



Contract Number RNW 21-017



**LWG ENVIRONMENTAL AUDIT
PROTOCOL RESPONSES REPORT**

Issue 6.7.0

**M/s. Rainbow Leathers
Plot No. 45, Leather Complex,
Kapurthala Road,
Jalandhar – 144 021
Punjab (India)**

March 2021



Audit Result Summary

Rainbow Leathers	% Score	Rating
Environmental Performance	94.65%	GOLD
	% physically marked	% documentation only
Material Traceability	0%	0%

Primary processing scope for tannery audit	Category E		
The following activities also undertaken	N/A		
The types of leathers produced are	Cow Grain Leather, Cow Split Suede Leather, Sheep Leather		
Checked on IPE web-site	N/A		
The number of sub-contractors used is	N/A		
Audit number	1	Continuous member since	23 March 2021

	Max	Minimum requirement				Actual
		Gold	Silver	Bronze	Audited	
General facility details	-	-	-	-	-	
Operating permits	100	85.0	75.0	65.0	0	100.0
Tannery data	100	85.0	75.0	65.0	0	89.06
Environmental management systems	100	85.0	75.0	65.0	0	100.0
Restricted substances	100	85.0	75.0	65.0	0	100.0
Energy consumption	100	85.0	75.0	65.0	0	90.0
Water usage	100	85.0	75.0	65.0	0	100.0
Air & noise emissions	100	85.0	75.0	65.0	0	97.73
Waste management	100	85.0	75.0	65.0	0	97.0
Effluent treatment	100	85.0	75.0	65.0	0	100.0
Emergency plans	100	85.0	75.0	65.0	0	90.0
Housekeeping	100	85.0	75.0	65.0	0	93.0
Non-Critical Sections	0					
Manufacturing processes	75					65.0
Beamhouse processes	0					0
Post-tanning processes	50					46.0
Finishing processes	50					38.0
Complaints and public relations	20					20.0
Total	1295					1225.79
Minimum Award Percentage		85%	75%	65%	50%	94.65%

Audit completed by	New Wave Solutions Ltd
Auditor	Chris Jacklin
Date the audit was conducted	23-24 March 2021
The next audit is due	23 March 2023
Audit protocol	* LWG - Issue 6.7.0, July 2020

*The audit was conducted in accordance with the procedures and guidelines specified in the "Tannery Environmental Auditing Protocol" prepared and issued by the Leather Working Group: Issue 6.7.0 July 2020. The assessment was based on sampling and therefore nonconformities may exist which have not been identified.

Leather Working Group

Guidance notes are published on the LWG website (GN). This document contains basic information associated with the audit process, but it must be used in conjunction with the guidance notes during audits.

Mission statement

The objective of this multi-stakeholder group is to develop and maintain a protocol that assesses the environmental compliance and performance capabilities of tanners and leather producers and promotes sustainable and appropriate environmental business practices within the leather industry.

The group seeks to improve the leather industry by creating alignment on environmental priorities, bringing visibility to best practices and providing suggested guidelines for continual improvement.

It is the group's objective to work transparently, involving suppliers, brands, retailers, leading technical experts within the leather industry, NGOs, academic institutions and other stakeholder organisations.

Benefits of the group

- Offers the use of guidelines, consistent across the leather industry
- Provides regular dialogue and updates with industry peers and leather experts
- Demonstrates public commitment towards environmental protection
- Gives access to a list of audited tanneries and leather producers (voluntary listing)

Leather industry protocol

- The protocol is intended to provide suggested guidelines for the environmental performance of tanneries and leather producers
- The protocol was developed and reviewed by leather producers, brands and industry experts to ensure adequacy and technical feasibility
- The original versions of the environmental auditing protocol were peer reviewed by the World Wildlife Fund US and further NGO input will be requested as budget allows
- The leather working group has adopted a guidance document that gives tanners and leather producers information on suggested best environmental practices

Scope of the audit

The purpose of this tannery auditing protocol is to evaluate the environmental performance of tannery operations.

The audit applies to all operations undertaken in any given site, with the following conditions:

- It includes the full range of operations referred to by any and all applicable operating licenses unless these are demonstrably unrelated to leather making. Example: a tannery produces automotive leather to a finished condition AND undertakes cutting operations. The cutting operations do not form part of typical tannery operations. Energy usage, water usage etc. associated with cutting operations can be excluded from the calculation of energy usage per square metre of leather, water usage per square metre of leather etc.
- it includes effluent treatment operations even if these are performed in a different location and/or in other companies

- it includes technical, maintenance and administrative activities even if these are being undertaken on behalf of other companies within a group
- it excludes residential aspects (dormitories, canteens etc.) even if within the site boundary, but only if these can be reliably separated from production aspects i.e. energy and water are on separate meters.
- it will be undertaken on the basis of 12 month's operations. These should be the most recent 12 months for which data is available, the last of which must not be more than three months prior to the audit (i.e. an audit undertaken in June would use data from no earlier than the preceding period April to March)
- in the energy section the value can be calculated on the basis of nine months' worth of data provided month by month data for production and each type of energy for a full year has been supplied and recorded in the report. The excluded three months must be consecutive.
- for audits undertaken whilst LWG recognises the Covid-19 pandemic is affecting global trade three months exclusion will be allowed for water and an additional three months for energy (i.e. including the three months seasonal allowance this could result in up to six months data exclusion for energy). The additional three months do not need to be consecutive but the same three months must be selected for both water and energy. Month by month data for production, water, and each type of energy for a full year must be supplied and recorded in the report. The allowance is only applicable during the Covid-19 pandemic and only applicable for audits undertaken using this (P6.7.0) protocol document.
- in the event that less than 12 but more than 6 months' worth of data are available (for example a new build tannery) an audit may be undertaken but the result will be given as a provisional result. Within this period data must be presented such that the performance of the tannery, with respect to energy and water consumption, may be given for the first three months, second three months, third three months and full year period. Award of a provisional result is further dependent upon a commitment to a full re-audit within 12 months.
- in those instances where insufficient industry benchmarking data was available to record a score for a particular section (i.e. the energy requirement for the production of exotic leathers) the section will be reported as "not applicable". These are expected to be exceptional circumstances and will not be decided at the time of the audit; each case being individually submitted to the LWG Technical Sub Group and/or the LWG Executive Committee for approval (or pre-approval if data is available in advance of the audit).
- Although the LWG audit is primarily an environmental audit, certified tanneries are expected to demonstrate reputable practices in all areas of business. If an auditor witnesses' practices globally recognized as being unacceptable (failure to safeguard the health of workers, worker exploitation, child labour etc.) or practices likely to lead to detriment of the reputation of LWG should the tanner be otherwise awarded certification, that auditor is required by LWG to refer the issue to the LWG facilitator. The LWG facilitator will consult with TSG/EC as appropriate to determine whether downgrading (including possible Failure) should be implemented in the light of the auditor evidence presented.
- The taking of photographs and their inclusion into the protocol report are a fundamental and necessary aspect of the audit. Refusal to allow the necessary photographic evidence required will lead to failure of the audit. Questions for which the auditor is required to include photographic evidence are identified with the following symbol 📷. Auditors may need to take additional photographs as required as supporting evidence.

Key to Photographs:

 – Photograph mandatory where symbol displayed

 – Photograph recommended where symbol displayed

There may be special circumstances (e.g. new machinery installations, etc, which may be excluded from photograph if declared to the auditor.

In most cases a site will be considered to be one geographical location and the audit will be based on the full range of leather making operations (and relevant related activities) undertaken there. An exception will apply in those cases where two geographically different sites exist, but only if those sites are located close to each other, they operate as one unit and all operating permits issued apply to the two sites as one unit. Two companies operating on one site will be treated as separate audits only if they are distinct legal entities with separate operating licences and operating as separate units.

In those instances where one or more operations are being undertaken on behalf of the company at a different site (sub-contracted out) an assessment of the sub-contracted operations will be required. Depending on the work sub-contracted out different levels of assessment may be required.

It is a condition of the audit that the company being audited informs the auditor/audit body at the time of application for an audit of the full extent of operations undertaken off-site as additional time may be required to complete the risk assessment (full audit or mini-audit as appropriate) and additional charges may need to be levied.

Disclosure of data

The tannery being audited is required to provide the auditor with full and accurate data during the audit in order to support the audit findings. The tannery is required not to withhold information nor to mislead or attempt to mislead the auditor. The tannery is required to present all operating permits, plus all additional data or documentation that may be required and to confirm that the tannery is operating in accordance with all operating permits. The auditor will be required to assess whether the tannery is in compliance with its operating permits, however the audit process is not a full legal compliance investigation and is not expected to prove that the tannery is fully compliant; that is the responsibility of the tannery. There may be issues that are addressed in this audit protocol that might be considered to fall within the remit of a Health and Safety audit or review and others that fall within the remit of a quality audit or review. It is expected that auditors would be knowledgeable with regard to health and safety or quality issues in tanneries and would draw attention to any issues that require urgent attention. In the event that any data or information is found to have been withheld or presented in a way designed to mislead the auditor the entire audit will be reclassified “Automatic Audit Failure”.

Mini-Audit

An LWG mini-audit will be required on a limited number of sub-contractors (sub-contracted out) to the company. All sub-contractors will be required to complete the mini-audit document on a self-assessment basis. It is the responsibility of the tannery being audited to facilitate this. The mini-audit is based on a limited number of the sections of the protocol but does not result in a rating for the sub-contractor. The results from all sub-contractors must be submitted to the auditor in advance of the tannery audit. The auditor will select up to three sub-contractors and no more than five, who will be visited (at the time of the tannery audit) and whose responses will be verified by means of normal auditing procedures. The results of the mini-audit will be reported in the auditee main audit report. The following additional points apply:

- The mini-audit will be undertaken on a self-assessment basis by ALL subcontractors used by the tannery

- The self-assessments must be completed prior to the audit of the tannery itself
- The auditor will undertake a confirmation audit on each of the subcontractors (up to a maximum of five)
- The confirmation mini-audit must be undertaken at the same time as the audit
- Additional time will be required to undertake the confirmation mini-audits and may result in additional charges
- It is the responsibility of the company being audited to ensure that the auditor/audit body is informed of the full extent of all sub-contracting operations in advance so that sufficient time is allowed.

The scope of the mini-audit for the various sub-contracting operations is given in the following table:

The scope of the LWG mini-audit					
Activities being undertaken by sub-contractor →	One or more operations up to tanned leather	Mechanical operations on tanned leather	One or more operations from tanned leather to dried leather	Mechanical operations on dried leather	One or more finishing operations
Protocol Sections to be assessed in the mini-audit	1	1	1	1	1
	2*	2*	2*	2*	2*
	3	3	3	3	3
	7**	7**	7**	7**	7**
	8**		8**		8**
	9*		9*	9*	9*
	10*	10*	10*	10*	10*
	11*		11*		11*

* Automatic Audit Failure can occur in sections 2, 9, 10 and 11 of a mini-audit

**Data recorded in sections 7 and 8 of a mini-audit of a sub-contractor will contribute to the overall scoring of the prime auditee

Notes:

The scores recorded in each of the applicable sections of the mini audit will be reported in the full LWG audit protocol report but will not contribute to the overall scoring of the full LWG audit protocol with the exceptions of:

- The energy and water used by the sub-contractor must be taken into account when calculating the overall energy and water usage figures for the company undergoing the full LWG audit. If accurate data is not made available by the sub-contractor the auditor will assign values to sub-contracted operations on a “worst case” basis using any data that is available;
- If a sub-contractor records “Automatic Audit Failure” in a mini-audit the company undergoing the full audit will also record “Automatic Audit Failure”. The audit is intended to ensure that the leather manufacturer and its operations conform to good environmental practice; this includes the selection and monitoring of sub-contracted operations.

Certification period and re-audit

All audit results are valid for 24 months. Certification remains valid over this timescale unless evidence becomes available to suggest that the audit result is no longer valid. A tannery being re-audited in the month preceding the

certification expiry date will be issued with a certificate valid from the current expiry date. A tannery re-audited in the month following certification expiry will benefit from an extension of the current certification but only if the audit has been booked, paid for and the date confirmed as being no later than one month after expiry (these three conditions having been met prior to current certification expiry).

