



Textile  
Exchange



# LIA Benchmark for Leather Production Environmental Standards DRAFT 1.0

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The *LIA Benchmark for Leather Production Environmental Standards 1.0* replaces the *LIA Leather Production Environmental Standards Benchmark 0.1* and is effective as of **MMMM DD, YYYY**.

English is the official language of the *LIA Benchmark for Leather Production Environmental Standards 1.0*. In any case of inconsistency between versions, reference shall be made to the English version.

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### **Document Revision**

The *LIA Benchmark for Leather Production Environmental Standards 1.0* will undergo a revision process at least every five years. The next revision is tentatively scheduled to begin in 2027, for completion in 2028. Please note that Textile Exchange may decide to revise earlier at our discretion. You may submit feedback to Textile Exchange at any time; send to [LIA@TextileExchange.org](mailto:LIA@TextileExchange.org). Points of clarification may be incorporated into supplementary and guidance documents prior to 2025. More substantive feedback or suggested changes will be collected and reviewed as part of the next revision of the document.

### **Revision History**

*LIA Leather Production Environmental Standards Benchmark 0.1*, released 2021.01.05

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## Introduction

### About the Benchmark for Leather Production Environmental Standards

The goal of this document is to set forth a global standard benchmark upon which to evaluate standards that address environmental challenges in leather production.

This tool will help brands and retailers identify standards that meet the levels of the benchmark. Hence a brand/retailer will know what challenges and practices at a minimum, will be covered by LIA-approved standards and thereby what can be expected from a facility certified to one of these standards.

This standard benchmark includes two levels:

- The first level recognizes standards that certify robust Environmental Management Systems.
- The second level is based on the [LWG Environmental Audit Protocol - Issue 6.6.2, June 2019](#), that identifies standards that certify the implementation of best practices to address environmental and chemical challenges specific to leather manufacturing.

Leather production is considered to be all hide transformation stages from beamhouse to finished leather. The scope of this document does not include slaughterhouse or cut and sew.

The scope of this standard benchmark is limited to standards that apply to a production site, defined as a site for a given production site (legal entity), in one geographical location, where leather production operations are undertaken and for which operating permits have been issued.

### About the Leather Impact Accelerator (LIA)

LIA is a framework that sets existing industry tools into a coherent package and enables leather supply chain members – from farmers to retailers – to contribute to a more responsible leather supply chain. LIA uses benchmarks and protocols to set a minimum threshold for practices at the farm and leather production levels and gives recognition to those who meet or exceed them. Brands can use Impact Incentives to provide direct financial support to producers that meet LIA requirements or are working towards meeting them through an Impact Partnership.

### About Textile Exchange

LIA is owned and managed by Textile Exchange. Textile Exchange is a global non-profit driving positive impact on climate change across the fashion and textile industry. It guides a growing community of brands, manufacturers, and farmers towards more purposeful production from the very start of the supply chain.

Its goal is to help the industry to achieve a 45% reduction in the emissions that come from producing fibers and raw materials by 2030. To get there, it is keeping its focus holistic and interconnected, accelerating the adoption of practices that improve the state of our water, soil health, and biodiversity too.

For real change to happen, everyone needs a clear path to positive impact. That's why Textile Exchange believes that approachable, step-by-step instruction paired with collective action can change the system to make preferred materials and fibers an accessible default, mobilizing leaders through attainable strategies, proven solutions and a driven community.

**At Textile Exchange, materials matter.** To learn more, visit [TextileExchange.org](https://TextileExchange.org).

## About Climate +

At Textile Exchange, our goal is to help the fashion and textile industry achieve a 45% reduction in the greenhouse gas (GHG) emissions that come from producing fibers and raw materials by 2030. This is known as Tier 4 of the supply chain, and it accounts for 24% of the industry's GHG impacts related to it.

This goal underpins our Climate+ strategy. We call it Climate+, because it goes beyond accounting for GHG emissions. Instead, it is an interconnected approach that swaps siloed solutions for interdependent impact areas like soil health, water, and biodiversity.

The + is also an acknowledgment that Textile Exchange cannot achieve this goal alone.

The Leather Impact Accelerator contributes directly to the Climate + goal by addressing:

- Deforestation and conversion at the farming tiers of the bovine leather supply chain, which contribute to GHG emissions, impact soil health, water, biodiversity and people.
- Animal welfare at the farming and slaughter tiers of the bovine leather supply chain.

## The Standard Benchmark Approach

A standard benchmark approach has been adopted to leverage and add value to the standards and programs that are already in use by the industry.

Benchmarks set a minimum threshold for practices and give recognition to those who meet or exceed them.

The intent of this process is to help brands and retailers navigate the landscape of standards used in the bovine leather supply chain, by identifying and recognizing standards that meet the threshold set in the LIA standard benchmarks. Hence a brand/retailer will know what challenges and practices at a minimum, will be covered by LIA-approved standards and thereby what can be expected from a facility certified to one of these standards.

The standard benchmark approach is also expected to generate the following outcomes:

- an efficient way for brands/retailers to clearly and consistently communicate their expectations to their supply networks, which may reduce the need for brand-specific requirements and audits;
- the alignment of expectations among standards;
- improved transparency relative to the operations and performance of standards;
- greater visibility and uptake of the recognized standards.

The Leather Impact Accelerator (LIA) uses a standard benchmark approach to assess:

- animal welfare standards used throughout cattle production and slaughter;
- social standards used from slaughter and throughout the leather production supply chain;
- environmental standards used throughout the leather production supply chain .

A standard owner can apply for a benchmark assessment through the LIA Standard Benchmark Approval Process. Under this process, the standard will be assessed against the relevant scope specific requirements. In practice this means that the standard owner will need to provide evidence that the challenges and practices addressed in the LIA standard benchmark are covered in its standard.

