Environment Dictionary

BIOACCUMULATION
Aggregation of so called bio accumulative pollutants in the fat tissues of animals.

BIOCIDE
Biocides are products used to destroy harmful organisms. Most of them are of chemical origin and contain various active substances, but a biocide may also be based on biological methods. The biocide family comprises a wide range of products, such as pesticides, boat varnishes, preservatives in food products and timber preservatives.

BIODEGRADABLE
It means that a product or a packing material, for example, is capable of decomposing by micro-organisms under natural conditions in a certain, specified period of time.

BIOMASS
There are several different definitions, of which the following are relevant depending on reference point:
1. The total organic material mass in an ecological system.
2. The total mass of plants produced by the photosynthesis.
3. The organic mass available for the production of cell mass during fermentation.

BIO-RENEWABLE
The following criteria must be met for a raw material to be considered as renewable:
1. Its components must be part of the natural eco-cycle for a period shorter than 150 years.
2. In this period, the raw material must not add residual products likely to disturb the ecological balance.
3. The fundamental concept and key function is for the raw material to be biodegradable, i.e. to decompose under natural conditions and to be utilised in the formation of new raw materials.

COMPOSTABLE
That indicates that a product, packing or a component belonging to such product or packing is biodegradable into a relatively homogenous and stable soil-like substance.

CONTINUOUS IMPROVEMENT
A process aiming at improving Environmental Management Systems to achieve a higher overall environmental performance in accordance with the organisation's environmental policy (ISO 14001:1996).

COx
Comprehensive term for carbon dioxide (CO2) and carbon monoxide (CO), both of which are combustion gases that contribute to the greenhouse effect.

ECOCYCLE
The ecocycle concept is depicted as an infinity loop, showing that there is no beginning and no end. The concept is often used when speaking of the global turnover of certain elements (such as carbon, sulphur, nitrogen, phosphor), and of certain materials and their recycling from waste products. In many cases, environmental impact is the result of a so-called broken loop; within agriculture and forestry, not to mention the industrial society's often linear flows from raw material through production to waste. Atoms circulate, whereas material changes continuously through chemical reactions.

ECO-FRIENDLY PRODUCT DEVELOPMENT
Product development having the overall goal of minimising total environmental load in relation to benefit. Eco-friendly product development should have a holistic approach to the effects of the own system's activities on external systems. This would at least mean than in cases where all other conditions are equal – financial and functional aspects, for example – the alternative with the smallest environmental load is chosen.

ECOSYSTEM
The entire dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit within a specified area. By a community we mean all populations in a certain limited area, such as the population of foxes, rabbits, ants, birches etc.

ENVIRONMENT
Surroundings, the natural world in which people, animals and plants live, conditions. In the ecological, technical sense it means "biotope", which is a well-defined geographical area, characterised by specific ecological conditions (soil, climate, etc.), which physically support the organisms that live there(biocoenosis). The word is often used in the context of interaction between people, animals, plants and their surroundings.
When talking of environmental control, the word has the following definition: "surroundings in which the organisation operates, comprising air, water, land, natural resources, flora, fauna, humans and the interaction between all of those" (ISO 14001:1996).

ENVIRONMENTAL ASPECT
Those parts of an organisation's activities/operations, products or services that might have an environmental impact (such as certain processes in the production of paper pulp). An "important environmental aspect" is an environmental aspect that has or is likely to have considerable environmental impact (ISO 14001:1996).

ENVIRONMENTAL AUDIT
A management tool comprising a systematic, documented, periodic and objective evaluation of how well a project, organisation or equipment is performing when it comes to safeguarding the environment. The audit should facilitate management control of environmental practices and assess compliance with policy objectives, regulatory requirements and other audit criteria. An audit report shall always be submitted to the client/assignor. (ISO 14010, 1996).

ENVIRONMENTAL IMPACT
Impacts on human beings, ecosystems and man-made capital resulting from changes in environmental quality – i.e., ecological consequences of environmental load.

ENVIRONMENTAL ASSESSMENT
Clarification of current environmental status in view of the implementation of an Environmental Management System (EMS) in a company or an organisation. The assessment should focus on the following four areas:
- Legal and regulatory requirements
- Identification of important environmental aspects
- Review of all current routines for environmental control, and
- Evaluation of the effect of previous incidents

ENVIRONMENTAL COSTS
Different kinds of costs connected with administrative, organisational, process or production related environmental work.

ENVIRONMENTAL IMPACT
Various kinds of direct or indirect changes in surrounding, external conditions that have ecological consequences. ISO 14001 defines this as “each environmental change, be it negative or positive, that is partly or entirely the result of the organisation’s activities/operations, products or services”.