A tanner may be re-audited at any time within the period of certification; however, the following points should be noted:

- The audit will be undertaken on the basis of the tannery's previous 12 month's operations
- A full re-audit will be required irrespective of the period since the previous audit

Categories

So that all types of leather production plants can use this questionnaire the following categories will be referred to:

Code	Category
A	Raw hide/skin to tanned
B	Raw hide/skin to crust
C	Raw hide/skin to finished leather
D	Tanned hide/skin to finished leather
E	Crust hide/skin to finished leather
F	Tanned hide/skin to crust leather
G	Raw hide/skin to pickled/pre-tanned material

Not all sections of the questionnaire will be completed by each category.

Scoring

The scoring has been developed as far as possible in accordance with the following hierarchy

- Reduce – the amount of resource used (energy, water, chrome etc.)
- Reuse – material for the same purpose without additional (or minimal) input (pallets, wastewater etc.)
- Recycle – material that cannot be reused into other products
- Recover – raw material (i.e. heat energy for example from oils or solvents that cannot be recycled)
- Refuse – any material that can only be disposed of (provided disposal is safe and legal)

The majority of questions require that the most appropriate option is selected, i.e., select 1 answer from 5 potential answers. There are also a number of cumulative questions where **all** appropriate options should be recorded. Where the activities of the tannery fall between two or more possible options the auditor is required to assign a score (or partial score) that appropriately reflects the evidence presented.

Leather manufacturing operations vary considerably depending on the type of hide or skin being processed and the type of leather being made. Pigskins for example have little or no hair, so questions relating to hair save are inappropriate. Some types of sheepskin have a very high natural fat content, others have much lower levels of natural fat; operations involving the removal of fat therefore differ. Discretion and realism must be practiced by the auditor during the audit, the score calculation and the reporting to reflect these differences.

Scoring for Awards

The sections with values in the columns for Gold, Silver or Bronze in the table on page *ix* are critical scoring sections. That is to say that if you do not score the minimum for each and every one of those sections you do not get the

classification. The total percentage score at the bottom refers to the overall minimum percentage score required for the classification. You must score at least the minimum for each critical section plus additional points from the non-critical sections and so doing achieve the minimum total score for the classification.

Audit procedure

The protocol has been divided into a number of sections. In most cases the majority of questions may be addressed to the Environmental Manager. There are some questions however that may fall outside the brief of the Environmental Manager, issues related to safety and to air emissions control devices for example may be more appropriately addressed by the Safety Officer and Engineer respectively. There are however no sections that are solely the preserve of these other individuals.

Random Inspection Visits

From time to time random inspection visits will be made in order to ensure audit standards are maintained. All audited members are subject to these visits (if required). Any leather manufacturer selected for a random visit will be given a minimum of 7 days' notice prior to such a visit. It is a condition of certification that audited tanners agree to facilitate inspections (if required). Any costs incurred to carry out an inspection will be the responsibility of LWG. Failure to allow or facilitate a visit could result in certificate withdrawal and termination of LWG membership. It should be noted that the outcomes of a random inspection may affect the existing audit rating of a leather manufacturer.

Glossary

The following terms will be used in the protocol and in reporting procedures			
APEO	Alkyl phenol ethoxylates	BCS	Basic chrome sulphate
CETP	Common Effluent Treatment Plant	SSG	Supplier Sub Group
EMS	Environmental Management System	Chromium	Cr (the element)
LWG	Leather Working Group	IPE	Institute of Public and Environmental Affairs
N/A	Not Applicable	METP	Municipal Effluent Treatment Plant
NO _x	Nitrogen Oxides	n.d.	not detected
P6	LWG Protocol 6.0	NPE/NPEO	Nonyl phenol ethoxylate
SO ₂	Sulphur Dioxide	PPE	Personal Protective Equipment
TSG	Technical Sub Group	THC	Total Hydrocarbon
WWTP	Waste Water Treatment Plant	VOC	Volatile Organic Compound
Part-processed material	e.g. splits, whole hides, pickled skins etc.		
ZLD	Zero Liquid Discharge		
PPCB	Punjab Pollution Control Board		
RL	Rainbow Leathers		
PSIEC	Punjab Small Industries & Export Corporation Limited		

Summary of Changes from P6.5 to P6.6:

- **Section 13.0 Housekeeping** is now a Critical Scoring Section and will be considered for medal award purposes. Housekeeping has been more clearly defined and all leather manufacturers under audit

- certification in the LWG programme must demonstrate a basic level of operational cleanliness and maintenance, ensuring safe working environments, machinery and electrical.
- **Physical Marking:** A score is now given in Section 14.0, Manufacturing Processes for leather manufacturers that physically mark their outgoing material.
 - **H2S Meters:** Exposure to H2S can result in death and consequently failure to have adequate, maintained detection equipment for H2S will result in an audit failure.
 - **Salt in Discharge:** Section 11, Question 5 has been simplified and the scoring modified to reflect the environmental impact of this element.
 - **Reporting of Safety Related, Fatal Accidents:** Leather Manufacturers are now required to report fatal accidents that occur within their facilities in the same way as violations are reported.
 - **Non-disclosure of Sub-contractors:** LWG will not permit the use of non-LWG rated sub-contractors being used for partial or full processing of material which is subsequently sold from a LWG rated facilities. Leather Manufacturers are responsible for notifying their auditor of all sub-contractors and failure to do so in future will result in a significant penalty of -40.
 - **Random Visits:** Any leather manufacturer audited from P6.6.0 onwards will be subject to a potential random visit from an LWG Auditor to ensure consistent standards are maintained.
 - **Photographs:** Auditors will be required to take mandatory photos of certain elements within the audit. These areas are identified by a 📷 symbol in the protocol.
 - **Section 3 Simplification:** The apportionment of scoring to smooth the reduction of the scoring allowances for traded material or small skins and pickled material is removed.
 - **Other Changes:** Other minor alterations involve clarity of wording or explanation, data capture for CETP details and for Consultants if used in audit preparation.
 - **Covid-19:** Temporary allowance for the exclusion of three months data in the energy and water sections. This allowance is only applicable to P6.7.0. The applicability of the allowance will be reviewed by TSG at least every six months.

LEATHER WORKING GROUP
 Declaration of accuracy of data presented to the auditor

I, **Raghawendra Pratap**

a Director of **Rainbow Leathers (Category E Tannery)** confirm, on behalf of the company that I have reviewed the responses recorded in the document “LWG Environmental Audit Protocol Responses” (contract report **RNW-21-017**) and that they are an accurate record of the data provided to the auditor during the course of the audit. I confirm that no information required for the fulfilment of the audit was withheld by the company, nor was any attempt made to mislead the auditor in any way that might lead to an inaccurate audit result being obtained.

I understand that LWG require that the auditor be informed of all fatalities and regulatory non-compliance or incidents that require notification to any regulatory authority and that any such non-compliance or incidents occurring after this visit will be notified to the auditor and to members of the Leather Working Group to whom the company supplies product as soon as practical after the event. If such notification is not made to the auditor by the company but is discovered by other means the LWG certification will be withdrawn and the result reclassified “Automatic Audit Failure”.

I understand that in the event that any data or information is found to have been deliberately withheld or presented in a way designed to mislead the auditor the entire audit may be reclassified “Automatic Audit Failure” and certification withdrawn.

I understand that LWG reserves the right to carry out a random inspection visit in order to ensure audit standards are maintained. I understand that it is a condition of certification and I agree to facilitate inspections (if required) following a minimum of 7 days’ advance notice of a specified time period. The result of the inspection may affect the existing audit result.

I understand that it is a condition of publication of listing on the LWG rated suppliers’ webpage that the data gathered will be used (confidentially) for the purposes of benchmarking. The data listed on the webpage includes relevant audit data such as award level, expiration date, etc. (see <http://www.leatherworkinggroup.com/tanneries.htm> for full listing)

Please tick as appropriate:

I agree to the listing of the company on whose behalf I am signing on the LWG rated suppliers’ webpage AND to the use of the data for confidential benchmarking purposes	✓
I do not wish the data gathered to be used for confidential benchmarking purposes and I understand that the company will NOT be listed on the LWG webpage	

Signature

Name (printed) **RAGHAWENDRA PRATAP**

Position **PROPRIETORSHIP**

Date

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Opening Statement and Declaration of Understanding

	<p>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 auditor the entire audit may be reclassified “Automatic Audit Failure” and certification withdrawn.</p> <p>In addition to this condition being made clear at commencement of the audit a senior manager/director will be required to sign a declaration that full and accurate information has been presented prior to any final reports or certification being issued.</p>	
		Yes/No
A	<p>Has the above statement been read aloud or displayed on screen to the principal contact for the audit? Mr. Raghawendra Pratap</p>	Yes
B	<p>Does the principal contact for the audit accept responsibility for ensuring other members of staff, who will be assisting or taking part in the audit, act in accordance with the above statement? Mr. Prabhjot Singh</p>	Yes
C	The response to A and/or B is “No”	Automatic audit Failure

	<p>Leather Working Group does not employ or endorse consultants. If consultants have been engaged for the preparation of this audit any and all agreements between the tannery and the consultant are outside of the scope of the audit and will have no bearing on the audit result.</p>	
		Yes/No
	Was a consultant engaged in the preparation of this audit?	Yes
	If a consultant has been engaged for the preparation of the audit please state the name of the consultant(s) (and consulting organisation if applicable) below.	
	Consultant	Company
		Scope of consultation
	Mohamed Imran (IMS Lead Auditor and Certified by UNIDO)	Creative Management Consultant
		Full LWG implementation including staff training

1 GENERAL FACILITY DETAILS

This section is to be completed by all categories.

This section gathers introductory information regarding the facility. Please record if the facility has operations or warehousing located off-site. As appropriate, the addresses and description of these off-site locations should also be noted. These operations should be included in this audit (subject to conditions outlined in "Scope of the Audit" above)

Please add any abbreviations used In this report (other than those in the glossary) here:

1a	Site Name and Category of Production:	
Site Name:	M/s. Rainbow Leathers	
Category of Production:	Category E - Crust hide/skin to finished leather	

1b	Company Registration/Identification Number:	
(Sara International) GSTIN: 03AMDPP0729L1Z3; Import-Export Code No: 3012010670		
(Rainbow Leathers) GSTIN: AA030321020905U		



2	Full Postal Address:
<p>Plot No. 45, Leather Complex, Kapurthala Road, Jalandhar – 144 021 Punjab (India)</p>	

3	Telephone Number:
<p>+91 – 98760 23003</p>	

4	Principal Contact Name and Position:
<p>Mr. Raghawendra Pratap & Mr. Vikas Sood – Partners</p>	

5	Other Site Contacts and Positions:
<p>Mr. Prabhjot Singh – Management Representative (MR)</p>	

6a	Does the company require hard copies of the certificate on completion of the audit?	
A	Yes, a hard copy of the certificate is required	
B	No, an electronic copy of the certificate is sufficient	✓

6b	Does the company require a hard copy of the reports on completion of the audit?	
A	Yes, hard copies of the reports are required	
B	No, electronic copies of the reports are sufficient	✓

6c	If hard copies are required, to whom and to what address should the hard copies be sent?	
N/A		

6d	To whom and to what email address should electronic copies be sent	
Audit Report:	Mr. Vikas Sood, rainbow@rainbowcomponents.com	
Audit Certificate:	Mr. Vikas Sood, rainbow@rainbowcomponents.com	
LWG News and Protocol Updates:	Mr. Vikas Sood, rainbow@rainbowcomponents.com	

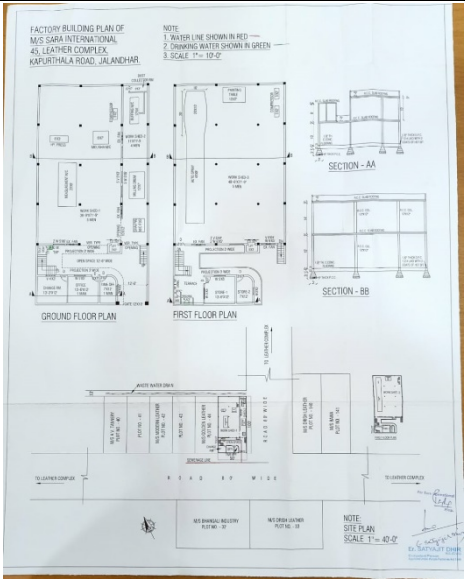
7	Website Details:
www.rainbowcomponents.com	

8	Who has primary responsibility for environmental issues at the site?	
A	Environmental Manager	
B	Production Manager	
C	Technical Manager	
D	Production or Technical Director	
E	Managing Director or Chief Executive	
F	Other Management Representative (MR)	✓