Additionally, all standards will be required to comply with the Standards Management Criteria, which ensures the standard is developed, audited, and maintained in a robust and credible fashion.

Any standard that meets one of the LIA standard benchmarks and the Standards Management Criteria shall be listed on the LIA website as a LIA-approved standard.

## Acknowledgements

The *LIA Benchmark for Leather Production Environmental Standards* would not be possible without the help of the Leather Impact Accelerator Revision International Working Group that worked to review, research, discuss, and approve the revision of the *LIA Benchmark for Environmental Standards in the Leather Production 1.0*.

## How to Use this Document

This document sets forth the overall criteria for assessment against the LIA standard benchmark.

The following terms are used to indicate requirements, recommendations, permissions, and possibilities or capabilities:

- “shall” indicates a requirement
- “should” indicates a recommendation (non-binding),
- “may” indicates a permission (non-binding), and
- “can” indicates a possibility or a capability.

The abbreviation “e.g.” is used to indicate an example, while the abbreviation “i.e.” is used to provide clarification of meaning.

## Section A - Standard Benchmark Levels and Criteria Structure

The standard benchmark criteria will be used to assess environmental standards for leather production: applicable to all the manufacturing levels of transformation of raw hide to finished leather.

This standard benchmark offers a **leveled approach, which recognizes standards to 2 different levels**. Each benchmark level represents the minimum set of criteria that standards must address, and we expect that many will go further.

The tiered approach will allow brands/retailers to identify standards that meet different levels of improved environmental practices and hence provide insight into what can be expected from a leather production site certified to a LIA-approved standards.

Please note that standards shall apply to a production site, defined as a site for a given production site (legal entity), in one geographical location, where leather production operations are undertaken and for which operating permits have been issued.

### A1. Standard Benchmark Levels

#### Level 1:

this benchmark level is set to identify standards that certify environmental management systems (EMS) for leather manufacturing facilities. An Environmental Management System (EMS) is a set of processes and practices that enable an organization to reduce its environmental impacts and increase its operating efficiency.

The focus of this standard benchmark level is to identify standards that certify facilities that have robust EMS in place and can be expected to:

- have procedures in place to ensure legal compicance;
- have identified the critical environmental aspects of their production;
- have assessed their environmental risks;
- have adequat management procedures in place to reduce risks and intervene efficiently in case of an accident;
- can communicating environmental information to relevant interested parties.

#### Level 2:

this benchmark level is based on the [LWG Environmental Audit Protocol - Issue 6.6.2, June 2019](#), which goes beyond the implementation of a robust EMS and sets best practices to address environmental and chemical challenges specific to leather manufacturing. Standards that meet level 2 are expected to certify production facilities that implement best environmental practices.

### A2. Criteria structure

### Benchmark Requirements

These are the factors that must be met by the standard to meet the standard benchmark. The requirements are shown with dark blue table headers. The standard must meet all the applicable requirements in a particular level to be assessed as meeting that level.

- To meet the **level 1**, all *critical* requirements must be met. *Critical* requirements are identified in this document by a green mark ( ) in the “*critical*” column.
- To meet **level 2**, **all requirements** of the standard benchmark must be met.

### Guidance notes

These provide additional details on what conformity with the corresponding criterion will look like. The guidance may only be relevant to a given level requirement.



## Section B - Standard Benchmark Requirements

### B1. Audit Requirements

Number	Critical	Benchmark Requirement	Guidance
B1.1	✓	The standard shall require the audit for each production site. A production site shall be considered to be the facility at each unique geographical location. The audit shall be based on the full range of leather making operations (and relevant related activities) undertaken at that site.	<p>An exception will apply in cases where two sites are located close to each other and operate as one unit, and all operating permits issued apply to the two sites as one unit.</p> <p>Two companies operating on one site shall be treated as separate audits only if they are distinct legal entities with separate operating licenses and operating as separate units.</p>
B1.2	✓	The standard shall require that the production site provide the auditor with full and accurate data during the audit in order to support the audit findings.	In the event that any data or information required for the completion of the audit is found to have been deliberately withheld or presented in a way designed to mislead the standard shall fail, the production site and certification shall be withdrawn.
B1.3	✓	The standard shall require that the production site agrees to random inspection visits, where justification or concern is raised, to ensure audit standards are maintained once certified.	
B1.4	✓	The standard shall require a simplified assessment of any sub-contractor used from the preceding 12 months. <a href="#">The assessment may be simplified, and random site audits should be an option specified in the standard.</a>	A self-assessment completed by the sub-contractor is considered sufficient.

<p><b>B1.5</b></p>	<p>✓</p>	<p>The standard shall review records and data for at least the 12 months preceding the audit to verify that the requirements are being met.</p> <p>The standard can include exceptions to the 12 months record period for facilities that have been opened for a shorter time period.</p>	<p>For new facilities, a review of a minimum of 6 months of records is considered best practice.</p>
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## B2. Operating Permits

Number	Critical	Benchmark Requirement	Guidance
<p><b>B2.1</b></p>	<p>✓</p>	<p>The standard shall review operating permits and permit conditions: including restrictions, volumes, production, and emission limits.</p>	<p>Example of permit limits to be reviewed:</p> <ul style="list-style-type: none"> <li>Water abstraction volumes</li> <li>Water Discharge to the Environment: volumes and Effluent Limits</li> <li>Water Discharge direct to drainage: volumes and Effluent Limits</li> <li>Air Emissions: volumes and Limits (e.g. particulates, nitrogen oxides, sulfur dioxides, volatile organic compounds)</li> <li>Solid waste disposal: distinguished hazardous and non-hazardous volumes</li> <li>Storm water</li> <li>Boilers</li> <li>Chemical purchase/storage: limits</li> </ul>
<p><b>B2.2</b></p>	<p>✓</p>	<p>The standard shall review all monitoring programs and test reports and records to demonstrate compliance with operating permits.</p>	<p>Example of record values to be reviewed:</p> <ul style="list-style-type: none"> <li>Water abstraction volumes</li> <li>Water Discharge to the Environment: volumes and effluent limits</li> <li>Water Discharge direct to drainage: volumes and effluent limits</li> <li>Air Emissions: volumes and limits</li> </ul>

