HOW THIS INFORMATION WILL BE USED

This packet was compiled to provide a complete documentation requirements reference guide for manufacturers pursuing product certification under the Living Product Challenge version 2.0. This document should be used in conjunction with the Living Product Challenge standard, the Handprinting Guide, and the Transparent Material Health Guide in order to have a complete understanding of the program requirements and detailed explanation of the Handprinting Imperatives.

As the owner of the Living Product Challenge, the International Living Future Institute (ILFI) will request that manufacturers submit specific information to the product's assigned Assessor, a third-party who is responsible for performing document review and onsite verification, in order to determine compliance with Living Product Challenge Imperatives. When on site, the Assessor may look for additional complementary information to support the product's claims in the written documentation. Therefore, additional records may be required if further proof of compliance is needed.

ILFI may use and retain non-sensitive product documentation as deemed necessary to further the educational mission of the organization and may share information contained within the documentation with members of the Living Product Challenge Community (Community) or the general public. ILFI retains the right to use and/or publish essays written by the product team (Team) and will attribute the content to the members of the Team as directed.

By submitting photographs and/or 3D renderings of the product and manufacturing facility, the manufacturer grants ILFI royalty-free use of these image(s) in promotional material, such as web-based, printed, and other presentation formats, to support the Living Product Challenge or one of its auxiliary programs. ILFI will use the image(s) in a manner consistent with a Creative Commons "Attribution-No Derivative Works 3.0 United States" license.

The manufacturer will be expected to share documentation information about the product's performance period on the publicly accessible ILFI website Case Study Database.

ILFI has an ongoing goal to reduce the amount of documentation needed to demonstrate compliance with the Living Product Challenge Imperatives. Over time, items may be deleted or slightly modified to reflect this effort. Manufacturers may elect to submit information using the most current guidelines at the time of product registration or any subsequent releases.

HOW TO USE THIS DOCUMENT

This packet was compiled to provide a complete documentation requirements reference guide for manufacturers pursuing product certification under the Living Product Challenge version 2.0. This document should be used in conjunction with the Living Product Challenge 2.0 Standard, the Handprinting Guide, and the Transparent Material Health Guide in order to have a complete understanding of the program requirements.

The document contains the following sections:

CERTIFICATION SCOPE

CERTIFICATION PROCESS

DOCUMENTATION REQUIREMENTS

EXCEPTIONS

DOCUMENTATION CATEGORIES

To document compliance with targeted Imperatives, a product must submit General Product Documentation, Basic Documentation and, if applicable, Exception Documentation.

- All General Product Documentation is required.
- All Basic Documentation relevant to targeted Imperatives is required.
- Exception Documentation is required in the event that a product team uses an Exception. Exception Documentation may replace some, though typically not all, Basic Documentation. As the Living Product Challenge is implemented on the ground, new Exceptions may be necessary to address unique circumstances for a particular product or manufacturer. The creation of new Exceptions will be determined by ILFI on a case-bycase basis in collaboration with manufacturers and added to the Documentation Requirements.

In some cases, the documentation required for Whole Facility certification exceeds that required for Product Share certification alone. Whole Facility documentation is separated under dedicated headings throughout.

EXCEPTIONS

Established Exceptions are listed in the appendix to this document. New Exceptions will be created and added to the Documentation Requirements based on new and unique circumstances as the Living Product Challenge is applied in practice.

CERTIFICATION SCOPE

The Living Product Challenge (LPC) is designed to certify the production of a particular product. The program requires several key pieces, namely ingredient identification through a

Third-Party Verified (3PV) Declare label, Life Cycle Assessment (LCA), and a Site Audit. This means that several pieces must be defined prior to beginning the certification process.

FINAL FACILITY LOCATION(S)

The LPC program can certify one or many facilities under one certification. However, the location and nature of the facility(s) will affect a number of Imperatives. It is best, therefore, to know at the outset how many, and which facilities should be included under certification. If necessary, the manufacturer can broaden the certification to include additional facilities at a later time.

The final facility (Facility) is defined as the *final* place that the product is physically altered (i.e. final point of assembly). Depending on the manufacturer and the degree of vertical integration, this may mean that "on-site" impacts of the facility ultimately exclude many locations where the product or its components are assembled and altered. However, these upstream impacts are still captured through the LCA and accounted for in Handprinting actions.

INGREDIENT LIST

A Third-Party Verified Declare Label (3PV Declare label) is a pillar of LPC. As a platform for ingredient transparency and a point-of-entry into groundbreaking regenerative products, third-party verification offers an additional level of confidence and risk mitigation through the review of all ingredients, supply chain information, and Declare label claims. Therefore, manufacturers should consider the scope of their certification for a product line based on the consistency of the ingredient list, making sure that variability of ingredient options does not cause more than 20% variation in any of the ingredient amounts, per the requirements of the Declare program. This may mean only including certain product types within a product line, or certain colors or material options. What is and is not included in certification will be transparently represented in the LPC Report. LPC Certification can also be scaled over time to include more product options.

PRODUCTION PHASE

The Living Product Challenge emphasizes measurement; therefore, many of the Imperatives require 12 months of data to demonstrate compliance. For certification to take place, products must already be in production in order to ensure accuracy.

A manufacturer may certify a new product line or collection with fewer than 12 months of production data, but should first consult with ILFI or an Assessor to confirm that they will have adequate information to document or accurately predict key product metrics, such as the ingredients list and life cycle impacts. Annual check-ins that take place with the Assessor post-additionally ensure that manufacturers continue to meet the requirements of the program throughout the period of certification.

Manufacturers with products that are in the design phase or newly in production are encouraged to contact ILFI or an Assessor to determine whether their product is eligible for certification. For products not yet ready to certify, ILFI also holds one or two-day in-person design charrettes which encourage up-front creation of a sustainable product that complies with LPC and build company engagement around the program's principles.

FACILITY OUTPUT

While factories whose output is all to Living Product Challenge Standards represent the ideal, LPC recognizes that not all manufacturers will have this type of control over the facilities where their products are made, especially if the product is a small percentage of production, or if it is not owned by the manufacturer selling the product. The Product Share vs. Whole Facility pathway provides this flexibility.

- PRODUCT SHARE: The Product Share path allows a manufacturer to certify a product, or products, that require(s) only a limited fraction of a facility's production capacity. This pathway allows a manufacturer to offset only impact of the product pursuing certification on-site, when the production of that product accounts for less than 75% of the facility's total output by dollar value or weight.
 - A Product Share of Net Positive Energy, Water and Waste includes all process energy used to make the product as well as its share of facility lighting, heating and cooling. Worker water usage, waste treatment, administrative office energy and water use and facility-wide stormwater management are excluded from the Product Share certification requirements.
- WHOLE FACILITY: When the dollar value of the output of Living Product(s) exceeds 75% of the dollar value or weight of the facility's total output, a manufacturer must pursue the Whole Facility compliance path, which requires that the entire manufacturing facility meet the on-site requirements of LPC. Whole Facility compliance simplifies the certification process, since Product Share of impact does not need to be calculated for each product individually. Every product produced at a facility that has pursued the Whole Facility path will be understood to be Net Positive within LPC for Energy, Water and Waste.

Manufacturers initially pursuing the Product Share certification path may expand the number of Living Products to eventually include the Whole Facility over time.

CERTIFICATION SUMMARY MATRIX

There are three separate certification levels available within LPC.

- FULL CERTIFICATION: indicates that a product has achieved all twenty Imperatives.
- PETAL CERTIFICATION: requires the achievement of at least three of the seven Petals, one of which must be the Water, Energy or Materials Petal. Achievement of a Petal means complying with *all* Imperatives contained within that Petal.
- IMPERATIVE CERTIFICATION: requires the achievement of at least the seven Core Imperatives.

MINIMUM CERTIFICATION REQUIREMENTS

All Living Products are required to meet, at minimum, the seven Core Imperatives outlined in the Standard: IO1: Responsible Place, IO4: Water Footprint, IO6: Energy Footprint, IO8: Red List, I11: Responsible Industry, I15: Ethical Supply Chain, and I19: Inspiration & Education. The Core Imperatives are noted throughout the Documentation Requirements.