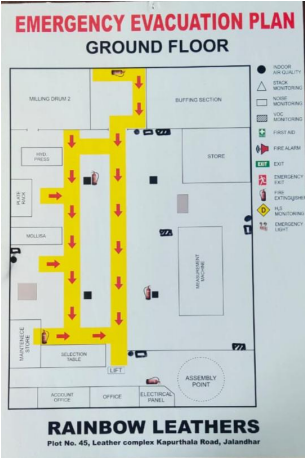
9	Facility description
<p>This section provides information on-site setting and environmental receptors on, adjacent, or close to the facility. M/s. Rainbow Leathers (Sara International) is a leading manufacturer and exporter of Cow Upper, Cow Split Suede, Goat Nappa and Sheep Leather for shoes and leather goods in the domestic market and in turn exported to international market to many of the leading brands like Linear Shoes Pvt Ltd and Kapsons World Wide etc.</p> <p>The factory is located in the leather complex area of Jalandhar city in Punjab state where most of the tanneries and other industries operate. The nearest living neighbourhood village is around 1km away.</p> <p>The tannery is processing from Crust to finished leather (Dry unit), previously the tannery's name was Sara International, and now Rainbow Leathers has takeover as a lease agreement for the next five years.</p> <p>The tannery is sourcing dyed crust from LWG suppliers and processing from crust operation to finished mechanical operations, the consumption of water and chemicals is very low. Water is sourced from PSIEC. The waste water generated is very low and is dried using electrical drier evaporation pit. The sludge is disposed of to Ramky for secured land fill as per PPCB norms. The non-hazardous waste which is generated inside the premises is sent to authorized agencies for further recycling purpose. The tannery has water wash circulation system in their auto spray and hand spray as well to minimize the air pollution. The tannery plans to install Solar Pans to reduce electrical cost by using natural energy.</p>	

10	State the total site area (in m², indicating if within single or multiple boundaries)
<p>Total Land area-1,150 m² Constructed area- 1150*2=2300 m²</p>	

11	Can the company provide site plan for all direct operations under this audit (preferably pdf format)?
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Building Plan



Evacuation Plan

12	Describe the topography of the area (flat terrain, hills, by a large body of water, vegetation etc.)
-----------	---

Rainbow Leathers is located in flat terrain area inside a leather complex (industrial area). The nearest river Beas is located around 37 km away.

13	State the size and location of the nearest residential communities
-----------	---

The nearest residential village Nahal with a population of 1,714 people is located within 1km of the tannery.

14	Are there any sensitive habitats nearby (such as nature reserves, national parks, wetlands or sites of special scientific interest)?
Bultron park is an area of natural vegetation located around 6km away.	

15	How many people work at the site?				
		a.m. shift 9:00 am to 17:30 pm	p.m. shift	Night shift	Overall total
A	Direct Labour	11	-	-	11
B	Indirect Labour (management & administration)	3	-	-	3
	Shift total	14	-	-	14

16 N/A	List all of the supplying sub-contractors			
	Sub-contractor	Location (town)	Range of operations	% of production on behalf of the principal
1				
2				
3				
4				
5				

17 N/A	Were details of all sub-contractors provided prior to the commencement of the audit. The auditor may choose to continue with the audit if time allows and apply a negative score of -40, or fail the audit if it cannot be carried out within the time allowed.		
		Score	Attained
A	Yes	0	
B	No, audit continued	-40	
C	No, audit failed	Automatic Audit Failure	

2 OPERATING PERMITS

This section is to be completed by all categories.


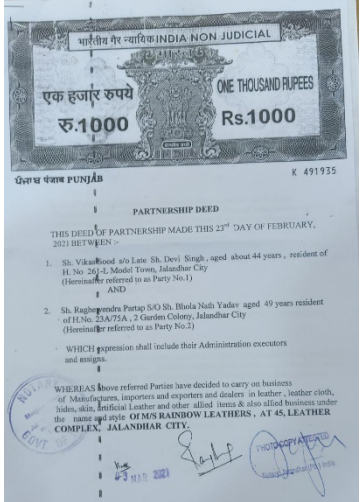
This section is designed to ensure that the facility is operating in compliance with the appropriate local permits and licences. It will also identify if there have been violations, warnings or fines, and what corrective actions have been implemented. The facility could fail the audit in this section.

The tanner may be required to supply an assurance to the auditor, in advance of the audit, that all necessary permits are available for assessment (photocopies could be supplied in advance). The tanner may also be required to supply the auditor with the contact names and contact details, as requested by the auditor, of the responsible authorities so that the auditor can determine in advance and independently the types of permit that are required.

1	Is the facility subject to any operating permits?	Tick
A	Yes	✓
B	No (proceed to section 3) It is very unusual for a tannery to be allowed to operate in the absence of any operating permit. The tannery must be able to convince the auditor that no permit of any kind is required and should bear in mind that in the event that any data or information is found to have been deliberately withheld or presented in a way designed to mislead the auditor the audit result will be classified "Automatic Audit Failure"	
	The permit details must be shown to the auditor, photocopies or electronic scans must be made available if required and may be included in the audit report	

2	Please list operating permits required The permits listed below should be the full set of permits (or regulatory limits as they apply to the tannery) relating to environmental discharges/emissions. All test reports will need to be made available to demonstrate compliance and should be a complete record of the company's testing regime.
----------	--

Table 1

General Operating Permit	
Permit Number	Registration No: JAL0FL1001
Issuing Authority	Chief Inspector of Factories, Department of Labour, Punjab
Date Permit Expires	31/12/2022
Conditions	20 persons & 500 kilo watt
	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>FORM 4 (Under Rule 8) AMENDMENT OF FACTORY LICENCE TO WORK AS FACTORY UNDER THE FACTORIES ACT, 1948</p> <p>Licence is hereby granted to Sh. Raghendra Pratap, S/O, D/O, W/O: Balwant Pratap Occupier, M/s Sara International, 45, Leather Complex, Kapurthala Road, Jalandhar.</p> <p>Registration Number: JAL0FL1001 Fees Rs. 200.00 In words (Two Hundred). Only valid for the premises described above for use as a factory employing not more than 20 persons on any one day during the year and using motive power not exceeding 500 Kilo Watt subject to the provisions of The Factories Act, 1948 as amended from time to time and the rules made thereunder This licence shall remain in force till the 31st day of December, 2022</p> <p>Dated 02-Dec-2020</p> <p>For Chief Inspector of Factories, Department of Labour, Punjab Name: Jagjit Singh, Design: Assistant Director of Factories District: Jalandhar</p> <p>This is a computer generated factory licence to check & verify please login to http://jaltlabour.gov.in</p> </div> <div style="text-align: center;">  <p>भारतीय गैर न्यायिक INDIA NON JUDICIAL एक हजार रुपये ONE THOUSAND RUPEES ₹.1000 Rs.1000</p> <p>K 491935</p> <p>पंजाब प्रजासत्ताक PUNJAB PARTNERSHIP DEED THIS DEED OF PARTNERSHIP MADE THIS 23rd DAY OF FEBRUARY, 2021 BETWEEN :- 1. Sh. Vikal/Rood s/o Late. Sh. Devi Singh, aged about 44 years, resident of H.No. 250-3, Model Town, Jalandhar City (Hereinafter referred to as Party No.1) AND 2. Sh. Raghendra Pratap S/O Sh. Bhuda Nath Yadav, aged 49 years resident of H.No. 23A/75A, 2 Garden Colony, Jalandhar City (Hereinafter referred to as Party No.2) - WHICH expression shall include their Administration executors and assigns.</p> <p>WHEREAS above referred Parties have decided to carry on business of Manufacturing, importers and exporters and dealers in leather, leather cloth, hides, skins, Electrical leather and other allied items & also allied business under the name and style of M/S RAINBOW LEATHERS, AT 45, LEATHER COMPLEX, JALANDHAR CITY.</p> </div> </div>

Agreement in between Sara International and Rainbow Leathers

Table 2

Water Abstraction			
Permit Number	N/A		
Issuing Authority			
Date Permit Expires			
		Permit Limit	Recorded Value (average)
	Volume per day		
	Volume per week		
	Volume per month		
	Volume per year		
Any other relevant conditions: There is no well onsite. The tannery uses fresh water from PSIEC supplier for production and as well as domestic purpose.			

Table 3a

Water Discharge to the Environment (River, Lake, Sea, Irrigation) N/A				
Permit Number				
Issuing Authority				
Date Permit Expires				
		Permit Limit	Recorded Value (average)	Recorded Value (max)
Details	Volume per hour			
	Volume per day			
	Volume per week			
	Volume per month			
	Volume per year			
Effluent Limits	Chemical Oxygen Demand			
	Biological Oxygen Demand			
	Total Kjeldahl Nitrogen			
	Suspended Solids			
	Oil & Grease			
	Total Chromium			
	Chromium VI			
	Ammonia (nitrogen)			
	Sulphides			
	Chlorides			
	Synthetic Detergent Limit			
	Copper			
	Cyanide			
	Lead			
	Mercury			
	Nickel			
	Cadmium			
	Zinc			
	Sulphates			
	Phosphorous			
pH range				
Temperature limits				
Prohibited Contaminants				
Any other relevant conditions:				

Table 3b

Water Discharge direct to drainage				
Permit Number		Ref No. O91JAL511331		
Issuing Authority		Punjab Pollution Control Board		
Date Permit Expires		31/03/2026		
This is a Zero Liquid Discharge (ZLD) facility		Permit Limit	Recorded Value (average)	Recorded Value (max)
Details	Volume per hour	Not provided as all water has to be evaporated.		
	Volume per day			
	Volume per week			
	Volume per month			
	Volume per year			
Effluent Limits Zero Liquid Discharge by evaporation in Electrical Drier Pit	Chemical Oxygen Demand			
	Biological Oxygen Demand			
	Total Kjeldahl Nitrogen			
	Suspended Solids			
	Oil & Grease			
	Total Chromium			
	Chromium VI			
	Ammonia (nitrogen)			
	Sulphides			
	Chlorides			
	Synthetic Detergent Limit			
	Copper			
	Cyanide			
	Lead			
	Mercury			
	Nickel			
	Cadmium			
	Zinc			
Sulphates				
Phosphorous				
pH range				
Temperature limits				
Prohibited Contaminants				

Any other relevant conditions: The discharge waste water goes to Electric Drier Evaporating Pit in the premises and the sludge formed is disposed of to Ramky for secured land fill. The domestic waste water is connected to the industries leather complex STP.

PUNJAB POLLUTION CONTROL BOARD
ZONAL OFFICE JALANDHAR
Website: www.ppcb.gov.in

Office Dispatch No: _____ Registered/Spent Post Date: _____
Industry Registration ID: OY8AL211331 Application No.: 0853031

To: **Registered/Spent Post**
40 Leather Complex
Jalandhar/Jalandhar-144004

Subject: Grant of Consent to Operate an outlet as 2526 of Water (Prevention & Control of Pollution) Act, 1974 for discharge of effluent.

With reference to your application for obtaining Consent to Operate, is an outlet for discharge of the effluent to 2526 of Water (Prevention & Control of Pollution) Act, 1974, you are hereby authorized to operate an industry with discharge of the effluent(s) arising out of your premises subject to the Terms and Conditions as mentioned in this Certificate.

1. Particulars of Consent to Operate under Water Act, 1974 granted to the industry

Consent to Operate Certificate No.	CT909FWSHJAL2020/0915/0611
Date of issue	15/03/2021
Date of expiry	31/03/2026
Certificate Type	Final

2. Particulars of the Industry

Name & Designation of the Applicant	Registered/Spent Post (Proprietor)
Address of Industrial premises	M/S. Siva International, 40 Leather Complex, Jalandhar/Jalandhar-144004
Capital Investment of the Industry	25.2 lakh
Category of industry	Iron
Type of Industry	1000-Miscellaneous (Other)
Scale of the Industry	Small
Office Address	Jalandhar
Consent Fee Details	Rs. 41200/- vide UTR No. ANSK21050000710 dated 21.12.2020 under Water Act, 1974
Raw Materials (Name with quantity per day)	Crust Leather @ 400 Sq.m/day Chemical @ 200 Kg/day Chemical @ 200 Kg/day
Products (Name with quantity per day)	Finished Leather @ 500 Sq.m/day
By-Products, if any (Name with quantity per day)	Nil
Details of the machinery and processes	As per application.

