

THE **PLASTIC** **POLLUTION** **REDUCTION** **STANDARD**



Definition of Terms

Aggregators: An individual, a group of individuals or an organization (government or non-government) who collect post-consumer plastic waste and forwards to a materials recovery facility or a processing partner.

Assessment: The process of quantifying the plastic footprint of a given entity (business, brand, or product) through a third-party independent auditor, using transparent methods that are consistent throughout every organization.

Auditor: An individual or an entity who is tasked to perform assessment or process review of any Partner, Aggregators or Processors.

Awarded Plastic Credit: A plastic credit purchased and assigned to a Partner

Certification Period: The duration for which a Plastic Neutral Certification is applied to an entity.

Credit Registry: A database of plastic credits and their transactions with a unique identifier, and where credits are published upon issuance to offset an equivalent amount of plastic waste.

Offset partner: An individual, a group of people or a corporation purchasing plastic credits and/or applying for plastic neutral certification.

Operating Partner: May refer to any of aggregators, haulers, processors or combination of these plastic processing activities.

Plastic/s: Any of a group of synthetic or natural organic materials, including resins, resinoids, polymers, cellulose derivatives, casein materials, and proteins.

Plastic Credit: A verified plastic offset, a transactable environmental tool representing a unit of weight, typically 1,000 kilogram or 1 ton, of plastic waste.

Plastic Footprint: the amount of plastic emitted into the environment as a result of the activities of a business throughout its value chain. This includes plastics emitted through manufacture, distribution, promotion and sale of its product or service, as well as general and administrative functions. This represents an inventory, in units of mass (kg or metric ton) of plastic waste.

Plastic Neutral: The state which is achieved when the net plastic footprint associated with a company, brand, or product is reduced to zero for a defined period.

Plastic Offsetting: The act of compensating for plastic waste.

Processors: A facility that receives, treats or converts post-consumer plastic waste into other useful forms through material or energy recovery

Verification: Independent evaluation conducted by any qualified third party/ies to check that the quality of input data, plastic footprint assessment, or that the use of a Plastic Neutral badge meets the requirements of a Plastic Neutral certification and is in line with the approach and principles of the Plastic Pollution Reduction Standard.

CONTENTS

1.	INTRODUCTION	4
2.	OBJECTIVES OF THE PLASTIC POLLUTION REDUCTION STANDARD	5
3.	SCOPE	6
4.	GUIDING PRINCIPLES	7
5.	PLASTIC CREDITING PROCESS	8
6.	PLASTIC NEUTRAL CERTIFICATION PROCESS	9
7.	SAFEGUARD SYSTEMS	11
8.	APPENDICES	12

1

INTRODUCTION

1.1. Plastic Credit Exchange (PCX) recognizes the decades-long global challenge of plastic waste. By the year 2040, the annual flow of plastics going into the ocean can reach up to twenty-nine million tons (three times the current estimates) . In the Philippines, over two million metric tons of plastic waste is produced each year – an estimated eighty three percent (83%) of this plastic is mismanaged – landing in dumps or open, uncontrolled landfills, burned or leaks into nature. PCX sees this plastic waste impact waterways, streets, environment, and communities.

1.2. PCX believes in sustainable solutions to meet this challenge, and views plastic offsetting as a means for businesses and individuals to take responsibility for produced plastic waste that enters the environment. This solution is done through an integrated set of activities that enables the aggregation, transport, treatment, processing and disposal of plastic waste, such that plastic waste gets diverted away from nature and prevents leakage into waterways and dump sites.

1.3. PCX is a non-profit organization that provides an integrated platform through a network of aggregators, processors and other partners from the public and private sector, and works with sustainability-conscious businesses around the globe to responsibly offset their plastic footprint, ultimately reducing the flow of plastic waste going into landfills and oceans.

1.4. PCX is the first to publish its standards on plastic waste management initially called the Plastic Neutral Pact from as early as March 2020. It has since conducted various reviews and revisions to leading to this current version. PCX believes strongly in the continual improvement of the standards and reflects these developments into the most recent version of the standard.

