one, biphenyl, biphenyl ether, diisopropyl ether, N-methyl-2-pyrrolidone (N-methyl- γ -butyrolactam), 4-methylpentan-2-ol; benzoic acid esters, aliphatic and aromatic ethers, not included in another group, with the number of carbon atoms in the molecule 9 and lower, aliphatic aldehydes, not mentioned by name in another group, with number of carbon atoms in the molecule 8 and below; alkyl alcohols with the number of carbon atoms in the molecule 6 and below; alkanes with number of carbon atoms in the molecule 11 and less, with the exception of methane, alkenes, not mentioned by name in another group, with number of carbon atoms in the molecule 11 and lower	>3 000	150
4.6. group		
Organic matter expressed as the total organic carbon (TOC), if emission limits mentioned in Group 4.1. to 4.5 are not stated for them.	> 0	50
5. Organic halogenated compounds not mentioned in another group		
5.1 group		
organic compounds of fluorine expressed as F (with the exception of regulated substances and substances influencing the earth's climate system)	>100	10
5.2 group		
organic compounds of chlorine expressed as Cl, organic compounds of bromine expressed as Br	>100	10
6. Persistent organic matter (POPs)		
6.1 group		
Polychlorinated dibenzodioxins (PCDDs), polychlorinated dibenzofurans (PCDF)	>0	0.1 ng TEQ/m ³
6.2 group		
Polycyclic aromatic hydrocarbons (PAH)	>0	0.2 mg/ m ³
6.3 group		
Polychlorinated biphenyls (PCB)	>0	0.2 ng

				TEQ/m ³
6.4 group				
hexachlorocyclohexane; trichlorobenzene	tetrachlorophenol,	hexachlorobenzene,	>0	0.2 mg/ m ³

2. General limits valid from 1 January 2015

Name of polluting material	Mass flow (in g/h)	Concentration by weight (in mg/m ³)
1. Solid polluting materials		
1.1 group		
solid polluting materials	≤ 500	150
	> 500	100
2. Elements and their compounds expressed as the respective element		
2.1 group		
mercury; thallium; cadmium; beryllium	>1	0,2
2.2 group		
arsenic; cobalt; nickel; selenium; tellurium; hexavalent chrome	>5	1
2.3 group		
chromium (without hexavalent chromium); lead; zinc; copper; manganese; vanadium; tin	>25	5
3. Gaseous inorganic compounds		
3.1 group		
cyanide and hydrogen cyanide	>10	1
3.2 group		
stibane; arsine; phosphine; cyanogen chloride; carbonyl dichloride (phosgene)	>10	1
3.3 group		
strong inorganic acids (with the exception of HCl) expressed as H ⁺	>100	10
3.4 group		
fluorine and its inorganic compounds expressed as HF	>20	2
3.5 group		
chlorine; bromine and its gaseous inorganic compounds expressed as HBr; hydrogen sulphide	>50	5
3.6 group		
gaseous inorganic compounds of chlorine (with the exception of chlorine and cyanogen chloride) expressed as HCl	>200	30
3.7 group		
ammonia and ammonium salts expressed as ammonia	>200	50
3.8 group		
sulphur oxide expressed as sulphur dioxide	>1 800	600
3.9 group		
oxides of nitrogen expressed as dioxide of nitrogen	>1 800	500
3.10 group		
carbon monoxide	>5 000	800
4. Organic compounds expressed as total organic carbon		
4.1. group		
2-naphthylamine, N-nitrosodimethylamine	>1	0,2
4.2. group		
1,2-dibromoethane, buta-1,3-diene, acrylonitrile, benzene, epichlorohydrin	>50	5

