Facility Certification Criteria

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SUSTAINABLE GREEN PRINTING PARTNERSHIP

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Acronyms

ASTM	American Society of Testing Materials
CIP	Continuous Improvement Project
CTP	Computer to Plate
EHS	Environmental, Health & Safety
EMS	Environmental Management System
FIFO	First In – First Out
GOTS	Global Organic Textile Standards
HAP	Hazardous Air Pollutant
IAQ	Indoor Air Quality
IARC	International Association for Research on Cancer
ISO	International Standards Organization
OSHA	Occupational Safety and Health Administration
PDCA	Plan, Do, Check, Act
PEL	Permissible Exposure Limit
SDS	Safety Data Sheet
SGP	Sustainable Green Printing Partnership
SMART	Specific, Measurable, Achievable, Realistic, Time-Bound
SMS	Sustainability Management System
TLV	Threshold Limit Value
VOC	Volatile Organic Compound
U.S. EPA	US Environmental Protection Agency

1.1 Sustainability Management System (SMS)

The facility must develop and implement a Sustainability Management System (SMS). SGP 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:

1.1.1 Sustainability Policy

The facility must make available a written Sustainability Policy. This policy must be signed and dated by a member of top management and made publicly available. This policy must set out the organization’s commitment towards adoption of sustainable business practices. The Policy must be reviewed and reissued every two years. It must include, as a minimum, commitments to the following:

1.1.1.1 Identifying and monitoring applicable EHS regulations and maintaining compliance.

1.1.1.2 Identifying and monitoring applicable Federal, State/Provincial, and/or local employment labor laws and maintaining compliance.

1.1.1.3 Continuous improvement of the facility’s sustainability performance that emphasizes source reduction, reuse, and recycling

1.1.1.4 Sharing information on sustainability performance with all stakeholders.

1.1.2 Sustainability Committee

The facility must develop and maintain a formal Sustainability Committee whose scope includes all areas of environment, health, and safety (EHS). The committee must:

1.1.2.1 Include members that are representative of the facility’s departments including management and employees.

1.1.2.2 Identify a Sustainability Chair/Coordinator

1.2.2.3 Develop a regular meeting schedule and meet at least four times per year.

1.2.2.4 Develop and disseminate agendas and meeting minutes that document progress on meeting the annual requirements of the certification criteria and other opportunities to improve performance.

1.2.2.5 Identify existing business communication methods with stakeholders. In partnership with the appropriate facility department, develop and enhance communication channels for stakeholder input and feedback.

1.2.2.6 Identify and document potential continuous improvement projects.

1.2.2.7 Monitor Sustainability Management System activities including audits and assessments and document in meeting minutes.

1.1.3 Implementation and Operation

1.1.3.1 Regulations

The facility must establish, implement, and maintain a written procedure(s) to identify, monitor and comply with applicable Federal, State/Provincial, and/or local:

1.1.3.1.1 Environmental laws including an environmental compliance audit every two years. The audit must use a checklist that is based on the regulations that apply to the facility, and document the evidence found to determine compliance and corrective actions required for any non-conformances.
1.1.3.1.2 Safety and health laws including a safety and health compliance audit every two years. The audit must use checklist that is based on the regulations that apply to the facility and document the evidence found to determine compliance and corrective actions required for any non-conformances.
1.1.3.1.3 Employment standards and labor laws

1.1.3.1 Continuous Improvement Project (CIP)

The facility must establish, implement, and maintain a written procedure for the Continuous Improvement Project (CIP) to identify and select the annual CIP project. The objective must focus on improvement of the facility's performance. The following factors must be considered when selecting the project:

- Address one or more of the sustainability pillars of planet or people; and
- Be substantial and chosen from an area of significant impact after review of facility metrics, stakeholder input and previous CIPs

The CIP process must include the following:

1.1.3.1.1 Goal statement using SMART format (specific, measurable, achievable, realistic, and time-bound).
1.1.3.1.1 Project objective statement(s).
1.1.3.1.3 Baseline metric for which progress will be measured against.
1.1.3.1.4 Actions to be taken to accomplish objective with completion dates.
1.1.3.1.5 Resources (e.g., employees, time, capital costs, outside contractors, etc.) needed to accomplish project.
1.1.3.1.6 Employee responsibilities for project implementation.
1.1.3.1.7 Method for monitoring ongoing progress against the baseline metric.
1.1.3.1.8 Schedule for periodic review of ongoing progress against baseline metric.