			<p>(e.g. Particulates, nitrogen oxides, sulfur dioxides, volatile organic compounds)</p> <p>Solid waste disposal: distinguished hazardous and non-hazardous volumes</p> <p>Chemical purchase/storage: limits</p>
<b>B2.3</b>	✓	The standard shall review the recent visits of regulatory authorities and the auditing results of these visits.	Visits carried out over the audit cycle shall be considered.
<b>B2.4</b>	✓	The standard shall verify that the production site is acting in accordance with permit conditions and/or legislation and shall review any regulatory environmental enforcement actions or fines.	<p>Any regulatory environmental enforcement actions or fines <b>over the audit cycle</b> shall be considered.</p> <p>If written cautions, warnings, prosecutions, or another form of regulatory actions have been taken against the production site, the standard shall review the corrective actions taken and verify compliance with operating permits and legal restrictions.</p>
<b>B2.5</b>	✓	The standard shall fail any production site that is not or cannot provide evidence it is in compliance with operating permits or any other pertinent legislation or restriction.	<p>Examples of other pertinent legislation or restriction: local/national regulations, local/national emissions limits, etc.</p> <p>Evidence shall be in the form of reports from external agencies confirming testing and compliance or internal testing (if the latter evidence that the testing is occurring should be sought i.e. view lab books).</p> <p>Compliance shall be considered <b>over the audit cycle</b>.</p>

### B3. Facility Data

Number	Critical	Benchmark Requirement	Guidance
B3.1		<p>The standard shall review production volumes by:</p> <ul style="list-style-type: none"> <li>• Species</li> <li>• Product</li> </ul>	<p>Production volumes: quantity of product produced by the production site.</p> <p>Species: animal species of the hides/skins processed.</p> <p>Product: final result(s) of the leather transformation process(es) on-site, intended to be sold.</p>
B3.2		<p>The standard shall review any significant construction projects or process/manufacturing or utility changes planned in the next three years that will require environmental review, action, or modification.</p>	
B3.3		<p>The standard shall review input materials by species and material type.</p>	<p>Input material: material to be processed (e.g. wet blue, crust leather, etc.)</p>
B3.4		<p>The standard shall review suppliers used by the production site.</p>	<p>Suppliers include here separated storage traders.</p> <p>Each supplier should be identified by production site name, location, supplier type, type of material supplied, % of material supply, any certification to environmental standards.</p>
B3.5		<p>The standard shall review sub-contractors, associated agreements, and production volumes.</p>	

		The standard shall fail any production site that cannot provide its sub-contractor overview.	
<b>B3.6</b>		The standard shall review production volumes by tanning methods carried out on site.	<p>Example of tanning:</p> <p>Chrome tanning method</p> <p>Vegetable tanning method</p> <p>Synthetic tanning method</p> <p>Chrome-free tanning</p>
<b>B3.7</b>		The standard shall review how chrome content of the leather tanned on-site is measured and require evidence the measurements are carried out at least four times per year.	
<b>B3.8</b>		The standard shall set a chrome discharge limit or recovery rates.	
<b>B3.9</b>		<p>The standard shall review</p> <ul style="list-style-type: none"> <li>the fates of chrome purchased by the production site, and estimations shall be provided</li> <li>the waste streams associated with the discharge of chrome into the environment</li> <li>how calculations are carried out to estimate the percentage of chrome that is not discharged into the environment.</li> </ul> <p>Evidence of monitoring and testing shall be required.</p>	<p>The fate of chrome:</p> <ul style="list-style-type: none"> <li>In the product</li> <li>Discharged into the environment (directly into water courses or onto land) must be taken into account.</li> <li>Recovered and reused in the process</li> <li>Recovered and sold</li> <li>Recovered and rendered safe (i.e. by being deposited into regulated landfill, used in cement manufacture, etc.)</li> </ul> <p>Waste streams include liquid wastes discharged directly to the environment by watercourses or indirectly through other applications to land such as slurries or solids.</p>

## B4. Environmental Management Systems (EMS)

Number	Critical	Benchmark Requirement	Guidance
B4.1	✓	The standard shall require a written environmental policy.	
B4.2	✓	The standard shall ensure the environmental policy is effectively communicated to the staff.	Examples: Induction training Regular training Policy manuals for staff
B4.3	✓	The standard shall verify that EMS includes quantifiable environmental objectives, a strategy to achieve them, and a system to measure progress towards the goals.	The objective is considered quantifiable if it can be measured. For instance: “the production site shall reduce its energy consumption by 20% by 2025, with reference to its 2016 energy consumption”.
B4.4	✓	The standard shall review the written environmental procedures and their implementation to verify that the production site is operating in accordance with legal and customer requirements.	The standard should look at evidence that these procedures are being implemented.
B4.5	✓	The standard shall verify the production site has written environmental procedures covering the resources, roles, and responsibilities necessary to fulfill environmental objectives.	Examples of procedures: Procedure for determining budgets Procedure for appointing individuals tasked with attaining the target of the objective Procedure for determining what actions are expected of the people tasked with attaining the objectives.
B4.6	✓	The standard shall verify that all personnel allocated to attaining environmental objectives are competent and trained.	
B4.7	✓	The standard shall ensure that documentation associated with the environmental management system is correctly maintained.	