LIVING PRODUCT CHALLENGE - CORE IMPERATIVES
01. RESPONSIBLE PLACE
04. WATER FOOTPRINT
06. ENERGY FOOTPRINT
08. RED LIST
10. RESPONSIBLE INDUSTRY
15. ETHICAL SUPPLY CHAIN
19. INSPIRATION + EDUCATION

All Living Products, regardless of level of certification, are required to have and maintain a valid LCA and 3PV Declare label. Having a continuous understanding of the life cycle impacts of the product and the ingredients in the product are necessary for demonstrating compliance with program requirements. These required documentations apply to multiple Imperatives:

- LIFE CYCLE ASSESSMENT: All manufacturers must produce and maintain an LCA Model demonstrating the product's *cradle-to-grave* impacts, performed in accordance with a relevant product category rule (PCR) to ISO 14044 in an ILFI-approved format.
 - The specifics of this LCA are outlined in the General Documentation Requirements.
 - An existing LCA may be used if it is still valid. However, manufacturers should note that they may have to further analyze the results or re-engage a consultant who created the LCA in order to discover required program information (e.g. Energy Hotspots) or to better reflect any Footprint reductions that have taken place.
- THIRD-PARTY VERIFIED DECLARE LABEL: All Living Products must possess a valid 3PV Declare Label that achieves a declaration status of either "Red List Free" or "LBC Compliant". This means that manufacturers must obtain ingredient disclosure for all intentionally added ingredients present in the final product above 100ppm (.01%).
 - Manufacturers must use an ILFI-approved third party to verify their 3PV Declare claims and may not use a separate third party unless they gain explicit approval by ILFI prior to the certification kickoff date.
 - Manufacturers that already possess a 3PV Declare label for the product pursuing certification are at an advantage, already possessing the verified ingredients list and key material information about the product. Manufacturers that wish to pursue the Transparent Material Health Imperative may need to provide the supply chain backup documentation to an ILFI-approved material health assessor.
 - Details of the 3PV process and information requirements can be found in the <u>Declare Manufacturers Guide</u>.

CERTIFICATION PROCESS

- Selection of product and scope of certification: Engagement of ILFI or an Assessor to discuss the product in question and determine whether there is a need for a charrette to engage multiple parties at the company or discuss alignment of the product with LPC. An ILFI-approved Assessor will be selected or assigned from this list.
- (2) Creation of a Proposal for certification scope and any consulting services, to be reviewed by the Manufacturer, ILFI and the Assessor before signing.
- (3) Signed Contract submitted to ILFI.
- (4) Creation of the certification entry in the online portal:
 - o Must have a Premium Membership with ILFI
 - Login to the Living Future Portal (Portal) at <u>https://portal.living-future.org</u> or through the ILFI Member Dashboard and click "+ New Living Product Challenge Product"
- (5) Initial Documentation: Manufacturers will work with their Assessor to produce initial product certification documents that allow them to achieve certification through a certain pathway. Documentation is uploaded through the online Portal.
- (6) Completion Check: Documentation is reviewed for completion but not content and any outstanding documentation is then uploaded by the manufacturer.
- (7) Submission of Final Documentation
- (8) Review + Determination of Certification Achievement: Imperatives will either be considered to be Achieved, Pending or Denied by the LPC.
 - Continuous improvement is encouraged and manufacturers should continue to add additional Imperatives as they further align their products and production with the certification, install systems to meet site production needs, and provide additional data.
- (9) Publish Case Study on ILFI Certification + Promotion of Product: Living Products are certified for 3 years.
- (10)Annual Check-Ins: ILFI and the Assessor will perform annual check-ins to ensure a product and its facility is still in compliance with the certification requirements and is on track to achieve recertification. Assessors should reach out to the manufacturers three months before each annual check-in date and work with manufacturers to complete the check-in documentation and upload through the Portal for review by ILFI.
- (11) Recertification: Living Products must be recertified every three years. Assessors should reach out a minimum of 6 months before recertification to begin this process. At that time, the product(s) will be reassessed for its potential to achieve full certification and must update to a new version of the standard if the version they were certified under is no longer valid.

CERTIFICATION PORTAL

LPC certification uses ILFI's online Portal. Users will be able to access the Portal with their same credentials provided through the ILFI Premium Membership through single sign-on (SSO).

Find detailed registration instructions at ILFI Support: <u>https://support.living-future.org/</u>, in the LPC section of the Portal Help Desk.

DOCUMENTATION REQUIREMENTS

All products pursuing LPC certification must provide the following documentation requirements.

G-01

General Product Information Summary

The Team should provide one document that includes all of the information below:

- Product Name and Description, including statement of what configurations of the product are included within the certification
- Statement of Certification Level Intent and List of Targeted Imperatives
- Manufacturer Point of Contact
- 12-month performance period start date for the start date of performance-based Imperatives.
- Final Production facility(s) included in certification scope and location
- Documentation that demonstrates whether the product is pursuing the Product Share (less than 75% of facility output by weight or cost) or Whole Facility Pathway (greater than 75% of facility output), with an explanation of how this was chosen and evidence of percentage calculation.

G-02 Product and Facility Photos

In addition, the following general documentation must be submitted:

- Photographs or renderings of the product and the manufacturing facility(s), such as:
 - Product photos, both at the facility as well as installed or in use; outdoor facility site photographs; indoor facility photographs; manufacturing process; community engagement or Handprinting activities; Relevant supply chain photographs (e.g. to demonstrate local sourcing or if the manufacturer is involved in agricultural production of an input); Employees/workers

G-03 Product Collateral

In addition, the following general documentation must be provided:

- Product manual or instructions, including installation instruction (if applicable)
- Brochure describing the product's design and environmental features, as well as any tips to

optimize performance, if applicable.

• (Optional) Video describing the product's environmental features. While not required, videos are encouraged as a vehicle for explaining the manufacturer's pursuit of the program and will be featured on ILFI's website.

G-04 Life Cycle Assessment

All manufacturers must produce and maintain an LCA report demonstrating the product's *cradle-to-grave* impacts, performed in accordance with a relevant PCR (if one exists) and ISO 14040/44 and meets the following:

- Has been critically reviewed by a third party for conformance with ISO 14044
- Has either been performed by an LCA Certified Practitioner certified by ACLCA (<u>https://aclca.org/lcacp-certification/</u>) or by an ILFI-approved LCA practitioner or consultancy.

The LCA should clearly demonstrate the product's contributions to, at minimum, fossil-based energy, water, and greenhouse gas (GHG) emissions. LCA models must be valid at the time of certification and for the duration of the 3-Year certification period. If the LCA will expire before recertification, an updated LCA must be resubmitted at the next annual check-in following its expiration.

PLACE PETAL

IO1 RESPONSIBLE PLACE (CORE)

BASIC DOCUMENTATION

All Basic Documentation is required for all products and manufacturing locations unless noted otherwise.

IO1-1 Site Documentation

Description of the site, including size and layout.

Aerial photos or maps clearly displaying:

- All areas of operation (final manufacturing facilities) and adjacent properties to a minimum distance of 1,000 feet beyond the property line
- The land use on all sides of the property or properties
- All sensitive ecological habitats on or near the area(s) of operation

Provide visual evidence and written documentation that the facility was not constructed on a greenfield; such as historical photographs, maps, or deeds.

IO1-2 IUCN List of Species

Itemized list, exported from IUCN's search function, of every Endangered (EN) or Critically Endangered (CR) species within the relevant area(s) of operations (i.e. manufacturing facility or facilities).

Photo of each species and a brief description, in addition to a statement detailing whether the manufacturing operations affect any of the listed species.

See: http://www.iucnredlist.org/search

IO1-3 Landscape Plan

A plan for each final manufacturing site that outlines:

- Current maintenance practice for the facility grounds
- A description of how the site will be transformed over the 3-Year certification period to:
 - Mature and evolve to increasingly emulate the functionality of the indigenous ecosystem with regard to density, biodiversity, plant succession, water use, and nutrient needs
 - Provide wildlife and avian habitat appropriate to the factory's location through the use of native and naturalized plants and topsoil
 - o Operate without the use of petrochemical fertilizers or pesticides for maintenance

Photos should be included as relevant.

EXCEPTION DOCUMENTATION

EXCEPTION		101-a Conservation Documentation	101-b Context Docs	101-c GRI Sustainability Report	101-d Statement of Non-Ownership
I01-E1	Greenfields Developed before December 31, 2007		x		
101-E2	Third Party Certification	x			
101-E3	GRI Environmental Indicators			х	
101-E4	Contract Manufacturing				x
IO1-a	Conservation Documentation Official documents, from the organization respo	onsible for	the pro	tection o	r interpretat

Official documents, from the organization responsible for the protection or interpretation of the sensitive ecological habitat, that demonstrate the product's compliance with Exception requirements.

IO1-b Context Documentation

Dated maps and/or photos demonstrating the facility site meets Exception requirements. This may include photographs, maps or other evidence that indicate that the facility was constructed and operational before 2007.

IO1-c GRI Reporting

In lieu of requirement IO1-3, Landscape Plan, and in order to support IO1-1 Site Documentation, manufacturers may submit Indicators EN11 and EN12 of their GRI Sustainability Report documentation.

I01-d Statement of Non-Ownership

If the manufacturer does not own the final manufacturing facility, it may be exempt from the requirements of IO1-3 Landscape Plan if it can demonstrate that it does not have control over the landscaping of the site.

IO2 HABITAT EXCHANGE

BASIC DOCUMENTATION

102-1

Organization Selection Narrative

Brief description of the approved habitat conservation organization or Land Trust detailing:

- Organization and program purpose
- How the organization functions
- Why the organization was selected for the donation

IO2-2 Profit Statement

A statement detailing the gross profit generated by the sale of the product through the 12month performance period, as well as projected profit over the next three years. Donations must scale with sale of the product each year; however, the manufacturer is only required to have donated enough for the first year of sales data by the time of certification.