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M/s. Siva International/Jalandhar Complex/Jalandhar-144004
Page 2

Details of the Effluent Treatment Plant	N/A (Trade effluent Nil as per evaporation system provided for effluent from main spray etc. Domestic Effluent @ 10.4 MLD)
Mode of Disposal	Domestic effluent into PSEFC sewer.
Standards to be achieved under Water/Prevention & Control of Pollution Act, 1974	As prescribed by the Board.

Encl. No: _____ Date: _____

A copy of the above is forwarded to the following for information and necessary action please:
Environmental Engineer, Regional office, Jalandhar

(Anam Rajbani)
Environmental Engineer
For & on behalf of
(Punjab Pollution Control Board)


(Anam Rajbani)
Environmental Engineer
For & on behalf of
(Punjab Pollution Control Board)

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M/s. Siva International/Jalandhar Complex/Jalandhar-144004
Page 2

Table 4

Air Emissions			
Permit Number	Ref No. O19JAL511331		
Issuing Authority	Punjab Pollution Control Board		
Date Permit Expires	31/03/2026		
Details	Permit Limit	Recorded Value (average)	
Volume per hour			
Volume per day			
Volume per week			
Volume per month			
Volume per year			
Odour			
Noise	75 dBA Day Time 70 dBA Night Time	48.62 dBA Day Time 46.4 dBA Night Time	
Limits	Ambient Air Quality mg/Nm ³		
Particulates (PM10)	100	35.7	
Particulates (PM2.5)	60	26.0	
Nitrogen Oxides (NOx)	80	20.0	
Sulphur Dioxide (SO ₂)	80	10.8	
Carbon Monoxide (CO)	-	0.5	
Volatile Organic Compounds (VOC)	-	BDL	
Ammonia	400	BDL	
H2S	-	BDL	

Any other relevant conditions: Test done by J.P. Test & Research Centre ISO 17025 by NABL, Certificate No. TC-8047 and valid until 09/02/2022



PUNJAB POLLUTION CONTROL BOARD
ZONAL OFFICE JALANDHAR
Website: www.ppcb.org

Office Dispatch No: _____ Registered/Speed Foot _____ Date: _____
Industry Registration ID: O19JAL511331 Application No: 1015826

To: **Rajwinder Prasad**
23 Leathers Complex
Jalandhar/Jalandhar-148004

Subject: Consent to Operate under Air Act, 1986 granted to the industry.

With reference to your application for obtaining 'Consent to Operate' as per Air (Prevention & Control of Pollution) Act, 1986, you are hereby authorized to operate an industrial unit for discharge of the effluents arising out of your premises subject to the Terms and Conditions as mentioned in this Certificate.

1. Particulars of Consent to Operate under Air Act, 1986 granted to the industry

Consent to Operate Certificate No.	CTOP/PUNJAL/2021/015826
Date of issue	14/05/2021
Date of expiry	31/03/2026
Certificate Type	Final

2. Particulars of the Industry

Name & Designation of the Applicant	Rajwinder Prasad, (Proprietor)
Address of Industrial premises	M/s. Sany International, 23 Leathers Complex, Jalandhar, Jalandhar-148004
Capital Investment of the Industry	INR 1 Lakh
Category of Industry	Ref
Type of Industry	1999 Miscellaneous (Ref)
Scale of the Industry	Small
Office District	Jalandhar
Consent Fee Details	INR 40,000/- vide ITR No. ANS/NR/1000000751 dated 25.02.2021
Raw Materials (Name with Quantity per day)	Crust Leather @ 500 Sq.m/day Colour @ 40 Litres/day Chemicals & Finishes @ 100 Kg/day
Products (Name with Quantity per day)	Finished Leathers @ 500 Sq.m/day
By-products, if any. (Name with Quantity per day)	Nil
Details of the machinery and process	As per application.

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M/s. Sany International of Leathers Complex, Jalandhar-148004 Page 2

Quantity of fuel required (the TFD) and capacity of boilers/ Furnaces/Thermal heater etc.	Nil as no boiler & DG set.
Type of Air Pollution Control Devices to be installed	N/A
Stack height provided with each boiler/furnace heater/furnace etc.	---
Source of emissions and type of pollutants	Nil
Standards to be achieved under Air(Prevention & Control of Pollution) Act, 1986	As prescribed by the Board.

(Arum Kulkarni)
Environmental Engineer
For & on behalf of
(Punjab Pollution Control Board)

Enclt. No.: _____ Date: _____

A copy of the above is forwarded to the following for information and necessary action please:
Environmental Engineer, Regional office, Jalandhar

(Arum Kulkarni)
Environmental Engineer
For & on behalf of
(Punjab Pollution Control Board)

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M/s. Sany International of Leathers Complex, Jalandhar-148004 Page 2

Table 5

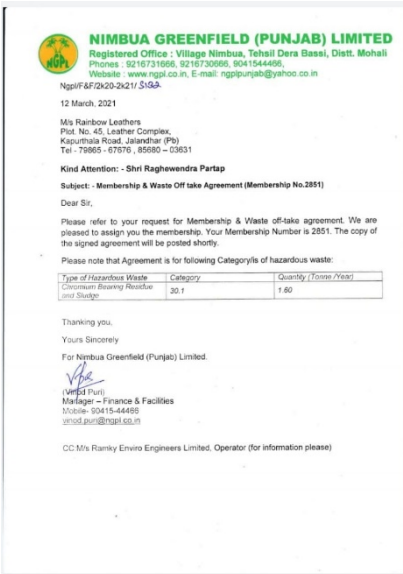
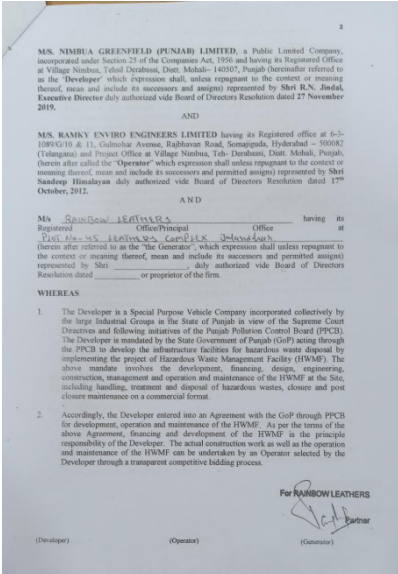
Solid Waste Disposal			
Permit Number	Membership No.2851		
Issuing Authority	Nimbua Greenfield Punjab Limited		
Date Permit Expires	No Expiry		
Distinguishes Hazardous and Non-Hazardous Wastes	Yes	No	
	✓		
Details	Volume/mass per day	Permit Limit	Recorded Value (average)
	Volume/mass per week		
	Volume/mass per month		
	Volume/mass per year	1.6 M.T.	0
Any other relevant conditions:			
 <p>Membership Certificate</p>		 <p>Agreement in between Ramky and Sara International</p>	

Table 6

Storm Water N/A	
Permit Number	
Issuing Authority	
Date Permit Expires	
Any other relevant conditions:	

Table 7

Fire & Rescue Service	
Permit Number (s)	Ref. No. 1013-35120-Fire/24284
Issuing Authority	Punjab Fire Services, Jalandhar
Date Permit (s) Expire	13/03/2022
Any relevant conditions: There are Five conditions, all being complied with.	

Table 8

Weighing Scale	
Permit Number (s)	Ref No. 21202113642
Issuing Authority	Metrological Department, Punjab
Date Permit (s) Expire	08/03/2022
Any relevant conditions:	

Table 9

Building Stability	
Permit Number (s)	Ref No. DOF/JLR/P-137/7448
Issuing Authority	Competent Person, Approved Under Punjab Factories Act
Date Permit (s) Expire	13/03/2024
Any relevant conditions:	

Table 10

Power Press	
Permit Number (s)	Ref. No. KD/2021/RL/04
Issuing Authority	Competent Person
Date Permit (s) Expire	01/09/2021
Any relevant conditions: There are one Power Press machine	

Table 11

Pressure Vessel	
Permit Number (s)	Ref. No. KD/2021/PL/01, 02, 03
Issuing Authority	Competent Person
Date Permit (s) Expire	01/09/2021
Any relevant conditions: There are 2 Pressure Vessels and pipeline with compressor.	

K D SAFETY CONSULTANTS	
1. Name of occupier of factory	M/s Rainbow Leathers
2. Address of factory	Plot No. 45, Leather Complex, Kapurthala Road, Jalandhar (Pb.)
3. Name, description and distinctive number of pressure vessel	M3 horizontal cylindrical air receiver with mounted compressor, Pt. No. 1502/10264, Cap: 300 lbs. Size: OD 563 mm x 1900 mm Location: Production Area
4. Name and address of manufacturer	M/s P.R. Curtis (BPM Industries)
5. Nature of process in which it is used	To store compressed air
6. Particulars of pressure vessel or plant	020210
(a) Date of construction	2017
(b) Thickness of walls	Shell 5.0 mm, Dish 5.0 mm
(c) Date on which the vessel was first taken into use	2019
7. Safe working pressure recommended by the maker (The history to be briefly given)	12.5 kg/cm ² First time tested by us on 02.03.2021
8. Date of last hydrostatic test and pressure to be used in the open or otherwise exposed to weather or to damp?	Hydro test done by MR. at 20 kg/cm ² Under the shed
9. What parts if any were inaccessible?	Internally
10. What repairs and tests were made?	Examination externally & thorough external check of fittings. No Gauge, Stop/Start valves for air leakage. Vessel maintained in good condition, no damage noted, all fittings are working satisfactorily & no leakage detected.
11. Condition of vessel (state any defects necessarily affecting the S.W.P.)	Yes
12. Are the required fittings and appliances provided in accordance with the rules?	Yes
13. Are all fittings and appliances properly maintained and in good condition?	Yes
14. Are all fittings and appliances properly maintained and in good condition?	Yes
15. Repaired/any required and period within which they should be executed	Nil
16. Safe working pressure, calculated from dimensions, and from the thickness and state minimum thickness of wall measured	12.5 kg/cm ² Shell 4.8 mm, Dish 5.0 mm
17. Where repairs affecting the safe working pressure are required state the working pressure - (A) A. Before the expiration of the period specified in (1) (4); B. After the expiration of such period if the required repairs incomplete - (C). After the completion of the required repairs	NA
18. Other observations	I certify that on 02.03.2021, the pressure vessel described above was thoroughly cleaned and (so far as its construction permits) made accessible for thorough examination and on such test as were necessary for thorough examination and that on the said date thoroughly examined the pressure vessel, including its fittings and that the above is a true report of my examination. TEST CERTIFICATE No. KD/2021/PL/01 Next due date: 01.09.2021

K D SAFETY CONSULTANTS	
1. Name of occupier of factory	M/s Rainbow Leathers
2. Address of factory	Plot No. 45, Leather Complex, Kapurthala Road, Jalandhar (Pb.)
3. Name, description and distinctive number of pressure vessel	M3 horizontal cylindrical air receiver with mounted compressor, Pt. No. 1502/10271, Cap: 300 lbs. Size: OD 563 mm x 1900 mm Location: Production Area
4. Name and address of manufacturer	M/s P.R. Curtis (BPM Industries)
5. Nature of process in which it is used	To store compressed air at pressure
6. Particulars of pressure vessel or plant	020210
(a) Date of construction	2017
(b) Thickness of walls	Shell 5.0 mm, Dish 5.0 mm
(c) Date on which the vessel was first taken into use	2017
7. Safe working pressure recommended by the maker (The history to be briefly given)	12.5 kg/cm ² First time tested by us on 02.03.2021
8. Date of last hydrostatic test and pressure to be used in the open or otherwise exposed to weather or to damp?	Hydro test done by MR. at 20 kg/cm ² Under the shed
9. What parts if any were inaccessible?	Internally
10. What repairs and tests were made?	Examination externally & thorough external check of fittings. No Gauge, Stop/Start valves for air leakage. Vessel maintained in good condition, no damage noted, all fittings are working satisfactorily & no leakage detected.
11. Condition of vessel (state any defects necessarily affecting the S.W.P.)	Yes
12. Are the required fittings and appliances provided in accordance with the rules?	Yes
13. Are all fittings and appliances properly maintained and in good condition?	Yes
14. Are all fittings and appliances properly maintained and in good condition?	Yes
15. Repaired/any required and period within which they should be executed	Nil
16. Safe working pressure, calculated from dimensions, and from the thickness and state minimum thickness of wall measured	12.5 kg/cm ² Shell 4.8 mm, Dish 5.0 mm
17. Where repairs affecting the safe working pressure are required state the working pressure - (A) A. Before the expiration of the period specified in (1) (4); B. After the expiration of such period if the required repairs incomplete - (C). After the completion of the required repairs	NA
18. Other observations	I certify that on 02.03.2021, the pressure vessel described above was thoroughly cleaned and (so far as its construction permits) made accessible for thorough examination and on such test as were necessary for thorough examination and that on the said date thoroughly examined the pressure vessel, including its fittings and that the above is a true report of my examination. TEST CERTIFICATE No. KD/2021/PL/02 Next due date: 01.09.2021

