![SGP - Sustainable Green Printing Partnership logo]

CERTIFICATION CRITERIA

EFFECTIVE DATE:
May 1, 2011

SUSTAINABLE GREEN PRINTING PARTNERSHIP

www.sgppartnership.org

SUSTAINABLE GREEN PRINTING PARTNERSHIP

www.sgppartnership.org
info@sgppartnership.org

Table of Contents

Page intentionally left blank.

Introduction

The demand for products to be produced in a sustainable manner has impacted all manufacturing industries, including the printing, packaging, and publishing industry. The Sustainable Green Printing (SGP) Partnership's certification criteria specify the requirements for management and production operations that define a sustainable green printing operation. The benefits of the criteria include providing a consistent methodology to define sustainable green printing, binding, finishing, and loose leaf manufacturing operations and allowing the end user of printed products the ability to identify and distinguish sustainable green printing operations in their supply chain.

Facilities pursuing certification under the SGP Partnership program progress though a comprehensive evaluation before becoming SGP certified. Once a facility's application is accepted, it has twelve (12) months to complete the certification process. Permission to use the SGP logo is not granted until a facility has completed the SGP certification process and paid the appropriate fees.

1.0 Eligible Facilities

Standalone and in-plant printing, binding and finishing, loose-leaf facilities, and printing departments within schools or government agencies located in the United States and Canada are eligible to apply for certification by the SGP Partnership. If the facility is applying as an in-plant operation, only the printing, binding and finishing, and loose-leaf portions of the facility are eligible for SGP certification, not the entire facility.

Facilities with any significant environmental, health, and safety violations must resolve violations prior to applying for certification. A significant violation from the United States Environmental Protection Agency (U.S. EPA), Environment Canada (EC), state/local, or provincial environmental regulatory authorities results in environmental damage or could cause harm to human health or the environment. For health and safety, it is defined as a serious violation by the Occupational Safety & Health Administration (OSHA) for facilities operating in the United States or the equivalent provincial Ministry in Canada. Simply receiving a notice of violation or a citation does not constitute a significant violation. Significant violations are not those involving recordkeeping or other minor administrative issues. In the event an SGP-certified facility receives a notice of violation or a citation, they need to immediately notify the SGP Partnership and comply with the SGP Procedure for Addressing Regulatory Violations.

2.0 Application Requirements

The SGP application requirements ensure that a facility is making a commitment to sustainability and environmental, health, and safety compliance that serves as a foundation for conformance with SGP certification criteria. The facility must ensure that its specific, in-house environmental, health, and safety compliance program is current and suitable for meeting the applicable federal, state/provincial, and local requirements.

3.0 Certification Criteria

Once a facility's application has been approved, it has twelve (12) months to complete the criteria to become an SGP-certified facility. The SGP Criteria is the core component of the SGP Certification Process. The SGP Criteria Guidance Document provides in-depth background information relevant to each listed criteria.

Certification is valid for a two-year period. One year after certification, the facility must submit its first annual progress report as specified in Section 3.5.

To become SGP certified, a facility must complete the following:

3.1 Sustainability Management System (SMS)

The facility must develop and implement an SMS. The SGP Partnership does not mandate any one particular management system, model, or approach. A generic management system can be constructed though a basic "Plan, Do, Check, Act" (PDCA) approach, sometimes referred to as the "Deming cycle." An applicant can choose to implement a management system based on commonly available Environmental Management System (EMS) models, ISO 9000/14001, or other quality management systems. Facilities, however, must demonstrate implementation of a formal management system supported by written documentation that includes the following elements:

3.1.1 Sustainability Policy

The facility must make available a written Sustainability Policy. This policy must be signed by a responsible individual (e.g., owner, CEO, President) and made publicly available (for example, having the policy posted on the company website, published, or available upon request). This policy must set out the organization's commitment towards adoption of sustainable business practices. It must include, as a minimum, commitments to the following:

> 3.1.1.1 Identify and monitor applicable EHS regulations and maintain compliance.

> 3.1.1.2 Identify and monitor applicable Federal, State/Provincial, and/or local employment labor laws and maintain compliance.

> 3.1.1.3 Continuous improvement of the facility's sustainability performance.

> 3.1.1.4 Pollution prevention that emphasizes source reduction, reuse, and recycling.

> 3.1.1.5 Sharing information on sustainability performance with all stakeholders.

3.1.2 Sustainability Committee

The facility must maintain a formal Sustainability Committee whose terms of reference include all areas of environment, health, and safety (EHS). The committee must:

> 3.1.2.1 Be representative of the facility's departments. There is no minimum or maximum size.