1.5. PCX provides a system for certification for businesses to become Plastic Neutral, a state where the net plastic footprint is reduced to zero for a defined period.

2

OBJECTIVES OF THE PLASTIC POLLUTION REDUCTION STANDARD

2.1. The Plastic Pollution Reduction Standard is the primary reference to achieving Plastic Neutrality through verified plastic offsets. This document will be reviewed every year to assess its effectiveness and updated to reflect developments in government policies, international standards, and industry best practices. This version is effective starting XX March 2021. Any reference to the Plastic Neutral Pact or its revisions shall be referred to the most recent version.

2.2. The Plastic Pollution Reduction Standard describes a framework for the implementation of a credible and verifiable plastic offsetting program. PCX, through its network of aggregators and processors, provides a system of physically collecting, treating and processing plastic waste, essentially removing it from environment. Through a fully audited process, PCX translates the weight of Plastic Offsets to equivalent Plastic Credits. Any individual or corporation may purchase Plastic Credits as a means to take responsibility for achieving their sustainability goals.

2.3. The Plastic Pollution Reduction Standard - covers the processes of Plastic Offsetting and Plastic Crediting. This is the basis for the recognition of Plastic Neutral Certifications granted by PCX to Offset Partners. PCX awards Plastic Neutral Certification to an Offset Partner that purchases credits equivalent to the Partner's Plastic Footprint or the amount of plastic emitted into the environment in their operations, verified by third-party, independent auditors.

3

SCOPE

3.1. **Materials.** Plastic offsetting as defined in the Plastic Pollution Reduction Standard covers a wide range of plastics that go into the waste stream. These include:

- i. All materials made of the seven types of plastics: Polyethylene Terephthalate (PETE or PET), High-Density Polyethylene (HDPE), Polyvinyl Chloride (PVC), Low-Density Polyethylene (LDPE), Linear Low-Density Polyethylene (LLDPE), Polypropylene (PP), Polystyrene or Expanded Polystyrene (PS or EPS) and Other Plastics (O).
- ii. Any of a group of synthetic or natural organic materials, including resins, resinoids, polymers, cellulose derivatives, casein materials, and proteins which include, among others, acrylic or poly methyl methacrylate, acrylonitrile butadiene styrene (ABS), polyamide (nylon), polycarbonate and polylactic acid.
- iii. Composite materials containing the plastics and material types listed above, such as multilayer paper boards with polyethylene and/or aluminum layers.

3.2. **Aggregation.** This includes in scope all informal waste collection activities, community waste collection from the environment (ocean and river cleanups), and government- or private-led waste collection activities. PCX provides operational guides in the conduct of aggregation across industries. This is provided as Appendix 01. Operational Procedure Manual for Aggregating for Communities and Institutional Partners.

3.3. **Processing.** As the optimal recovery option for plastic waste depends on many prevailing circumstances, life-cycle analysis should be applied to decide, depending on the type and composition of the plastic waste and the capabilities and regulations in the respective countries, which options are environmentally more favorable and sustainable. In the case of commingled or composite plastic waste, energy recovery and some feedstock recycling processes often represent the optimal choice. Plastic waste may be managed utilizing a hierarchical framework comprising life-cycle strategies for prevention and minimization both of the volume of waste and of its potentially adverse environmental impact as described in ISO 17422. In general, plastic waste processing technologies utilized by PCX can be divided into the following classes:

- i. (material recovery (mechanical recycling, chemical or feedstock recycling, and biological or organic recycling);
- ii. energy recovery in the form of heat, steam, or electricity generation using plastics waste as substitutes for primary fossil fuel resources.
- iii. Other emerging technologies which are qualified based on PCX's requirements.

3.4. **Auditors.** PCX works with in-house and industry partners who are able to provide assurances consistent with the requirements of this standard, local regulations and international best practices.