K D SAFETY CONSULTANTS	
1. Name of occupier of factory	M/s Rainbow Leathers
2. Address of factory	Plot No. 45, Leather Complex, Kapurthala Road, Jalandhar (Pb.)
3. Name, description and distinctive number of pressure vessel	M3 air pressure pipeline with compressor, Size: OD 125 mm, Location: Production Area Local Manufacturer To carry compressed air at pressure.
4. Name and address of manufacturer	020210
5. Nature of process in which it is used	2216
6. Particulars of pressure vessel or plant	7 kg/cm ²
(a) Date of construction	First time tested by us on 02.03.2021
(b) Thickness of walls	Hydro test done by MR. before commissioning. OK
(c) Date on which the vessel was first taken into use	Open
7. Safe working pressure recommended by the maker (The history to be briefly given)	10 kg/cm ²
8. Date of last hydrostatic test and pressure to be used in the open or otherwise exposed to weather or to damp?	Internally
9. What parts if any were inaccessible?	Thorough Examination of Safety Devices, Ultrasonic thickness test conducted. OK
10. What repairs and tests were made?	Condition of vessel (state any defects necessarily affecting the S.W.P.)
11. Condition of vessel (state any defects necessarily affecting the S.W.P.)	Yes
12. Are the required fittings and appliances provided in accordance with the rules?	Yes
13. Are all fittings and appliances properly maintained and in good condition?	Yes
14. Are all fittings and appliances properly maintained and in good condition?	Yes
15. Repaired/any required and period within which they should be executed	Nil
16. Safe working pressure, calculated from dimensions, and from the thickness and state minimum thickness of wall measured	7 kg/cm ² 3.5 mm - 3.8 mm
17. Where repairs affecting the safe working pressure are required state the working pressure - (A) A. Before the expiration of the period specified in (1) (4); B. After the expiration of such period if the required repairs incomplete - (C). After the completion of the required repairs	NA
18. Other observations	I certify that on 02.03.2021, the pressure vessel described above was thoroughly cleaned and (so far as its construction permits) made accessible for thorough examination and on such test as were necessary for thorough examination and that on the said date thoroughly examined this pressure vessel, including its fittings and that the above is a true report of my examination. TEST CERTIFICATE No. KD/2021/PL/03 Next due date: 01.09.2021

Table 12

Goods Lift	
Permit Number (s)	Ref No. KD/2021/RL/N/06
Issuing Authority	Competent Person
Date Permit (s) Expire	01/09/2021
Any relevant conditions:	


K D SAFETY CONSULTANTS	
REPORT OF EXAMINATION OF LIFTING MACHINES, CHAIN, ROPE OR TACKLE	
(UNDER SECTION 28 OF THE FACTORIES ACT 1948)	
1. Name of Occupier of Factory	M/s Rainbow Leathers
2. Address of factory	Plot No. 45, Leather Complex, Kapurthala Road, Jalandhar (Pb.)
3. Distinguishing marks (if any) & description sufficient to identify lifting machine, chain, rope or tackle	Goods Lift with Wire Rope Hoist, Id No.: ML-01, Cap.: 1 Ton, Wire Rope Dia: 17 mm x 2 falls, Mr.: Local Mr. Location: Near Main Gate
4. Date when the lifting machine, chain, rope or tackle was first taken into use in the factory	2019
5. Details of certificate relating to test and examination made under sub-sections (1) & (7)	Thorough physical examination and load test conducted
6. Date of last periodical thorough examination made under sub-section (4) of sub-section (1) and sub-rule (5) and by whom carried out	First time tested by us on 02.03.2021
7. Date of annealing or heat treatment of the chain or tackle made under sub-rule (5) and by whom carried out	Not Applicable
8. Particulars of any defects affecting any such through examination or after annealing and of the steps taken to remedy such defects	No Defects. Equipment is in good working condition
I certify that on 02.03.2021, I thoroughly examined the lifting machine, chain, rope or tackle and the above is true report of the examination.	
TEST CERTIFICATE No. KD/2021/RL/06	
Next due date: 01.09.2021	
 For K D SAFETY CONSULTANTS DAVINDER KUMAR CHUGH Competent Person	

Table 14

Chemical Purchase/Storage N/A		
Permit Number		
Issuing Authority		
Date Permit Expires		
Parameter	Permit Limit	Recorded Value (average)
Any other relevant conditions:		

Table 15

Date IPE check completed Chinese companies only	N/A
Date pre-audit Internet search completed	22/03/2021- no findings

LWG Pre-Audit Internet Search

Company and address used for search (list if multiple)	M/s. Rainbow Leathers Plot No. 45, Leather Complex, Kapurthala Road, Jalandhar – 144 021 Punjab (India) (Also Sara Leathers at same address)
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Search Options	Pages searched	Any Environmental Violations in the 18 month period prior to planned audit Ref below (Action)	No Violations
"Name" + "Pollution"	3	N/A	0
"Name" + "Violation"	3	N/A	0
"Name"	3	N/A	0

Any other relevant items identified.	N/A
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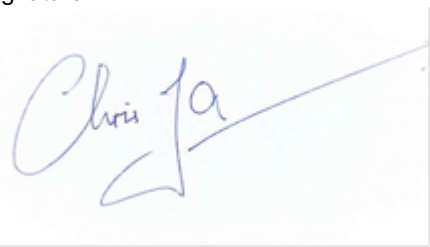
Action N/A	Customer contacted N/A
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Feedback from customer if relevant N/A
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Date of search	22 March 2021
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Geographical location of search	Cawnpore, India
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Search engine used if Google not available	Google
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Search conducted by (Auditor Name): Chris Jacklin	Signature: 
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Go to www.ipe.org.cn . You should get a picture and at the top are some Chinese characters. Click on the one that says pollution map (污染地图). A map of China should appear and on the upper right hand side of the screen there is an orange button with Chinese characters. In the white area in front of the orange button, enter the company's name in Chinese characters. Use a business card to check that the name is correct. When you click the orange button, if there is anything against this company it will show up on the lower part of the screen, under the paler blue line. The dark line at the top, with the few boxes of characters underneath explains the search result.

3	Have there been any regulatory environmental enforcement actions or fines in the past 18 months? There is a Guidance Note associated with this question			
	Cumulative	Number of instances	Score per incident	score
A	Baseline score	N/A	0	100
B	Caution/warning/fine	0	-10	
C	Fine issued through the courts	0	-20	
D	Caution/warning/fine for which evidence of effective corrective action has been presented	0	+ 8	
E	There have been no actions or fines but the company has failed to provide evidence that it is acting in accordance with permit conditions and/or legislation	0	-100	
Total				100
If yes, attach details and dates of past violations and regulatory actions N/A				

4 Did the company notify the auditor in writing (within 30 days) of all regulatory enforcement actions or fines (against itself or CETP if CETP is the route of discharge of effluent to the environment) occurring in the past 18 months (24 months if previously Gold rated in a P6 audit)? State number of instances if response is B or D (only applicable in respect of cautions warnings or fines issued after 01 March 2015)				
			Score per instance (if response is B or D)	score
A	No written cautions, warnings, prosecutions or any form of regulatory action have been taken against the company		0	
B	Written cautions, warnings, prosecutions or other form of regulatory action have been taken against the company but the company have advised the audit body of ALL of them (within 30 days)	Number of instances	0	
C	This is the first audit for the company therefore no prior requirement or undertaking was in place to notify the audit body of regulatory enforcement actions	✓	0	0
D	Written cautions, warnings, prosecutions or other form of regulatory action have been taken against the company but the company has not advised the audit body of one or more of them (within 30 days)	Number of instances	-20	
Total				0
State details and dates of past violations and regulatory actions N/A				

5 How frequently do the regulatory authorities visit to check that the site is operating in accordance with the permit conditions?		
	Number of times per year	1 time
	Provide evidence and indicate date of the last visit	(Date)
A	In last 6 months Mr. Arun Kakkar (Environmental Engineer)	18/03/2021
B	In last 12 months	
C	In last 18 months	
D	Not done	

6 Did any enforcement actions or improvement requirements result from the last visit?		
A	No	✓
B	Yes – violations have occurred (provide details below)	
Request sight of visit report from the regulatory authority. There is no action and report		
Corrective actions N/A		

7	Is the facility operating within the designated limits of its permit or any other pertinent legislation or restriction (i.e. is the facility complying with permit requirements, local/national regulations, local/national emissions limits etc.)?	
A	Evidence has been presented that suggests that the factory has been operating well within consent limits during the 24 months prior to the audit	✓
B	Evidence has been presented that indicates that the factory has not been operating within consent limits during the 24 months prior to the audit, but that the issues have been addressed, the tannery is currently operating in compliance with permit conditions as well as local and national legislation <u>and</u> a positive score has been recorded in question 3.	
C	No evidence has been presented to demonstrate compliance	Automatic Audit Failure
D	Conclusive evidence has been found that demonstrates that the facility is not currently in compliance with one or more of its operating permits	Automatic Audit Failure
E	A negative score has been attained.	Automatic Audit Failure
	<p>Evidence will 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>In the event of response “C”, “D” or “E” leading to automatic audit failure the remainder of the audit will proceed. In this event all information may be used to support improved performance in a subsequent audit, however any subsequent audit will be a FULL audit. None of the data gathered during this audit may be used.</p>	

Operating Permits		
Max score (total) >>> 100		Actual
Q3	100	100
Q4	0	0
	Total recorded >>>	100

3 TANNERY DATA

This section is to be completed by all categories.

[There is a Guidance Note associated with this section](#)

This section is designed to connect the leather supply chain together and assess the risk and rating of those that are supplying part-processed and raw material. For those starting from part-processed material, their supplier's engagement with the LWG audit process will be assessed.

Note - some questions may not be applicable to certain tanneries.

All tanners will answer all applicable questions. In some cases questions are not applicable but all tanners are capable of attaining the maximum score of 100 through the pro-rata scoring of those questions that are applicable to each type of operation. Tanners undertaking operations that fall into a combination of categories will also answer all applicable questions which will similarly be scored on a pro-rata basis.

Please provide data on production volumes. Do not double-count hides when entering the data below (i.e. firms that only process hides from the beamhouse through finishing should provide that data only).

The following definitions of subcontracting are to be applied for Q9

Sub-contracting

LWG defines sub-contracting as the arrangement whereby one organisation contracts with another, independent organisation for one or more operations to be undertaken (with or without payment). Organisations within a group of companies are not considered independent of each other and operations undertaken between them are not considered to be sub-contracting arrangements. Organisations belonging to the same holding company are not considered independent of each other and operations undertaken between them are not considered to be sub-contracting arrangements. **Alternative definitions of sub-contracting are not accepted.**

Sub-contracting out

This is where an auditee arranges for work to be undertaken on its behalf by another, third party organisation. In this instance assessment of the sub-contracted operations will be required. Depending on the work sub-contracted out different levels of assessment may be required.

Sub-contracting in

This is where an auditee undertakes work on behalf of another, third party organisation.

Sub-contracting examples are given in Appendix I

Verification of amount of material obtained from traders

Definitions:

Trader: Any organisation that purchases (or processes) tanned hides or splits and then sells these to another party. There may be no work carried out on the tanned hides / splits ; or there may be operations (e.g. grading, splitting, shaving, etc). Either type of operation may be considered to be a trader.

For those tanneries sourcing part-processed material from traders there will be a requirement for the auditor to verify whether or not the supplying trader is an LWG Approved trader, the category of the trader and the amount of material obtained from the trader. The auditor of the tannery will need to make contact with the auditor of the LWG Approved Trader(s) to verify that the quantity of material that the tanner indicates as being received in the audit period corresponds with what the trader claims to have provided. The auditor of the tannery will only correspond with the auditor(s) of the trader(s). Any data is to remain confidential between these two auditors. It should be noted that audit periods between trader audits and tannery audits may not always be the same and auditors should be satisfied of the validity of data provided.