ENVIRONMENTAL LOAD
Resource utilisation, hazardous emissions/discharges or other human activities that have or are likely to have a negative environmental impact.

ENVIRONMENTAL MANAGEMENT SYSTEM
Those parts of the overall management system which comprise organisational structure, planning, responsibility, praxis, routines, processes and resources for the development, implementation, review and maintenance of the environmental policy (ISO 14001:1996). An EMS is thus a means of ensuring effective implementation of an environmental management plan and compliance with environmental policy objectives and targets. A key feature of any effective EMS is the preparation of documented system procedures and instructions to ensure effective communication and continuity of implementation.

ENVIRONMENTAL PERFORMANCE
The result of an organisation’s way of handling its environmental aspects (for example consumption of chemicals resulting in emissions of carbon dioxide). ISO 14001:1996 defines this concept as “measurable results of the Environmental Management System, related to an organisation’s way of dealing with its environmental aspects and based on its own environmental policy, global and detailed environmental goals”.

ENVIRONMENTAL POLICY
An organisation’s expressed intentions and principles for its own overall environmental performance. Such a policy serves as the basis for all environmental work, and defines the global as well as the detailed environmental goals (ISO 14001:1996).

ENVIRONMENTAL TARGETS
The organisation shall identify and maintain documented environmental targets – both global and detailed - for each relevant function and level within the organisation. All such targets must be quantifiable (measurable) and in line with the environmental policy.

ENVIRONMENTAL WORK
Activities comprising environmental control, technical development, environmental supervision, environmental protection and environmental conservation. May also include the possibility to influence human sustenance capacity.

ENVIRONMENTALLY HAZARDOUS ACTIVITIES
Regulated and defined in the Swedish Environmental Code and in the Ordinance on Environmentally Hazardous Activities and Health Protection (SFS 1998:899, most recent changes 1998:2430). Environmentally hazardous activities are:
1. Discharge of sewage, waste water and solid substances, and emissions of gases from land or buildings, or from installations in land, water or subsoil water.
2. Utilisation of land, buildings or installations in a way that may have damaging effects on people’s health or the environment through other discharges or emissions than those specified under 1. above, or through contamination of land, air, water or subsoil water; or
3. Utilisation of land, buildings or installations in a way that may have damaging effects on the environment through noise, vibrations, light, ionising or non-ionising radiation or similar (Swedish Environmental Code 9:1). Temporary disturbances are also classified as environmentally hazardous activities. A mobile unit mounted on a certain location for only a brief period of time (such as a stone crusher or a grading machine) may thus very well be comprised by this definition.

EXTERNAL ENVIRONMENTAL COSTS
Environmental costs caused by external conditions, such as costs for environmental audits, cost generated by governmental regulations or national laws etc.

HC
Abbreviation of Hydrocarbons. Petroleum oils (mineral oils) consist mostly of the two elements carbon and hydrogen.

HOUSEHOLD WASTE
Solid waste composed of garbage and rubbish, which normally originate from houses. Whenever such waste is produced by staff canteens, restaurants, industries, offices, nursing homes or shops it is classified as household waste.

INDUSTRIAL ECO CYCLE
Global approach to long-term sustenance, the ambition being to provide guidance from the development, long-term coordination, adjustment and upgrading of viable business operations and industries while interrelating with other systems.

LANDFILL SITE
A waste disposal site for the deposit of waste onto or into land (i.e. underground).

LIFE CYCLE
Consecutive and interlinked stages of a product system, from raw material acquisition or generation of natural resources to the final disposal. A popular way of describing this is “from the cradle to the grave”.

LIFE CYCLE ASSESSMENT
A study that analyses, evaluates and documents the quotient of environmental impact and use in relation to resource consumption and emissions to functional unit - i.e., a system-oriented approach estimating the environmental inventories (waste generation, emissions and discharges) and energy and resource usage associated with a product, process or operation throughout all stages of the life cycle. LCA is mainly used to make comparisons between different product alternatives.

LOGISTICS
Material administration. Refers to material supply and maintenance work in a general sense. When used in economical contexts, it has expanded from referring to only transport technology, material handling and inventory control to comprise more strategic and organisational aspects as well.

MATERIAL
Substance in a (solid) form that things can be made from; i.e. which may be used in production. Examples are raw material, building material, input goods such as steel, paper, PVC or marble. Material includes both natural resources, manufactured substances and waste.

NOx
Umbrella term for the nitric oxides NO and NO2.

PARAMETERS
A constant or variable unit. Often used to name a measuring unit for, or estimated value of, an environmental load.

