



Closed Loop Product Certification

**Standard Audit Plan
April 2024**



1.0 Background

A Closed Loop Product Certification (CL) demonstrates an organization’s commitment to responsible product design and management of materials after product use, which may include “take back” program.

GreenCircle Certified, LLC’s (GreenCircle’s) Closed Loop Product Certification was developed as a means to evaluate and certify a companies’ claim for closed loop product, which supports the increasing demand for extended producer responsibility practices. A closed loop product is recyclable and can be returned to the original process or similar processes in which they were manufactured. The original product, or components or materials from that product, are reused in the production of a new, similar, or equal value product.

GreenCircle will conduct the audit for Closed Loop Certification in accordance to the requirements and methods set forth in this audit plan and in GreenCircle’s Certification Scheme; in compliance with ISO17065:2012. As part of GreenCircle’s evaluation process, GreenCircle will conduct an analysis of all material flows including the product’s downstream supply chain and life cycle. Based on a review of chain of custody documentation as well as site audits, GreenCircle Certified, LLC (GreenCircle) will verify the manufacturer has established processes and systems in place to consistently take back their products for reuse and recycling into the same or similar products within their manufacturing operation. GreenCircle will determine the percent (by weight) of the closed loop materials being used to manufacture new products.

Additionally, Greencircle will evaluate the compliance to the LEED v4.1 rating system for any applicable attributes, for example products that have been third-party verified for recovering and recycling materials at the end of useful through an established manufacturing process and system may meet the requirements for LEED v4.1 Circular Products, pilot credit.

This document explains GreenCircle’s audit process in performing the certification as well as how Closed Loop product claims should be qualified and quantified.

2.0 Goal

The goal of Closed Loop Product Certification is to certify that a product is recyclable; can be collected, processed, and renewed at the end of the product’s useful life; and can be reprocessed into a new, similar, or equal value product. GreenCircle will provide certification to those companies who can demonstrate chain of custody documentation



and visual inspection, a consistent closed loop system for recycling and reuse of end-of-life product materials into new, similar, or equal value products.

3.0 Company Qualifications

Companies who have carefully designed products with end-of-life recycling considerations and who have established extended producer responsibility programs will be eligible for review for closed loop product certification. GreenCircle will conduct initial conversations with the potential client to understand the closed loop system and determine the probability that a closed loop product certification can be conducted prior to issuing a proposal. It is not guaranteed that a product will be certified for Closed Loop until a thorough audit is completed by GreenCircle.

It is the client's responsibility to communicate to GreenCircle if the product does not have 6-12 months of data. For pilot projects with only engineering-build documentation, GreenCircle will issue a certificate that notes the analysis was based on a pilot project. GreenCircle will require at least 6 months of production data to remove the pilot language from the certificate. The client will be required to provide confirmation that the product recipe(s) and supplier(s) have remained unchanged; or provided updated information. The client will be required to provide updated data (per the Documentation Requirements below) no later than month ten (10) from initial certification start date to avoid expiration. GreenCircle will then complete an analysis to confirm no changes to the previous analysis; or incorporate changes to the bill of materials or supplier information has changed. At the completion of this analysis, new certificate(s) will be issued as applicable.

4.0 Documentation Requirements

To qualify for certification a company must have at least six months, and preferably twelve months, of data from the past year that clearly describes and includes:

- A list of closed loop product(s) to be analyzed for certification.
- Closed loop product bill of materials or formulations(s) detailing the amount and type of materials used to manufacture the products (percent by weight basis).
- An overview of the closed loop system for the manufacturing and recovery of products, materials, or components to be analyzed.
- An overview of operations for the manufacturing facility (facilities) including a list of manufacturing processes and the types of products being produced at the facility to better understand the closed loop product being analyzed.
- Total production of the specified closed loop product(s) on a monthly basis during the time period being examined. This time period will be determined upon project approval.



- A list of current material suppliers, including the material provided, the quantity supplied, and any information about supplier variability, including frequency of change in suppliers, changes in source locations, etc. Material suppliers include organizations involved in the collection, processing, and recycling of original products as part of the “take back” program.
- Data clearly describing existing inventories of materials, including purchasing records and invoices of these raw materials.
- Life cycle chain of custody documentation which can be used by GreenCircle to verify material flows in the closed loop process including the take back and collection system, recycling and processing of the original product, components or materials, and utilization of the original materials into a new similar or equal value product. This documentation will include:
 - Documentation of sales of original products (POs, receipts, etc.)
 - Data and documentation on original products collected in the “take back” and collection system (POs, receipts, bill of lading, etc.) that documents materials received by recycler(s) for processing.
 - Data and documentation (inventory records, spreadsheets, etc.) of original product materials being processed by recycler(s) or material recovery facilities.
 - Documentation of processed original product materials returned to the original equipment manufacturer from recyclers for manufacturing into new similar or equal value products (POs, receipts, product formulations, etc.).
- A company must also provide GreenCircle access for a site visit to the processing or manufacturing facility. GreenCircle will determine if this requirement will be met through an on-site visit or a virtual visit for visual verification of the closed loop manufacturing process.