The statement must include a calculation demonstrating that the required annual donation amount reflects the gross profit * .0025.

Manufacturers may meet the donation requirement either entirely through money, or through a combination of money, time, or product only to an approved habitat conservation organization. Calculation requirements are as follows:

- A minimum of 50% of the donation must be monetary
- Up to 50% of the donation may be contributed through volunteer hours. Manufacturers must use the US national average for hourly value of volunteer time, as calculated by Independent Sector to calculate the monetary value of the volunteer time donated. To reference the Independent Sector Value of Volunteer Time data visit: https://independentsector.org/value-of-volunteer-time-2018/
- Up to 25% of the donation may be made through product donations. Product donations must be calculated using the list price of the product, Discounts may not be counted toward the donation, only the complete donation of product.

IO2-3 Receipt

Receipt for the donation from either the Living Future Exchange program or the selected conservation organization or the Approved Land Trust reflecting the required offset amount.

IO2-4Legal Documents (if following the Approved Land Trust path)An official letter or document from the Land Trust stating the terms of the offset and
confirming that the selected Land Trust is approved.

EXCEPTION DOCUMENTATION

None at this time.

103 LIVING ECONOMY SOURCING

BASIC DOCUMENTATION

103-1

Living Sourcing Table

Documentation should clearly demonstrate, for one product unit:

- Each purchased material by weight or by cost
- Supplier location for each purchased material
- Distance of each site of material purchase from final manufacturing location
- Percentage of each purchased material within each specified radius to demonstrate compliance with the following requirements:
 - $_{\odot}$ $\,$ 10% or more must come from within 1000 km of the manufacturing site

- An additional 40% must come from within 2000 km
- An additional 25% must come from within 5000 km
- o 25% can be sourced from any location

IO3-2Supporting DocumentationDocumentation stating supplier location for each tracked material.

EXCEPTION DOCUMENTATION

EXCEPTION		103-a Local Sourcing Intent	103-b Local Impact Reporting
IO3-E1	Local Engagement for Global Supply Chains	x	x

IO3-a Local Sourcing Intent Statement

Products that wish to meet this Imperative but do not meet the requirements of IO3-1 must submit a narrative that outlines:

- Any purchased materials that are sourced outside of the allowable radius, and justification for the distance
- A statement of intent to source the product's purchased materials as locally as possible

IO3-b Local Impact Reporting

Manufacturers with globally-sourced complex products that do not comply with the sourcing radius requirements of IO3-1 may still meet this Imperative by submitting either:

- Their GRI Sustainability Report; specifically, Indicators SO1, SO9 and SO10, and Standard Disclosures 4.14-4.17, Stakeholder Engagement, or other approved sustainability report:
- A narrative written by the manufacturer describing specific engagement of the local community, and quantifiable evidence of its commitment to supporting the local economy beyond the direct creation of jobs at the facility.

WATER PETAL

IO4 WATER FOOTPRINT (CORE)

BASIC DOCUMENTATION

Products pursuing the Product Share pathway that do not require on-site water inputs at the final manufacturing facility(s) are considered *Site Net Positive* within LPC and are exempt from on-site requirements IO4-1, IO4-2, and IO4-3. The site audit will confirm compliance.

SITE REQUIREMENTS

IO4-1 Site Water Narrative

A 1-2 page narrative, written by the water designers, engineers or facility manager fully describing the on-site water system at the final facility, including the following information:

- Clear indication of whether the Whole Facility (>75% facility output) or Product Share (≤75% facility output) pathway is being used. If the Product Share pathway is selected, a description of how water usage was calculated for the product line must be included.
- A description of all the on-site process water needed to create the product as well as the overall facility water demands.
- A description of the sources and fate of all water used in the production process, including system schematics and flow diagram, showing contributing system(s) and major components, their function and location and the water treatment method(s) associated with each.
- An annual water balance diagram showing general water flow and balance of product share or, if applicable, the overall facility and site hydrology.
- Opportunities for water usage reduction at the facility or in the production process.

If the product is not pursuing IO5 Net Positive Water, the manufacturer must complete the following:

- How the 100% of the Product Share or, if applicable, the Whole Facility's water usage could be met via on-site resources.
- Description of any existing barriers to becoming on-site water Net Positive and potential solutions.

IO4-2 Site Water Supply and Use Table

Completed Site Water Supply and Use Table as provided, documenting actual water use from monthly readings throughout the 12-month occupancy period from meter(s) or other onsite tracking systems that clearly record the amount of water used from each applicable supply source.

Calculation of how much of the product's manufacturing water needs at the final facility are being met by on-site renewable sources and discharged on-site without the use of chemicals.

Water Supply								
	Rainwater	Natural Condensate	Ground/Surface Water	Reclaimed Greywater	Reclaimed Condensate	"Municipal Potable Water	(if allowed by exception)"	Other (describe)
Month 1								
Month 2								
Month 3								
Month 4								
Month 5								
Month 6								
Month 7								
Month 8								
Month 9								
Month 10								
Month 11								
Month 12								
Total	0	0	0	0	0	0	0	0

IO4-3 Water System Photographs

Photographs of any water systems, particularly portions that will be hidden from view at time of audit due to completion of construction.

LIFE CYCLE REQUIREMENTS

104-4

Water Footprint The manufacturer must demonstrate that its product's cradle-to-gate water Footprint is lower than the industry average, making sure to cite the source of the information. If this information is not available, or for products with an unknown industry average, please provide a statement indicating that the average does not exist, and why the product pursuing certification is likely to have a lower footprint than comparable products.

IO4-5 Hotspot Identification

Documentation of the water consumption hotspots of the product's cradle-to-gate life cycle:

- A table of process contributions to cradle-to-gate life cycle water consumption, listing at least the top 5 processes ranked in terms of water consumption.
- A brief 1-2 paragraph narrative that interprets the main results and identifies the 5 main drivers of the product's water consumption footprints.

EXCEPTION DOCUMENTATION

None at this time.

105 NET POSITIVE WATER

BASIC DOCUMENTATION

Products that do not require on-site water inputs at the final manufacturing facility(s) are considered Site Net Positive within LPC and are exempt from on-site requirement IO5-1.

105-1 Site Net Positive Calculations

> Calculations clearly demonstrating how the manufacturer has met the requirements of having 100% of process and product water come from on-site renewable sources, be sufficiently treated and discharged on-site without the use of chemicals, and be treated to maintain the quality of natural habitats on and off-site.

105-2 Life Cycle Net Positive Calculations

Calculations clearly demonstrating:

- The product's baseline water Footprint *per product*, calculated impacts of any footprint . reduction methods and the product's reduced Footprint size
- The total water Footprint per year for all 3 years of certification (Year 1 = certification until 1st annual check-in) based on predicted production.
- All existing and planned individual Handprinting actions (e.g. installing a water-efficient showerhead) including the actual or predicted date of implementation and the scale of the action.
- The impact of each individual action (e.g. the impact of installing 1 water-efficient showerhead) and the Handprint effort at scale (e.g. the total impact of installing 20 water-efficient showerheads).
- The size of the total Handprint created and its comparison to the Footprint. The calculated value of the Handprint should exceed the Footprint for at least Year 1 of certification to comply, and documentation should clearly indicate how the manufacturer will maintain Net Positivity each year over the full 3-year certification period.

105-3 Water Handprint Narrative

A narrative accompanying I05-2 calculations, that clearly describes how the manufacturer has reduced the product's water Footprint, created a water Handprint greater than the reduced Footprint to become measurably Net Positive, and how it will maintain Net Positivity through the 3-Year certification period. The following information should be provided:

- A brief narrative explaining the Handprinting actions, including collaborations with other ٠ groups or stakeholders to create the Handprint.
- The quantifiable water impacts of the Handprinting actions. Inclusion of non-quantifiable ٠ impacts is encouraged, but not required.
- A spreadsheet documenting all input assumptions and the resulting Handprint impact calculations.
- The final water Footprint value and Handprint value.

ADDITIONAL DOCUMENTATION FOR WHOLE FACILITY COMPLIANCE

- 105-4Stormwater CalculationsStormwater calculations by the project engineer demonstrating Imperative requirements for
working in harmony with natural water flows, based on a minimum ten-year storm.
- 105-5Statement of Non-connection to Utility
A signed statement, written by the Owner, stating that the facility is not connected to a
municipal potable water supply or sanitary sewer.
- 105-6Bio-solids Disposal DocumentsEvidence of appropriate use of bio-solids and liquids within 100-mile radius of the facility.

EXCEPTION DOCUMENTATION FOR WHOLE FACILITY COMPLIANCE

These exceptions are only applicable to the Whole Facility path. Manufacturers that use Exceptions require additional documentation shown in the table below.