<p><b>B4.8</b></p>	<p>✓</p>	<p>The standard shall verify that internal audits are undertaken at defined intervals by competent personnel.</p> <p>As a minimum, internal audits shall be undertaken at least once a year by nominated and trained internal auditors.</p>	<p>The standard shall ensure that the EMS is active and that there are continuous improvement efforts. Internal assessments form part of this process.</p>
<p><b>B4.9</b></p>	<p>✓</p>	<p>The standard shall ensure that the environmental management system is reviewed by a committee that includes senior management at least once a year.</p>	<p>The standard shall review written procedures, who sits on the review committee and what position they hold at the production site.</p>
<p><b>B4.10</b></p>	<p>✓</p>	<p>The standard shall require the production site identifies one or more people from senior management to have primary responsibility for environmental issues at the site.</p>	<p>The standard shall review written procedures.</p> <p>Top management includes: Board of Directors, CEO, Managing Director, Production or Technical Director</p>
<p><b>B4.11</b></p>	<p>✓</p>	<p>The standard shall verify that relevant environmental hazards are incorporated as part of worker training programs.</p>	<p>Hazard: a potential source of harm (SOURCE: IEC 60601-1)</p> <p>The worker must be made aware of the environmental hazards related to his/her activities and responsibilities on site.</p>
<p><b>B4.12</b></p>	<p>✓</p>	<p>The standard shall require that the production site has performed an environmental risk assessment as part of its environmental management system and ensure it is being used to improve the environmental performance of the business.</p>	

## B5. Restricted Substances

Number	Critical	Benchmark Requirement	Guidance
B5.1		The standard shall require the production site to have a written restricted substances management system and/or set of written restricted substance procedures.	
B5.2		The standard shall require the production site to comply with customer restricted substances requirements.	The standard shall review written procedures. Compliance with customer RSLs are expected for chemical compounds relevant to leather manufacturing.
B5.3		The standard shall verify the adequacy of the frequency of testing for restricted substances and how third-party testing organizations are selected and approved.	The standard shall review written procedures.
B5.4		The standard shall verify that substance restrictions and control requirements are clearly communicated to chemical suppliers.	The standard shall review written procedures.
B5.5		The standard shall verify that restricted substances control requirements are clearly communicated suppliers of input materials.	The standard shall review written procedures. Suppliers of input material: suppliers of material to be processed (i.e. wet blue, crust leather, etc.) Processors of fresh, dried, and cured hides shall be exempt from this requirement.
B5.6		The standard shall require a chemical management policy that includes a Manufacturing Restricted Substances List (MRSL) for chemical formulations, which are used in the material and manufacturing processes.	
B5.7		The standard shall require the production site to have a complete and up-to-date list of customer-specific substances restrictions and	A product line will include all leather produced to a specification defined by the customer. This



		provide evidence testing is undertaken for the relevant product lines.	could be by type, thickness, or color.
<b>B5.8</b>		The standard shall require that, in the absence of a customer’s own restricted substance list (RSL), the production site has a standard RSL that material can be tested against.	Reference should be made to which RSL the production site is testing against. This can be a producer’s own RSL or a recognized industry RSL.
<b>B5.9</b>		The standard shall verify the production site reviews internal and customer RSLs. The review shall be carried out at least once a year.	The standard shall review written procedures.
<b>B5.10</b>		The standard shall require that third-party testing is carried out at least once a year for product lines that are supplied to customers specifying RSL.	The standard shall review evidence of third-party testing of restricted substances.
<b>B5.11</b>		The standard shall require that the laboratory undertaking the testing is ISO 17025 certified.	
<b>B5.12</b>		The standard shall verify the production site is testing and fully conforming to all RSLs (customers and/or its own) at least once per year.	If failures have been identified and although the cause has not been fully resolved, the production site shall provide evidence that it is actively working to address the issue and production of the affected product lines is currently suspended.
<b>B5.13</b>		The standard shall ensure process chemical substitutions are documented.	Substitution: refers here to replacing a process chemical with an alternative(s).
<b>B5.14</b>		The standard shall review the percentage/amount of supplied material that has been verified to meet the RSL to ensure an adequate ratio of testing for the volume of production is conducted.	Supplied material will include material not owned by the production site (ex: sub-contractor). This does not imply that the production site needs to have the material third-party tested.

			Documentation from the supplier certifying that the materials supplied conform to the specifications indicated by the production site is sufficient.
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## B6. Energy Management

Number	Critical	Benchmark Requirement	Guidance
<b>B6.1</b>	✓	The standard shall require an overview of the production’s site annual energy consumption by energy source (including self-generated energy).	Energy consumption includes ALL aspects of site operations such as administration, engineering, space heating, fork trucks, and operation of the wastewater treatment. Example of energy sources to be considered: Natural gas LPG Fuel oil Coal Diesel Petrol/gasoline Steam Electricity Renewable energy (Wood, Tallow, Biomass) Self-generated (wind turbine, solar panel, geothermal, other)
<b>B6.2</b>		The standard shall require an overview of the annual energy consumption of all sub-contractors by energy source (including self-generated energy).	Energy consumption includes ALL aspects of site operations such as administration, engineering, space heating, fork trucks, and operation of the wastewater treatment.
<b>B6.3</b>		The standard shall require the calculation of an average energy consumption per unit of production, including on site and sub-contractors.	Unit of production: function unit of product produced Example: a metric ton of wet blue hides

<b>B6.4</b>		The standard shall provide a set of energy consumption benchmarking metrics for total energy consumption (including the sub-contractor share).	The energy consumption metrics will be required as a reference to understand how efficient a producer is compared with industry norms
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## B7. Water Usage