> 3.1.2.2 Identify a Sustainability Chair/Coordinator

> 3.1.2.3 Develop a regular meeting schedule and meet twice per year at a minimum.

> 3.1.2.4 Develop and disseminate agendas and meeting minutes.

> 3.1.2.5 Develop communication channels for stakeholder input and feedback.

> 3.1.2.6 Identify potential continuous improvement projects.

3.1.3 Implementation and Operation

The facility must establish, implement, and maintain a single written procedure for each of the following:

> 3.1.3.1 Identify, achieve, and maintain compliance with appropriate Federal, State/Provincial, and/or local

>> 3.1.3.1.1 EHS laws and regulations

>> 3.1.3.1.2 Employment labor laws

> 3.1.3.2 Communicate relevant information about sustainability efforts to appropriate stakeholders, including employees, community, customers, and vendors.

> 3.1.3.3 Implement an annual Continuous Improvement Project (CIP) which must include the following:

>> 3.1.3.3.1 Goal statement using SMART format (specific, measureable, achievable, realistic, and time-bound).

3.1.3.3.2 Project objective statement(s).

3.1.3.3.3 Baseline metric for which progress will be measured against.

3.1.3.3.4 Actions to be taken to accomplish objective with completion dates.

3.1.3.3.5 Resources (e.g., employees, time, capital costs, outside contractors, etc.) needed to accomplish project.

3.1.3.3.6 Employee responsibilities for project implementation.

3.1.3.3.7 Method for monitoring ongoing progress against the baseline metric.

3.1.3.3.8 Schedule for periodic review of ongoing progress against baseline metric.

3.1.3.4 Training for employees which must include the following:

3.1.3.4.1 Awareness of facility's sustainability program such as policy, committee, responsibilities, CIP, and stakeholder communication.

3.1.3.4.2 Specific responsibilities required by sustainability program and procedures.

3.1.3.4.3 Specific responsibilities for those involved in the annual CIP.

3.1.3.5 Communication with on-site service providers/contractors and suppliers that have job responsibilities that significantly impact the facility's sustainability program which must include the following elements:

3.1.3.5.1 Awareness of facility's sustainability program such as policy, committee, responsibilities, CIP, and stakeholder communication.

3.1.3.5.2 Specific responsibilities impacting sustainability program and procedures.

3.1.3.5.3 Specific responsibilities impacting the annual CIP.

3.1.4 Checking and Corrective Action

The facility must conduct and document:

3.1.4.1 EHS compliance audit(s) every two years, including documentation of prompt corrective actions for any non-conformances.

3.1.4.2 Sustainability Management System (SMS) conformance audit every year including documentation of prompt corrective actions for any non-conformances.

3.1.5 Management's Commitment, Participation, and Review

The facility must:

3.1.5.1 Establish, implement, and maintain a written procedure describing the senior management review of all elements of the sustainability management program.

3.1.5.2 Conduct and document the senior management review every year, including any corrective actions for any non-conformances.

3.2 Best Management Practices

The following mandatory Best Management Practices (BMPs), where applicable to the processes in the facility, must be implemented. As identified in the sections below, not all BMPs apply to a print platform or facility.

Note: This section of the criteria includes elements that require either the development of a "written procedure" or development and maintenance of "documentation" that demonstrates a specific element is being met. For example, documentation includes such things as logs, checklists, notes, emails, matrix, training records, etc., while a written procedure lists steps to be followed, but may not actually

document implementation of the procedure. Those that require a written procedure and/or documentation are specifically identified.

3.2.1 Product

The "product" includes the design aspects and input material management to create the finished item.

3.2.1.1 Design Aspects

The facility must have an open dialog with customers to evaluate the most efficient use of materials, layout, substrate characteristics listed in Section 3.2.1.1.1, packaging, logistics for product shipment, and final use and disposition. A written procedure is not required, but verbal and written substantiation (e.g., notes, photos, emails, summaries) is required.

3.2.1.1.1 For existing and new substrates, including, but not limited to:

- Biodegradability
- Compostability
- Recyclability
- Recycled content (including pre-and post-consumer)
- Virgin fiber paper source
- Petroleum-derived content
- PVC content
- Organic textile material content

3.2.1.2 Responsible Material Sourcing and Management

The facility must initiate and/or maintain a dialog with suppliers to reduce the impact associated with input materials. A written procedure is not required, but the facility must document (e.g., notes, emails, matrix, summaries, etc.) that they have evaluated the following:

3.2.1.2.1 For existing and new substrates, characteristics including, but not limited to:

- Biodegradability
- Compostability
- Recyclability
- Recycled content (including pre-and post-consumer)
- Virgin fiber paper source
- Petroleum-derived content
- PVC content
- Organic textile material content

3.2.1.2.2 For chemical products used in production (e.g., prepress, press, and postpress) including, but not limited to, the content of:

- Volatile organic compounds (VOCs)
- Hazardous Air Pollutants (HAPs) (U.S. companies only)
- Substances Declared Toxic under Canadian Environmental Protection Act (Canadian companies only)

3.2.1.2.3 Ways to reduce or eliminate redundant shipping, including shipping distances and optimization of routing and delivery systems.

