4.2 Terms and definitions

Accompanying note
Note meant to clarify an underlying document. Used in the NeR to inform the competent authorities about the application of the BREFs. The enforcement notes are included in §3.5 and have the same status as the special regulations in the NeR.

Adjustment
Action to ensure that a continuously recording measuring instrument operates with a degree of accuracy such that it performs the function intended; e.g. adjustment by means of calibration gases.

Air pollution
Presence of pollutants in the external atmosphere.

Authorised mass flow
The mass flow specified in the permit for individual (point) sources.

Best Available Control Technology (BACT)
The term 'Best Available Control Technology' refers to technical measures which have been applied with successful results to reduce emissions from a source, whether on a process-integrated basis or in the form of add-on technology, in an average, financially sound enterprise belonging to the industry in question at home or abroad, or to measures which could be applied to the source in question in accordance with technical principles applied in other processes or in the light of the results of demonstration projects set up on an industrial scale. If the size of the enterprise varies within a branch of industry, the level of facilities current in enterprises of comparable size should be taken as a criterion.

Best Available Techniques (BAT)
The most effective and advanced stage in the development of activities and their methods of operation which indicate the practical suitability of particular techniques for providing in principle the basis for emission limit values designed to prevent and, where that is not practicable, generally to reduce emissions and impact on the environment as a whole. The European definition may be found in Art. 2 of the European IPPC Directive (96/61/EC).

BREF
BAT reference document. Information document of the European Commission with a description of the best available techniques (BAT) for reduction of emissions in a specific process or a specific branch of industry. See §2.12.

Calculated odour concentration value
The odour immission concentration used for purposes of odour standardisation which is identical to the odour concentration standard or an odour concentration derived from it by means of a nuisance measurement (percentile value in ou_E/m^3).

Calibration
The determination by means of separate, parallel measurements of deviations in continuously recording measuring instruments, making use of a standardised measuring method.

Carcinogenic substance
Substance with carcinogenic properties, classified by the International Agency for Research on Cancer (IARC) as carcinogenic or possibly carcinogenic to humans or classified by the EC as carcinogenic to humans according to epidemiologic research or chronic animal tests.

Compulsory minimisation (Minimalisatie VerPlichting, MVP)
Compulsory minimisation means that the goal of emission abatement is to achieve zero emission.

Cost effectiveness
Annual costs of emission-abating measures divided by the emission reduction (in €/tonne of emission reduction).

Cumulation rule
The cumulation rule means that:

A for emissions of different substances within a single class occurring simultaneously, the untreated mass flow is totalled for all sources within the installation; if the total emission exceeds the mass flow limit for the class in question, the standard per source is applicable to the aggregate concentration of all substances belonging to that class;

B for all emissions of different substances from separate classes in a single category occurring simultaneously, the untreated mass flow is totalled for all sources within the installation; if the total mass emission exceeds the mass flow for a class higher in number, the standard for that class is applicable per source to the aggregate concentration of the substances in question, in which case any standard which may apply to an individual class remains applicable.

Daily average concentration
The average waste concentration per day over the actual operating time, weighed according to flow rate.

Distinct source
Separate sources within an installation, discharging through one or more point sources and critical for the emission of that unit.

Dust (or particulate matter or particulates)
Particles, of any shape, structure or density, dispersed in the gas phase at the sampling point conditions. According to the described method, all the compounds which may be collected by filtration under specified conditions after representative sampling of the gas to be analysed, and which remain upstream of the filter and on the filter after drying under specified conditions are considered to be dust (or particulate matter). (definition according to pren 13284-1, 1999).

Dutch odour unit (*geureenheid, ge*)
Unit used in the Dutch daily practise to express the amount of odour. There is a fixed relationship between European odour units and Dutch odour units:
1 ou_E/m^3 = 2 ge/m^3.

Emission
The discharge of one or more pollutants to the air.

Emission standard
The maximum permissible emission concentration for different waste gas components accepted per source on the granting of a permit.

