



INX

Doing our part for a sustainable future



Green Terms & Definitions

Actual Emissions	Pollutant air emissions, either measured or calculated, based on a facility's current operating parameters (e.g. throughput, hours of operation, etc.)
Aerobic Degradation	The breakdown of a molecule into smaller chemical entities in the presence of oxygen. (National Institutes of Health, Bethesda, MD) Aerobic degradation includes aerobic treatment which is a process by which microbes decompose complex organic compounds in the presence of oxygen and use the liberated energy for reproduction and growth. (Such processes include extended aeration, trickling filtration, and rotating biological contactors.) http://www.epa.gov/OCEPaterms/dterms.html
Anaerobic Degradation	The metabolism of substances by bacteria that do not require oxygen to live. (Etoxnet Glossary of Terms)
Anaerobic Decomposition	Reduction of the net energy level and change in chemical composition of organic matter caused by microorganisms in an oxygen-free environment. http://www.epa.gov/OCEPaterms/dterms.html
Air Permit	Legally-enforceable documents designed to improve compliance by clarifying what facilities (sources) must do to control air pollution. (http://www.epa.gov/air/oaqps/permits/basic.html)
Best Available Control Technology (BACT)	An emission limitation based on the maximum degree of emission reduction (considering energy, environmental, and economic impacts) achievable through application of production processes and available methods, systems, and techniques. BACT does not permit emissions in excess of those allowed under any applicable Clean Air Act provisions. Use of the BACT concept is allowable on a case by case basis for major new or modified emissions sources in attainment areas and applies to each regulated pollutant. http://www.epa.gov/OCEPaterms/dterms.html , ASTM Test Method 6866
Bio-Based Material	A bio-based material or "biomaterial" is any material made from renewable plant matter (as opposed to non-renewable prehistoric plant material, fossil fuels), including agricultural crops and residues, and trees. Sustainable biomaterials are those that are (1) sourced from sustainably grown and harvested cropland or forests, (2) manufactured without hazardous inputs and impacts, (3) healthy and safe for the environment during use, and (4) designed to be reutilized at the end of their intended use such as via recycling or composting. (http://www.cleanproduction.org/Steps.BioSociety.Biobased.php)
Biodegradable	Biodegradable materials can be degraded by microorganisms such as bacteria, enzymes and fungi. This degradation produces water, carbon dioxide and/or methane and in some cases residues non toxic to the environment. This term can be applied to both chemicals and substrates used in the printing industry. Specific test methods can be applied to determine biodegradability. ASTM Test Method 6400/6868

Bioplastics	A form of plastic derived from renewable biomass sources, such as vegetable oil, corn starch, pea starch, micro biota, etc. Bioplastics are used either as a direct replacement for traditional, petroleum-based plastics or as blends with traditional plastics.
Carbon Cycle	The natural circulation of carbon which is exchanged among large carbon reserves in the land, the ocean, the biosphere and the atmosphere. It includes the circulation through ecosystems in the course of which carbon atoms from carbon dioxide are incorporated into organic compounds formed by green plants through photosynthesis. (http://unstats.un.org/unsd/environmentgl/default.asp)
Carbon Footprint	A carbon footprint is a measure of the impact human activities have on the environment in terms of the amount of green house gases produced, measured in units of carbon dioxide. It is meant to be a useful metric for individuals and organizations as they conceptualize their personal (or organizational) impact on global warming.
Carbon Neutral	Carbon neutral, or carbon neutrality, refers to a net zero carbon release, brought about by balancing the amount of carbon released with the amount sequestered or offset. http://www.epa.gov/OCEPAterms/dterms.html
Carbon Offset	A carbon offset is the mitigation of greenhouse gas emissions by offsetting emissions generated in one location with emissions reductions or displacements in another where it is technically and/or economically more feasible to achieve those reductions. Carbon offsets are measured in metric tons of carbon dioxide-equivalent (CO ₂ e). One carbon offset represents the reduction of one metric ton of carbon dioxide, or its equivalent in other greenhouse gases. Carbon offsets can be purchased and traded through financial instruments representing greenhouse gas emission reductions.
Compostable	The term compostable verifies that a material or mix of materials can be decomposed in a composting system within one composting cycle. ASTM Method 6400/6868. Composting is the controlled biological decomposition of organic material in the presence of air to form a humus-like material. Controlled methods of composting include mechanical mixing and aerating, ventilating the materials by dropping them through a vertical series of aerated chambers, or placing the compost in piles out in the open air and mixing it or turning it periodically. http://www.epa.gov/OCEPAterms/dterms.html
Cradle-to-Cradle	A system by which materials are maintained in closed loops to maximize material value without damaging ecosystems. (http://www.mbdc.com/c2c_home.htm) Cradle-to-cradle protocols minimize waste through recycling and reuse, rather than disposal.
Cradle-to-Grave	A system for controlling hazardous waste from the time it is generated until its ultimate disposal – in effect, from "cradle to grave". (http://www.epa.gov/osw/laws-reg.htm)
Drain Safe	Products deemed safe by local, state and federal criteria for disposal into a sanitary sewer system that may go directly to Publicly Owned Treatment Works (POTW) and will not cause the POTW to exceed its permitting limits. The term does not apply to a mixed effluent or to storm water drains.
Effluent Guidelines	National standards based on the performance of treatment and control technologies, for wastewater discharges to surface waters and municipal sewage treatment plants. Effluent guidelines are issued for categories of existing and new sources. (http://www.epa.gov/guide/)
Energy Recovery	Obtaining energy from waste through a variety of processes (e.g. combustion).
SGP Envelope	Within the SGP Partnership registration program, the envelope includes all the manufacturing support activities and includes the building, grounds, utilities, employee and other functions of an individual site.