Number	Critical	Benchmark Requirement	Guidance
<b>B7.1</b>	✓	The standard shall review the production site’s annual water usage by freshwater source.	Example of water sources: Municipal water system, Wells/boreholes, River/canal/lake, Runoff, Other
<b>B7.2</b>		The standard shall review the annual water usage by freshwater source for all sub-contractors.	
<b>B7.3</b>		The standard shall require an overview of the quantity of recycled/reused water used annually and how the water is recycled.	Examples: Recycled after treatment in the production site’s own wastewater treatment plant Recycled after treatment in Common Effluent Treatment Plant Recycled after treatment in Municipal Effluent Treatment Plant Reused (without pretreatment) following use in another industrial facility
<b>B7.4</b>		The standard shall ensure the production site measures each water supply by source (excluding runoff/rainwater if used).	
<b>B7.5</b>		The standard shall review the annual water usage (on-site and sub-contractors) per product unit.	Water usage includes ALL aspects of site operations such as administration, engineering, operation of the wastewater

			treatment plant, etc. (excluding dormitories provided actual values can be shown).
<b>B7.6</b>		The standard shall review the water usage per unit of production processed (freshwater only).	Water usage average shall be calculated on the basis of at least six months of data.
<b>B7.7</b>		The standard shall provide a set of water consumption benchmarking metrics for total water consumption (including the sub-contractor share).	The water consumption metrics will be required as a reference to understand how efficient a producer is compared with industry norms
<b>B7.8</b>	✓	The standard shall require an overview of authority/organization(s) involved in the water supply to the production site.	

## B8. Air and Noise Emissions

Number	Critical	Benchmark Requirement	Guidance
<b>B8.1</b>	✓	The standard shall require the production site has completed an air emission inventory. The air emission inventory shall list: All emission points, the type of material emitted from each type of emissions source, the measured and subsequently calculated amount of material from each type of emissions source.	The air emission inventory shall list: All emission points, the type of material emitted from each type of emissions source, the measured and subsequently calculated amount of material from each type of emissions source.  The inventory shall detail all points of forced emissions to air i.e. boiler stacks, spray machines, fume cupboards, etc.
<b>B8.2</b>		The standard shall review all plant emissions sources (including stacks and vents) requiring an emissions limiting/restricting device.	Review the type of device for each one, and if the device is functioning.

<b>B8.3</b>		The standard shall review all plant emissions sources (including stacks and vents) not requiring an emissions limiting/restricting device.	
<b>B8.4</b>		The standard shall require that the production site can demonstrate that there is a preventative maintenance program for the emissions control devices employed and that the maintenance schedule conforms to recommendations.	
<b>B8.5</b>		The standard shall require that if any wastes or by-products are incinerated either on or off-site, the production site can demonstrate that incineration is carried out in a regulated co-generation plant or controlled by an external authority.	
<b>B8.6</b>		The standard shall fail any production site that carries out waste or by-product incineration on-site or off-site that: - is non-regulated - and/or cannot provide evidence of monitoring - and/or carries out monitoring less than once a year	
<b>B8.7</b>		The standard shall require that the monitoring of boiler stack emissions is undertaken by a third-party analysis of relevant emissions as specified by local legislation.	Monitoring shall be done at least annually, regardless of legislation.
<b>B8.8</b>		The standard shall require that the monitoring of stack emissions is undertaken by a third-party as specified by local legislation, at least annually.	
<b>B8.9</b>		The standard shall review the total amount of solvent used in production.	The production site shall provide evidence that monthly or annual data is available to calculate the total amount of solvent used.  Production sites that only process up to tannage and/or have provided evidence that less than 10g/m2 of solvent is

			<p>used as part of processing shall be exempted from this requirement.</p> <p>Solvents include pure solvents as well as solvents forming a constituent of finishing chemicals.</p>
<b>B8.10</b>		The standard shall require an overview of Volatile Organic Compound (VOC) emissions.	
<b>B8.11</b>		The standard shall set a limit for VOC emissions.	
<b>B8.12</b>		The standard shall require that the production site measures and controls noise level values outside the building at least annually.	<p>Measurement shall be taken at several periods of the day and in several locations.</p> <p>Facilities located such that external noise level measurements are not applicable or appropriate are exempt from this requirement.</p>

## B9. Waste Management

Number	Critical	Benchmark Requirement	Guidance
<b>B9.1</b>	✓	<p>The standard shall require that the production site has formal waste management procedures.</p> <p>The waste management procedures shall include:</p> <p>Clear written guidelines regarding the identification, collection, storage, and disposal of hazardous and non-hazardous waste, the names or positions of workers (employees, contractors) responsible for the implementation of the waste management procedure.</p>	

<p><b>B9.2</b></p>	<p>✓</p>	<p>The standard shall ensure that waste management procedures make reference to all applicable national, regional, and local laws in addition to any other applicable regulations.</p>	<p>Evidence shall be provided to demonstrate that these procedures comply with regulatory standards for waste management.</p> <p>Example of evidence that indicates compliance: the waste management procedures have been made known to the authorities there are currently no regulatory or other enforcement actions in place against the production site in relation to waste management practices the authorities have visited the site – no corrective actions in relation to waste were required</p>
<p><b>B9.3</b></p>	<p>✓</p>	<p>The standard shall fail any production site if the waste management procedures do not comply with legal or regulatory standards for waste management.</p>	
<p><b>B9.4</b></p>	<p>✓</p>	<p>The standard shall identify all regulatory authorities involved in waste management and review inspection reports. The standard shall verify that any non-conformities have been corrected.</p>	<p>Inspections within the past 18 months shall be considered.</p>
<p><b>B9.5</b></p>	<p>✓</p>	<p>The standard shall require that the production site provides a list of the type and quantity of hazardous waste, non-hazardous waste, by-product disposed, and part-product (such as splits, etc.) disposed of or sold.</p>	<p>Hazardous waste: waste that meets the characteristics of hazardous waste as defined in national/local legislation. Non-hazardous waste: waste that does not meet the characteristics of hazardous waste as defined in national/local legislation. By-product: co-product from a process that is incidental or not intentionally produced and which cannot be avoided. Wastes are not by-products.</p>