3.5. PCX provides guidelines in the accreditation of prospect partners. This is provided in Appendix 02. Accreditation of Operations Partners.

4

GUIDING PRINCIPLES

Plastic Neutrality is a sustainability-driven commitment and action taken by a business, voluntarily or through compliance, to compensate for the environmental impact from its plastic footprint. The principles below shall be guiding the application of the Plastic Pollution Reduction Standard:

- 4.1. **Conservativeness**- Businesses making claims of Plastic Neutrality agree to exert best effort to be as accurate as possible. In cases where this is not feasible, businesses agree to undertake conservative approaches and to disclosing the methodologies that underlie their claims.
- 4.2. **Integrity and Consistency** - PCX operates in accordance with third-party verification to ensure that claims of Plastic Neutrality are applied consistently and appropriately across relevant and intended users of the Plastic Pollution Reduction Standard. These shall guide the implementation of the Plastic Pollution Reduction Standard when its application to specific cases may be ambiguous.
- 4.3. **Continuous Improvement** - PCX is committed to continuously improve for the benefit of its stakeholders and the environment through regular refinements in the organization's products, services, and/or processes
- 4.4. **Transparency and Traceability** - PCX shall disclose relevant and sufficient information of stakeholder interest in the Plastic Credit Registry, making every effort to ensure easy, prompt, and practical access to appropriate information. The registry is managed by a blockchain ledger – a robust and tamper-proof management of every plastic credit processed.
- 4.5. **Industry Best Practices** – PCX benchmarks the processes and results to make sure that these are harmonized and compliant with international industry best practices.

5

PLASTIC CREDITING PROCESS

(For Offset Partners and Operating Partners)

5.1. A Plastic Credit is a transactable environmental tool representing a unit of weight of plastic waste from documented and verified plastic offsets.

5.2. A Plastic Credit can be assigned in the name of an individual or an organization. Attribution for the Plastic Credit is done upon verification of the plastic offset.

5.3. Purchasing Plastic Credits. Partners may purchase or commit to purchase Plastic Credits for a specified period of time. Assignment of Plastic Credits to the Partner should be specified at the signing of the required documentary requirements and later finalized upon verification of the plastic offsets.

5.4. Sustaining Ecosystem. PCX, as a non-profit organization, operates on a cost-plus model. Proceeds from the purchases of Plastic Credits enable the integrated set of activities required in plastic offsetting and crediting. In addition to the cost of operations, PCX allocates percentage of the funds to:

- i. Education
- ii. Infrastructure
- iii. Negative Tonnage

5.5. PCX continuously collects and banks verified plastic offsets from plastic waste recovered and processed. Verified plastic offsets are tracked and consolidated into the PCX registry and shall remain valid for one (1) year from the date of entry into the Offset Bank or until these are purchased as Plastic Credits by an Offset Partner. The limit on validity is provided to ensure that there is the fundamental drive to continuously divert fresh plastic waste from the environment.

5.6. PCX shall release a Certificate of Plastic Credit to the Partner with corresponding supporting documents. These Certificates and the respective support documents will be published on the PCX Credit Registry and accessible to the public.

5.7. Documentation. Plastic Credits will be based on the actual plastic waste recovered and processed by PCX through Aggregators and Processors. These quantities shall be supported by documentation submitted to PCX and shall be incorporated as attachments in the Plastic Credit Certificates. These supporting documents include but are not limited to, the following:

- i. Certificate of processing
- ii. Certificate of pre-treatment
- iii. Delivery receipts
- iv. Calibration records

6

PLASTIC NEUTRAL CERTIFICATION PROCESS

(For Offset Partners)

6.1. A state of being Plastic Neutral may be achieved by any Partner when the Offset Partner's Plastic Footprint is matched by corresponding Plastic Credits, reducing the Offset Partner's net Plastic Footprint to zero for a defined period.