(1-chloro-2,3-epoxypropane) oxirane (epoxyethane) hydrazine; 2-methyloxiran -(1,2-epoxypropane), vinyl chloride (chloroethylene)		
4.3. group		
1,2-dichloroethane (ethylene dichloride) toluidines (2-methylanilin, 3- and 4-methylaniline methylaniline), carbon tetrachloride, trichloromethane (chloroform), 1,1-dichloroethylene (vinylidene chloride); benzyl chloride, perchloroethylene, trichloroethylene, 1,2-dichloroethylene, acetaldehyde (ethanal), acrylic acid (propenic acid) ethyl acrylate, methyl acrylate, diethylamine, dimethylamine, methylamine, formaldehyde (methanal), formic acid, 3-nitrotoluene, 4-nitrotoluene, pyridine, carbon disulphide, 1,1,2,2- tetrachloroethane, aniline, 2-aminoethan-1-ol, phenol; phenyl hydrazine, cresols (hydroxyl derivatives of toluene), thiols (mercaptans), nitrobenzene, tetrachloroethane, 2-nitrophenol, 3-nitrophenol; 4-nitrophenol; nitrocresols, nitro compounds, sulphides (thioethers); dichloromethane (methylene chloride); chloroethane (aminoethyl chloride); 1,4-dichlorbenzene	>100	20
4.4. group		
benzaldehyde; butyl aldehyde (butanal), ethylbenzene, 2-furaldehyde (furfural), chlorobenzene, 2-chloro-butadiene (chloroprene); isopropylbenzene (cumene), methyl acetate, methyl methacrylate, acetic acid, styrene, toluene, vinyl acetate, xylenes (dimethyl benzenes); naphthalene, 2-methylnaphthalene, 1- methylnaphthalene, 2-chloropropane	>2 000	100
4.5. group		
butan-2-one (ethyl methyl ketone) propane-2-one (acetone, dimethyl ketone), butyl acetate, ethyl acetate, ethane-1,2-diol (ethylene glycol) 4-hydroxy-4- methyl-pentan-2-one; biphenyl; biphenyl ethers; diisopropylether; N-methyl-2-pyrrolidone (N-methyl- γ -butyrolactam) 4-methylpentan-2-ol; benzoic acid esters, aliphatic and aromatic ethers, not mentioned by name in another group with number of carbon atoms in the molecule of 9 or less; aliphatic aldehydes, not mentioned by name in another group, with number of carbon atoms in the molecule 8 and below; alkyl alcohols with the number of carbon atoms in the molecule of 6 and below; alkanes with the number of carbon atoms in the molecule 11 and less, with the exception of methane, alkenes, not mentioned by name in another group with the number of carbon atoms in the molecule 11 and lower	>3 000	150
4.6. group		
Organic matter expressed as the total organic carbon (TOC), if emission limits mentioned in the Group 4.1. to 4.5 are not stated for them.	> 0	50
5. Organic halogenated compounds not mentioned in another group		
5.1 group		
organic compounds of fluorine expressed as F (with the exception of regulated substances and substances influencing the earth's climate)	>2	5
5.2 group		
organic compounds of chlorine expressed as Cl, organic compounds of bromine expressed as Br	>100	10
6. Persistent organic matter (POPs)		
6.1 group		
Polychlorinated dibenzodioxins (PCDDs), polychlorinated dibenzofurans (PCDF)	>0	0.1 ng TEQ/m ³
6.2 group		
Polycyclic aromatic hydrocarbons (PAH)	>0	0.2 mg/ m ³
6.3 group		
Polychlorinated biphenyls (PCB)	>0	0.2 ng TEQ/m ³
6.4 group		
hexachlorocyclohexane; tetrachlorophenol, hexachlorobenzene,	>0	0.2 mg/ m ³

trichlorobenzene		
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Part II

General emission limits for stationary sources for which the complete application for permit of the operation was submitted no later than 1 January 2015 and were commissioned no later than 31 December 2015

Name of polluting material	Mass flow [g/h]	Concentration by weight [mg/m ³]
solid polluting materials	≤200	100
	>200	20
sulphur oxide expressed as sulphur dioxide	>1 500	350
oxides of nitrogen expressed as dioxide of nitrogen	>1500	350
carbon monoxide	>3 000	100
organic compounds expressed as total organic carbon (TOC)	>0	50
ammonia and ammonium salts expressed as ammonia	>150	30
hydrogen sulphide	>20	5
carbon disulphide	>20	5
chlorine and its gaseous inorganic compounds expressed as HCL	>50	30
fluorine and its gaseous inorganic compounds expressed as HF	>20	2
benzene	>20	2
lead and its compounds expressed as lead	>3	0,5
mercury and its compounds expressed as the respective element	>1	0,1
arsenic, nickel and their compounds expressed as the respective element	>5	1
benzo(a)pyrene	>0	0,2

Part III

List of polychlorinated dibenzodioxins, polychlorinated dibenzofurans, and polychlorinated biphenyls and their coefficients of equivalent toxicity

When specifying the total value, the concentration by weight of the mentioned PCDD and PCDF is multiplied before summing the coefficients of equivalent toxicity.

1. List of polychlorinated dibenzodioxins and polychlorinated dibenzofurans and their coefficients of toxicity

PCDD or PCDF	Coefficient of equivalent toxicity
2,3,7,8-tetrachlorodibenzodioxins (TCDD)	1
1,2,3,7,8-pentachlorodibenzodioxins (PeCDD)	0.5
1,2,3,4,7,8-hexachlorodibenzodioxins (HxCDD)	0.1
1,2,3,7,8,9-hexachlorodibenzodioxins (HxCDD)	0.1
1,2,3,4,7,8-hexachlorodibenzodioxins (HxCDD)	0.1
1,2,3,4,6,7,8-heptachlorodibenzodioxins (HpCDD)	0.01
octachlorodibenzodioxins (OCDD)	0.001
2,3,7,8-tetrachlorodibenzofurans (TCDF)	0.1

2,3,4,7,8-pentachlorodibenzofurans (PeCDF)	0.5
1,2,3,7,8-pentachlorodibenzofuran (PeCDF)	0.05
1,2,3,4,7,8-hexachlorodibenzofurans (HxCDF)	0.1
1,2,3,7,8,9-hexachlorodibenzofurans (HxCDF)	0.1
1,2,3,6,7,8-hexachlorodibenzofurans (HxCDF)	0.1
2,3,4,6,7,8-hexachlorodibenzofurans (HxCDF)	0.1
1,2,3,4,6,7,8-heptachlorodibenzofurans (HpCDF)	0.01
1,2,3,4,7,8,9-heptachlorodibenzofurans (HpCDF)	0.01
octachlorodibenzofurans (OCDF)	0.001