EXCEPTION		105-a Narrative Statement	105-b Meter Data & Calculations	105-c Design Documents	105-d Appeal Documentation
I05-E1	Municipal Potable Water Supply		Х	х	x
105-E2	Municipal Water for Fire Protection			х	
I05-E3	Chlorine Disinfection			х	x
105-E4	Municipal Sewer Overflow Connection	x		х	x

105-a	Narrative Statement Signed narrative statement making a clear case that the product is eligible for the Exception and how it has met requirements.
105-b	Meter Data & Calculations Meter data and /or calculations as needed to show compliance with Exception requirements.
105-c	Design Documents Design documents, such as project manual excerpts, drawings or cut sheets, showing product meets Exception requirements.
105-d	Appeals Documentation Documentation of the team's effort to comply with requirements despite regulatory barriers. Team should include:

- The regulatory statute or code that hinders product compliance.
- Summary of all potential appeals and outcomes.
- Written appeal documents and response showing the decision(s) from regulatory authority

ENERGY PETAL

IO6 ENERGY FOOTPRINT (CORE)

BASIC DOCUMENTATION

Products that do not require on-site energy inputs at the final manufacturing facility(s) must submit a statement to this effect. These products are exempt from on-site requirements IO6-1, IO6-2, IO6-3, and IO6-4. The site audit will confirm compliance.

SITE REQUIREMENTS

IO6-1 Site Energy Narrative

A 2-3 page narrative describing the energy system at the final manufacturing facility, written by the energy designers, engineers or facility manager. The narrative should include the following:

- Whether the Whole Facility (>75% facility output) or Product Share (≤75% facility output by cost or volume) pathway is being used. If the Product Share pathway is selected, a description of how energy usage was calculated for the product line must be included.
- A description of where, how and what types and sources of energy are used to create the product and the overall facility energy demands.
- A schematic drawing of on-site energy systems.
- Description of all subsystems of the energy using and producing systems, including all areas listed in the IO6-2 Energy Table.
- Opportunities for energy usage reduction at the facility or in the production process.

If the product is <u>not pursuing</u> IO7 Net Positive Energy, the manufacturer must complete the following:

- How the 105% of the Product Share or, if applicable, the Whole Facility's energy usage could be met via on-site renewable resources (or ILFI-approved off-site infrastructure).
- Description of any existing barriers to becoming on-site Net Positive and potential solutions.

IO6-2Site Energy Usage and Production Table

Completed Energy Usage Table with monthly data from the 12-month performance period, from meter(s), other onsite tracking systems or web-link to an online mechanism that clearly records energy produced and consumed (e.g., total energy generated; total energy use by subsystem including simulated/designed demand if available).

Instructions: Fill out green and white cells as they pertain to the project. Customize production and demand sources as needed. If using natural gas through an approved exception, contact ILFI for an expanded table to account for gas consumption.									act ILFI for						
LPC Energy Perfomance and Product EUI Table - 12 Month															
	Performance Month	1	1	2	3	4	5	6	7	8	9	10	11	12	
Performance Perlod	Monthly period (should match utility billing or meter data)	xx/xx/xx- xx/xx/xx	Total												
	Total Sub-Metered Electricity Use for LPC Product Manufacturing (kWh)														
Net Positive Energy	Total Sub-Metered Combustion- Based Energy Use for LPC Product Manufacturing (kBtu)														0
Performance	Total Renewable Generation (kWh)														o
	Net Energy Use (if negative, project is net positive energy)	0	o	0	0	0	o	o	o	0	0	0	o	0	0
Product Energy Use Intensity	Total # of Products produced during performance period														0
(EUI)	Total Energy Use per product														#DIV/0!
	Energy Production per product (kWh)														#DIV/0I
Renewable Energy Production as a percentage of annual energy use, per product:								#DIV/0!							

IO6-3 Photographs

Photographs of the systems, particularly portions that will be hidden from view at time of audit due to completion of construction or lack of access to auditors.

I06-4 Energy Bills

Utility bills for a continuous 12-month period, beginning with the designated start date of the performance period.

If the product is not connected to a utility or is sub-metered from a utility meter serving a larger area, and therefore has no energy bills, the manufacturer must write and sign a letter substantiating that this is the case, in conjunction with the sub-metered data.

LIFE CYCLE REQUIREMENTS

IO6-5 Energy Footprint

Documentation indicating the cradle-to-grave Energy Footprint of the product and demonstrating that the footprint is below the industry average for the product type.

IO6-6 Hotspot Identification

The following data shall be provided, documenting the cradle-to-gate fossil fuel-based energy consumption hotspots of the product's life cycle:

- A table of process contributions to cradle-to-gate life cycle energy consumption, listing at least the top 5 processes ranked in terms of energy consumption.
- A brief one- to two-page narrative that interprets the results and identifies the five main drivers of the product's cradle-to-gate fossil energy consumption footprints.

EXCEPTION DOCUMENTATION

None at this time.

107 NET POSITIVE ENERGY

BASIC DOCUMENTATION

All Basic Documentation is required for all products unless noted otherwise.

IO7-1 Site Net Positive Calculations

A description of how the Product Share of energy usage is calculated and renewable energy is used to provide 105% of energy needs if the Product Share path is taken, or a description of how the whole facility energy usage is calculated and renewable energy is used to provide 105% of the entire facility energy needs for the Whole Facility approach.

Calculations clearly demonstrating how the manufacturer has met the requirements of having 105% of energy needs come from on-site renewable sources.

I07-2 Renewable Energy Certificates

In order to claim that the product is powered by renewable energy, one must demonstrate ownership of sufficient Renewable Energy Certificates (RECs) to cover the claim. The purchase of RECs themselves do not suffice to demonstrate the creation of *additional* renewable energy but must support any renewable energy claims.

This means either the manufacturer has either retained the RECs associated with on-site renewable energy production, or if they must be sold, has purchased new RECs. In cases where new RECs must be purchased, additional documentation is required. This should include the number of RECs purchased, the cost of purchase, and a demonstration that this purchase accounts for a minimum of 105% of the on-site energy usage in the performance year. The RECs purchased must be:

- Green-E Certified
- Less than 5 years old
- Tied to production within the same regional grid as the final manufacturing facility or property owned and operated by the manufacturer achieving certification
- Be physically identifiable: the location and attributes must be known, rather than be a generalized power purchase
- Be specifically attributed or allocated to the project for a minimum of 15 years through a recognized ownership structure, such as a Power Purchase Agreement. All utilized RECs by the manufacturer should have a specific location searchable and visible on Google Earth / Maps or StreetView.

IO7-3 Life Cycle Net Positive Calculations

Calculations clearly demonstrating:

- The product's baseline energy Footprint *per product*, calculated impacts of any footprint reduction methods and the product's reduced Footprint size
- The total energy Footprint per year for all 3 years of certification (Year 1 = certification until 1st annual check-in) based on predicted production.
- All existing and planned individual Handprinting actions (e.g. installing an on-site photovoltaic panel array) including the actual or predicted date of implementation and

the scale of the action.

- The impact of each individual action (e.g. the impact of installing an on-site PV array) and the Handprint effort at scale (e.g. the total impact of a portfolio-wide transition to on-site renewables production).
- The size of the total Handprint created and its comparison to the Footprint. The calculated value of the Handprint should exceed the Footprint for at least Year 1 of certification to comply, and documentation should clearly indicate how the manufacturer will maintain Net Positivity each year over the full 3-year certification period.

I07-4 Energy Handprint Narrative

A narrative accompanying IO7-3 calculations that clearly describes how the manufacturer has reduced the product's energy Footprint, created an energy Handprint greater than the reduced Footprint to become measurably Net Positive, and how it will maintain Net Positivity through the 3-Year certification period. The following information must be provided:

- A brief narrative explaining the Handprinting actions, including collaborations with other groups or stakeholders to create the Handprint
- The quantifiable energy impacts of the Hanpdrinting actions. *Inclusion of non-quantifiable impacts is encouraged, but not required.*
- A spreadsheet documenting all input assumptions and the resulting Handprint impact calculations.
- The final energy Footprint value and Handprint value.

EXCEPTION DOCUMENTATION

Manufacturers that use Exceptions require additional documentation. The table below shows which Exceptions require which forms of documentation.

EXCEPTION		107-a Additional Narrative	107-b Metering Documentation	107-c Technical Documents	107-d Photographs
I07-E1	Pre-existing Infrastructure	х	х		х
107-E2	Photovoltaic Array Ownership			х	
I07-E3	Specialty Combustion	х			
I07-E4	Existing Buildings Sub-metering	х			
I07-E5	Shared/3 rd Party Arrangements		х	х	

I	07-E6	Campus Setting		х						
I	07-E7	District Energy System		х						
I	07-E8	Scale Jumping for Energy Intensive Processes			х					
I	07-E9	Government REC Sales			х					
I	07-E10	Off-Site Renewables	x	x		×				
	IO7-aAdditional NarrativeA narrative describing the facility's need for the Exception, the approach to, andimplementation of, the alternative solution, and compliance with Exception requirements.									
107		Metering Documentation Metering documentation or data showing compliance	e with Ex	ception I	requirem	ents.				
107		Technical Documents Legal, financial or contract documents showing compliance with Exception requirements.								
107	07-d Photographs Photographs showing compliance with Exception requirements, including images of all components that will be changed from an existing state, or hidden by the completion of the performance period.									