6.2. The Plastic Pollution Reduction Standard is designed to encourage individuals and businesses to commit to take responsibility for their own plastic consumption that ultimately leads to a state of being Plastic Neutral. PCX provides options for more individuals and businesses to participate in the pursuit of Plastic Neutrality, while maintaining a high degree of accountability and transparency.

6.3. For businesses, the state of being Plastic Neutral may be achieved at different levels of an Offset Partner's operations – at a product level, at a brand level or at the level of the entire company.

- i. **Plastic Neutral Product.** This is achieved when the plastic footprint that corresponds to all products under a specific product category or sub-range within a company's portfolio has been matched with equivalent Plastic Credits, bringing the plastic footprint to net zero for a defined period of time.
- ii. **Plastic Neutral Brand.** This is achieved when the plastic footprint that corresponds to all products under a specific Brand has been matched with equivalent Plastic Credits, bringing the plastic footprint to net zero for a defined period of time.
- iii. **Plastic Neutral Company.** This is achieved when the plastic footprint that corresponds to all parts of the company's operations, including the plastic inputs for producing the products and services, logistics, advertising, promotion and selling, as well as general administrative activities of a company has been matched with equivalent Plastic Credits, bringing the plastic footprint to net zero for a defined period of time.

6.4. Companies seeking Plastic Neutral Certification undertake the following process:

- i. **Define Scope.** The state of being Plastic Neutral may be achieved at different levels in an Offset Partner's operations. It is critical that a good baseline measurement is achieved, and the first step is to define the coverage of the operations that will be matched with corresponding Plastic Credits, whether at Product, Brand or Company level. In addition to the level of operations, the Offset Partner must specify the coverage time period where the plastic footprint will be calculated from documentation and other pertinent records. The entity applying for Plastic Neutral Certification must be clearly defined by name with a description of relevant legal and/or geographical boundaries.

- ii. **Measure and Verify Plastic Footprint.** Once the Partner has defined the scope of its desired level of Plastic Neutral Certification, the Partner assesses its plastic waste impact or plastic footprint. PCX facilitates the computation and assessment, by assisting the organization with the Plastic Footprint Calculator and helps the organization submit its computed Plastic Footprint to a third-party assessor for auditing. The Partner must prepare and gather data needed from the business, then calculate the company, brand or product's total plastic footprint, defined as all the plastic purchased along the value chain starting upon ownership and receipt of raw materials up until use of product or service by consumers in its intended purpose. The Partner must contract an independent auditor approved by PCX and this assessment partner should understand the full set of data that will be included in its assessment. As their calculation of the plastic footprint underpins the qualification for Plastic Neutral Certification, the Partner must provide PCX with a true and certified copy of this audit document.
- iii. **Secure Plastic Credits.** An Offset Partner purchases Plastic Credits equivalent to its annualized plastic footprint for a defined past period and commits Plastic Credits on future consumption with a minimum period of 2 years, with a view of increasing waste reduction and recycling efforts for the organization. The purchased Plastic Credits and supporting documentation shall also be published on the PCX Credit Registry, with unique identifiers to the Partner. Re-assessment and verification on the Plastic Footprint will have to be conducted by the Partner every year to allow for reconciliation for the actual Plastic Footprint with the purchased Plastic Credits. The awarded Certificates will be published in the PCX Credit Registry and registry.
- iv. **Communicate.** When an entity qualifies as an official Plastic Neutral Certified partner, it is granted rights to the use of the Plastic Neutral Certified badge, to signify its action and commitment in its packaging and marketing communications. Plastic Credit Exchange provides the assets and guidance for applying the Plastic Neutral Certified Badge in its packaging and communications. All communications relating to one's Plastic Neutral Certification status must be factually based, clear, and transparent. All Plastic Neutral Certified partners must publicly disclose their plastic footprint assessments and offsets relating to their Plastic Neutral certification on PCX's global registry. The use of the Plastic Neutral badge must conform to the usage terms laid out on Appendix 03. It is the Offset Partner's responsibility to ensure that their claims are compliant with any local guidelines.