2. List of polychlorinated biphenyls and their coefficients of equivalent toxicity

IUPAC code	List of polychlorinated biphenyls	Coefficient of equivalent toxicity
77	3,3',4,4'-tetraCB	0.0005
126	3,3',4,4',5-pentaCB	0.1
169	3,3',4,4',5,5'-hexaCB	0.01
105	2,3,3',4,4'-pentaCB	0.0001
114	2,3,4,4',5-pentaCB	0.0005
118	2,3',4,4',5-pentaCB	0.0001
123	2',3,4,4',5-pentaCB	0.0001
156	2,3,3',4,4',5-hexaCB	0.0005
157	2,3,3',4,4',5'-hexaCB	0.0005
167	2,3',4,4',5,5'-hexaCB	0.00001
189	2,3,3',4,4',5,5'-heptaCB	0.0001
170	- di-ortho PCB	0.0001
180	- di-ortho PCB	0.00001

**METHODS AND PROCEDURES FOR MEASUREMENT OF EMISSIONS FOR
WHICH A CERTIFICATE ON ACCREDITATION IS REQUIRED**

Num ber	Name of test	Method of determination
1.	Specification of flow rate and volume flow of waste gas	Measuring of flow rate and cross section
2.	Determination of moisture of waste gas	Condensing method Absorption method
3.	Determination of concentration of oxygen	Paramagnetic method Electrochemical cell (solid electrolyte)
4.	Determination of mass concentration of gaseous pollutants by automated analyzers (carbon dioxide, nitrogen oxides, carbon monoxide)	Spectroscopy Chemiluminescence
5.	Determination of total concentration by weight of organic matter expressed as total organic carbon by automated analyzers	Flame-ionisation detection
6.	Determination of concentration of organic matter	Gas chromatography
7.	Determination of concentration by weight of solid pollutants	Gravimetry
8.	Determination of concentration of materials with odour by dynamic olfactometry	Dynamic olfactometry
9.	Sampling for determination of heavy metals	Isokinetic sampling and absorption into liquid
10.	Sampling for determination of persistent organic matter	Filter-condensing method Dilution method Method with cooled probe
11.	Sampling for determination of sulphur dioxide	Absorption into liquid
12.	Sampling for determination of volatile inorganic compounds of chlorine	Absorption into liquid

REQUIREMENTS OF OPERATING RECORDS

1.1. Identification of the operator and the operating unit

Permanent data

Data about the operator

Identification number of the operator (IČ), if assigned, business name, registered office and statutory representatives or the name and surname and address of permanent residence.

Data about the operating unit

Identification number of the operating unit (IČP), if it was assigned, name and the composition of the operating unit, number of stationary sources in the operating unit, address of the operating unit, code of territorial technical unit, responsible person.

1.2. Data about stationary source

Permanent data

Sequence (or record) number of each stationary source within the operating unit, name of the stationary source according to the operating rules or permit for operation or technical documentation, type of the stationary source, classification of the stationary source according to law, producer, year of production and the date of commissioning, trade licence of the stationary source, shift working, daily, weekly and annual frequency, nominal heat output and input power, projected capacity the waste incineration plant or production, efficiency of the combustion stationary source according to the producer, type of fire place, installed electric output, type of product, specific unit, volume of products, sequence or record numbers of technologies for reducing emissions and chimneys or smoke flues into which the stationary source is terminated.

Variable data

Operating hours (year, month, day), use of capacity in %, volume of produced electric energy and the volume of produced and delivered heat.

1.3. Data about fuel, raw materials, or wastes

Variable data

Type and consumption of fuel, raw materials, thermally processed waste (day, month, year), caloric capacity of the fuel, hazardous properties of the waste.

1.4. Data about technologies for reducing emissions

Permanent data

Record numbers and the type and the number of technologies for reducing emissions, producer, date of commissioning, separated pollutants, guaranteed efficiency of the technology for reducing emissions.

Variable data

Operating hours (if differs from operating hours of the stationary source), operating efficiency, volume flow of waste gas, operating parameter stated in the operating rules documenting the fulfilment of the emission limit under all circumstances.

1.5. Data about discharge ducts

Permanent data

Sequence or record number of the chimney or other smoke flue, height of the chimney from the foot of the chimney and exceeding the mouth of the chimney or other flue above the surrounding terrain, clearance at the crown of the chimney, geometric coordinates of the foot of the chimney or the discharge duct, material and heat-insulating properties of the chimney, exhausted pollutants.

Variable data

Average temperature and the speed of gases flowing through the chimney or discharge duct from the technology for reducing emissions at the place of measurement of emissions, in the case of discharge of emissions of cooling towers, the content of steam in the waste gas as a %, time sequence for discharging emissions from the chimneys, discharge duct or outlet, and operating hours of the chimney (discharge duct or outlet).

1.6. Data about emissions

Permanent data

List of pollutants which the stationary source is obliged to determine, which pollutants are subject of single or continuous measurement of emissions.

Variable data

Measured concentration of the pollutant under reference conditions, mass flow of the pollutant, calculated or derived specific production emission, emission factor used for the calculation of the volume of emissions, date of single measurement of emissions, date of verification of the correctness of data of continuous measurement, date of calibration of the system of continuous measurement, annual weight balance of volatile matter for stationary sources in which there is use of organic solvents with the exception of activities related to the application of powder plastics mentioned in Part I of Point 4.4. of the Annex 4 to this regulation.