5.0 Audit and Certification Process

5.1 Data Collection

Once the proposal and certification agreement are signed by the closed loop product manufacturer, GreenCircle will conduct an initial project meeting, via video or conference call, with contact(s) at each manufacturing facility to discuss the required data, GreenCircle’s audit process and project schedule. GreenCircle will gain an understanding of the material flows and tracking system of the closed loop materials and product(s). GreenCircle will complete a desk analysis of the initial data collected. See the Documentation Requirements above for specific data that will be requested in the data collection stage.



GreenCircle will obtain information on the take back and collection system as well as the relationships between the manufacturing facility (facilities), product users, and the closed loop product collection and recycling facility (facilities).

5.2 Site Audit

GreenCircle will conduct a site visit to the collection and recycling facilities and to the closed loop product (or material) manufacturing facility to audit and verify the material utilization and flows within the operations and/or manufacturing processes. GreenCircle will walk through the facility and understand the material flows for each applicable product. GreenCircle will also verify the material documentation system and chain of custody process for all closed loop materials. GreenCircle will conduct interviews with representatives from each organization within the closed loop process as part of the audit process.

5.3 Closed Loop Product Calculations

GreenCircle will conduct a thorough review of the specifications, actual bills of material and chain of custody documentation for the specified closed loop product(s) or materials produced at the manufacturing facility.

Depending on the type of product, GreenCircle will calculate a Closed Loop Product Certification two different ways:

- Option 1: For materials that are taken back, and the entire material is made back into the new product, GreenCircle will provide product the designation “Closed Loop Product”.
- Option 2: For materials that are assemblies and contain a portion of material that was obtained in the take-back program, GreenCircle will calculate the percentage of material in the product that is comprised of closed loop materials.

GreenCircle will also verify material flows and chain-of-custody documentation to confirm the closed loop product claims. GreenCircle will analyze the bill of materials or product formulations information and validate if the material will be categorized as Option 1 or 2 detailed above; if the product is categorized as Option 2 above, the percent by weight of the original product will be calculated.



After completion of the GreenCircle closed loop audit process, GreenCircle will certify the closed loop product claim and also certify the percentage by weight of closed loop materials utilized to make new products or materials.

5.4 Certification Audit Deliverables

Upon verification of the closed loop product claims, GreenCircle will issue GreenCircle Certified, LLC certificates and marks for the specified product(s) manufactured at a specific facility. The certificate will document that an independent evaluation of the closed loop product claim has been conducted on behalf of the company for the specified closed loop product(s). All certificate holders must notify GreenCircle Certified, LLC of any significant changes in products or operations that could alter any of the claims detailed in certification.

GreenCircle will prepare a written report on the audit process and findings and provide this report to the Client. GreenCircle will also list the final certificates on the GreenCircle Certified Product Database and provide GreenCircle marks for use in marketing.

6.0 Annual Recertification Process

All certified claims are recertified annually. It is important for GreenCircle to evaluate any changes within the operations or manufacturing processes to ensure continued compliance with the established criteria. Completion of recertification ensures continued transparency and further use of the GreenCircle mark.

7.0 Complaints, Appeals and Disputes

GreenCircle must be contacted immediately if there is a complaint, appeal and or dispute brought against a certification that GreenCircle has verified. GreenCircle will follow the Appeals, Complaints and Disputes procedure to review and resolve the issue.

8.0 Guidelines for Private Label User

The Closed Loop Product certification is for the exclusive use of the Client. Companies that produce private label products will require any private label customers or downstream re-sellers of the certified product(s) who desire to utilize the GreenCircle Closed Loop Product certification, to enter into a separate Licensing Agreement with GreenCircle regarding the use of the GreenCircle Mark on private label product and promotional materials. Please contact GreenCircle directly for more information.



9.0 Labeling Requirements

The Client agrees to promptly cease display and use of the GreenCircle Certified, LLC mark: (1) Upon expiration of the certification period; (2) If Client is no longer in compliance with the certification requirements in this audit plan or the GreenCircle terms and conditions. Please reference the GreenCircle Certified Mark Usage Guidelines for further details and more information on using the mark. The Client shall take caution to ensure that the GreenCircle Certification mark is not associated with products and/or operations which do not comply with the GreenCircle Certification System (GCCS). The Client will be asked to remove the GreenCircle mark immediately if it is found that they have applied the mark on a non-conforming GCCS product and/or operation. If the Client fails to remove the misused mark, an investigation will be conducted pertaining to the misuse, in which the full cost of the investigation shall be borne by the Client. The Client shall not allow the GCCS Certification mark to remain on non-conforming products offered for sale. Such action could invite prosecution under U.S. Trademark statutes or attract other penalty provisions in other U.S. or State law.