			<p>The quantity of waste disposed of shall be provided by share reused (retains the same function), recycled (into other product), recovered (heat, nutrient, etc.), sent to refuse (landfilled, destroyed).</p> <p>Disposal arrangements ( kind of disposal, carrier disposal agent) shall be indicated for each fraction.</p>
<b>B9.6</b>		The standard shall require that the production site provides a list of the disposal agents and carriers used and evidence that wastes are removed from the site and disposed of in a legal manner.	
<b>B9.7</b>		The standard shall ensure that the production site has maintained records for collection and disposal of hazardous wastes (manifests, collection receipts, etc.) for at least 12 months.	
<b>B9.8</b>		The standard shall fail any production site that does not maintain records for collection and disposal of hazardous wastes, with a minimum of 6 months records being demonstrable.	
<b>B9.9</b>		<p>The standard shall review the amounts of solid hazardous waste by fate:</p> <ul style="list-style-type: none"> <li>- Recovered/recycled</li> <li>- Incinerated by a licensed, regulated agent</li> <li>- Landfilled by a licensed operator</li> </ul>	Exemption from this requirement if no solid hazardous wastes are generated
<b>B9.10</b>		<p>The standard shall review the amount of solvent and oil waste by fate:</p> <ul style="list-style-type: none"> <li>- Recovered/recycled</li> <li>- Incinerated by a licensed, regulated agent</li> <li>- Landfilled by a licensed operator</li> </ul>	Exemption from this requirement if no solvent or oil wastes are generated
<b>B9.11</b>		<p>The standard shall review the amount of non-hazardous waste by fate:</p> <ul style="list-style-type: none"> <li>- Recovered/recycled</li> </ul>	



		- Incinerated by a licensed, regulated agent - Landfilled by a licensed operator	
<b>B9.12</b>		The standard shall fail any production site that cannot provide evidence that the following waste fractions are not disposed of legally: <ul style="list-style-type: none"> <li>• solid hazardous waste</li> <li>• solvent and oil waste</li> </ul> non-hazardous waste	
<b>B9.13</b>		The standard shall require that if waste materials are used as a fuel source on-site, the production site shall provide a list of possible contaminants of residues (ash, etc.) tested at least every 18 months.	Exemption if the waste is biomass that has not been contaminated with chemicals and the production site can provide evidence that no heavy metals would be present.
<b>B9.14</b>		The standard shall require that the amount of waste generated per unit of leather produced per year is provided. It should be calculated, at least on a monthly basis.	
<b>B9.15</b>		The standard shall require that the storage of both hazardous and non-hazardous waste are adequately segregated in defined locations, and storage containers are sealed in such a way that ground/soil contamination is avoided.	Storage conditions shall be verified during the audit.
<b>B9.16</b>		The standard shall fail any production site if hazardous waste and/or non-hazardous waste storage conditions could lead to ground/soil contamination.	
<b>B9.17</b>		The standard shall require that empty barrels/containers from incoming hazardous chemicals and empty barrels, containers, pallets, etc., that have been rendered hazardous due to contamination are disposed of in an approved manner by a licensed operator.	Includes also the following options: Utilized in the factory prior to disposal in an approved manner by a licensed operator Returned to supplier/Recycled by a licensed agent
<b>B9.18</b>		The standard shall require that empty barrels/containers from non-hazardous	Includes also the following options: Utilized in the factory prior to disposal in an approved manner by

		chemicals are disposed of in an approved manner by a licensed operator.	a licensed operator Returned to supplier/Recycled by a licensed agent
<b>B9.19</b>		The standard shall fail any production site that cannot provide evidence of legal disposal of empty barrels/containers from hazardous and non-hazardous products.	
<b>B9.20</b>		The standard shall require that if non-hazardous chemical containers are cleaned on-site, wash-out water goes to the effluent system.	
<b>B9.21</b>		The standard shall require that tanned-only trimmings (wet or dried) and leather trimmings retanned through to finished leather are legally disposed of. The standard shall fail any production site that cannot provide evidence of legal disposal.	

## B10. Effluent Treatment

Number	Critical	Benchmark Requirement	Guidance
<b>B10.1</b>	✓	The standard shall verify that effluent from the production site is monitored and data from the past 12 consecutive months is available.	<p>Effluent: fluid discharged from a given source into the external environment or another treatment facility.</p> <p>Acceptable, effective measurement is by means of automatic metering, namely:                      Parshall with ultrasound, in-line meter, a tanker of known volume with supporting transfer records.                      Internal use for non-production purposes (e.g. watering gardens, washing trucks, etc.) must also be measured.                      Effluent volumes of less than 3m3 per day may be excluded.</p>

<b>B10.2</b>		The standard shall review the proportion of incoming water that is discharged as effluent.	If outgoing water is less than 85% of incoming water, an explanation (with evidence) must be provided.
<b>B10.3</b>	✓	The standard shall review the types and sources of effluents generated at the production site.	<p>Examples of effluent types/sources to be considered:</p> <p>Process effluent (i.e. water that comes into contact with the tannery operations)</p> <p>Non-contact water (i.e. heat exchanged cooling water)</p> <p>Sanitary effluent (i.e. domestic wastewater from food preparation areas, bathrooms, showers, etc.)</p> <p>Surface water (i.e. stormwater runoff)</p>
<b>B10.4</b>		The standard shall require that the production site has separate site drainage systems for process effluent.	If a production site combines both domestic and process effluent, it must be demonstrated that all effluent is treated as process effluent
<b>B10.5</b>	✓	The standard shall require that process effluent is treated in compliance with regulatory limits for discharge and other permit or legislative requirements, in its own wastewater treatment plant or an external common effluent treatment plant, or an external municipal effluent treatment plant.	Evidence of wastewater treatment shall be provided for 12 consecutive months.
<b>B10.6</b>	✓	The standard shall fail any production site that cannot provide evidence that process effluent is undertaken in an internal WWTP, CETP, or METP and/or cannot provide evidence of compliance with regulatory limits for discharge and/or other permit or legislative requirements.	<p>WWTP: Wastewater Treatment Plant</p> <p>CETP: Common Effluent Treatment Plant (or Central Effluent Treatment Plant)</p> <p>METP: Municipal Effluent Treatment Plant</p>
<b>B10.7</b>		The standard shall review the amount of chloride discharged to the environment by the production site per unit of production, including direct emission from the site by mass and	This excludes legal discharge to controlled or approved receptors (i.e. landfill, marine environment) and for which evidence of