REQUIREMENTS OF SUMMARY OPERATING RECORDS

General instructions for filling of forms for the summary operating records:

1. The combustion stationary sources mentioned in Annex 2 to the Act under Code 1.1 with the total nominal heat input power up to 5 MW inclusive, combusting liquid or gas fuel reporting data mentioned in Point 1.1. and in Point 1.2. in Items 15. and 17. in the manner stated by the data standard according to another legal regulation ⁷⁾. The other data mentioned in Points 1.2., 1.4. and 1.5. are not reported.

2. Stationary sources mentioned in Annex 2 to the Act under Code 10.2 report data mentioned in Point 1.1. and in Point 1.3. in Item 12 in the manner stated by data standard according to the other legal regulation⁶⁾. The other data mentioned in Points 1.3., 1.4., and 1.5. are not reported.

1.1. Identification of the operator and the operating unit

1. Data about the operator	
Identification number (IČ) ¹⁾ :	
Name of the operator (business name or name and surname):	
Address (street, registration number/orientation number):	
Address (village, town – town part):	
Post code:	
2. Data about the operating unit	
Identification number of the operating unit (IČP) ²⁾ :	
Territorial technical unit (ÚTJ) ³⁾ :	
Name of operating unit :	
Address (street, registration number/orientation number):	
Address (village, town – town part):	
Post code:	
Summary operating records for the year:	

Explanations to the table:

- 1) Identification number (IČ), is assigned. Natural persons without ID number (IČ) fill in the date of birth.
- 2) Identification number of the operating unit (IČP) – indication of the operating unit in which one or more stationary sources are operated. IČP is assigned through the integrated system of the fulfilment of reporting obligations in the area of the environment.

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Act No 25/2008 Coll., on an integrated register of pollution and an integrated system for the fulfilment of obligations to notify in the area of the environment, as amended.

- 3) The territorial technical unit means a unit which is specified a cadastral territory or its part. Names and ÚTJ codes are part of METIS, maintained by the ČSÚ, which is a guarantor for the maintenance of the list of codes of territorial technical units.

1.2. Summary operating records of combustion stationary sources and waste incineration plants.

1	Sequence number of the stationary source		
2	Classification of the stationary source according to the Act		
3	Date of issue of permit for operation		
4	Name of the stationary source		
5	Efficiency (%)		
6	Nominal thermal output (MWt)		
7	Installed electrical output (MWe)		
8	nominal thermal input power (MWt)		
9	Projected capacity of the waste incineration plant (t/year)		
10	Type of fire place		
11	Operating hours (h/year)		
12	Use of the capacity (%)		
13	Total production of heat (GJ/year)		
14	Total volume of delivered heat (%)		
15	Type of fuel or waste		
16	Calorific capacity of the fuel (kJ/kg, kJ/m ³)		
17	Consumption of fuel or waste (t/year, thousand m ³ /year)*		
18	Emission of pollutants (t/year)		

Explanations and instructions for filling in the data according to the number of the line:

- 1 sequence number of stationary source within the operating unit, assigned ISPOP; In the case of a combustion source or combustion stationary sources with heat input power up to 1 MW inclusive, combustion gas fuel, the data mentioned below is filled in summary.
- 2 Classification of the stationary source according to category of activity according to Annex 2 of the Act.

- 3 Indication if the date of the issue of the permit for operation or another similar permit issued according to former legal regulations for the given stationary source.
- 4 indication of the name of the stationary source according to operating rules or permit for the operation or technical documentation.
- 5 Heat efficiency of the stationary source.
- 6 Nominal heat output of the combustion stationary source according to technical documentation of the combustion stationary source.
- 7 Installed electrical output according to technical documentation of the stationary source of pollution.
- 8 Nominal heat combustion stationary source according to the technical documentation of the combustion stationary source.
- 9 Projected capacity of the incineration plant for wastes according to the technical documentation.
- 10 Type of fire place (e.g. grid, fluid, gas burners, etc.) according to the list of codes mentioned in the Bulletin of the Ministry of the Environment.
- 11 Total number of operating hours during which the stationary source was operated in the reporting year.
- 12 Number of operated hours of the stationary source per year after recalculation for the level of the use of the installed capacity.
- 13 Total volume of the produced utility heat.
- 14 Total quantity of heat delivered to the public network of distance heating in the form of steam or hot water expressed as the percentage (%) of the total volume of the produced utility heat (percentage of the value mentioned in line No 13). This value is filled in only for combustion stationary sources with total nominal input power which is equal to or higher than 50 MWt.
- 15 Type(s) of combusted fuel (according to the list of codes published in the Bulletin of the Ministry of Environment), for waste incineration plants or for combustion stationary sources of thermally processed waste together with the fuel is also indicated as an independent item — waste (without detailed specification).
- 16 Value of the annual average calorific capacity of the fuel according to data from the supplier of the fuel.
- 17 Total consumption of the fuel used by the combustion stationary source in the reported year; in the case that waste is thermally processed, the total volume of the processed wastes is indicated for the value corresponding to the item of waste.
- 18 Total volume of emissions of pollutants (according to the list of codes published in the Bulletin of the Ministry of Environment escaping into the air from the stationary source per reported calendar year for which the operator of the stationary source, according to Section 6(1) of the Act has the stated obligation to determine emissions.