1.1.3.2 Communications

Facility must develop a written procedure documenting identification of stakeholder groups and communication strategies for each. The facility must create awareness of the facility's sustainability program by annually communicating relevant information to appropriate stakeholders, including employees, community, customers, and suppliers. The communication strategy must include all employees and those customers and suppliers that represent 80% of the

business.

Relevant information includes the following elements:

- Sustainability policy
- The role of the sustainability committee
- A description of the current Continuous Improvement Project, including impacts and expected improvements
- The role of the SGP Impact Tracker

1.1.3.3 Training

The facility must have a written procedure on how training will be conducted and documented within the facility. Procedure must reference the training elements required for each identified stakeholder, based on job requirements, and include:

- Employees
- Temporary employees/contract labor
- On-site service providers/contractors

1.1.3.4 Management of Change

The facility must have a written procedure on how changes to the facility operations, equipment or materials will be assessed and their impact on requirements within the SMS. The procedure must assess the impact on the following:

- Equipment Inventory
- Energy usage and the Energy Audit
- Emissions to the environment and the Air Emissions Assessment
- Employee exposure to hazardous materials and the Indoor Air Quality Assessment
- Environmental regulatory requirements
- Safety and health regulatory requirements
- Solid waste generation and the Solid Waste Audit

In addition, it must demonstrate and document that when:

- Making equipment and material purchasing decisions used in pre-press, press and post-press operations, continuous improvement, environmental impact, and employee protection are considered.
- Selecting and using janitorial supplies, continuous improvement, environmental impact, and employee protection are considered and meet performance requirements.

1.1.4 Checking and Corrective Action

The facility must establish, implement, and maintain a single written procedure on the facility's process to conduct and document:

1.1.4.1 Sustainability Management System (SMS) conformance audit every year including documentation of prompt corrective actions for any non-conformances. The audit must use a checklist that is based on the facility's SMS, and document the evidence found to determine compliance and corrective actions required for any non-conformances.

1.1.5 Management's Commitment, Participation and Review

The facility must:

1.1.5.1 Establish, implement, and maintain a written procedure documenting the senior management review of all elements of the sustainability management program. The review must include the following:

- SGP Metrics,
- results of the annual continuous improvement project,
- results of the SMS Audit and
- any corrective actions for non-conformances identified by the audits conducted under 1.1.3.1 and 1.1.4.

1.1.5.2 Annually conduct and document the senior management review. Any recommendations for improvement or modifications must be documented.

1.1.6 Document Control

The facility must:

1.1.6.1 Establish, implement, and maintain a written procedure for document control. The facility must establish a process for the creation, review, revision, removal, and distribution of documents that describe and control the Sustainability Management System

1.1.6.1.1 The written procedure must describe the use of the SGP Impact Tracker for retention of required documentation and who is responsible for maintaining documentation.

1.1.6.2 To ensure that SMS documents are current and complete, the facility must ensure that the following elements are included within each written procedure:

- Purpose
- Scope
- Background and definitions
- Associated reference documents
- Responsibilities
- Procedural steps
- Frequency
- Identification of records that will be kept
- Revision history/document control

1.1.6.3 All required documents and records must be kept for 3 years. In addition to the records maintained in the Impact Tracker, this includes training records and communication documentation.

1.2 Annual Report

The facility must complete the SGP Partnership Annual Report by uploading the required documents to the SGP Impact Tracker. Each annual report is due one year and two months from the facility's initial certification month.

2.0 Best Practices

The Best Practices that are listed below must be implemented into the business management or operations of the facility, where applicable. It's important to note that not all Best Practices will apply to a print platform or facility. Any Best Practice that applies only to a specific print process will be marked for that specific process. The facility should review each Best Practice and make the determination if it applies.

2.1 Annual Metrics To Track Performance of the Sustainability Management System.

The facility must collect, track and document SGP Sustainability Metrics and enter or upload the data onto the SGP Impact Tracker. All metrics must be updated and maintained on an annual basis.

2.2 Internal Stakeholder Communications

If employees in the facility are not competent in the English or other official 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.

2.3 External Stakeholder Communications

2.3.1 The facility must initiate and/or maintain a dialog with customers to highlight the opportunities available for their products to align with the key principles of a circular economy. The conversations should include the following:

- Product design aspects that can reduce waste and pollution during manufacturing with the end objective to design out these factors
- Designing with durability for purpose, reuse, manufacturing, and recycling to keep products, components and material circulating in the economy
- Regeneration of natural systems by avoiding the use of non-renewable resources and preserving or enhancing renewable ones.