ERPs
Emission Relevant Parameters (*Emissie Relevante Parameters, ERPs*) refer to measurable or calculable quantities which have a direct or indirect relationship to the emission to be quantified and which, separately or in combination, describe the nature and scale of emission to a sufficiently reliable extent. Depending on the degree of the relationship between emission and parameter, three types of erps may be distinguished: category 1, category 2 and category 3 erps.

1 Category 1 erps may replace actual measurements and give a reliable quantitative indication of the emission.
2 Category 2 erps give a reliable qualitative indication of the waste gas composition.
3 Category 3 erps indicate whether an installation or process is operating according to its design features and in the required manner and so also provide a good indication of the emission(s).

European odour unit (ou_E)
That amount of odorant(s) that, when evaporated into 1 cubic metre of neutral gas at standard conditions, elicits a physiological response from a panel (detection threshold) equivalent to that elicited by one European Reference Odour Mass (erom). The erom is the accepted reference value for the European odour unit, equal to a defined mass of a certified reference material. One erom is equivalent to 123 µg n-butanol (cas-71-36-3). Evaporated in 1 cubic metre of neutral gas this produces a concentration of 0.040 µmol/mol. One European odour unit equals two Dutch odour units (1 ou_E = 2 ge).

Exception
A departure on specific grounds from the normal requirements of the Netherlands Emission Guidelines for Air (NeR), allowed for licensing purposes by the licensing authority in respect of individual sources and specified in the permit for an individual enterprise.

Extremely hazardous substance
Persistent, highly toxic substance which accumulates readily.

Failure emission
The failure emission is defined as the extra emission that may arise when an emission-abating measure fails to be effective. The failure emission occurs at a scale that is equivalent to the difference between the untreated mass flow and the authorised mass flow from the source in question. If it can be proved that the extra emission will be smaller than this difference in the event of total malfunction, this maximum extra emission is regarded as the failure emission. If emission abatement takes place by means of process-integrated measures, the maximum emission that arises is regarded as the untreated mass flow in the event of malfunction of these measures.

Flow rate
Quantity of waste gas emitted per unit of time in m_o^3/h.

Fugitive emission
An emission not borne by a particular channel.

Geureenheid (ge)
See Dutch odour unit.

Individual measurement
Incidental measurement to monitor an emission or to calibrate continuously recording measuring instruments and consisting of at least three separate samples.

Inspection frequency
X times per year:
at intervals of 12/X months
Once per Y year:
at intervals of Y years.

Inspection
Inspection of equipment operation refers to the verification at certain predetermined intervals of the condition and operation of installed facilities with the aid of appropriate parameters and/or procedures, including reporting of findings.

Level of negligable risk
That concentration of a substance, which does not lead to expectations of negative effects for the environment

Mass flow (or emission load)
The mass of a particular substance or substances according to substance class or category emitted per unit of time(in kg/h).

Market-ready products
Comparable end-products or services from a process in which identical raw materials are used, excluding semi-finished products which are or can only be used within the same installation.

Mass flow check value
Check value (in g/h) required for each substance, substance class or substance category to determine the appropriate means of verification and applicable to the authorised mass flow of individual point sources.

Mass flow limit
Threshold value, varying according to substance class, for the mass flow of an entire installation.

Mean daily concentration
The waste gas concentration per day averaged over real operating time and weighted on the basis of flow rate.

Measurement inaccuracy
The maximum degree of scatter to be expected under predetermined constant discharge conditions using the chosen measurement method, as stipulated in the standards and measurement rules applicable. If the degree of scatter is stated in terms of a standard deviation, measurement inaccuracy is determined by the 95% 2-side confidence interval for a normal distribution.

Measurement method
The entire process of sampling, sample treatment and analysis for the purpose of quantifying emissions.

NeR (Nederlandse emissierichtlijn Lucht)
Netherlands Emission Guidelines for Air.

ou_E
See European odour unit.