HEALTH + HAPPINESS PETAL

IO8 RED LIST (CORE)

BASIC DOCUMENTATION

For a full explanation of how to obtain a 3PV Declare label, please refer to the <u>Declare</u> <u>Manufacturers Guide</u>.

IO8-1 3PV Declare Label

A valid *Red List Free* or *LBC Compliant* 3PV Declare label for the product, demonstrating that the product is free of Red List Ingredients not covered by an existing Exception.

IO8-2 GreenScreen List Translator Scores

GreenScreen List Translator score for each intentionally added substance present above 100ppm, including any proprietary ingredients.

IO8-3 Packaging Documentation

Letter from the manufacturer stating that the product packaging is free of Red List chemicals and materials and that it does not pose a threat to marine, bird or animal life.

EXCEPTION DOCUMENTATION

For a full list of current exceptions for Declare, please review the Declare Manufacturers Guide.

IO9 TRANSPARENT MATERIAL HEALTH

Pursuit of the Transparent Material Health Imperative requires either (1) engagement of an ILFI-approved material health assessor to complete the review, or (2) demonstration that the product has met an approved program that demonstrates compliance with the Imperative requirements.

109-1

Transparent Material Health Report

Documentation that the product is free of risk from exposure to any Carcinogens, Mutagens or Reprotoxics (CMRs) and Persistent Bioaccumulative Toxics (PBTs) present above 100ppm. All ingredients present in the final product at or above 100ppm must be reviewed. Polymers require additional information outlined below:

- Polymer supplier
- Polymer trade name
- Monomer composition
- Monomer residual levels
- Polymer molecular weight

For a product's initial certification, the manufacturer is required to assess a minimum of 95% of the ingredients present in the final product at over 100ppm, allowing for up to 5% of the product to be unassessed. By the time of recertification, the manufacturer must have assessed the remaining 5% of the product content in order to maintain achievement of this Imperative. This requirement carries through across new LPC versions. The percentage threshold assessed (95% or 100%) will be listed on the LPC label.

Acceptable documentation includes:

- A complete LPC Transparent Material Health Report completed by an ILFI-approved material health assessor. An LPC Transparent Material Health Report may include a corrective action plan with an ILFI-approved timeline for any changes required as a result of assessment. This report must be made publicly available on the LPC website to promote transparency of ingredient assessment information.
- ToxFMD-LPC Report
- Cradle to Cradle Product Certification or Material Health Certificate at the V3 Silver Level
 and above
- GreenScreen Certification at the Silver 95%, Silver 100% or Gold level

109-2 Process Chemicals Documentation

Description of all process chemicals used in the production of the product at the final manufacturing facility, as well as documentation that each process chemical is free of Red List ingredients. Acceptable Documentation Includes:

- SDS representing 100% of the ingredients in the process chemical with GreenScreen List Translator scores for all ingredients
- HPD with all ingredients identified and screened for 100% of the ingredients in the process chemical.
- Disclosure letter from a supplier confirming the product is free of Red List ingredients along with an MSDS Sheet or listing of ingredient names and CASRN and GreenScreen List Translator scores for all ingredients.
- Cradle to Cradle Product Certification or Cradle to Cradle Material Health Certificate at the V3 Silver level and above.

If no process chemicals are used in the manufacturing process, a written statement to this effect from the final manufacturing facilities manager will suffice.

OPTIONAL ADDITIONAL DOCUMENTATION

109-3Material Health Assessment ReportsCopies of any valid, certified GreenScreen assessment reports

EXCEPTION DOCUMENTATION

None at this time.

I10 HUMAN THRIVING

BASIC DOCUMENTATION

All Basic Documentation is required for all products unless noted otherwise.

I10-1 Human Thriving Narrative

A 1-2 report detailing compliance with Imperative requirements, including how the manufacturer provides sufficient and frequent human-nature interactions for the employees who are manufacturing the product to connect them with nature directly and encourage an active, healthy lifestyle. The report must address how the facility promotes:

- Access to fresh air and daylight
- Any health and wellness programs in place and employee use of these programs
- Infrastructure in place to encourage interaction with nature and any biophilic design elements in place
- Indoor air quality, including any tracking or air quality testing conducted by the facility

I10-2 Facility Layout

A facility floor plan showing the location of workstations and access to fresh air and daylight. An absence of natural light and operable windows in any regularly occupied spaces should be addressed in I10-1 Human Thriving Narrative.

110-3	Facility Photos Photos clearly demonstrating how the facility encourages employee wellness and happiness and access to nature and incorporates any biophilic design elements into the space, such as meditation spaces, daylighting, communal garden areas, and walking paths.
110-4	Employee Feedback Mechanism Demonstration that there are sufficient opportunities at the facility for employee feedback, and active participation using these methods by employees, regarding worker health and happiness. This can be demonstrated through the results of a survey or other feedback mechanism. The mechanism should clearly engage employees around how the facility encourages an active healthy lifestyle and interaction with nature.
	Documentation provided must summarize the results of the survey and indicate how the manufacturer intends to use the results to continuously improve worker health and happiness in the facility.
110-5	OSHA Confirmation or Equivalent Written confirmation from the manufacturer that no deaths or serious injuries ¹ occurred during the twelve-month performance period based on Occupational Safety and Health Administration (OSHA) or international equivalent.
110-5	IAQ Testing Companies must have Indoor Air Quality testing at the Facility to ensure the health and safety of the workers in the building.

EXCEPTION DOCUMENTATION



Manufacturer Statement

A manufacturer statement describing the incident and outlining actions and precautions taken to prevent similar issues in the future.

l10-b	Safety Response Documentation
	Additional documentation demonstrating adequate response and preventative measures.

¹ Serious injuries are defined as fatal injuries, and injuries with greater than 0.5 Disability Adjusted Life Years (DALYs) (http://www.who.int/healthinfo/global_burden_disease/metrics daly/en/) over the expected duration of the injury. If expected duration is permanent, use life expectancy in your country.

MATERIALS PETAL

I11 RESPONSIBLE INDUSTRY (CORE)

BASIC DOCUMENTATION

All Basic Documentation is required for all products unless noted otherwise.

III-1 Relevant Certifications

Documents demonstrating that the manufacturer has obtained the relevant certifications demonstrating that the product's material inputs are responsibly sourced per the requirements of I11 Responsible Industry.

Products that use wood-based materials or timber, including for all final product packaging uses:

- Receipts referencing FSC-certified wood acquisition and final chain of custody numbers
- Receipts from the seller/broker of all salvaged wood procurements

Products that use dimensional stone:

• ANSI Natural Stone Council Standard (or international equivalent) certification

Products that use agricultural inputs:

• USDA (or international equivalent) organic certification

Products that use potential conflict minerals:

- The unique Smelter ID(s), established by the Responsible Minerals Initiative (formerly the Conflict Free Sourcing Initiative), that corresponds to the smelter or smelters that provide the product's mineral ingredients
- Receipts from the seller/broker of all mineral procurements

EXCEPTION DOCUMENTATION

EXCEPTION		l11-a Manufacturer Statement	111-b Due Diligence
I11-E1	Commodity and Bio-based Products	x	
I11-E2	Alternative Forestry Certifications for Packaging		x

I11-a Manufacturer Statement

Manufacturer may supply a brief statement indicating that currently no USDA or international equivalent certification exists for commodity and bio-based products.

I11-b Due Diligence

The manufacturer must present documentation that indicates that obtaining FSC certification for the packaging is not feasible at this time, and that 3 or more suppliers were contacted regarding FSC packaging.

I12 REGENERATIVE MATERIALS

BASIC DOCUMENTATION

All Basic Documentation is required for all products unless noted otherwise.

I12-1 Regenerative Inputs Comparison

A narrative, in the form of writing or an LCA alternatives assessment that demonstrates material considerations for the product's most five environmentally impactful materials and describes how each material used was selected. Where possible, carbon-sequestering, bio-based and recycled materials should be prioritized.

I12-2 Durability Statement

A statement from the manufacturer affirming that the product is designed and tested to last as a useful, functioning product for at least the average lifetime for its product category, as documented in the Institute's online Product Life Database. Please include any relevant testing data.

Disposable or Single-Use Products Only:

A statement detailing the means by which 100% of the product will:

- Biodegrade within five years
- Be fully compostable
- Be recycled within the country of intended use.

I12-3 End-of-Life Narrative

A narrative statement detailing how the product meets the Responsible End of Life requirements of I12 Regenerative Materials.

I12-4 List of Take-back Locations

A list of markets in which the product is sold and a list of corresponding locations of manufacturer take-back programs, if applicable.