1.3. Summary operating records of other stationary sources

1	Sequence number of the stationary source		
2	Classification of the stationary source according to the Act		
3	Indication of sector		
4	Name of the stationary source		
5	Type of combusted fuel or waste		
6	Calorific capacity of the fuel (kJ/kg, kJ/m ³)		
7	Consumption of the combusted fuel and waste (t/year, thousand m ³ /year)		
8	Consumption of VOC (t/year)	according to Section 20(a)	
9		according to Section 20(b)	
10		according to section 20(c)	

11	Type of product	
12	Volume of product (t/year)*	
13	Emission of pollutants (t/year)	

Explanations and instructions for filling in the data according to the number of the line:

- 1 Sequence number of another stationary source within the operating unit, assigned ISPOP.
In the case of another stationary source for which this option is mentioned in the list of codes published in the Bulletin of the Ministry of the Environment, it is possible to combine the data mentioned below.
- 2 Code of the stationary source according to Annex 2 to the Act. .
- 3 Indication of the sector in accordance with nomenclature for reporting (according to the list of codes published in the Bulletin of the Ministry of the Environment).
- 4 Name of the stationary source according to the operating order or permit for operation or technical documentation (according to the list of codes published in the Bulletin of the Ministry of the Environment).
- 5 Type(s) of combusted fuel (according to the list of codes published in the Bulletin of the Ministry of Environment); in the case that waste or wastes are thermally processed, it is mentioned as an independent waste (without detailed specification).
- 6 Value of annual average calorific capacity of the fuel according to the data of the supplier of the fuel.
- 7 Total consumption of fuel used by the stationary source in the reported calendar year; in the case that waste or wastes are thermally processed, the total volume of combusted wastes is stated for the value corresponding to the item.
- 8 Consumption of volatile organic matter according to the categories of the volatile organic matter used according to Section 20(a), (b), and (c) of this Regulation.
- 9 Type of product for selected technologies (according to the list of codes published in the Ministry of the Environment Bulletin).
- 10 Volume of product in units published in the Ministry of the Environment Bulletin.
- 11 Total volume of emissions of pollutants (according to the list of codes published in the Bulletin of the Ministry of Environment) escaping into the air from the stationary source per reported calendar year for which the operator of the stationary source, according to Section 6(1) of the Act has the stated obligation to determine emissions.

1.4. Data about discharge ducts

1	sequence number of the discharge duct (chimney)	
2	sequence number of each individual stationary source terminated to the chimney (discharge duct)	
3	Height of the chimney (discharge duct) (m)	
4	Cross-section at the crown of the chimney, cross-section of the discharge duct (m ²)	
5	Geographical coordinates of the foot	N
6	of the chimney or the discharge duct	E
7	Average speed of gases in (m/s)	

8	Average temperature of gases (°C)		
9	Time regime of escape of emissions		
10	Operating hours of the chimney / year		
11	Type of technology for reducing emissions		
12	Efficiency of technology for reducing emissions		
13	Emission of pollutants (t/year)		

Explanations and instructions for filling in the data according to the number of the line:

- 1 Sequence number of chimney/discharge duct within the operating unit.
- 2 Sequence number of each individual stationary source mentioned in Item 1 of Points 1.2. and 1.3.
- 3 Construction height of the chimney or exceeding the duct (chimney) above the surrounding terrain.
- 4 Area of cross section of the chimney (inside area at the crown of the chimney), cross section areas of the chimney.
- 5,6 Geographical width and length of the location of the chimney/duct mentioned in the coordination system WGS 84 (World Geodetic System) commonly used by GPS devices.
- 7 Ascertained or professionally estimated average speed of the mass of air at the mouth of the chimney/duct.
- 8 Ascertained or professionally estimated average temperature of the mass of air at the mouth of the chimney/duct.
- 9 Time regime characterising daily, weekly, and annual period in which there is escape of substantial pollutants from chimneys/ducts according to the diagram published in the Ministry of the Environment Bulletin (1 = pollutants have escaped within the stated time period; 0 = small volume of pollutants has escaped or has not escaped at all within the stated period).
- 10 Operating time of the chimney/duct (time during which there is drying of pollutants from some of the terminated stationary sources into the chimney/duct/cooling tower).
- 11 Indication of each technology for reduction of emissions of each pollutant (according to the list of codes published in the Ministry of the Environment Bulletin); in the case of solid pollutants, indication of the type of the last level of the separation equipment in which there is reduction of the volume of solid pollutants.
- 12 The efficiency of each technology for reducing emission expressed in % decrease of concentration of the pollutant entering into the technology for reducing emission.
- 13 The total volume of emissions of pollutants (according to the list of codes published in the Ministry of the Environment) escaped into the air per reported calendar year through the stated chimney/discharge duct/cooling tower for which the operator of the stationary source has the obligation to determine emissions according to Section 6(1) of the Act. In the case that there is escape/discharging of all emissions from stationary sources only through one chimney/discharge duct, this value is not filled in.