2.3.2 The facility must initiate and/or maintain a dialog with substrate suppliers to determine if there are opportunities for their products to align with the key principles of a circular economy. The dialog with suppliers to optimize participation of substrates in the circular economy must cover the following characteristics and be documented.

- Biodegradability – Unqualified claims can be made only if they can be proved that the entire product will completely break down within one year. Items destined for landfills, incinerators, or recycling facilities will not degrade in a year so unqualified claims should not be made. Products that have been tested substantiated by ASTM D5988-12; Standard Test Method for Determining Aerobic Biodegradation of Plastic Materials in Soil may make the claim.

- Compostability – Claims of compost ability require competent and reliable scientific evidence that all materials will breakdown into or become part of usable compost. Claims should clearly state whether or not the product is safe for home composting. Claims should be qualified that a product can be composted in a municipal or industrial facility if facilities are not available to a substantial majority of consumers.

- Recyclability – To make this claim, recycling facilities must be available to at least 60

percent of the consumers or communities where the product is sold.

- Recycled content (post-consumer) – Claims should only be made for materials that have been recovered or diverted from the waste stream during the manufacturing process or after consumer use. Claims for products made from partly recycled materials should clearly state the percentage, such as “made from 30% recycled material.”

- Organic textile material content – Claims made should follow the Global Organic Textile Standard, Version 4.0. A textile product carrying the 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

2.3.3 The facility must initiate and/or maintain a dialog with chemical suppliers to identify products that will reduce the impact associated with chemical products at all stages in the life cycle. For chemical products used in production (e.g., prepress, press, and postpress) the facility must maintain a dialogue with suppliers including, but not limited to, the content of:

- Volatile organic compounds (VOCs) As defined "Volatile organic compounds (VOC)" means any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions, excluding those compounds listed as exempt by a regulatory agency.

- Hazardous Air Pollutants (HAPs) (U.S. companies only) Hazardous air pollutants, also known as toxic air pollutants or air toxics, are those pollutants that cause or may cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental and ecological effects. EPA’s current list contains 189 substances, and state agencies may list additional chemicals.

- Substances Declared Toxic under Canadian Environmental Protection Act (Canadian companies only)

- IARC Chemicals

- Proposition 65, Safe Drinking Water Act

2.3.4 Investigate with suppliers’ the availability of take back programs for unused materials

2.3.5 The facility must initiate and/or maintain dialog with suppliers to reduce the impact associated with operating their facility and transportation fleet through implementation of sustainable operations. The following programs should be included in the dialog: U.S. EPA’s SmartWay program and management systems such as SGP facility certification for suppliers and ISO 9000/14001.

2.4 Employee Training

2.4.1 Train employees on specific responsibilities and skills required by the sustainability program and procedures to include, at a minimum, the following:

- Procedures for segregating and handling solid waste

- Procedures to minimize make ready and production waste
- Procedures to minimize energy use and improve energy efficiencies throughout the facility
- Proper handling and use of inks, solvents and other VOC containing chemicals and shop towels to minimize waste and fugitive emissions
- Procedures for communications to raise awareness of the facility's sustainability management system with customers, contractors, and suppliers.
- Preparation and Collection of SGP metrics as defined in 2.1, Annual Metrics to Track Performance of the Sustainability Management System.

2.4.2 Train employees and contractors, as appropriate, on specific responsibilities and skills for those involved in the annual Continuous Improvement Project.

2.4.3 Conduct annual training on all elements listed above and as needed when changes occur and/or new elements is introduced.

2.4.4 Document all training elements.

2.5 Environment, Health and Safety Programs

2.5.1 Identify potential reductions of emissions of volatile organic compounds and/or hazardous air pollutants to the environment by conducting an Air Emission Reduction Assessment by performing the following:

- Prepare a written inventory of products emitting Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) including:
  - Product name
  - VOC and HAP Content of each product

- Calculate VOC/HAP emissions for each inventoried product and sum all emissions based on annual product usage.

- Identify and document options to reduce the product usage and emissions of VOCs/HAPs and determine if any of the options are technically and economically feasible.

- Document any implementation of air emission reduction activities.

- Review and update the Air Emission Reduction Assessment every two years following 1.1.3.5, Management of Change.