There are two types of trader: "Separated Storage Trader" (previous A-trader) where a separation of LWG material is demonstrable and "Combined Storage Trader" (previous B-trader) where LWG material and non-LWG material is processed together.

If a leather manufacturer sources material from a paper trader (i.e. a trader that buys/sells material without receiving or storing it in his facility), then a score will only be allowed if there is clear evidence of the material originating from a LWG approved facility, and shipped direct to the leather manufacturer being audited. Evidence required will include shipping Bills of Lading, Invoices, Packing Notes, etc. It is the leather manufacturer's responsibility to produce this evidence at audit, otherwise the material score will not be allowed.

1	<p>The production, energy usage and water consumption aspects of the audit are based on 12 consecutive months' worth of data. These should be the most recent 12 months for which data is available, the last of which <u>must not</u> be more than three months prior to the audit (i.e. an audit undertaken in June would use data from no earlier than the preceding period April to March)</p>	12 months
	Indicate the twelve month period for which data is being presented	
	From	Feb-2020
	To	Jan-2021

For processors of un tanned material, the main calculation should be based on fleshed weight. Conversion factors are embedded in the following table

		Actual wt	Converted wt
Bovine	Green fleshed weight	0	0
Bovine	Green weight (unfleshed rawstock)	0	0
Bovine	Salted (pre-fleshed)	0	0
Bovine	Salted (unfleshed)	0	0
Bovine	Brine cured (pre-fleshed)	0	0
Bovine	Brine cured (unfleshed)	0	0
	Total weight	0	0
Goat	Green fleshed weight	0	0
Goat	Green weight (unfleshed rawstock)	0	0
Goat	Salted (pre-fleshed)	0	0
Goat	Salted (unfleshed)	0	0
Goat	Brine cured (pre-fleshed)	0	0
Goat	Brine cured (unfleshed)	0	0
	Total weight	0	0
Sheep/pigskins	Green fleshed weight	0	0
Sheep/pigskins	Green weight (unfleshed rawstock)	0	0
Sheep/pigskins	Salted (pre-fleshed)	0	0
Sheep/pigskins	Salted (unfleshed)	0	0
Sheep/pigskins	Brine cured (pre-fleshed)	0	0
Sheep/pigskins	Brine cured (unfleshed)	0	0
	Total weight	0	0

Rainbow Leathers - Crust to Finished Leather - Production Analysis Report																
From Feb-2020 to Jan-2021																
Month	Cow Total Production			Cow Suede Total Production			Skins Total Production			Total Production			Energy Consumption Report	Water Details		
	Pcs	Sq.ft.	IN M2	Production Pcs	Production Sq.ft.	IN M2	Production Pcs	Production Sq.ft.	IN M2	Production Pcs	Production Sq.ft.	IN M2	Electricity Unit	In Coming Fresh Water Ltrs	Consumption Production Consumption Ltrs	Out Going ZLD
Feb-20	288	4608.0	428.09	6545	31416.0	2918.62	1577	8515.8	791.14	8410.00	44539.80	4137.85	6124	8270	8270	850
Mar-20	344	5504.0	511.33	4454	21379.2	1986.18	332	1792.8	166.56	5130.00	28676.00	2664.07	3781	8177	8177	820
Apr-20	78	1248.0	115.94	332	1593.6	148.05	107	577.8	53.68	517.00	3419.40	317.67	597	1098	1098	90
May-20	60	960.0	89.19	6999	33595.2	3121.07	276	1490.4	138.46	7335.00	36045.60	3348.72	5062	6776	6776	670
Jun-20	1766	26490.0	2460.98	1656	8114.4	753.85	1255	6777.0	629.60	4677.00	41381.40	3844.43	5472	9877	9877	987
Jul-20	644	9016.0	837.61	1999	9495.3	882.13	2454	11779.2	1094.31	5097.00	30290.45	2814.05	4174	8160	8160	812
Aug-20	1344	17472.0	1623.19	7965	35046.0	3255.85	2633	10795.3	1002.91	11942.00	63313.30	5881.95	8217	5881	5881	588
Sep-20	3571	48922.7	4545.03	7786	35815.6	3327.35	898	4220.6	392.10	12255.00	88958.90	8264.48	10559	9900	9900	990
Oct-20	2787	37624.5	3495.40	10456	50188.8	4662.65	666	3396.6	315.55	13909.00	91209.90	8473.61	11499	9150	9150	915
Nov-20	667	9404.7	873.72	14888	59552.0	5532.52	1856	9280.0	862.13	17411.00	78236.70	7268.37	10313	8111	8111	811
Dec-20	675	10597.5	984.53	9221	45182.9	4197.59	1269	6738.4	626.01	11165.00	62518.79	5808.14	6330	9011	9011	901
Jan-21	1964	29263.6	2718.65	12699	58034.4	5391.53	1323	7157.4	664.94	15986.00	94455.46	8775.13	11144	9565	9565	956
Total	14188	201111.00	18683.67	85000	389413.38	36177.39	14646	72521.32	6737.40	113834	663045.70	61598.45	83272	93976	93976	9390

2	Provide an as accurate as possible breakdown of species of animal hide/skin processed		
	Actual weights to be entered in the conversion table above then transferred to this question		
		tonnes	m ²
A	Bovine Cow Crust	-	18,683.67
B	Exotics		
C	Hair-on hides/skins		
D	Hair sheep and goat		
E	Cow Split Crust	-	36,177.39
F	Pigskin		
G	Wool-on Sheepskin		
H	Other Skins Crust	-	6,737.40
			30.33%
			58.73%
			10.94%

* The tannery processes from crust to finished and weight measurement are not taken

3	Production type (input into work, not purchases)	Type of animal	Number of skins/hides per year	Weight of skins /hides per year
A	Fresh hides			
B	Brined hides			
C	Wet or dry Salted hides			
D	Limed splits			
E	Pickled hides and/or skins			
F	Wet blue hides			
G	Wet white / Wet Green			
H	Crust hides	Cow	14,188	-
I	Splits (tanned)			
J	Splits (crust)	Cow Split	85,000	-
K	Small skins fresh			
L	Small skins salted Crust	Skins	14,646	-

* Average area per pieces of Cow: 14.17 sq.ft.

* Average area per pieces of Suede: 4.58 sq. ft.

* Average area per pieces of Skins: 4.95 sq.ft.

4a	Indicate activities and annual production performed by the facility. Note – the energy and water scores are based on the amount of leather MADE, not the amount of leather sold. The energy and water scores for category “A” tanners may be based on weight or area. If the tannery operations include both “A” and other category outputs the energy and water scores will need to be based on area. In such cases reliable data relating to the area of unsplit wet blue will need to be provided. There is a Guidance Note associated with this question		
		Weight	Area (m ²)
A	Raw, limed, pickled hide to tanned		
B	Raw, limed, pickled hide to crust		
C	Raw, limed, pickled hide to finished leather		
D	Tanned hide to finished leather		
E	Crust hide to finished leather		61,598.45
F	Tanned hide to crust leather		
G	Raw hide/skin to pickled/pre-tanned material		

4b	Scale of operations – is the company a small or large manufacturer (as determined by mass of input/area of output)?	
	This question is for the purposes of LWG sub-group classification	
Insert input/output data as appropriate (based on responses in section 3)	Mass of input (tonnes)	Area of output (m ²)
“Small Leather Manufacturer” less than 7,000 tonnes (greenfleshed) input / year Output less than 1,000,000 m ² per year		✓ 61,598.45 m ²
“Large Leather Manufacturer” more than 7,000 tonnes (greenfleshed) input / year Output more than 1,000,000 m ² per year		

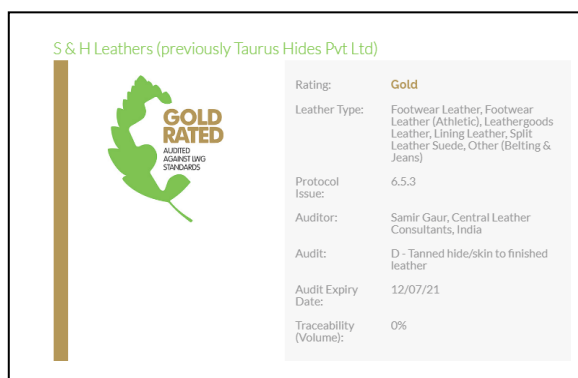
5	Provide an as accurate as possible breakdown of weight/substance of leathers made (not Category A)			
		Factor	%	
A	Up to 1.2 mm	0.010	100	1
B	1.21 – 1.6 mm	0.014	0	0.0
C	1.61 – 2.0 mm	0.018	0	0.0
D	2.01 – 2.4 mm	0.022	0	0.0
E	2.41 – 2.8 mm	0.026	0	0.0
F	2.81 mm +	0.030	0	0.0
	Average thickness <i>(Right click on mouse and update field for each grey shaded cell)</i>			1

6a	Please indicate which of the following types of leather manufacturing operations apply				
		Chrome tanned	Vegetable tanned	Chrome free	% Of output
A	Automotive Leather				
B	Chamois Leather				
C	Clothing Leather				
D	Contract Tanning				
E	Footwear Leather	41.27	-	-	41.27%
F	Footwear Leather (Athletic)				
G	Leather goods Leather				
H	Lining Leather				
I	PU Coated Split				
J	Split Leather Suede	58.73	-	-	58.73%
K	Upholstery Leather				
L	Vegetable Tanner				
M	Wet Blue Producer				
N	Wet Blue Splits				
O	Woolskins				
P	Chrome Free				
Q	Other (please specify)				

Articles to be listed in the website: Cow Grain Leather, Cow Split Suede Leather, Sheep Leather

6b	Is any leather produced at another site and sold using this site's name/paperwork/tax code?	
A	No	✓
B	Yes, at a LWG audited facility with the same audit scope. The overall final result for the entire audit will need to be pro-rated in relation to the proportions manufactured at this site and elsewhere, and in accordance with the scores indicated in table 9	
C	Yes, at a LWG audited facility with a different audit scope. The overall final result for the entire audit will be based upon the rating of the poorest performing facility	
D	Yes, at a non-LWG audited facility.	Automatic Fail

7	Are any significant construction projects or process/manufacturing or utility changes planned in the next 3 years that will require environmental review, action or modification?	
	If applicable please note details of the most likely environmental impacts based upon specific planning/development requirements.	
1	ERP to control the Process and Chemical Savings and as well as for traceability	
2	Solar panels for power generation.	
3		
4		
5		



8a(i)	List all of the supplying LWG audited tanners (Q 9, supplier categories A to D)			
	Hides/Sides/Skins			
	Tannery	Location (town)	LWG Rating	% of supply chain
1	S & H Leathers	Ranipet	Gold	30.33%
2				
3				
4				

Sara International (Rainbow Leathers) - Purchase Cum Production Details										
Origin	Inv No.	Date	Supplier Name	Animal	Purchase Pcs	Purchase Sq.ft.	% of Production	LWG Medal	LWG Rating	Score
Indian	AXA-108/19-20	21-Jan-20	AxA Leather Group	Sheep Crust	3259	16259.0	1.8%	Gold	1	1.85
Indian	AXA-133/19-20	27-Feb-20	AxA Leather Group	Sheep Crust	1315	5838.5	0.7%	Gold	1	0.66
Indian	AXA-024/20-21	26-Jun-20	AxA Leather Group	Sheep Crust	4566	21779.9	2.5%	Gold	1	2.48
Indian	AXA-051/20-21	12-Sep-20	AxA Leather Group	Sheep Crust	3400	17136.0	1.9%	Gold	1	1.95
Indian	AXA-096/20-21	2-Dec-20	AxA Leather Group	Sheep Crust	5644	26921.9	3.1%	Gold	1	3.06
Indian	INV277	9-Jan-20	S & H Leathers	Cow Printed	4922	73830.0	8.4%	Gold	1	8.39
Indian	INV277	9-Jan-20	S & H Leathers	Cow Suede	6988	31096.0	3.5%	Gold	1	3.53
Indian	INV303	27-Jan-20	S & H Leathers	Cow Suede	12781	56875.5	6.5%	Gold	1	6.47
Indian	INV477	21-Feb-20	S & H Leathers	Cow Suede	16597	81531.7	9.3%	Gold	1	9.27
Indian	INV511	11-Jun-20	S & H Leathers	Cow Suede	11194	53395.3	6.1%	Gold	1	6.07
Indian	INV477	21-Feb-20	S & H Leathers	Cow Printed	3565	53475.0	6.1%	Gold	1	6.08
Indian	INV699	6-Aug-20	S & H Leathers	Cow Suede	11186	54992.5	6.3%	Gold	1	6.25
Indian	INV699	6-Aug-20	S & H Leathers	Cow Printed	4890	73350.0	8.3%	Gold	1	8.34
Indian	INV731	6-Sep-20	S & H Leathers	Cow Suede	15170	74657.5	8.5%	Gold	1	8.49
Indian	INV756	13-Oct-20	S & H Leathers	Cow Suede	17362	83837.9	9.5%	Gold	1	9.53
Indian	INV901	11-Dec-20	S & H Leathers	Cow Suede	14651	69805.0	7.9%	Gold	1	7.94
Indian	INV901	11-Dec-20	S & H Leathers	Cow Printed	5661	84915.0	9.7%	Gold	1	9.65
Total					143,151	879,696.64	100.00%			100.00
Supplier Wise Rating Details										
Supplier Name	Pcs	Sq.ft.	%	LWG Medal	LWG Rating	Score				
AxA Leather Group	18,184	87,935	10.00%	Gold	1	10.00				
S & H Leathers	124,967	791,761	90.00%	Gold	1	90.00				
	143151	879696.64	100.0%			100.0				