10.0 Key Terminology

Audit Plan: Specifies how GreenCircle intends to conduct a particular audit. Our audit plan describes the activities we intended to carry out in order to achieve our audit objectives.

Certification Period: A six month or preferably twelve month period in the recent past in which GreenCircle identifies at the beginning of each certification. During this period, GreenCircle will collect various documentation needed to certify the specific claim.

Chain-of-Custody (CoC): Refers to the chronological documentation or paper trail of materials or product flows to and from different entities. This documentation is utilized to track materials through the closed loop product system.

Closed loop Product: Products that are designed for recycling, recovery or reuse that are collected and recycled in whole or part. The original product, materials or components are integrated back into the manufacturing process or processes in which they were generated and manufactured into new similar or equal value products.

Component: A constituent part of something (such as a system or mixture).

End-of-Life: A phase in the life cycle of a product in which the product can no longer be used and will need to be either disposed of or recycled. Within the closed loop



product certification GreenCircle will be analyzing those products/materials that have been designed to be recyclable at the end of life.

Extended Producer Responsibility (EPR): Is an environmental protection strategy to reach an environmental objective of a decreased total environmental impact from a product, by making the manufacturer of the product responsible for the entire life cycle of the product and especially for the take-back, recycling and final disposal of the product.

Equal Value Product: A product that uses closed loop materials that are not down cycled or integrated into a lower value product but would be incorporated into a product of similar function or economic value.

Life Cycle Thinking: A method used in sustainable product development that includes considering the environmental impacts of each stage of a product/material's life cycle. These life cycle stages include raw material extraction, manufacturing, use, and end-of-life disposal. Organizations that use life cycle thinking and design products that are recyclable, recoverable, or reusable at the end of life will be considered for closed loop product certification.

Material Inputs: All incoming materials including original products collected, materials or components reclaimed or recycled, virgin or purchased materials.

Material Outputs: All outgoing materials or products from a manufacturing or processing facility.

Original Equipment Manufacturer: A company that acquires a product or component and reuses or incorporates it into a new product with its own brand name.

Pilot Product: This is a product that is in an engineering-build phase in which the product was recently launched or soon to be launched and have limited production data.

Recycler: An organization that performs collection and processing of materials and makes it into another usable raw material or product so the recycled materials can be reutilized in the production of new products or materials.

Reusable: Products that are designed to be, and can be, used more than once.

Recyclable: "Recyclable" is a characteristic of a product, packaging or associated component that can be diverted from the waste stream through available processes and programs and can be collected, processed and returned to use in the form of raw



materials or products. The Federal Trade Commission’s Green Guides require that a product be able to be recycled within 60% of the current US infrastructure in order to be considered “recyclable”.

Recycling: A process that turns materials that would otherwise be waste into valuable resources.

11.0 Reference Documents

ISO 14021:2015 *Environmental labels and declarations*—The International Standards Organization

Guides for the Use of Environmental Marketing Claims. The Federal Trade Commission’s Green Guides (2012)

GreenCircle Certification Scheme, GCC-OPS-03-1, Revision 6 – Outlines the certification process and GreenCircle’s Management System

ISO17020: 2012 Conformity assessment -- Requirements for the operation of various types of bodies performing inspection, The International Standards Organization. This International Standard defines the requirements for the operation of various types of bodies performing inspection. GreenCircle adheres to these requirements in the development of the certification process and audit plans.

ISO 14021:2016 Environmental labels and declarations -- Self-Declared environmental claims (Type II environmental labeling), The International Standards Organization

ISO 17065:2012 Conformity assessment -- Requirements for bodies certifying products, processes, and services, The International Standards Organization. This International Standard defines the requirements for bodies certifying products, processes and services. GreenCircle adheres to these requirements in the development of the certification process and audit plans.



Amendment History

Date	Issue	Summary of Amendments
4/01/2011	Rev. 0	Official issue date of document.
7/15/2013	Rev.1	Update language and definitions.
6/30/2015	Rev. 2	Additional update language and definitions.
5/20/2022	Rev. 3	Content and editorial updates
3/15/2023	Rev. 4	Add language for pilot certifications to Company Qualifications section
4/1/2024	Rev. 5	Content and editorial updates

Certification Officer: _____