1.5. Data about measurement of emissions

1	Sequence number of the stationary source/sources		
2	Indication of place of measurement of emissions		
3	Date of measurement		
4	Emissions of pollutants	specific emission limit	
5		unit of specific limit	

6		concentration by weight	
7		unit of weight of the concentration	
8		mass flow [kg/h]	
9		specific manufacturing emission	
10		unit of specific manufacturing emission	

Explanations and instructions for filling in the data according to the number of the line:

- 1 Sequence number of each individual stationary source mentioned in Item 1 of Points 1.2. and 1.3.
- 2 Indication of the place of measurement of emissions according to the operating order or permit for the operation or technical documentation.
- 3 Date of the last valid authorised measurement of emissions; it is not filled in the case that the determination of emissions is performed in a continuous manner.
- 4 Indication of specific emission limit for individual pollutants (according to the list of codes published in the Ministry of the Environment Bulletin) stated in the permit for the operation and if in the permit for operation the emission limit is not stated, then the emission limit for the given stationary source according to this Regulation.
- 5 Unit of the specific emission limit /according to the list of codes published in the Ministry of the Environment Bulletin).
- 6 Concentration by weight of emissions of pollutants recalculated for the conditions stated for the emission limit of the stationary source in the legal regulation in mg.m^{-3} , or in other units mentioned in Line 7; in the case of continuous measurement the value is calculated as the arithmetic average of all valid daily values per calendar year.
- 7 Unit of the weight concentration in which the emission limit is stated.
- 8 Ratio of the weight of emissions of individual pollutants per hour.
- 9 Ratio of the weight of emissions of pollutants and related values which is stated for the emission limit of the stationary source in the legal regulation.
- 10 Unit of the specific emission limit (according to the list of codes published in the Ministry of the Environment Bulletin).

REQUIREMENTS OF OPERATING INSTRUCTIONS

1. Identification of the stationary source (stationary sources) and operating unit in which the stationary source is located, operator, or the owner of the stationary source.
2. Detailed description of the stationary source and the description of technologies for reducing emissions and their function. The numbering of the stationary source is identical to the operating records of the stationary source and has a unique relationship with the valid operating and technological regulations of the operator.
3. Inputs into the technology – processed raw materials, fuel and wastes thermally processed in the stationary source.
4. Description of technological operations performed in stationary sources with input raw materials and with fuel, mechanism of reactions, including known side reactions, methods for management and inspection of performed operations (detailed conditions for the processing of raw materials and conditions for the combustion of fuel, conditions for operation of technologies for reducing emissions, or other operations for reducing emissions)^{*)}
5. Outputs from the technology — products, energy, wastes, pollutants, and their properties, volume, and the manner of handling, places of output of pollutants from the stationary source into the open air.
6. Description of equipment for continuous measurement of emissions (if installed) and the description of measuring place, including the procedure for the monitoring of the operation of the stationary source and determination of emissions in the case of breakdown of the continuous measurement of emissions (e.g. by monitoring temperature, pressure, content of oxygen, viscosity, pH). In the case of a stationary source for which the emission limit is achieved by modifying technological control of the manufacturing process or by the use of technology for reducing emissions, a description of the operating parameter and its numerical expression documenting the fulfilment of the emission limit under all circumstances, the manner of its measurement, including the manner and the frequency of calibration of the gauge (in accordance with the respective technical standards, if available), and the description of the manner of permanent recording of measured values.
7. Description of measuring place for single measurement of emissions.
8. Type, estimated volume, and properties of pollutants which can occur in the case of failure or accident of the stationary source or its part, for higher emissions than during the usual operation.
9. Specification of the status of the commissioning of the stationary source or its disconnection.
10. Actual connection^{**)} to the respective authority for air protection, manner of reporting accidents, or failure to the authorities for air protection and the public, responsible persons, and the manner of internal handing over information about failures and accidents.
11. Manner of prevention of accidents and failures; measures which are or will be taken by the operator for lessening the consequences of accidents and failures and indication of procedures for the operator when dealing with accidents and removing defects, including the regime of limiting or stopping the stationary source.^{**)} For stationary sources thermally processing waste, the maximum permitted time for any technologically non-replaceable breakdowns, failures or defects of technological equipment for reducing emissions or measuring devices during which the concentration of pollutants may exceed values of emission limits.

12. The procedure for ensuring the reliability and the proper function of the continuous measuring system in the case of breakdown of the continuous measurement of emissions due to the failure or the maintenance of the system exceeding 10 days in a calendar year. An invalid day from the viewpoint of continuous measurement of emissions means a day in which more than three average hourly values are invalid due to the failure or the maintenance of the continuous measurement. In the case of the evaluation of half-hour intervals, the invalid hourly value are two invalid 30 minute average values within one hour.

13. Specification of the time of the commissioning of combustion stationary sources with total nominal heat input power 50 MW and higher during commissioning and its disconnection.

14. Deadlines for the inspection, revisions and maintenance of technological equipment for reducing emissions. Indication of the procedure for training operators and responsible persons.*)

15. Definition of failures and accidents with impact on the outside air and their removal, deadlines for removing failures for the actual technology of the stationary source and conditions for disconnecting the stationary source from operation**)

16. Method and frequency of the adjustment of the combustion of stationary sources.

17. Extraordinary situations — justification of the non-fulfilment of specified emission limits in cases of defined failures, defined accidents, during the starting of technologies into operation or during the disconnection of technologies from the operation during the stated period, during the adjustment of technologies. **Indication of working and control procedures for prevention of escape of pollutants during repairs, starting, or disconnection of the stationary source.*)**

18. The operator of breeding of farm animals will indicate:

- a) the manner of stabling and the projected capacity of stabling of farm animals,
- b) manner of release of ammonia into the air,
- c) reference or reduction technologies according to the Methodological instruction of the Ministry of the Environment “Determination of the category and the application of reduction technologies for agricultural sources” for breeding of farm animals, deposits of barn dung and sludge and manners of treatment for which the emission mass flow of ammonia into the air is declared which will be installed within the plan for the stationary source or other technology reducing emissions of ammonia.
- d) other related technological measures.