		indirect emission from CETP/METP by conductivity measurement.	permitted disposal has been presented. The tannery should provide data demonstrating that the salt in ALL applicable waste streams discharged directly to the environment has been accounted for.
<b>B10.8</b>		The standard shall provide recommended metrics on the level of chloride discharged to the environment.	
<b>B10.9</b>		The standard shall review how treated effluents are discharged to the environment.	Examples: used for irrigation discharged to a river or other inland watercourse discharged to coastal or tidal waters evaporation
<b>B10.10</b>	✓	The standard shall review the regulatory limits (if applicable) and annual average emissions of the volume and composition of treated effluent.	Example: Volume per hour Volume per day Volume per month Volume per year BOD, COD CrVI Suspended solids TKN Heavy metals Etc.
<b>B10.11</b>		The standard shall require that the properties of effluent discharged to the environment are monitored at least quarterly.	This question refers to the quality of the effluent discharged from the tannery ETP (for sites that operate their own plant) the quality of the effluent discharged from the common ETP (for sites who discharge into a jointly operated plant) the quality of the effluent discharged from the municipal ETP

			<p>(for sites who have no direct control over their own effluent treatment)</p> <p>Exemption if all water is evaporated, so testing is not applicable.</p>
<b>B10.12</b>		<p>The standard shall require that the effluent treatment plant (internal ETP or external CEPT/METP) undergoes 3rd party verification and effluent monitoring (including regulatory) at least once a year.</p>	<p>For companies operating their own ETP and for operators of common ETPs 3rd party verification monitoring includes those samples sent to an ISO 17025 certified laboratory or laboratory specified by the authority to whom the tannery/CETP reports or monitoring undertaken by a governmental authority. Municipalities are to be considered competent for self-verification, i.e. their own internal testing will be considered 3rd party verification monitoring for the purposes of this question.</p>
<b>B10.13</b>		<p>The standard shall require that minimum parameters are met for BOD or COD, CrVI, Suspended solids, TKN, or as required by the operation permits.</p>	
<b>B10.14</b>		<p>If effluent is used for irrigation, the standard shall fail any production site that cannot provide evidence it or the organization undertaking treatment on its behalf is irrigating in accordance with permit conditions or all local/regional/national legislation.</p>	
<b>B10.15</b>		<p>The standard shall require an overview of the effluent properties analyzed prior to discharge on to land for the purpose of irrigation, including annual averages, which shall be compared to regulatory limits (if applicable).</p>	<p>Annual averages shall be based on at least four measurements obtained from an independent laboratory.</p>

<b>B10.16</b>		The standard shall review the analysis of soil properties following irrigation with effluent.	The last recorded analysis carried out by an independent laboratory shall be compared to regulatory limits (if applicable).
<b>B10.17</b>		The standard shall require an overview of the primary, secondary, and tertiary (if relevant) wastewater treatment systems/technologies used on-site or off-site.	

## B11. Emergency Plans

Number	Critical	Benchmark Requirement	Guidance
<b>B11.1</b>	✓	The standard shall require that the production site has a formal emergency plan for fire and environmental protection.	
<b>B11.2</b>	✓	The standard shall require that the production site has a representative on-site who manages the emergency plan.	The representative appointed can also have other duties on site.
<b>B11.3</b>	✓	The standard shall require that the emergency plan includes: Emergency contacts list Emergency events that could occur, for example, fire, toxic chemical releases, explosions, etc. Provision and contents of spill-kits required to deal with the emergencies identified Personal protective equipment required to deal with the emergencies identified First-aid measures, key personnel How the emergency services are contacted, how they gain access to the plant, and with whom they liaise Evacuation procedures	
<b>B11.4</b>	✓	The standard shall require that the emergency response procedures are reviewed and updated on a regular basis.	Review options: Regular assessment and updating as a matter of production site policy (at least monthly)

			Periodical review of internal audit reports by the Safety Manager, improvements agreed with the production site directors
<b>B11.5</b>	✓	The standard shall require that the emergency response team members are formally trained.	<p>Training options:</p> <p>External certification by external 3rd party authority, including regular exercises and periodical re-assessment</p> <p>External certification by external 3rd party authority</p> <p>Internal training system with regular re-assessment</p>
<b>B11.6</b>	✓	The standard shall require that emergency practice drills are carried out at least once a year.	
<b>B11.7</b>	✓	The standard shall require that the production site has informed local agencies/authorities about the emergency procedures and facility operations.	
<b>B11.8</b>		The standard shall review all events that required the implementation of emergency response from the proceeding three years (excluding natural phenomena and events originating off-site due to third-party activity) and if any fatalities were associated.	
<b>B11.9</b>	✓	The standard shall require that the production site provides a formal induction program for new workers.	Completing the formal induction within the first week of work on site is considered best practice.
<b>B11.10</b>		The standard shall review how emergency response actions are implemented in the production site.	<p>Examples:</p> <p>Exit signs and exit areas being clearly marked and accessible.</p> <p>Evacuation routes and destinations being clearly marked</p> <p>There is at least one externally trained emergency response team member for every 30 workers</p> <p>All workers are issued with a</p>