6.5. A Partner's Plastic Neutral status begins when it is confirmed by PCX that there are purchased Plastic Credits that match the verified annualized Plastic Footprint within the identified scope and remains effective for as long as the Partner has a continued commitment to secure Plastic Credits for the following 2 years to match their Plastic Footprint. Failure to comply with the Plastic Pollution Reduction Standard and agreements with PCX may result in suspension or termination of the Partner's Plastic Neutral status and corresponding legal remedies.

6.6. PCX encourages all businesses to attain Plastic Neutrality and as such, devises ways for business across all sizes to participate in the process with the necessary rigor, accountability and transparency. Specific guidelines for each type of business are provided in Appendix 04 maintaining consistency with the Plastic Pollution Reduction Standard.

7

SAFEGUARD SYSTEMS

(For Operating Partners)

7.1. Environmental Impact and Pollution Prevention. The Operating Partners' compliance to the Plastic Pollution Reduction Standard provides assurances that in the process of reducing the plastic waste, there shall be no detrimental impacts to other aspects of the environment. This includes pollution prevention and abatement, biodiversity and marine conservation, management of natural resources and the welfare of the people. Potential impacts and risk assessment shall be conducted by the Operating Partner in all aspects of operations and mitigation measures in place when necessary.

7.2. Occupational Health and Safety. The Operating Partner shall consider the health and safety of the people involved in all stages of operations. The risks inherent to the activities shall be identified and addressed prior to the conduct of the activities from aggregation up to processing. Necessary measures shall be implemented by the Operating Partner to avoid accidents, injuries and diseases arising from or associated to the activities including emergency response and preparedness.

7.3. Gender Equality and Social Inclusion. The Operating Partner shall observe best practices on gender equality and social inclusion. Activities shall not implement any specific activities that constitute any form of discrimination or harassment.

7.4. Feedback and Grievance Mechanism. PCX recognizes the important role of the communities in the Plastic Pollution Reduction Standard. Consultations and feedback mechanisms shall be in place and will be available throughout the implementation of the activities. PCX incorporates the views of all the stakeholders in the conduct of the activities and the disclosure of Plastic Credits in the PCX Credit Registry.

7.5. Prohibited Materials and Activities. PCX shall ensure that the following are not incorporated in the conduct of the activities related to the Plastic Pollution Reduction Standard:

- i. Activities involving forms of forced or child labor;
 - ii. Activities deemed illegal under international conventions and host country regulations; and
 - iii. Activities involving toxic and hazardous materials including weapons, munitions and radioactive materials.
- Certificate of processing
- iv. Certificate of pre-treatment
 - v. Delivery receipts
 - vi. Calibration records

8

APPENDICES

Appendix 01 - Operating Guide for Aggregating for Communities and Institutional Partners



Appendix 02 - Accreditation of Processing Partners

- a. Through internal referrals or external inquiries, PCX will reach out to individuals or organizations who are interested to participate in the Plastic Credit Exchange as an aggregator, a transport or hauling partner or both and present the requirements to be accredited to the platform through a service proposal. For cases where the party is interested to become an integrated aggregator-hauler-processor, the requirements of all sections in the form should be satisfied.
- b. Party shall submit the identified regulatory and environmental requirements per the country's requirements as identified in PCX-OP-002-F1.
- c. PCX shall conduct the review of the documents and due diligence (including site visits) to verify the requirements of PCX's Plastic Neutral Pact on Environmental Impact and Pollution Prevention, Occupational Health and Safety and Prohibited Materials and Activities.
- d. The Sustainable Community Development and the Upstream Campaign Manager will confirm the compliance of the applying party to the Plastic Neutral Pact and other requirements.
- e. The Sustainable Community Development Manager or the PCX-authorized auditor shall regularly inspect the Aggregators' and Haulers' compliance to the requirements which include the inspections to the facilities at least once every year. The partner's compliance shall be documented using PCX-OP-002-F2.