3.2.1.2.4 Options to reuse and recycle materials and disposable packaging, such as cores, cartons, drums, and cans.

3.2.1.2.5 Products that minimize or eliminate waste and packaging.

3.2.1.2.6 Take-back programs for unused materials.

3.2.1.2.7 Methods to prevent, reduce, or eliminate outdated materials.

3.2.2 Process

The "process" includes all manufacturing steps involved with converting input materials into a finished product including process byproducts (e.g., solid wastes, air pollution and wastewater) that have an EHS impact.

3.2.2.1 General

3.2.2.1.1 Demonstrate acceptable indoor air quality through an approach that best represents the operations by using one or more of the following:

- Perform employee or area monitoring for chemicals, dust/particulates, or other contaminants.

- Document effectiveness of engineering controls such as localized exhaust, hoods, filtration systems, and other types of specific equipment or contaminant controls.

- Document effectiveness of ventilation design characteristics and preventive maintenance of ventilation systems for office and production areas.

- Prepare a written assessment demonstrating minimal employee exposures to chemicals or other contaminants found in the work area, including a Material Safety Data Sheet (MSDS) review for regulated chemicals that may be present in products.

- Document investigated indoor air quality complaints from employees.

A written procedure is not required. Documentation needs to reflect current conditions with respect to equipment, facility configuration, and material storage and use. Acceptable documents include employee exposure monitoring records, ventilation surveys, or a written material assessment to demonstrate minimal potential employee exposure exists. Routine maintenance records can be included but cannot be the sole documentation.

Changes that may cause an impact to employee exposure such as facility conditions, worksite configurations, equipment, materials, or chemical handling and usage require an indoor air quality review.

3.2.2.1.2 For input materials that are subject to obsolescence and/or spoilage, establish an inventory management system for recall and reuse and maintain a "First-In, First-Out" (FIFO) use plan.

3.2.2.1.3 Conduct and document an air emissions assessment, review every two years, and implement appropriate air pollution reduction projects.

3.2.2.1.4 Train employees on proper handling and use of inks, solvents, other VOC-containing chemicals, and shop towels to minimize waste and fugitive emissions.

3.2.2.1.5 Demonstrate and document that when making equipment and material purchasing decisions, continuous improvement, environmental impact, and employee protection are considered.

3.2.2.1.6 Establish and document a preventative maintenance program for equipment identifying what actions will be performed, their frequency, and responsible personnel.

3.2.2.1.7 Establish management practices to ensure that chemicals are properly disposed.

3.2.2.1.8 Ensure that no industrial wastewater is discharged to a septic system.

3.2.2.1.9 Establish ink, toner, coating, adhesive, and substrate estimation methods that are as accurate as possible to minimize inventory and reduce waste from materials being used in the press and postpress/post printing processes.

3.2.2.1.10 Use production inks, toners, coatings, adhesives, laminates, and hot stamping foils that contain no more than 100 ppm total for lead, mercury, cadmium, and hexavalent chromium.

3.2.2.1.11 Segregate and recycle production waste (e.g. trim cuttings, dust, scrap) when recycling is available.

3.2.2.1.12 Establish and follow written operating procedures to minimize makeready waste.

3.2.2.1.13 Establish and follow written operating procedures to minimize waste during production runs.

3.2.2.2 Prepress/Pre-Flight

3.2.2.2.1 Film Developing

3.2.2.2.1.1 Recycle used film.

3.2.2.2.1.2 Recover silver from used fixer by installing silver recovery equipment from prepress wastewater prior to discharge; or contracting with a service for shipment and treatment of silver-containing wastewater.

3.2.2.2.2 Proofs

Within the constraints of customers' requirements, utilize a proofing system that minimizes impact and is compatible with the manufacturing process. Such systems include water-based, inkjet, dry sublimation, and soft or on-screen proofing systems.

3.2.2.2.3 Image Carrier (e.g., plates, screens)

3.2.2.2.3.1 Extend the use of plate development chemistries by monitoring and replenishing through appropriate quality control systems or by following manufacturer's recommendations.