8a(ii)	List all of the supplying LWG audited tanners (Q 9, supplier categories A to D)				
	Splits				
	Tanners from whom part-processed material is obtained	Location (town)	part-processed material type (limed, w/b, crust etc.)	LWG rating	% of supply chain
1	S & H Leathers	Ranipet	Crust	Gold	58.73%
2					
3					
4					
5					

8b(i) N/A	State number of unaudited tanners (Q 9, supplier categories E)			
	Hides/Sides/Skins			
	Number of unaudited tanners	Type of material supplied (wet blue, crust etc)	LWG Rating	% of supply chain
1	1	crust	unaudited	10.94%

8b(ii) N/A	State number of unaudited tanners (Q 9, supplier categories E)			
	Splits			
	Number of unaudited tanners	Type of material supplied (wet blue, crust etc)	LWG Rating	% of supply chain
1			unaudited	

8c N/A	List all of the supplying LWG audited processors to pickle (Q 9, supplier categories F to I)			
	Processor	Location (town)	LWG Rating	% of supply chain
1				
2				
3				
4				
5				

8d N/A	State number of unaudited processors to pickle (Q 9, supplier category J)			
	Number of unaudited processors to pickle	Type of material supplied (sheep, goat, kangaroo etc)	LWG Rating N/A	% of supply chain
1			unaudited	

8e N/A	List all of Separated Storage traders from whom part-processed material originating from LWG audited sources is obtained for further processing, (Q 9, supplier category K1)			
<i>Note – the auditor is required to verify quantities with the auditor(s) of the traders. The audit result at the time of the audit is therefore only indicative and is subject to the volumes being confirmed.</i>				
	Trader from whom part-processed material is obtained	Location (town)	Part-processed material type (limed, w/b, crust etc.)	% of supply chain
1				
2				
3				
4				
5				
Auditor has consulted auditor(s) of traders and confirmed quantities traded reliable (Y/N)				

8f N/A	List all of Separated Storage traders from whom part-processed material originating from non-LWG audited sources is obtained for further processing, (Q 9, supplier category K2)			
<i>Note – the auditor is required to verify quantities with the auditor(s) of the traders. The audit result at the time of the audit is therefore only indicative and is subject to the volumes being confirmed.</i>				
	Trader from whom part-processed material is obtained	Location (town)	Part-processed material type (limed, w/b, crust etc.)	% of supply chain
1				
2				
3				
4				
5				
Auditor has consulted auditor(s) of traders and confirmed quantities traded reliable (Y/N)				

8g N/A	List all of Combined Storage traders from whom part-processed material is obtained for further processing, (Q 9, supplier category K3)			
<i>Note – the auditor is required to verify quantities with the auditor(s) of the traders. The audit result at the time of the audit is therefore only indicative and is subject to the volumes being confirmed.</i>				
	Trader from whom part-processed material is obtained	Location (town)	Part-processed material type (limed, w/b, crust etc.)	% of supply chain
1				
2				
3				
4				
5				
Auditor has consulted auditor(s) of traders and confirmed quantities traded reliable (Y/N)				

8h N/A	State number of unaudited traders from whom part-processed material is obtained for further processing, (Q 9, supplier category K4)			
	Number of Traders from whom part-processed material are obtained		Part-processed material type (limed, w/b, crust etc.)	% of supply chain
1				

8i(i) N/A	State number of small skins tanners from whom tanned skins are obtained for further processing, (Q 9, supplier category L1)				
	Prior to 01 October 2018				
	Number of tanners from whom skins are obtained	Skin type (sheep, goat etc.)	Skin type (limed, w/b, crust etc.)	(default score 65)	% of supply chain
1					

8i(ii) N/A	State number of small skins tanners from whom tanned skins are obtained for further processing, (Q 9, supplier category L2)				
	After 01 October 2018				
	Number of tanners from whom skins are obtained	Skin type (sheep, goat etc.)	Skin type (limed, w/b, crust etc.)	(default score 0)	% of supply chain
1					

9 State the percentage of your hide/skin supply chain for the past 12 months from each of the sources listed below (The production, energy usage and water consumption aspects of the audit are based on 12 months' worth of data).				
Part processed (tanned) material processed on a sub-contract in basis is not included in the scoring for this question				
		%	Score per %	Overall score (% x score)
A	Crust material obtained from LWG Gold rated suppliers	89.06%	1	89.06
B	Tanned material obtained from LWG Silver rated suppliers		0.9	
C	Tanned material obtained from LWG Bronze rated suppliers		0.8	
D	Tanned material obtained from LWG audited suppliers (pass)		0.7	
E	Tanned material obtained from Non-LWG certified suppliers	10.94	0	10.94
F	Pickled material obtained from LWG Gold rated suppliers		0.2	
G	Pickled material obtained from LWG Silver rated suppliers		0.18	
H	Pickled material obtained from LWG Bronze rated suppliers		0.16	
I	Pickled material obtained from LWG audited suppliers (pass)		0.14	
J	Pickled material obtained from Non-LWG certified suppliers		0	
	<i>For material from traders use score applicable to type of material processed of material</i>		Trader score /100	
K1	Part-processed material from traders ("Separated Storage" (formerly Type "A") material LWG origin)			
K2	Part-processed material from traders ("Separated Storage" (formerly Type "A") material non-LWG origin)		0	
K3	Part-processed material from traders ("Combined Storage") (formerly Type "B")			
K4	Part-processed material from traders (not LWG approved)		0	
L1	Skins (tanned) – acquired prior to 01 October 2018		0.65	
L2	Skins (tanned) – acquired after 01 October 2018		0	
M	Raw/cured hides/skins/splits (including sub-contract-in work) (go to Q10)		0	
		100%		
			Total	89.06

10 What proportion of final output is		
		%
A	Tanned on site	
B	Tanned prior to receipt by the company (If 100% do not complete questions 11-15)	100
C	Processed only to pickled condition (If 100% do not complete questions 11-15) Section score to be recorded as "Not Applicable"	

11 N/A	Tanning method is a			
	(expressed as a proportion of <u>total</u> 12 month output)	%	score per %	attained
A	Chrome tanning method		0	
B	Chrome free tanning method Process commences from raw/cured Processing only as far as pickle (go to end of section if 100%)		1	
D	Chrome free tanning method Process commences from pickled		0.8	

12a N/A	The chrome content of the leather tanned on-site is measured Applies to tanners starting with raw/cured material			
	(expressed as a proportion of chrome tanned leather out of <u>total</u> output)	% of total	score per %	attained
A	Routinely, (at least once a week)		0.1	
B	At least once a month		0.08	
C	At least once every three months		0.05	
D	Only when making technical changes, modifying the process.		0.03	
E	Less than 4 times per year		0	

12b N/A	The chrome content of the leather tanned on-site is measured Applies to tanners starting with pickled material			
	(expressed as a proportion of chrome tanned leather out of <u>total</u> output)	% of total	score per %	attained
A	Routinely, (at least once a week)		0.080	
B	At least once a month		0.064	
C	At least once every three months		0.040	
D	Only when making technical changes, modifying the process.		0.024	
E	Less than 4 times per year		0	

13a N/A	The chrome content of the end of tanning liquor is measured Applies to tanners starting with raw/cured material			
	(expressed as a proportion of chrome tanned leather out of <u>total</u> output)	% of total	score per %	attained
A	Routinely, (at least once a week)		0.1	
B	At least once a month		0.08	
C	At least once every three months		0.05	
D	Only when making technical changes, modifying the process.		0.03	
E	Less than 4 times per year		0	

13b N/A	The chrome content of the end of tanning liquor is measured Applies to tanners starting with pickled material			
	(expressed as a proportion of chrome tanned leather out of <u>total</u> output)	% of total	score per %	attained
A	Routinely, (at least once a week)		0.080	
B	At least once a month		0.064	
C	At least once every three months		0.040	
D	Only when making technical changes, modifying the process.		0.024	
E	Less than 4 times per year		0	

14a N/A	<p>What percentage of the chrome purchased by the tannery for use in tanning of raw/cured hides/skins is utilised or treated in such a way that it does not enter the environment?</p> <p>The chrome discharged into the environment (directly into water courses or onto land) must be taken into account. The chrome waste that is rendered safe (i.e. by being deposited into regulated landfill, used in cement manufacture etc.) may be excluded.</p> <p>Applies to tanners starting with raw/cured material</p> <p>There is a Guidance Note associated with this question</p>		
% chrome utilised	score		
	$\text{score} = \frac{((\% \text{ utilised} \times 4.2553) - 342.98) \times \% \text{ of total output chrome tanned onsite}}{100}$ $\text{MAX Score} = \frac{80 \times \% \text{ of total output chrome tanned onsite}}{100}$		

14b N/A	<p>What percentage of the chrome purchased by the tannery for use in tanning of pickled hides/skins is utilised or treated in such a way that it does not enter the environment?</p> <p>The chrome discharged into the environment (directly into water courses or onto land) must be taken into account. The chrome waste that is rendered safe (i.e. by being deposited into regulated landfill, used in cement manufacture etc.) may be excluded.</p> <p>Applies to tanners starting with pickled material</p> <p>There is a Guidance Note associated with this question</p>		
% chrome utilised	score		
	$\text{score} = \frac{((\% \text{ utilised} \times 4.2553) - 342.98) \times \% \text{ of total output chrome tanned onsite} \times 0.8}{100}$ $\text{MAX Score} = \frac{64 \times \% \text{ of total output chrome tanned onsite}}{100}$		

15 N/A	<p>What is the frequency of testing of waste streams (discharged into the environment) used for the calculation in Q14?</p> <p>Note - this should include liquid wastes discharged to watercourses as well as slurries or solids applied to land.</p>			
	(expressed as a proportion of chrome tanned leather out of <u>total</u> output)	% of total	score per %	attained
A	Monthly		0	
B	Quarterly		-10	
C	Biannually		-20	
D	Annually		-40	
E	Less than Annually		-80	

Tannery Data		
Max score (total) >>>100		Actual
Q9	100	89.06
Q11	100	0
Q12a	10	0
Q12b	8	0
Q13a	10	0
Q13b	8	0
Q14a	80	0
Q14b	64	0
Q15	0	0
TOTAL <i>(Right click on mouse and update field)</i>		89.06

4 RAW MATERIAL TRACEABILITY

This section is to be completed by all categories.

This section assesses the ability of leather manufacturers to trace their raw material back to the specific slaughterhouse of origin. It also provides a breakdown of country of origin and a description of the traceability system used.

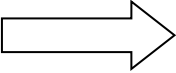
Processors of fresh, salted or brined hides.

Processors must be able to present documents that indicate the facility where slaughter occurred. Only those hides for which documentation can be presented that indicates that the entire consignment contains hides originating from the same (named) slaughterhouse, can be considered to be traceable.

Processors receiving hides in a part processed condition

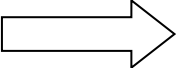
Consignments may be made up on the basis of weight or quality and may therefore be made up of several pallets of material each of which may or may not support hides originating from different process loads. Only those hides on individually marked pallets for which documentation can be presented that indicates that the entire pallet contains hides originating from the same (named) slaughterhouse, can be considered to be traceable.