EXCEPTION DOCUMENTATION

None at this time.

I13 NET POSITIVE WASTE

BASIC DOCUMENTATION

All Basic Documentation is required for all products unless noted otherwise.

I13-1 Materials Conservation Management Plan

Completed Conservation Management Plan explaining how the manufacturer optimized materials in design, manufacture, use, and how they planned for source reduction of waste, as well as reduced waste at the product's end of life. The narrative must describe how the facility complies with diversion rates for either the Product Share, or, if applicable, the Whole Facility approach. The Plan must contain a section devoted to packaging, demonstrating how the manufacturer achieved a reduction or elimination of packaging waste.

Manufacturers that have achieved ILFI-approved zero waste to landfill certifications for the final facility are considered to comply with the Imperative requirements for any products produced in the facility and no additional documentation for this imperative needs to be supplied beyond the certificate of achievement from the certifying body. ILFI-approved zero waste to landfill certifications include, but are not limited to:

- GreenCircle Certified Zero Waste to Landfill Certification
- NSF Zero Waste to Landfill Certification

I13-2 Diversion Table

Completed waste diversion table, in Excel format, showing percentages of waste diverted (by weight) in each category (Metals; Paper + Cardboard; Soil + Biomass; All Others (combined weighted average). The calculations must be based on tangible data that correlates to receipts provided.

The table must demonstrate that at least 90% of the waste generated through production of the product needs to be diverted from the landfill. If the overall diversion rate falls below 100%, the manufacturer must complete I13-3 Waste Handprints.

 $Waste Diversion Rate = rac{Amount Recycled + Amount Composted}{Total Waste Generated}$

I13-3 Waste Handprints

If the product does not meet one of the approved waste to landfill certifications identified in 113-1 and also falls short of 100% diversion in 113-2, the manufacturer may become Net Positive by completing waste diversion strategies *outside* the scope of the product pursuing certification. This can be done either through Enterprise level activities (those done by the company outside of production), or through other Handprinting actions like consumer or supplier engagement. The manufacturer should demonstrate that the amount of waste diverted through these other strategies offsets the amount sent to landfill and will continue to meet or exceed these requirements through recertification.

I13-4 Hauling Documentation

Copies of receipts, recycling percentage reports and provider names for all tipping fees, recyclers, and building materials salvage services. For the Product Share pathway, this only applies to non-hazardous waste streams associated with the product pursuing certification. For the whole facility compliance path, this extends to all facility waste streams.

I13-5 Photographs

Photographs of specific designated on-site areas for managing waste, as well as of waste containers on-site, to prove less than 2% contamination in outgoing containers.

EXCEPTION DOCUMENTATION

EXCEPTION		113-a Manufacturer Statement	113-b Efficiency Documentation		
I13-E1	Material Efficiency	x	x		
l13-a	Manufacturer Statement A narrative describing the product's need for the Exception, statement describing the manufacturer's maximization of the diversion rate, and compliance with Exception requirements.				
l13-b	Efficiency Documentation Table demonstrating all inputs to production with associated w	veights ar	d outputs.		

II3-cTechnical DocumentsLegal, financial or contract documents showing compliance with Exception requirements.

I14 NET POSITIVE CARBON

BASIC DOCUMENTATION

All Basic Documentation is required for all products unless noted otherwise. There is no onsite requirement for this Imperative.

I14-1 Carbon Footprint

Documentation indicating the cradle-to-gate Carbon Footprint of the product and demonstrating that the footprint is below the industry average for the product type.

I14-2 Hotspot Identification

The following data shall be provided, documenting the greenhouse gas (GHG) hotspots of the product's cradle-to-gate life cycle:

- A table of process contributions to cradle-togate lifecycle GHG emissions, listing at least the top 5 processes ranked in terms of GHG emissions.
- A brief narrative that interprets the results and identifies the 5 main drivers of the product's cradle-to-gate carbon Footprints, and their relevance.

I14-3 Net Positive Carbon Report

A report that describes how the manufacturer reduced the product Footprint, created Handprints, either through the nature of the product or through actions taken outside of the footprint of the product, thereby achieving Life Cycle Net Positive. For both Enterprise and Product Lifecycle Related Handprints the assessment should be done using a spreadsheet

documenting input assumptions and references to relevant product category rules (PCRs) when available and/or appropriate.

For Enterprise and Product Lifecycle Related Handprints, the following information will be provided:

- A spreadsheet documenting all input assumptions and the resulting handprint impact calculations.
- A brief narrative explaining the Handprinting actions and their impacts.

I14-4 Carbon Offset Receipts

Receipt demonstrating that 100% of the remaining Life Cycle Carbon impacts after all handprints have been applied have been offset. Acceptable forms of carbon offsets include Certified Emission Reduction (CER) and Verified Emission Reduction (VER) carbon credits. Carbon offsets must be certified by Green-e Climate (www.green-e.org), or an equivalent program. Other certification programs must be submitted for approval.

The offsets do not have to be local, although local or community-based solutions that provide additional socioeconomic benefits are encouraged.

EXCEPTION DOCUMENTATION

None at time of issue.

EQUITY PETAL

I15 ETHICAL SUPPLY CHAIN (CORE)

BASIC DOCUMENTATION

115-1

Supplier Identification

Identification of the top suppliers:

List the top 10 suppliers of all Goods and Services either to the facility or to the business unit containing the facility, based on total annual spend.

Specify the (approximate) percentage of total annual spending to each of these top 10 suppliers. Manufacturer does not need to disclose spend amounts in dollars. For each of the top 10 suppliers:

- Indicate the country in which production of the largest share of this input sold to the manufacturer occurs. The supplier may operate in multiple countries; the manufacturer should simply name the country from which the highest share of input from this supplier to the manufacturer originates.
- Indicate which of the 57 GTAP sectors, which are used in the Social Hotspots Database, the largest share of this input sold to the manufacturer falls within. A list of

the 57 GTAP (version 9) sectors can be found here: https://www.gtap.agecon.purdue.edu/databases/contribute/detailedsector.asp

I15-2 Risk Identification

For each of the top 10 suppliers identified in I15-1, identify the 1, 2, or 3 most critical social risks for this country-specific sector, using the Social Hotspots Database risk portal. The most critical risks are identified by having a highest contribution to the social hotspot index for that country-specific sector. List these risks for each of the top 10 suppliers.

For each of the most critical risks for each of the top 10 suppliers, use the Standards Map database to identify one or more certification systems that address the critical risk for the given country and sector. Information about the most critical risks and one or more relevant certification systems that address them must be shared with each of the top 10 suppliers.

I15-3 Supplier Preference Statement

Provide a statement from the manufacturer explaining how the manufacturer will give preference to suppliers that either obtain the relevant certification or conduct a social audit to otherwise address the identified social risks.

EXCEPTION DOCUMENTATION

None at time of issue.

I16 EQUITABLE INVESTMENT

BASIC DOCUMENTATION

116-1	Profit Statement A statement detailing the gross profit generated by the sale of the product through the 12- month performance period.	
116-2	Offset Calculations Calculations demonstrating the amount that the manufacturer will donate to an approved organization to comply with I16 Equitable Investment.	
	The manufacturer is required to donate ¼ cent per dollar of gross revenue. To meet this manufacturer:	
	 Must make a minimum of ½ of this donation amount through financial contribution to a selected organization(s) 	
	• Up to ¼ may be made through volunteer hours	
	• Up to ¼ may be made through product donations/installation	
116-3	Program Selection Narrative	

Brief description of the program purpose, how it functions and why it was selected for the donation.

EXCEPTION DOCUMENTATION

None at time of issue.

I17 JUST ORGANIZATIONS

BASIC DOCUMENTATION

- II7-1 JUST Label JUST label for the product manufacturer
- I17-2Advocacy LettersCopies of at least five letters to major suppliers advocating for their participation in JUST.

EXCEPTION DOCUMENTATION

EXCEPTION		117-a Manufacturer Statement	117-b B Corp Scorecard
I17-E1	B Corporations		x
I17-E2	Minimum Firm Size	x	

I17-a Manufacturer Statement

A manufacturer statement demonstrating that the company currently has 5 or less employees and will pursue JUST at the time of recertification if the company has grown beyond 5 employees.

I17-b B Corp Scorecard

Valid B Corp scorecard indicating an aggregate B Corp score of at least 41 points in total across the three categories of Workers, Community and Governance.

I18 SOCIAL CO-BENEFITS

BASIC DOCUMENTATION

All Basic Documentation is required for all products unless noted otherwise.

I18-1 Social-Co Benefits Narrative

A 1-2 page narrative shall be provided, written by the applicant, demonstrating that the Handprinting actions taken to offset at least 75% of the product's Footprint in at least one

impact area (water, energy or carbon) result in clear social co-benefits, and describing those benefits in detail including any measurements of impact.

I18-2 Handprinting Partner Statement

Statement from the any collaborating partners on Handprints on their involvement in the action and impacts.