			manual describing emergency response requirements
<b>B11.11</b>		The standard shall require that the production site monitors workplace exposure to VOCs at least twice a year in the vicinity of release points close to workers.	Exemption if usage is less than 35 g/m <sup>2</sup> of finished leather or if there is no risk to exposure in the production carried out at the site.
<b>B11.12</b>		<p>The standard shall require that the production site assesses the risks of workplace exposure to hydrogen sulfide (H<sub>2</sub>S), including the wastewater treatment plant.</p> <p>The risk assessments shall consider the risk of exposure associated with processing, chemical management (storage, weighing, transfer to drum, etc.), and maintenance activities (entry into confined spaces, drainage sumps, etc.).</p>	<p>The risk assessment shall be undertaken by a competent assessor.</p> <p>The assessments shall make reference to a site plan on which the areas of risk have been identified.</p>
<b>B11.13</b>		The standard shall require that the production site provides evidence to show that the conclusions and/or recommendations of the workplace exposure to hydrogen sulfide risk assessments have been implemented.	
<b>B11.14</b>		The standard shall fail any production site that does not ensure adequate hydrogen sulfide Gas detection, either by fixed position, constant detectors, or by personal detectors with light & sound, for workers in high-risk production areas.	
<b>B11.15</b>		The standard shall require that all workers in the WWTP areas at all times carry personal H <sub>2</sub> S detectors.	

## B12. General Housekeeping

Number	Critical	Benchmark Requirement	Guidance
<b>B12.1</b>		The standard shall require that the production site has procedures in place for regular/ongoing cleaning/housekeeping.	Housekeeping: good housekeeping implies that a workplace is kept in an organized, uncluttered, and



			hazard-free condition. (SOURCE: OSHA)
<b>B12.2</b>		The standard shall require that the production site has a traffic management system for controlling motor vehicles and pedestrian movement within the internal production areas and external perimeter of the site.	
<b>B12.3</b>		The standard shall require that access routes (walkways, fork-truck routes, etc.) are clearly marked (e.g. with clearly defined visible lines) and are free from obstruction.	
<b>B12.4</b>		The standard shall require that work in progress areas are clearly marked (e.g. with clearly defined visible lines) and are free from obstruction.	Work in progress: material in the process of manufacture.
<b>B12.5</b>		The standard shall require that chemicals are clearly marked and are free from obstruction.	It clearly marked: sufficient information for safe handling and use.
<b>B12.6</b>		The standard shall require that equipment used by staff in the department (for example, brooms, thermometers, buckets, etc.) have defined storage locations.	
<b>B12.7</b>		The standard shall require that the audit includes an evaluation of the general housekeeping on-site (cleanness and order) inside and outside.	
<b>B12.8</b>		The standard shall require that all platforms and overhead working areas <b>and rotating equipment at ground level (e.g. drums)</b> have at least a solid metal bar guarding at waist height.	
<b>B12.9</b>		The standard shall require that chemicals within the storage area are adequately stored and labeled: Chemicals are clearly labeled IBCs are not stored more than three units high Incompatible chemicals are not stored together If racking is used, all liquid chemicals are <b>not</b>	

		stored above powder chemicals If racking is used, it is correctly weight labeled and in good condition/fit for purpose Health & safety information is available for workers in the area	
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## Appendix A – Definitions

**By-product:** co-product from a process that is incidental or not intentionally produced and which cannot be avoided. Wastes are not by-products. (SOURCE: ISO 21930:2017, 3.4.7)

**Emergency plan:** description of the objectives, policy, and concept of operations for the response to an emergency, and of the structure, authorities, and responsibilities for a systematic, coordinated, and effective response. Note 1 to entry: The emergency plan serves as the basis for the development of other plans, procedures, and checklists. (SOURCE: ISO 11320:2011, 3.4)

**Emergency response:** action taken by personnel on or off an installation to limit the consequences of a major accident or initiate and execute abandonment (SOURCE: ISO 15544:2000, 2.1.8)

**Environmental objective:** overall environmental goal, consistent with the environmental policy, that an organization sets itself to achieve (SOURCE: ISO 14001:2004, 3.9)

**Environmental policy:** intentions and direction of an organization related to environmental performance formally expressed by its top management (SOURCE: ISO 14001:2015, 3.1.3)

**Environmental risk assessment:** the process of identifying and quantifying risk (the probability that an effect occurs) to non-human organisms and determining the acceptability of these risks (SOURCE: ISO 23611-6:2012, 3.3.3)

**Procedure:** formal steps to be taken in the performance of a specific task, which may be called upon in the course of a process (SOURCE: ISO 10845-1:2010, 3.28)

**Sub-contractor:** contractor to whom the main contractor has contracted part of their work (ISO 6707-2:2017, 3.8.9)

**Supplier:** organization or person that provides a product. (SOURCE: ISO 9000:2005, 3.3.6)

**Waste management:** administrative and operational activities involved in the handling, pretreatment, treatment, conditioning, transport, storage, and disposal of waste (SOURCE: ISO 6707-3:2017, 3.4.18)

**Wastewater:** water arising from any combination of domestic, industrial, or commercial activities, which can include surface runoff and any accidental sewer inflow/infiltration water and which can include collected stormwater discharged to the environment or sewer (SOURCE: ISO 20670:2018, 3.80)

**Water usage:** activity or function in which, or for which, water is used (SOURCE: ISO 24513:2019, 3.4.1)

**Workers:** “worker” is understood to cover all categories of workers, employed or not.

## Appendix B – References

### Reference Documents:

- [LWG, Environmental Audit Protocol, Version 6.6.2, published in April 2019](#)
- [ISEAL Code of Good Practices](#)