3.2.2.2.3.2 Recycle aluminum plates.

3.2.2.2.3.3 When compatible with plate imaging and developing system and process, use pre-sensitized aqueous developed plates.

3.2.2.2.3.4 If using liquid photopolymer flexographic plates, collect and recycle any uncured polymer.

3.2.2.2.3.5 Use perchloroethylene alternative solvent (PAS), water-washable, or dry plate development systems for flexographic plates.

3.2.2.2.3.6 Recycle or treat metal-etching developers to remove metals when using bimetallic lithographic plates and embossing dies.

3.2.2.2.3.7 Investigate the use of a computer-to-plate or computer-to-screen imaging technology.

3.2.2.2.3.8 Investigate the use of a computer-to-press or computer-to-output device technology.

3.2.2.3 Press

3.2.2.3.1 Demonstrate and document that when selecting and using input materials, continuous improvement, environmental impact, and employee protection are considered in addition to meeting performance requirements and customers' specifications.

3.2.2.3.2 Recover silver from photographic-based digital output devices by installing silver recovery equipment or contracting with a service for shipment and treatment of silver-containing waste.

3.2.2.3.3 Review effective anilox roll cleaning options to evaluate approaches that result in less environmental impact, cost, and potential damage to anilox rolls.

3.2.2.4 Postpress/Post Printing Processes

3.2.2.4.1 Demonstrate and document that when selecting and using input materials, continuous improvement, environmental impact, and employee protection are considered in addition to meeting performance requirements and customers' specifications.

3.2.2.4.2 Implement work practices to properly manage dust from paper collection systems and trim from paper-cutting operations.

3.2.2.4.3 Investigate the use of an automatic screen reclamation system.

3.2.3 Envelope

The envelope includes all the manufacturing support activities, and the building, grounds, utilities, employees and other functions at a facility. Facilities must demonstrate that these practices are being met and some require documentation as indicated.

3.2.3.1 Shipping

3.2.3.1.1 Ensure that packaging materials and practices have been implemented to minimize waste.

3.2.3.1.2 Reuse packaging materials whenever possible.

3.2.3.1.3 Investigate ways to optimize the movement of goods, including internal product movement and off-site shipments using owned, leased, or third-party transportation services.

3.2.3.2 Utilities

3.2.3.2.1 When replacing equipment, purchase Energy-Star compliant (or equivalent, based on country of manufacture) equipment such as computers, monitors, servers, and appliances where available to meet the specifications of use.

3.2.3.2.2 Conduct and document a comprehensive energy audit, review the audit every two years, and implement appropriate energy reduction projects.

3.2.3.2.3 Evaluate options to reduce water usage.

3.2.3.2.4 When remodeling or replacing fixtures, evaluate the use of low-flow toilets, double-flush toilets, motion-activated faucets and toilets, and other water-use-reducing items.

3.2.3.2.5 Evaluate renewable energy options for the facility.

3.2.3.3 Grounds

Property owners must address the following, but if the facility leases the property, then the following must be recommended to the property owner and the recommendations need to be documented:

3.2.3.3.1 Evaluate and minimize use of fertilizers, pesticides, and insecticides.

3.2.3.3.2 Evaluate a system for capturing rainwater for irrigation purposes.

3.2.3.3.3 When replacing landscaping, use native and low-water-use plants wherever possible.

3.2.3.3.4 When possible, turn yard waste into mulch by chipping or composting.

3.2.3.3.5 Consider using part of the grounds as a source of habitat protection for wildlife.

3.2.3.3.6 When practical, use an environmentally-safer ice melting chemical treatment.

3.2.3.4 Building

3.2.3.4.1 Implement an office recycling program for materials such as office equipment, paper, and food and beverage containers.

3.2.3.4.2 Demonstrate and document that when selecting and using janitorial supplies, continuous improvement, environmental impact, and employee protection are considered and meet performance requirements.

3.3 Social Aspects

3.3.1 *Compliance*

Comply with all relevant local, state, provincial, and federal employment laws including:

3.3.1.1 Equal employment opportunity workplaces.

3.3.1.2 Child labor and immigration.

3.3.1.3 Minimum wage/hour and overtime.

3.3.1.4 Accommodations for persons with disabilities.

3.3.2 *Language Requirements*

If employees in the facility are not competent in the English language, all plant rules, safety policies, postings, and training materials and other sustainability programs must be communicated to accommodate each language spoken in the facility.

3.4 Metrics Form

Complete SGP Sustainability Metrics Form prior to initial certification and on an annual basis.