Environmental Audit	An independent assessment of the current status of a party's compliance with applicable environmental requirements or of a party's environmental compliance policies, practices, and controls.
Environmental Impact	Any change to the environment, good or bad, that wholly or partially results from industrial/manufacturing activities, products or services.
Environmental Management System (EMS)	An EMS is a set of processes and practices that enable an organization to reduce its environmental impacts and increase its operating efficiency. (http://epa.gov/ems)
Environmentally Sound Technologies	Techniques and technologies capable of reducing environmental damage through processes and materials that generate fewer potentially damaging substances, recover such substances from emissions prior to discharge, or utilize and recycle production residues. The assessment of these technologies should account for their interaction with the socio-economic and cultural conditions under which they are implemented.
Greenhouse Gas	A gas, such as carbon dioxide or methane, which contributes to potential climate change. The greenhouse effect is a process that raises the temperature of air in the lower atmosphere due to heat trapped by greenhouse gases.
Greenhouse Effect	The phenomenon whereby the earth's atmosphere traps solar radiation, caused by the presence in the atmosphere of gases such as carbon dioxide, water vapor, and methane that allow incoming sunlight to pass through but absorb heat radiated back from the earth's surface.
Greenwashing	The unjustified appropriation of environmental virtue by a company, an industry, a government, a politician or even a non-government organization to create a pro-environmental image, sell a product or a policy. Sourcewatch. The term is generally used when significantly more money or time has been spent advertising being <i>green</i> (that is, operating with consideration for the environment), rather than spending resources on environmentally sound practices.
Hazardous Air Pollutant (HAP)	Toxic air pollutants, also known as HAPs, are those pollutants that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects. U.S. EPA is working with state, local, and tribal governments to reduce air toxics releases of 188 pollutants to the environment. Examples of toxic air pollutants include benzene, which is found in gasoline; perchlorethylene, which is emitted from some dry cleaning facilities; and methylene chloride, which is used as a solvent and paint stripper by a number of industries. Examples of other listed air toxics include dioxin, asbestos, toluene, and metals such as cadmium, mercury, chromium, and lead compounds. U.S. EPA specifies Method 311 in the Printing and Publishing MACT standard for determination of hazardous air pollutants in publication rotogravure and wide web flexographic ink systems. (http://www.epa.gov/ttn/atw/allabout.html)
Hazardous Waste	Hazardous waste is a waste with properties that make it dangerous or potentially harmful to human health or the environment. The universe of hazardous wastes is large and diverse. Hazardous wastes can be liquids, solids, contained gases, or sludges. They can be the by-products of manufacturing processes or simply discarded commercial products, like cleaning fluids or pesticides. (http://www.epa.gov/osw/hazwaste.htm)
Incineration	Also known as combustion, incineration is a controlled burning process to reduce waste volume.. In addition to reducing volume, incineration can convert water into steam to fuel heating systems or generate electricity. Incineration facilities can also remove materials for recycling. (http://www.epa.gov/epaoswer/non-hw/muncpl/landfill/sw_combst.htm)
Inert	In chemistry, the term inert is used to describe something that is not chemically active (http://en.wikipedia.org/wiki/Inert) or has only a limited ability to react chemically; chemically inactive; an indifferent chemical in a reaction.