PERSISTENT ORGANIC POLLUTANTS
Substances which are difficult to decompose under natural conditions.

PM
Particulate Matter, i.e. particles or dust.

POLLUTION PREVENTION
The use of processes, routines, material or products to reduce, minimise or eliminate the creation of pollutants or waste. It includes practices such as recycling, sewage-treatment, process technology, control systems, resource optimisation and other practices that reduce the use of toxic or hazardous materials, energy, water and/or other resources. Among the potential advantages of such preventive measures are reduced environmental load, efficiency improvements and cost cuts.

POLYCHLORATED BIPHENOLS (PCB)
Persistent environmental poison which is difficult to degrade and may become itinerant in the food chain. Organic, highly stable substances formerly used in tempered paints. These are either fat-soluble or protein-reactive substances that aggregate in fat tissues. Their rate of concentration increases the higher it advances in the food chain. With seals and fish, PCB cause damage on the reproductive organs. American studies have shown that children of mothers exposed to PCB may suffer from learning disorders and hyperactivity. Ever since the twenties PCB was used in insulating fluids, oil additives and softeners. In the fifties, PCB came into use in certain building materials. In Sweden, PCB was banned in 1973.

PREVENTIVE ENVIRONMENTAL CONTROL
Derived from the notion of “Pollution prevention” as an alternative strategy to the so-called “end of pipe solution” – the reduction of hazardous emissions or effluents from chimneys and sewers. “Preventive Environmental Control” means that you concentrate you environmental work on “doing it right from the beginning” and was originally rather focused on the production process itself. To a growing extent, however, other parts of a product’s life cycle as well as the life cycle in its entirety are now taken into consideration.

PRODUCT ECOLOGY
The relation between products and their surrounding (the environment). Product ecology is a new science; the study of products and product-related systems from a holistic, dynamic, environmental perspective. Product ecology focuses on alternatives for sustainable development of industrial systems.

PRODUCTION
Raw material sourcing, processing, production, handling and organisation up to the point of use and benefit of a product. The natural end of the production phase is when something is sold to the final customer.

RECIPIENT
The part of nature that is at the receiving end of a pollutant, for example.

RECYCLING
Recovering (i.e. collecting and treating) and utilising valuable raw materials in residue and waste for use as raw material in the manufacture of the same or a similar product. Recycling involves the recovery of substances as well as of energy and waste heat. A major problem in this area is to recognize and retrieve products once they have fulfilled their purpose, and to recycle them into the production system in an organized manner (the EU waste strategy distinguishes between: reuse meant as a material reuse without any structural changes in materials; recycling meant as a material recycling, only, and with a reference to structural changes in products; and recovery meant as an energy recovery only).

RENEWABLE RESOURCES
Products of vegetable or animal origin that are used for industrial purposes (energy, functional applications before and after chemical modification) including foodstuff not used for consumption, foodstuff wastage and by-products from food production. Fossil materials do not count as renewable resources as they were “removed from the biological cycle millions of years ago” (according to the international “Dictionary of renewable resources”, pages XII and XIII).

RESIDUE
Left-over material from a process, remaining products or material after consumption. Mainly refers to recyclable products and material or solid waste.

RESOURCE
Asset available for human sustenance. The opposite of “resource” is waste. Resources are often characterised by order, whereas waste is usually characterised by a certain disorder.

RESOURCE UTILISATION
Utilisation and consumption of resources which are valuable for human sustenance.

REUSE
Material reuse without any structural changes in materials; i.e. reused materials and products are recycled to their previous use.

SIGNIFICANT
A difference that is statistically certain and quantitative.

SUSTAINABLE DEVELOPMENT
Covers not only ecological but also social and economic aspects and is meant to be the concept on which all farsighted environmental work is based (see also Industrial Eco Cycle). “Sustainable” involves the use of natural products and energy in a way that does not harm the environment.

SYNERGISM
Interaction between different organs or systems. A term used within medicine where it refers to the interaction between pharmaceuticals. Generally, however, it refers to the combined power of two or several things acting together, for example negative intensification through the interaction of different environmental loads, or positive intensification through the interaction of different industrial systems.
Opposite: Antagonism.

SYSTEM
The combination of several organized factors, often used to describe a number of interacting industrial operations being analysed.

VOC
Volatile Organic Carbons. Highly volatile organic substances that are constituent parts of a finished product. When for example a can of paint is to be consumed, the user should strive for an alternative with the lowest possible VOC content.

WASTE
Materials that are not prime products (that is, products produced for the markets) for which the generator has no further use and of which he/she wants to dispose.