ACCREDITATION CHECKLIST FOR OPERATIONS PARTNERS

Control No. _____

Date _____

Assessor _____

Purpose:

- ☐ Accreditation (New Partner)
- ☐ Monitoring (Existing Partner)

Instructions: The following form provides PCX a guide on how to assess the environmental, labor and safety compliance of partners who will be accredited to the Exchange. PCX may request further documentation in addition those listed or seek additional field inspections as necessary.

Part 1. General Information

	Required Information	Details	Documents to Submit
1.1	Company Name		Certificate of Registration Business Permit Articles of Incorporation
1.2	Type of Operations	<input type="radio"/> Aggregator <input type="radio"/> Hauler <input type="radio"/> Processor	
1.3	Address		
1.4	President/CEO		
1.5	Contact Person		
1.6	Designation		
1.7	Contact Number		
1.8	E-mail Address		
1.9	Year Established		

Part 2. Process Descriptions

	Scoping Questions	Answers	Documents to Submit	Remarks
2.1	Products		Technical Specifications	
2.2	Raw Materials Accepted	<ul style="list-style-type: none"> o PET o HDPE o PVC o LPDE o PP o PS o Others (describe) 	Material Data Sheet	
2.3	Description of Processes / Technology Maturity		Process Flow Diagram	
2.4	Equipment / Materials used in the operations		Equipment List, Calibration Certificates	
2.5	Documents that provide information on the plastics that were received and processed in the facility		Certificate of Deliveries, Certificate of Disposal or Processing, Delivery Receipts, Bill of Lading	
2.6	Provide any quality, environmental or any other certifications for the Company's operations		Example: ISO certificates	

2.7	Identify the key shareholders (government agencies, private corporation partners, community partners) in the operations. Please also provide their contact details in case there is a need to correspond with them as well.			

Part 3. Environmental Impact and Mitigation

	Scoping Questions	Answers	Documents to Submit	Remarks
3.1	Are the processes registered and recognized by the local environmental regulating agency (e.g. DENR)?		Country's Environmental Compliance Certificate and Permit-to-Operate	
3.2	Are there areas of physical, natural or cultural significance (rivers, waterways, etc.) affected by the plant operations?		Location Map of Operations	
3.3	Are there any effluents (liquid) in the process? What is the disposal strategy and how is it monitored?		Discharge Permit and Test reports	
3.4	Are there any emissions (gas) in the process? What is the disposal strategy and how is it monitored?		Discharge Permit and Test reports	

3.5	Provide the latest sustainability report for the company's operations (if any)		ESG or Sustainability Report	
3.6	Provide estimation of Greenhouse Gas Emissions from the Operations			

Part 4. Safeguards

	Scoping Questions	Answers	Documents to Submit	Remarks
4.1	<p>Does the partner's processes ensure that there are no activities in the Plastic Neutral Pact's prohibited list?</p> <ul style="list-style-type: none"> o Activities involving forms of forced or child labor o Activities deemed illegal under international and country regulations o Activities including toxic and hazardous materials 			
4.2	What is the company's occupational health and safety policy?		OHS Policy or OHS Manual	

4.3	Has the organization received complaints from sensitive receptors? How are these resolved?		Articles or related reports	
4.4	Has the organization received notices of non-compliance with regulating agencies? How are these resolved?			
4.5	Describe the core labor standards implemented in the country			

Part 5. PCX Assessment

Decision:

☐

Approved

☐

Need Further Information

☐

Defer / Disapprove

Prepared by: _____

Reviewed By:

ILUSION FARIAS

Sustainable Community Development Manager

MEG ANNE SANTOS

Upstream Campaign Manager

Appendix 03 - Communication Guide on the Use of Plastic Neutral Badge and Certificates



Appendix 04 - Specific Guidelines and Requirements for Businesses applying for Plastic Neutral Certification





W: www.plasticcreditexchange.com

E: info@plasticcreditexchange.com

T: +632 88438748 / +632 88438749