3.5 Annual Report

Complete SGP Partnership Annual Report using the SGP Annual Report Template.

Note: The first annual report is due one year from initial certification date.

4.0 Acronyms

BMP: Best Management Practices
CIP: Continuous Improvement Project
EC: Environment Canada
EHS: Environmental, Health & Safety
EMS: Environmental Management System
FIFO: First In, First Out
HAP: Hazardous Air Pollutant
MSDS: Material Safety Data Sheet
OSHA: Occupational Safety & Health Administration
PDCA: Plan, Do, Check, Act
SGP: Sustainable Green Printing

SMART: Specific, Measurable, Achievable, Realistic, and Time-Bound
SMS: Sustainability Management System
U.S. EPA: United States Environmental Protection Agency
VOC: Volatile Organic Compound

5.0 Terms & Definitions

Biodegradable: The entire product or package will completely break down and return to nature, i.e., decompose into elements found in nature within a reasonably short period of time after customary disposal. (Source: 16 CFR 260.7 (b))

Continuous Improvement Project (CIP): A project that demonstrates commitment to improving a company's sustainability profile. It must be documented according to SGP guidelines.

Compostable: All of the materials in the product or package will break down into, or otherwise become a part of, usable compost (e.g., soil-conditioning material, mulch) in a safe and timely manner in an appropriate composting program or facility, or in a home compost pile or device. (Source: 16 CFR 260.7(c))

Conventional Septic System: A wastewater treatment that consists of a septic tank, a trench or bed subsurface wastewater infiltration system utilizing a soil dispersal treatment system. It is never acceptable to use a conventional septic system for disposal of industrial waste water.

Deming Cycle: An iterative four-step problem-solving process involving a plan, do, check, act (PDCA) approach typically used for business improvement.

Desk Top Audit (DTA): A review of documentation needed for SGP Certification prior to an onsite audit.

Environment Canada (EC): An agency of the federal government of Canada charged with protecting human health and the environment, by writing and enforcing regulations based on laws passed by the Government of Canada.

Energy Star: A joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy that sets voluntary energy efficient standards for products and practices. (http://www.energystar.gov)

Envelope: All the manufacturing support activities and the building, grounds, utilities, employees, and other functions at a site.

First-In, First-Out (FIFO): Acronym defining a method of inventory use in which the oldest remaining items are to be the first used.

Fugitive: Pollutant released into air from leaks in equipment, pipe lines, seals, valves, containers, etc., and not from the usual sources such as chimneys, stacks, and vents. (www.businessdictionary.com)

Industrial Septic System: A wastewater treatment that consists of an onsite holding tank that is designed and constructed to receive raw wastewater. Septage haulers are contracted to remove the wastewater directly from the tank and taken offsite for either treatment or disposal.

ISO: An international-standard-setting body composed of representatives from various national standards organizations.

Metrics: Standards of measurement by which efficiency, performance, progress, or quality of a plan, process, or product can be assessed. (www.businessdictionary.com)

Material Safety Data Sheet (MSDS): A form required by OSHA and provincial legislation that contains data regarding the physical, chemical, and health characteristics of a product and precautions for safe use of the product.

Occupational Safety & Health Administration (OSHA): An agency of the United States Department of Labor charged with preventing work-related injuries, illnesses, and occupational fatality by issuing and enforcing standards for workplace safety and health.

Organic Textile: A textile product carrying the Global Organic Textile Standard (GOTS) label grade 'organic' must contain a minimum of 95% certified organic fibers whereas a product with the label grade 'made with organic' must contain a minimum of 70% certified organic fibers. (Source: http://www.global-standard.org)

Plan Do Check Act (PDCA): Principles of a management plan. Also known as a Deming Cycle.

Product: The design aspects and input material management to create a finished good.

Process: All manufacturing steps (e.g., prepress, press, and postpress) involved with converting raw materials into a finished product, including process byproducts (e.g., solid wastes, air pollution, and wastewater) that have an EHS impact.

SMART: Acronym that defines the principles of setting a goal which represents Specific, Measurable, Achievable, Realistic, and Time-Bound. Goals are to be identified through a process described in the Sustainability Management System.

Stakeholder: Person, group, or organization that has direct or indirect interest in an organization because it can affect or be affected by the organization's actions, objectives, and policies. Key stakeholders in a business organization include customers, directors/board members, employees, owners (shareholders), suppliers, unions, and the community from which the business draws its resources.

United States Environmental Protection Agency (U.S. EPA): An agency of the federal government of the United States charged with protecting human health and the environment by writing and enforcing regulations based on laws passed by Congress.