Landfill	Final placement of waste in or on the land in a controlled or uncontrolled way according to different sanitary, environmental protection and other safety requirements.
Lead (Pb)	A heavy metal that is hazardous to health if breathed or swallowed. Its use in gasoline, paints, and plumbing compounds has been sharply restricted or eliminated by federal laws and regulations
Lean Manufacturing (Lean)	An overall methodology that seeks to minimize the resources required for production by eliminating waste (non-value added activities) that inflate costs, lead times and inventory requirements. Lean emphasizes the use of preventive maintenance , quality improvement programs, pull systems and flexible work forces and production facilities.
LEED	The Leadership in Energy and Environmental Design (LEED) Green Building Rating System™ encourages and accelerates global adoption of sustainable green building and development practices through the creation and implementation of universally understood and accepted tools and performance criteria. More at http://www.usgbc.org/DisplayPage.aspx?CMSPageID=222
Life Cycle Assessment (LCA)	A technique for assessing the potential environmental impacts of a product by examining all the material and energy inputs and outputs at each life cycle stage. (http://www.mbdc.com/c2c_gkc.htm)
Living Wage	An above market wage mandate set at upwards of \$15 an hour. Traditional living wages apply only to government employees or employees of companies that contract with governments. Recently, efforts have been made to expand the reach of these ordinances to all local businesses.
Maximum Available Control Technology (MACT)	The emission standard for sources of air pollution requiring the maximum reduction of hazardous emissions, taking cost and feasibility into account. Under the Clean Air Act Amendments of 1990, the MACT must not be less than the average emission level achieved by controls on the best performing 12 percent of existing sources, by category of industrial and utility sources
Natural	Present in or produced by nature, Not altered, treated, or disguised; existing in or formed by nature; having undergone little or no processing and containing no chemical additives
Non-Attainment Area	Area that does not meet one or more of the National Ambient Air Quality Standards for the criteria pollutants designated in the Clean Air Act.
Permissible Exposure Limit	Also referred to as PEL, federal limits for workplace exposure to contaminants as established by OSHA.
Post-Consumer Materials/Waste	Materials or finished products that have served their intended use and have been diverted or recovered from waste destined for disposal, having completed their lives as consumer items. Postconsumer materials are part of the broader category of recovered materials.
Post-Consumer Recycling	Use of materials generated from residential and consumer waste for new or similar purposes; e.g. converting wastepaper from offices into corrugated boxes or newsprint
Pollution Prevention (P2)	Pollution prevention is the reduction or elimination of waste at the source by modifying production processes, promoting the use of non-toxic or less-toxic substances, implementing conservation techniques, and re-using materials rather than putting them into the waste stream.
Potential to Emit (PTE)	The maximum capacity of a stationary source to emit a pollutant under its physical and operational design.
SGP Process	Within the SGP Partnership registration program, the process includes all manufacturing steps (e.g., prepress, press and post press) involved with converting raw materials into a finished product including process by-products (e.g., solid wastes, air pollution, wastewater) that have an environmental , health and safety impact.