19. The operator of the stationary source with escaping fugitive emissions of solid pollutants or the operator of the stationary source which includes the production, processing, treatment, transport, loading, unloading, and the storage of dust-producing materials, will mention in the operating rules technical and operating measures for reduction of solid pollutants and re-suspension of dust.

20. The operator of the stationary source emitting pollutants with disturbing odour, in particular Categories 2.3, 2.4, 2.6, 7.8, 7.9, 7.10, 7.11, 7.12, 7.16, and 8 of Annex 2 to the Act, will mention in the operating rules technical and operating measures for the reduction of emissions of these materials

21. Signature of the operator or its statutory representative.

Explanations:

*) It is permitted to make reference to other documentation of the operator which will contain the requested data.

***) Such marked data may be processed together for all stationary sources of the single operating unit.

CONTEXTUAL REQUIREMENTS OF THE PROFESSIONAL EXPERT OPINION

1. Designation of expert opinion, basic identification data For whom the professional expert opinion is produced, who produced it (including the copy of the decision about the issue of authorisation, stamps of the authorised person, and signature of the person authorised to act on behalf of the authorised person), when the opinion was produced and the reason therefore.
2. General data: Source materials (description of the investigation at the place, description of the project documentation, etc.), Identification data (name of the stationary source, address, operator, ID number of the operator).
3. Description of the stationary source and its operation: Description of the technology used, technical description of all technological equipment, name of its producer, data about air ventilation system (independent or common collection of waste gases into the atmosphere, volume, state conditions, height of the chimney), system of control and regulation and measurement of processes (manual/continuous/automatic system). Data about reference constructions, diagrams, drawings Brief description comparing with similar technologies, BAT (best accessible technology). Description of the manufacturing programme, nominal (projected) manufacturing capacities, data about the operation of the stationary source. Proposal for classification of the mentioned technology according to Annex 2 to the Act.
4. Emission characteristics of the stationary source Location of measuring site. Measured values of emissions (Append copy of the measuring protocol), calculated values of emissions. Comparing with requirements stated by law or implementation of legal regulations. In the case of a stationary source for which the emission limit is achieved by modifying the technological control of the manufacturing process or by the use of technology for reducing emissions, description of the operating parameter and its numerical expression documenting the fulfilment of emission limit under all circumstances, the manner of its measurement, including the manner and the frequency of calibration of the gauge (in accordance with the respective technical standards, if available) and the description of the manner of permanent recording of measured values.
5. Evaluation of the level of pollution of air in the locality where the stationary source is to be located. Comments on the development of the level of pollution by relevant pollutants and description of actual status. Description of the influence of the stationary source on the level of the pollution of air and comparing with other stationary sources which influence the concerned locality.
6. Conclusion and recommendation of the requirements for the operation. Specification of basic conditions for the operation and recommendations for additional conditions for the operation with respect to the concrete location of the stationary source, summary of possible risks with respect to the quality of air.

CONTEXTUAL REQUIREMENTS FOR THE PROTOCOL ON SINGLE MEASUREMENT OF EMISSIONS

1. Date of performing the single measurement of emissions, date of issue of the protocol
2. Names of persons performing the single measurement of emissions
3. Name and signature of person responsible for the correctness of the protocol (representative responsible for the execution of the authorised activity)
4. Identification of the operator of the stationary source
5. Purpose of the single measurement of emissions
6. Sequence number of the measured stationary source
7. Subject of single measurement of emissions (basic technical data of the stationary source and installed technologies for reduction of emissions), other related data (technological inputs and outputs)
8. Location of the measuring site, comparing with the requirements of specified standards, evaluation of impacts of deviation from the standard, in the case of non-uniformity, a drawing with indication of the measuring sites.
9. Scope of the single measurement of emissions and methods for specifying individual pollutants and their groups (references to specified standards, SOP)
10. Instruments used (e.g. sampling equipment, analysers, gauges of further related values, calibration materials, methods of the collection, and evaluation of data)
11. Area of cooperation (identification of collaborating accredited subject, subject of the cooperation — stated value, method of determination, and others)
12. Data on the course of the single measurement of emissions (sampling, measurement of related values, determination of operating parameters, and others)
13. Sets of results of measured values, including state and other accompanying values.
14. Setting the range of analysers, blind trials
15. List of documents used for single measurement of emissions and evaluation (e.g. legislative, standards, SOP), list of marks
16. Evaluation of the single measurement of emissions (concentration by weight, mass flow, specific manufacturing emissions)

CONTEXTUAL REQUIREMENTS OF THE DISPERSION STUDY

1. **Specification of the Dispersion study**
2. **Calculation methodology used**
3. **Input data**

3.1. Location of the object

Description of resolved territory, description, and the map of the location of the source in relation to residential areas and other estates and the relief of the territory. Mapping source materials are equipped with the legend, scale, identification of the coordination system and the digital altimetry used.