I18-3 Additional Documentation

Additional evidence in the form of photographs, narratives, testimonies, surveys, that demonstrate the impact of the Handprinting actions and clear connection to social cobenefits.

EXCEPTION DOCUMENTATION

None at time of issue.

BEAUTY PETAL

I19 INSPIRATION + EDUCATION (CORE)

BASIC DOCUMENTATION

119-1	Case Study Questionnaire A complete ILFI Case Study Questionnaire, which will be posted for public viewing on the ILFI website.
119-2	Signage Photo documentation of educational/interpretive signage installed in the facility that teaches visitors and occupants about the product and manufacturing facility and pursuit of LPC.
119-3	Open House Letter stating manufacturer intent to hold at least one annual "open day" to educate the public about the manufacturer, the facility and its achievements. This "open day" shall be publicized to the community at large.
119-4	Website Educational web site (URL to be provided at submission) that shares information about the design, manufacture, and performance of the product. Performance metrics are encouraged to be included.

EXCEPTION DOCUMENTATION

None at time of issue.

I20 BEAUTY + SPIRIT

BASIC DOCUMENTATION

120-1

Beauty Narrative

A one- to two-page narrative written by the product designer that describes how the product meets the intent of the Imperative. The essay must be accompanied by photographs, diagrams and drawings that illustrate major ideas. The narrative should also describe:

- The product's potential to transform people's relationship to the natural world through the manufacturing process, design or use of the product
- How the product was informed by the natural world and if nature was used as model, mentor or measure, and/or biomimicry was used as an inspiration
- Evidence that the product's primary use will not further disconnect people from nature.

I20-2 Survey + Results

One or both of the following:

- Survey and results from customers. Survey must state the Imperative requirements, inquire of respondents whether they think the product has succeeded, and include additional questions related to the beauty of the product based on the designer's narrative. Survey respondents must comprise a representative sampling of product users. Surveys may be administered online or in person.
- Focus group feedback specifically detailing compliance with Imperative requirements.

EXCEPTION DOCUMENTATION

None at this time.

DEFINITIONS

Chemical Abstract Services Registration Number (CAS RN, CAS Registry Number, CAS Number)

A unique numerical identifier assigned by the Chemical Abstracts Service (www.cas.org) to every chemical described in the open scientific literature of elements, chemicals compounds, polymers and other substances (HPD, 2015).

Commodity Products

Commodities are homogenous goods that are traded in bulk on a commodity exchange. Commodity prices are subject to supply and demand; and therefore are determined by their market as a whole. These types of products include agricultural goods, lumber, metals and fuels.

Cradle to Cradle (C2C) Product Certification

C2C is a multi-attribute, third party certified product certification. The standard assesses products in five categories, namely Material Health, Material Reutilization, Renewable Energy & Carbon Management, Water Stewardship, and Social Fairness.

https://www.c2ccertified.org/

GreenCircle Certified Zero Waste to Landfill Certification

Zero waste to landfill certification verified by GreenCircle Certified.

http://www.greencirclecertified.com/waste-diversion-from-landfill

GreenScreen

Short for "GreenScreen for Safer Chemicals" (greenscreenchemicals.org), a method for comparative chemical hazard assessment. It is used to assess the inherent hazards of chemicals and their potential effect on human health and the environment. The foundation of the GreenScreen method is the Principles of Green Chemistry and the work of the US Environmental Protection Agency's (EPA's) Design for the Environment (DfE) and GHS hazard thresholds.

http://www.greenscreenchemicals.org/method/method-documents

GreenScreen Certified

A certification program developed Clean Production Action based on the GreenScreen® for Safer Chemicals, a globally recognized tool that identifies hazardous and safer chemicals through a rigorous benchmarking scoring system.

GreenScreen List Translator

A chemical hazard assessment method developed by Clean Production Action that produces GreenScreen List Translator scores by compiling all GreenScreen Specified Lists (36 lists and over 450 list categories) and translates that information from the GreenScreen Hazard Criteria, where hazard classification levels (e.g. H or M or L) are assigned for each Hazard endpoint. GreenScreen Specified Lists are only a subset of the complete set of GreenScreen Hazard Criteria.

Global Reporting Initiative (GRI)

The GRI Sustainability Reporting Standards (GRI Standards) are widely adopted global standards for sustainability reporting.

https://www.globalreporting.org/

Health Product Declaration

Standard reporting format for product ingredients and identification of health hazards.

http://www.hpdcollaborative.org

Homogenous Material ("Material")

A uniform solid, liquid or gas composed of one or more substances that cannot be mechanically disjointed, in principle. It may be a chemical formulation or compound; a substance of unknown or variable composition, complex reaction product, or biological material (UVCB); or a combination of the two. Coatings and finishes such as plating, powder coats, enamels, etc., are considered unique homogenous materials" (Clean Production Action, 2015).

Hotspot

A process that makes a major contribution to one or more life cycle impact categories for a product in its supply chain. For example, some upstream processes may be responsible for the bulk of the product's cradle-to-gate water footprint, and other processes may be responsible for the bulk of the product's energy or carbon footprints. These upstream processes are the best places to look for improvement opportunities, such as more efficient use of water or energy.

Intentionally Used Substance

Any chemical substance used in the production of the homogenous material, whether or not it is intended to remain in the manufacturer's finished product. Example include: monomers, reagents, catalysts, reactive and nonreactive additives, auxiliaries, processing aids and other process chemicals, or any other chemical substance that is used in the making the product, but may be present in reduced amounts (or not at all) in the finished product (i.e. it reacts, gets washed off, etc.)" (Clean Production Action, 2015).

Life Cycle Assessment

LCA is a technique to assess the environmental aspects and potential impacts associated with a product, process, or service, by:

- Compiling an inventory of relevant energy and material inputs and environmental releases
- Evaluating the potential environmental impacts associated with identified inputs and releases
- Interpreting the results to help decision-makers make a more informed decision (USEPA, 2006).

Material Health Assessor

An assessment body that is approved by ILFI to evaluate a Material Health Inventory (or equivalent ingredient disclosure) for achievement of the Transparent Material Health Imperative and Living Product Challenge certification.

NSF Zero Waste to Landfill Certification

The NSF guideline establishes uniform criteria to evaluate and verify an organization's waste management processes, and grants recognition to companies demonstrating that they send

less than 1% of waste to landfill.

https://www.nsf.org/newsroom/landfill-free-verification

Pharos

A chemical and materials database and research tool that allows side-by-side comparison of products and chemical formulations. Pharos includes the ability to identify GreenScreen List Translator scores through inputting CAS Registry Numbers.

http://www.pharosproject.net

Product Inventory

"Inventory of all of the chemical substances present at greater than 100ppm within a final product" (Clean Production Action, 2015).

Process Chemicals

Process chemicals are defined as chemicals used in the manufacturing process in the final manufacturing facility that come into contact with the product pursuing certification. For example, surfactants, solvents and lubricants in the product manufacture are to be considered. General cleaning products used in the facility are not included.

Product

"A finished good composed of homogeneous materials that are in turn made up of chemical substances. A product may be made of one or more homogeneous materials. A product may also be organized into parts, which are in turn made up of one or more homogenous materials. A product may also function as part of another product" (HPD 2.0 Standard, 2015).

Renewable Energy

Energy generated through passive solar, photovoltaics, solar thermal, wind turbines, waterpowered microturbines, direct geothermal or fuel cells powered by hydrogen generated from renewably powered electrolysis. Nuclear energy is not an acceptable option.

Social Co-Benefits

Positive social and/or economic impacts that arise as a result of actions taken by a manufacturer in order to create environmental handprints.

Social HotSpot Database (SHDP)

The SHDB is a project centered at New Earth, a U.S. based not-for-profit focused on information systems for sustainability. The project aims to give users full transparent access to information about working conditions and impacts in global supply chains, and also about the hundreds of sources drawn upon as well as the methods used to characterize risks within the SHDB.

https://www.socialhotspot.org/

EXCEPTIONS

IMPERATIVE 01: RESPONSIBLE PLACE (CORE)

IO1-E1Greenfields Developed Before December 31, 2007Sites that were altered from a greenfield prior to 12/31/2007 are allowed.

IO1-E2 Third-Party Certification

Forest Stewardship Council Certification or similar demonstrating that the manufacturer imposes appropriate provisions to protect any endangered species that the manufacturing facilities may impinge upon.

IO1-E3Site Environmental Indicators
Manufacturers that already use GRI sustainability reporting are considered to comply with Site
Documentation requirements, and may submit documentation of EN11 and EN12 in lieu of the
written requirements of IO1-4.

IMPERATIVE 03: LIVING ECONOMY SOURCING

IO3-E1 Local Impact Reporting

For some products with global supply chains, compliance with IO8 Living Economy Sourcing distance range requirements may not be possible. Manufacturers in this situation may document their impact on the local economy, clearly demonstrating their support and engagement of the local community and businesses using existing sustainability reporting standards or other evidence.