Product	Within the SGP Partnership registration program, the product includes the design aspects and input material management to create the product.
Publicly Owned Treatment Works (POTWs)	A waste-treatment works owned by a state, unit of local government, or Indian tribe, usually designed to treat domestic wastewaters.
Reasonable Available Control Technology (RACT)	RACT is required on existing sources in areas that are not meeting national ambient air quality standards (i.e., non-attainment areas). (http://epa.gov/ttn/catc/rblc/htm/welcome.html)
REACH	A new European Community Regulation on chemicals and their safe use (EC 1907/2006). It deals with the Registration, Evaluation, Authorization and Restriction of Chemical substances. The new law entered into force on June 1, 2007. The aim of REACH is to improve the protection of human health and the environment through the better and earlier identification of the intrinsic properties of chemical substances. (http://ec.europa.eu/environment/chemicals/reach/reach_intro.htm)
Recyclable	Includes the reuse, reconditioning, and remanufacturing of products or parts in another product. (http://www.ftc.gov/opa/1998/04/green.shtm)
Recycled Content	Refers to the percentage of recycled materials in a product. "Recycled content" includes products and packages that contain reused, reconditioned or remanufactured materials, as well as recycled raw material. (http://www.ftc.gov/opa/1998/04/green.shtm)
Recycling	The reprocessing of old materials into new products, with the aims of preventing the waste of potentially useful materials, reducing the consumption of fresh raw materials, reducing energy usage, reducing air (from incineration) and water (from landfilling) pollution by reducing the need for "conventional" waste disposal, and lowering greenhouse gas emissions as compared to virgin production. Recycling is a key concept of modern waste management and is the third component of the "Reduce, Reuse, Recycle" waste hierarchy, though colloquial usage of "recycling" can also include "reuse." (http://en.wikipedia.org/wiki/Recyclable)
Renewable Resource	A natural resource qualifies as a renewable resource if it is replenished by natural processes at a rate comparable or faster than its rate of consumption by humans or other users. Resources such as solar radiation, tides, and winds are perpetual resources that are in no danger of being used in excess of their long-term availability. Natural resources that qualify as renewable resources include oxygen, fresh water, timber, and biomass. However they can become non-renewable resources if used at a rate greater than the regeneration of new materials. (http://en.wikipedia.org/wiki/Renewable_resource)
Resource Conservation and Recovery Act (RCRA)	The public law that creates the framework for the proper management of hazardous and nonhazardous solid waste. The Office of Solid Waste (OSW) is the regulatory body. (http://www.epa.gov/epaoswer/osw/laws-reg.htm)
Retention Factors	The October 2006 Control Techniques Guideline (CTG) for Letterpress and Lithographic Printing recommends that state and/or local pollution control agencies use substrate "retention factors" in the calculation of VOC emissions lithographic and letterpress printing facilities. Retention factors assume that a percentage (i.e. 20% for heatset and 95% for coldset inks) of the ink VOC content remains in the substrate and is not emitted.
Sustainability and/or Sustainable Development	Meeting the needs of the present without compromising the ability of future generations to meet their own needs. (World Commission on Environment and Development). Capable of being continued with minimal long-term effect on the environment; of economic development or energy sources: capable of being maintained at a steady level without exhausting natural resources or causing ecological damage.
Sustainable Green Printing Partnership	A registration organization for the printing industry. It is designed to provide criteria and direction for what

(SGP Partnership)	constitutes a sustainable green printing facility. (http://www.sgppartnership.org)
Stakeholder	A party who affects, or can be affected by, an organization's actions. (http://en.wikipedia.org/wiki/Stakeholder)
Total suspended solids (TSS)	Particles suspended in water which will not pass through a filter. Suspended solids are present in sanitary wastewater and many types of industrial wastewater. There are also nonpoint sources of suspended solids, such as soil erosion from agricultural and construction sites. http://www.deq.state.mi.us/documents/deq-swq-npdes-TotalSuspendedSolids.pdf
Toxic Characteristic Leaching Procedure (TCLP)	A procedure designed to determine the mobility of both organic and inorganic analytes present in liquid, solid, and multiphasic wastes. This is usually used to determine if a waste may need to carry a hazardous waste code under RCRA (40 CFR Part 261) of D004 through D052. (http://www.ehso.com/cssepa/TCLP.htm)
Verification	The process of checking that a product, service, or system meets specifications and that it fulfills its intended purpose. These are critical components of a quality management system. (http://en.wikipedia.org/wiki/Verification_and_Validation)
Volatile Organic Compound (VOC)	VOCs include any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions. (http://epa.gov/iaq/voc.html) Test Methods: Publication Rototgravure Inks and Coating – EPA Reference Test Method 24A, All other thin film Inks/Coatings – EPA Reference Test Method 24
VOC Emissions	VOC's which are put into the air or emitted by various sources
Waste	(Hazardous) is a waste with properties that make it dangerous or potentially harmful to human health or the environment. The universe of hazardous wastes is large and diverse. Hazardous wastes can be liquids, solids, contained gases, or sludges. They can be the by-products of manufacturing processes or simply discarded commercial products, like cleaning fluids or pesticides. Nonhazardous waste includes all solid waste that does not meet the definition of hazardous waste. http://www.epa.gov/osw/laws-reg.htm
Waste Management	The collection, transport, processing, recycling or disposal of waste materials. The term usually relates to materials produced by human activity, and is generally undertaken to reduce their effect on health, aesthetics or amenity. Waste management is also carried out to reduce the materials' effect on the environment and to recover resources from them. Waste management can involve solid, liquid or gaseous substances, with different methods and fields of expertise for each. (http://en.wikipedia.org/wiki/Waste_management)
Waste-to-Energy	The practice of incinerating waste products to generate steam, heat, or electricity.