Oxygen percentage
Percentage of oxygen in waste gasses. It is a key factor in determining the emission concentration. The following formula is used to convert emission concentrations from a measured oxygen percentage to a reference oxygen percentage:
$(C_{eis})x = (C_{eis})b * (20.95-O(x))/(20.95-O(b))$
Where:
$(C_{eis})x$ = concentration with respect to reference oxygen percentage O(x)
$(C_{eis})b$ = concentration with respect to measured oxygen percentage O(b)
O(x) = reference oxygen percentage
O(b) = measured oxygen percentage

Particulates, Particulate matter
See dust.

Parts per million (ppm)
Concentration unit. The formula to convert ppm to g/m^3 is:
$c = mm/22.4 * cv$
mm is the molecule mass for the component in question.
cv is the concentration per volume ppm (dry).
22.4 is the molal volume in litre/mol of an ideal gas at 273.15 K and 101.3 kPa.

Pollutants
Substances which, whether alone or in mixtures or compounds, may cause nuisance or constitute a hazard to human health or may be harmful to animals, plants or property.

Point source
A fixed point on a channelled and hence in principle quantifiable emission system.

Process emissions
Emission from production activities; including emissions resulting from the delivery, storage, transfer and transport of raw materials and additives and emissions from combustion processes not covered by the various Decrees on combustion plants.

Process unit
One or more operating units or an individual component within a installation which does not on its own give rise to a market-ready product.

Processing unit
Unit for physical and/or chemical processing of raw materials, additives or intermediate products.

Source
Emission from a processing unit with or without abatement facilities, whether or not released in combination with other emissions from one or more point sources.

SOMS (Strategy on Management of Substances)
SOMS is the policy of the Dutch national government directed at the reduction of the environmental burden due to the use of chemical substances. Parts of the SOMS approach is used in the classification of substances into the NeR substance class of compulsory minimisation substances.

Special regulation
A departure from the general source-based standards for a particular production process, process operation or industry as specified in chapter 3 of the NeR.

(Substance) category
Clustering of substances on the basis of comparable physical and/or chemical properties. The following are distinguished:
- carcinogenic substances;
- particulates in general;
- gaseous or vaporous inorganic substances;
- inorganic particulates;
- gaseous or vaporous organic substances;
- organic particulates.

Substance class
Subdivision within a substance category on the basis of comparable (toxicological) properties.

Reference oxygen percentage
Fixed oxygen percentage in waste gasses used in checking emission concentrations.

Respirable particulates
Respirable particulate matter refers to that proportion of total particulate matter which can penetrate into the pulmonary alveoli. It relates to particles with an aerodynamic diameter smaller than 10 micrometer. The aerodynamic diameter of a particle is the equivalent diameter of a spherical particle with a density of 1000 kg/m^3 having the same fall velocity as the particle in question.

Standard volume
Quantity of waste gas (m^3) at 273.15 (K), 101.3 (kPa) on the basis of dry air, expressed in the unit m_o^3.Where applicable, the emission can then be recalculated for a reference oxygen percentage in the waste gas flow.

(Under) Standard conditions
Concentration or flow rate referred to standard volume.

Untreated mass flow
The mass flow of an activity before treatment by means of add-on technology. The definition implies that, given identical processes of comparable scale, untreated mass flows may differ depending on how the process is conducted or on whether process-integrated techniques have been applied.

Volatile organic compounds
The NeR defines volatile organic compounds (VOCs) as all organic compounds which at a temperature of 293.15 K have a vapour pressure of 10 Pascal or more or which under the conditions of use have a comparable volatility, unless in specific measures the NeR states otherwise (see §3.4).

Waste gas
Gaseous carrier of emitted substances.

ZEZ, Zeer Ernstige Zorg, Very High Concern
The most serious categorie for the classification of substances. SOMS classification in ZEZ leads to Compulsary minimasation (minimalisatie verplichting, MVP).