IMPERATIVE 05: NET POSITIVE WATER

IO5-E1 Municipal Potable Water Supply

If health or utility regulations require a facility to use municipal potable sources, it is allowed, but only for potable uses including sinks, faucets, janitorial uses, and showers. Non-potable uses such as toilet flushing, clothes washing, and equipment uses must use water sourced from the facility site. While it is not required, the manufacturer is encouraged to include full rainwater harvesting capacity in anticipation of future regulatory acceptance of additional rainwater use.

To use this Exception the manufacturer must exhaust all regulatory appeals short of legal appeals. In addition, the team must demonstrate through design drawings and calculations how the facility is designed to meet the requirement for 100% site-sourced water.

I05-E2 Municipal Water for Fire Protection

A connection to a municipal water supply is allowed for fire protection systems, as long as the connection is dedicated only for fire protection, and does not supply water for any other uses.

IO5-E3 Chlorine Disinfection

Chlorine disinfection for potable water uses on facilities regulated as "public water systems" under the U.S. Safe Drinking Water Act (or equivalent regulations outside of the US) is allowed. The US EPA defines public water systems as those that have at least 15 service connections, or regularly serve at least 25 individuals. For these facilities, chlorine disinfection may be required for regulatory compliance. However, to use this Exception, the manufacturer must exhaust all regulatory appeals short of legal appeals. The chlorine added should be the minimum amount allowed by the code. In addition, the manufacturer must include and

document point-of-use dechlorination with a 0.5 micron carbon block filter or other approved dechlorination method.

I05-E4 Municipal Sewer Overflow Connection

If health or utility regulations require an overflow connection to the municipal sanitary sewer system, it is allowed if the team:

- Exhausts all regulatory appeals short of legal appeals
- Installs a manual valve control that is designed to remain closed
- Provides a signed statement that the overflow connection was not used during the performance period

IMPERATIVE 07: NET POSITIVE ENERGY

107-E1

Pre-existing Infrastructure

Manufacturers can take advantage of pre-existing photovoltaic (PV) arrays in certain limited circumstances. The renewable energy system can predate Product Certification if it supplies energy directly to the facility producing the Living Product. A renewable energy system on an adjacent facility cannot predate the facility that it is supplying energy to unless the system was planned with sufficient overcapacity in place to meet the building's energy demand. For example, a PV array might be installed ahead of building construction or as part of a district system, to take advantage of certain incentives or efficiencies of scale. This is allowed as long as the PV system was planned, designed and installed specifically to service the facility producing the Living Product. The manufacturer must provide:

- Photographs of the existing system
- A narrative signed by the owner confirming their approach and that the system was planned, designed and installed specifically to service the facility.
- IO7-E2 Photovoltaic Array Ownership
 Third-party ownership of a PV installation is allowed with a long-term lease agreement in place. The contract length must be a minimum of 15 years.

I07-E3 Specialty Combustion

Combustion-based solutions for industrial processes are allowed. Each exception request must be submitted in writing to the Living Product Challenge team.

The manufacturer will need to provide the exception request submitted to the LPC team and the response.

I07-E5 Shared/3rd Party Arrangements

It is acceptable to place PV panels on the rooftops or other areas of adjacent properties and use the energy generated from these adjacent off-site sources to power the facility. Resources may only be attributed to one facility; they cannot be "double counted." The team must provide technical documents showing the facility contributed financially to the development of the renewable system, such as:

- Proof of purchase and maintenance agreements
- Third-party agreements to acquire the equipment and manage ongoing maintenance. The team must also submeter and track energy to show that the energy required for the facility is covered by the system, and attributed to only the facility.

I07-E6 Campus Setting

A facility is allowed to connect to a campus grid as a Scale Jumping solution if the renewable energy allocated to the facility is not already in use by, or dedicated to, any other part of the campus. Resources may not be traded or "doubled counted." The team must still optimize energy performance and calculate the facility's Energy Use Intensity (EUI) to ensure that the facility is not using more than its share of the energy generated from the shared resource.

In a single-owner campus setting, where the utility is feeding several aggregated services on site, it is permissible to connect the renewable energy technology directly to any of these services. Metering must clearly demonstrate that the technology installed to accommodate the facility's energy demand actually meets or exceeds that demand and is not already in use by, or dedicated to, any other part of the campus.

IO7-E7 District Energy System

It is acceptable to utilize a District Energy System (DES) to offset thermal or electric energy used by the facility, as long as the team can document that the kWhs or BTUs being sent back to the DES (or electricity to the grid) are equal to the building's DES demand during the 12-month performance period. Waste heat capture for the facility from a DES is only allowed if the heat is not generated from combustion.

I07-E8 Scale Jumping for Energy Intensive Processes

Certain high-energy industrial processes such as melting glass and synthesizing chemicals have extremely high process energy that cannot be realistically supplied by on-site renewables. These types of manufacturers can Scale Jump by financially investing in the development of new regionally based renewable energy production, such as a new wind turbine or PV array through a Power Purchase Agreement (PPA), if the amount of energy produced by this system exceed the needs of the product share or whole facility energy demand. The manufacturer must document that the financial contribution to the PPA array can provide more than the product(s) share of energy consumption or the annual energy requirements of the whole facility.

IMPERATIVE 08: RED LIST (CORE)

IO8-E1 Proprietary Ingredients

Due to market realities, manufacturers are typically allowed to withhold less than 1% of the product by both weight and volume.

IO8-E2 Small Electrical Components

Complex electrical or data products that are made up entirely of small electrical components, such as fire alarms, meters, sensors, thermostats and load break switches, do not need to be tracked for Red List. Instead, these products must meet the European Union's Restriction of the Use of Certain Hazardous Substances (RoHS) Directive, which establishes the following maximum concentration values for toxic chemicals tolerated by weight in homogeneous materials:

- Lead (0.1%)
- Mercury (0.1%)
- Cadmium (0.01 %)
- Hexavalent chromium (0.1 %)

- Polybrominated biphenyls (PBB) (0.1 %)
- Polybrominated diphenyl ethers (PBDE) (0.1 %)

Large electrical equipment, such as a PV panel, is not considered a small electrical component, but may be partially comprised of small electrical components. Manufacturers must still gather supporting data for the equipment housing and other major components, such as glass.

IO8-E3 Innovative Materials Inventory

If a manufacturer is unable to obtain the disclosure levels required for participation in Declare due to claims of intellectual property by the supplier of an innovative material, the manufacturer may use LPC IO8-E3 to demonstrate compliance with the 3PV Declare requirement (IO8-1). The product manufacturer must demonstrate the information withheld by the supplier is for an innovative material and considered intellectual property, that the supplier is unwilling to disclose innovative materials information after repeated requests, and there are no alternate suppliers of the innovative material with appropriate disclosure to meet the Declare reporting requirements. This exception may only be used for one homogenous material in the product.

IMPERATIVE 10: HUMAN THRIVING

I10-E1 Appropriate Corrective Action

In cases where a serious injury occurs associated with the product manufacture (resulting in lost days), the manufacturer may demonstrate that a root cause investigation was completed and adequate precaution put in place to prevent future injuries of a similar nature. This exception does not apply to deaths associated with product production during the performance period.

IMPERATIVE 11: RESPONSIBLE INDUSTRY (CORE)

Bio-Based Commodity Products
 For some bio-based commodity products, USDA organic certification is not currently available. These products are exempt from the I-09 Responsible Industry requirements for USDA organic certification for agriculture inputs, and should provide documentation of any alternative certifications held by the bio-based portion of the product.
 Alternative Forestry Certifications for Product Packaging
 Where ESC certification for wood-based packaging is not fassible for manufacturers due to a set of the product.

Where FSC certification for wood-based packaging is not feasible for manufacturers due to prohibitive cost or lack of availability, SFI certification or 100% recycled packaging will be accepted provided the manufacturer can show due diligence.

IMPERATIVE 13: NET POSITIVE WASTE

II3-E1Process Efficiency (12/14/2018)
Manufacturers with very high process efficiency may be unable to meet the minimum required
diversion rate. Manufacturers unable to meet the diversion rate of >90% who have
demonstrated that they have maximized their waste diversion must still document their
diversion rate, and in addition:

• The product must meet a material efficiency of at least 99%. If the overall material efficiency rate falls below 100%, the manufacturer must complete I13-3 Waste Handprints.

 $Material Efficiency Rate = 1 - \frac{Total Product Landfill Waste Generated}{Total Product Materials Purchased}$

IMPERATIVE 17: JUST ORGANIZATIONS

I17-E1 Manufacturer Statement

Manufacturers that are a Certified B Corporation achieve many of the same performance indicators of social performance, public transparency and legal accountability as is required of JUST organizations, and may provide a statement and valid B Corporation Scorecard to meet the intent of this Imperative.

I17-E2 Minimum Firm Size

Manufacturers that employ fewer than five people are exempt from the requirements of the JUST program, though integration or adoption of JUST strategies is encouraged.