3.2. Data about sources

Description of technological equipment of the machine and related technology.

All source materials on emissions are defined (either from the evaluated source, as well as emissions directly related to this source and emissions from technologically connected or related objects irrespective of the investor) and discharge ducts: emission concentrations of pollutants, flows of waste mass or air, their temperature and the speed of exit, total annual emission balances of materials (for the calculation of the initial status emissions reported in Section 17(3)(c) of the Act will be used. For the annual emission balance, a 5-year average of reported data will be used if this data is available. For the calculation of emissions from a new source, the respective emission limit will be used or emission factor or its lower emission limit will be subsequently included in the permit for operation of the source), specification of discharge duct (construction, height, diameter). The volume of burnt gases/waste mass of air is documented by technical documentation of the source or the attached calculation, including explanation of the calculation procedure.

In the case of emissions from mobile sources, data is mentioned on the intensity of the transport (daily number of cars and journeys), and the composition according to categories and emission classes of vehicles.

3.3. Metrological source materials

Wind rose is mentioned corresponding to the respective stated locality, as well as graphic and table form of the frequency of the occurrence of individual classes of the stability and classes of the speed or wind in relation to the dispersion conditions in the atmosphere. In the case of selection of a wind rose in another locality, it is necessary to mention reasons and to describe the possible influence on the precision of the results.

3.4. Description of reference points

The step of the network of design points is selected so that maximum levels of the pollution are evaluated at the place of the contact of the smoke plume with the terrain or in the place of

the achievement of the design (respiration) height. The selection of the size of the modelled territory also takes into consideration the location of the source and the height profile of the territory.

The model of the dispersion also evaluates the influence of the source on multi-floor residential houses at heights corresponding to the highest floors of these buildings (evaluation of possible “capture” of the smoke plume on the windward side of buildings)

In justified cases, the dispersion study involves performing the sensitivity analysis of the influence of the change of the height of the chimney of the source (or the proposal for this height) on the level of the pollution at specific calculation points with the result forming the proposal for the height of the chimney.

3.5. Pollutants and the respective emission limits

The list of relevant pollutants, including the type of calculated concentrations (hourly, daily concentrations, annual average concentration, etc.) and the respective emission limits,

3.6. Evaluation of the level of the pollution in the locality concerned.

During the evaluation of the existing level of the pollution in the locality concerned, maps of levels of the pollution constructed in a network 1x1 km is considered, in the format shapefile (.shp ESRI). These maps are published by the Ministry on the Internet pages. These maps contain in each square the value of the sliding average of the concentration for all pollutants whose emission limit was stated during 5 calendar years.

4. Results of the dispersion study

The results of the dispersion study are mentioned in

- a) a brief comment evaluating the future levels of the pollution of air and expectations for the fulfilment of emission limits,
- b) tabular format (in the case of the calculation for individual selected reference points if the calculation is performed in a regular network of reference points, it is possible to attach the results in tabular format on a CD; here, it is necessary to complete the reference number with its coordinates).
- c) cartographical format (with the indication of altimetry and the location of the estate, maps have a defined scale).

5. Proposal for compensation measures

Exact identification of the stationary source or road for which compensation measures will be performed.

Detailed description of compensation measures with the date of their implementation in the case of applied measures with a time schedule. Risks of the implementation of compensation measures and procedures for minimising these risks are described.

The calculation is performed according to Section 24 documenting the adequacy of the proposed compensation measures.

6. Final evaluation

In addition to the evaluation of contributions to the levels of pollution, the fulfilment of emission limits is compensated when considering the level of pollution and the contribution of a new stationary source. At the same time, the proposed compensation measures and their contribution to the quality of air in the stated area are commented on.

7. List of source materials used

Coefficients of importance for the calculation of compensation measures

Height at which there is escape of pollutants into the air [m]	Coefficient of importance	Height at which there is escape of pollutants into air [m]	Coefficient of importance
0 - 1.5	50	> 28 - 31	23
> 1.5 - 2.5	48	> 31 - 35	22
> 2.5 - 3	46	> 35 - 38	21
> 3 - 3.5	44	> 38 - 43	20
> 3.5 - 4	42	> 43 - 47	19
> 4 - 4.5	41	> 47 - 53	18
> 4.5 - 5	40	> 53 - 58	17
> 5 - 6	39	> 58 - 65	16
> 6 - 6.5	38	> 65 - 72	15
> 6.5 - 7	37	> 72 - 80	14
> 7 - 8	36	> 80 - 89	13
> 8 - 9	35	> 89 - 99	12
> 9 - 10	34	> 99 - 110	11
> 10 - 11	33	> 110 - 122	10
> 11 - 12	32	> 122 - 135	9
> 12 - 13.5	31	> 135 - 150	8
> 13.5 - 15	30	> 150 - 167	7
> 15 - 16.5	29	> 167 - 185	6
> 16.5 - 18.5	28	> 185 - 206	5
> 18.5 - 20.5	27	> 206 - 229	4
> 20.5 - 23	26	> 229 - 254	3
> 23 - 25	25	> 254 - 282	2
> 25 - 28	24	> 282 and more	1