2.5.2 To ensure the health and safety of employees demonstrate acceptable Indoor Air Quality (IAQ) by performing the following:

Prepare a written inventory of all products used with the following information:

- The product name,
- Hazardous ingredients that will be emitted to air from the ingredients listed on the Safety Data Sheet,
- Exposure limit (e.g., Permissible Exposure Limit or Threshold Limit Value), and update it on an annual basis.

- Document a review of operations and equipment for conditions when air contaminants are emitted but are not identified on a Safety Data Sheet including the following:
    - Fossil fuel combustion units (e.g., driers, space heaters, forklifts etc.),
    - Welding operations, and
    - Dust generation and collection units (e.g., powder from sheetfed offset lithographic presses, perfect binders, cyclones, and bailers).

- Document a physical review of facility conditions to identify other potential contaminants such as accumulations of dust/particulates, mold, asbestos, offensive odors, and lead dust

- Document an annual review of any preventative maintenance and/or repair records for ventilation systems and controls to ensure normal operations

- Investigate and document all employee complaints regarding indoor air quality.

- Conduct a comprehensive Indoor Air Quality assessment. The facility may use the SGP IAQ DETERMINATION TOOL to determine adequate indoor air quality or the need for indoor air testing

- Review indoor air quality whenever there is an introduction of new equipment, chemicals, following 1.1.3.5, Management of Change.

2.6 Social

Investigate possible opportunities to work with outside stakeholders on sustainability projects that benefit both the community and facility.

2.7 Equipment/Material

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

2.8 Chemical Management – Applicable to All Print Processes

2.8.1 For facilities employing contract cleaning companies, investigate and request that when selecting and using janitorial supplies, third party certified products are considered, avoiding the use of the following chemicals:

- Hydrochloric Acid in toilet bowl cleaners
- Chlorine Bleach as a sanitizing agent
- Isopropyl alcohol in glass cleaners

2.9 Chemical Management - Lithographic Specific Applicability

2.9.1 Investigate replacing replace conventional CTP plate chemistry that is corrosive with non-corrosive chemistry

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

2.10 Chemical Management - Flexographic Specific Applicability

2.10.1 If using liquid photopolymer flexographic plates collect and recycle any uncured polymer

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

2.10.3 Review effective plate cleaning options to evaluate approaches that result in less environmental impact, cost, and potential damage

2.11 Chemical Management - Screen Printing Specific Applicability

2.11.1 Investigate the use of computer to screen imaging technology

2.11.2 Investigate the use of automatic screen reclamation systems

2.13 Waste Management – Applicable to All Print Processes

2.13.1 Conduct, document and review every two years, a solid waste audit using a checklist that identifies all points in the facility where solid waste is created, including, but not limited to, packaging, shipping, and receiving, pre and post press operations, printing operations and finishing operations.

2.13.2 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.

2.14 Transportation Management - Applicable to All Print Processes

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

2.14.2 For facilities operating in the United States and Canada, investigate participation in SmartWay program and/or work with transportation companies that are participating in SmartWay.

2.14.3 Investigate inclusion in the calculation of the facility’s carbon footprint the movement of product from the facility to the final customer in the facility’s SGP Metrics.

2.14.4 Investigate, through an annual employee survey, options to encourage cleaner commuting by employees such as bike racks, lockers, and shower facilities; enrollment programs for discounted bus passes; establishment of car pools, installation of outlets for electric vehicles; and preferred parking for hybrid and electric vehicles.
2.14.5 Implement no idle policy in all loading docks.

2.15 Utilities/Energy Management – Applicable to All Print Processes

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

2.15.2 Investigate options to reduce water usage at all points in the facility where water is used.

2.15.3 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, such as purchasing Water Sense rated fixtures

2.15.4 Investigate and document through a cost benefit analysis, conducted every two years, options for purchasing renewable energy credits, power purchase agreements, and on-site energy generation and storage.

2.16 Grounds Management - Applicable to All Print Processes

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

2.16.2 Demonstrate and document that when selecting and using fertilizers, pesticides, and insecticides, continuous improvement, environmental impact, and employee protection are considered and meet performance requirements.

2.16.3 Demonstrate and document that when selecting and using environmentally safer ice melting chemical treatment, when applicable and practical, continuous improvement, environmental impact, and employee protection are considered and meet performance requirements.

2.16.4 Investigate a system for capturing rainwater for irrigation purposes.

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

2.16.6, When possible, turn yard waste into mulch or composting.

2.16.7 Consider, where applicable, using part of the grounds as a source of habitat protection.

2.16.8 Maintain grounds and property in a responsible manner to prevent degradation or environmental contamination.