1	<p>Is there a written procedure that describes the manner in which the organisation ensures traceability of incoming material to the slaughterhouse?</p> <p>Note – even if the hides/skins are technically traceable by virtue of being physically marked, for the purposes of this audit no material will be deemed to be traceable to the slaughterhouse unless a procedure is presented that describes in detail the manner in which traceability can be assured.</p>	Yes/No
A	Yes	
B	No	✓

2a N/A	<p>This question relates to hides/skins that are individually physically marked in a manner that identifies the slaughterhouse from where the hide/skin was obtained.</p> <p>List countries from which raw material has been obtained in the past 12 months.</p> <p>There is a Guidance Note associated with this question</p>								
List country from which hides/skins are obtained								Total percentage traceable to this level	overall score
 <p>% should be based on TOTAL input</p>									
% of hides/skins that are physically marked but traceable only to the country of origin									No score at this level
% of hides /skins that are physically marked and traceable to the slaughterhouse (note A)									
% of Brazilian hides physically marked, traceable to the slaughterhouse and include date of slaughter (note B)									
Score	% Traceability demonstrated during on-site audit activity								
<p>Note – even if the hides/skins are technically traceable by virtue of being physically marked, for the purposes of this audit no material will be deemed to be traceable to the slaughterhouse unless a procedure is presented that describes in detail the manner in which traceability to the slaughterhouse can be assured.</p>									

Note A This is a minimum requirement for all material

Note B This is a minimum requirement for all hides sourced from Brazil

2b	<p>This question relates to hides/skins that are NOT physically marked but which are accompanied by documentation that identifies the slaughterhouse from where the hide/skin was obtained.</p> <p>List countries from which raw material has been obtained in the past 12 months.</p> <p>There is a Guidance Note associated with this question</p>								
List country from which hides/skins are obtained  % should be based on TOTAL input	India							Total percentage traceable to this level ↓	overall score
% of hides/skins that are <u>not</u> physically marked but are traceable through documentation to the country of origin	100							100	No score at this level
% of hides /skins that are <u>not</u> physically marked but are traceable through documentation to the slaughterhouse (note A)									0
% of Brazilian hides /skins that are <u>not</u> physically marked but are traceable through documentation to the slaughterhouse and include date of slaughter (note B)									No score at this level
Score	% Traceability demonstrated during on-site audit activity								0
Note – even if the hides/skins are technically traceable by virtue of being physically marked, for the purposes of this audit no material will be deemed to be traceable to the slaughterhouse unless a procedure is presented that describes in detail the manner in which traceability to the slaughterhouse can be assured.									

3a 	Provide a detailed description of the traceability system(s) applicable to hides skins that are physically marked								
N/A									

3b	Provide a detailed description of the manner in which documents ensure that each entire consignment/pallet load can be shown to have come from the same (named) slaughterhouse.								
N/A									

4	<p>For those hides originating from Brazil, how does the company ensure that the meat packers from where the material originates meet minimum acceptable criteria which includes the following;</p> <p>The direct farms (within the Amazon Biome should have their complete boundary shape GPS registered by January 1st, 2015. The farms should not have been involved in any form of deforestation in the Amazon biome since October 5th, 2009. The map is available at: http://mapas.mma.gov.br/geodados/brasil/vegetacao/vegetacao2002/amazonia/mapas_pdf/cartas_imgem/mosaico/mosaico_a0.pdf The farms should not be involved in slave labour, invasion of indigenous lands and protected areas, or farms included in IBAMA's embargo list (www.ibama.gov.br)</p>	
Description of the system		
No hides from Brazil sourced		
A	There is a system that is fully implemented	0
B	There is a no system in place or one that is only partially implemented (fewer than 80% of supplying slaughterhouses have declared conformance with the above conditions	0


Raw Material Traceability		Percentage
Q2a	Percentage of material physically marked and traceable to the slaughterhouse	0
Q2b	Percentage of material not physically marked but traceable to the slaughterhouse through documentation	0
	Percentage of material not traceable to the slaughterhouse	100
TOTAL		0

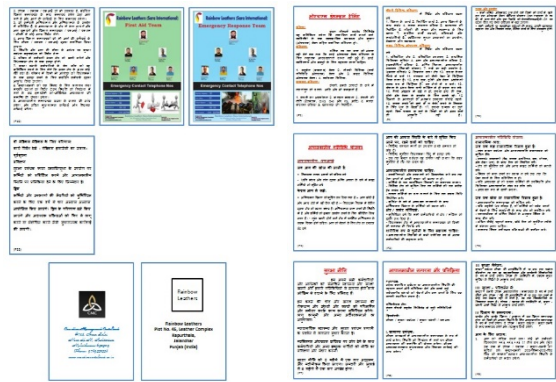
5 ENVIRONMENTAL MANAGEMENT SYSTEMS

This section to be completed by all categories.

This section assesses if the facility has a documented, effective and active system for managing the environmental aspects of their business.

For questions 3 to 8 partial scores are likely to be awarded if the evidence is weak or limited.

1 Is there a written environmental policy for the company?			
Lack of a written environmental policy will result in zero points for this entire section			
Policy Ref No. RL-SI-EMS-M 01 dt 19/02/2020		score	attained
A	<p>Yes</p> 	1	1
B	No (go to section 6)	0	

2 Has policy been communicated effectively to facility staff?			
Communicated via notice board and handbook to all staff		score	attained
A	<p>Yes</p> 	3	3
B	No	0	

3a Are there any written environmental procedures for			
Procedure Ref No. RL-SI-EMS-P01-EP 0302, dt. 19/02/2020		score	attained
A	Ensuring that the company is operating in accordance with legal and customer requirements	2	2
B	There are no written procedures	0	

3b Can the company provide evidence that the environmental procedures described in 3a have been implemented
 There is a Guidance Note associated with this question

score attained

Yes
Evidence #1
 Register of Legal & Other Requirements RL-SI-EOF/5.1A dt. 19/02/2021

Sr. No.	Legal Requirement	Ref. Doc. No. & Date	Responsibility	Submission to Obtained from Agency	Renewal Frequency	Next Date
1	The Hazardous and Other Waste (Management and Handling) Rules 2016 enacted under Environmental Protection Act, 1986 - Hazardous Waste	Ref No: NPH/16/2020-2021/512 Date: 12.03.2021	Mr. Prabhoo Singh	Ministry of Environment (Govt of India)	Five Years	28.08.2022
2	The Air (Prevention & Control of Pollution) Act 1981 and Rules 1983	Consent no: 0234/1131 Date: 18.02.2021	Mr. Prabhoo Singh	Punjab Pollution Control Board	Five Years	31.03.2024
3	The Water (Prevention & Control of Pollution) Act 1974 Amd 1988 and Rules 1975	Consent no: 0234/1131 Date: 18.02.2021	Mr. Prabhoo Singh	Punjab Pollution Control Board	Five Years	31.03.2024
4	Noise Pollution (Regulation and Control) Rules 2000, Amd 2002-2005 and Latest Amnd 2010		Mr. Prabhoo Singh	J.P. Test & Research Centre	3 months	
5	Indian Factories Act 1947	LNo: JKA01501 Date: 02.11.2020	Mr. Prabhoo Singh	Director of Factories (Punjab)	Two Year	31.12.2021

Evidence #2
 Evaluation of Compliance RL-SI-EOC-003, dt. 19/02/2020

S. No.	AIR CONSENT Special Additional	STATUS
1	The consent is not valid for getting power from the Punjab State Power Corporation Ltd or for getting loan from the regional institutions.	Completed
2	The industry shall comply with the consent conditions at all times for the entire life span of the consent.	Completed
3	The industry shall not violate any of the consent conditions unless the Air (Prevention & Control of Pollution) Act, 1981, and the consent conditions are amended.	Completed
4	The performance of the consent conditions shall be the responsibility of the industry.	Completed
5	The consent conditions shall not be changed without the prior written permission of the Board.	Completed
6	The industry shall not discharge any effluents. All gases shall be emitted through a stack of suitable height, as per the norms fixed by the Board from time to time.	Completed
7	The industry shall provide percolators, platforms and/or other necessary facilities as may be required for collecting samples of emissions from any chimney, stack or any other source.	Completed
Special Additional Conditions:		
1	The sweeping carts shall be provided at least 8 times chimney diameter dimension and 7 times upstream from the flow direction for a rectangular cross-section. The regulated diameter (RD) shall be indicated from the following equation to determine optimum dimension. (Dimension in mm)	Completed
2	The industry shall not discharge effluents into the environment or into the main drainage system.	Completed
3	The pollution control devices shall be interlocked with the manufacturing process of the industry to ensure its regular operation.	Completed
4	The existing pollution control equipment shall be altered or replaced in accordance with the directions of the Board, and no pollution control equipment or chimney shall be altered or as the case may be erected or re-erected except with the prior approval of the Board.	Completed
5	The industry shall provide canopy and adequate stack with the D/G set up as to comply with the provision of notification No. G.S. 111 of dated 17.5.2003 (revised) from time to time issued by MOEF under Environment (Protection) Act, 1986.	Completed
6	The Govt. of Punjab, Department of Science, Technology & Environment vide its notification no. 04/92-1537/819 dt. 29/10/1992 has put prohibition on the use of zinc bath in the effluents. I.C. 1992 except the following.	Completed
7	The industry shall submit balance sheet of energy consumed and to be consumed Regional Office by 10th June of every year.	Completed
8	As standards laid down by the Board from time to time for each type of industry. (Industry)	Completed
9	The industry shall ensure that the emissions from each stack shall conform to the following emission standards laid down by the Board in respect of the Industrial Sector.	Completed

A

8

8

Evidence #3
 Internal Specification of all two customer Specification as on RL-SI-3.0.0, dt. 24/10/2020

Class	Property	Method	Liner/Shoes PV Ltd	Kapsons World Wide	Minimum ECL Specifications
1	Azo Dyes, 24 Anil amine	ISO 18316, ISO 10753-2:2003	20mg/kg	30mg/kg	20mg/kg
1.1	Chromium VI	ISO 18316, ISO 17075-2007	<3mg/kg	<3mg/kg	<3mg/kg
1.2	Formaldehyde	ISO 18316, ISO 17075-2	75 mg/kg	<75 mg/kg	<75 mg/kg
1.3	Short chain chlorinated paraffin	ISO 18316, ISO 18316			100 mg/kg
1.4	Chlorinated phenol (PCP, TeCP, TCFP)	ISO 17070-2006			NO
1.5	Total Lead	Microwave Digestion KP-CES/MS			<100 mg/kg
1.6	Total Mercury	Microwave Digestion KP-CES/MS			<5 mg/kg
1.7	Total Cadmium	Microwave Digestion KP-CES/MS	100 mg/kg	100 mg/kg	<100 mg/kg
Extractable Heavy Metals					
1	Barium	Extraction with acetic acid/artificial sweat			<5.00 mg/kg
2	Antimony				<5.00 mg/kg
3	Selenium	DIN EN ISO 105-604			<5.00 mg/kg
4	Arsenic				<5.00 mg/kg
1.9	Dimethylformamide	CEN ISO/TS 18486			<2 mg/kg
2	SVHC	Extraction with acetone			<100 mg/kg

B

0

4a Are there any written environmental procedures for

Procedure Ref No. RL-SI-EMS-P01-EP 0303, dt. 19/02/2020

Ensuring at least two quantifiable environmental objectives are set

There are no written procedures/only one quantifiable objective is stated

score

attained

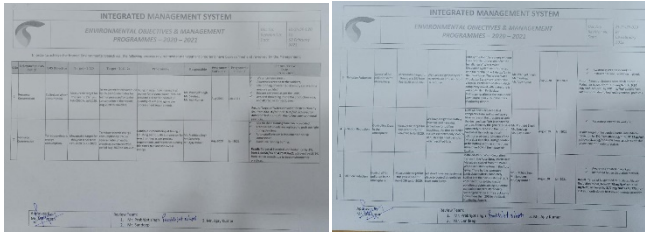
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0

4b	Can the company provide evidence that the environmental procedures described in 4a have been implemented for at least two objectives There is a Guidance Note associated with this question		
		score	attained

Yes



Evidence #1
Target of Water consumption Reduction by 5%, achieved from 2.61 Lt/m² to 1.16 Lt/m² by 44.00% Lt/m² from last six month due to best environmental practices.

This is a screenshot of an EMS Objective Realization report for 'Water Consumption Reduction'. It includes a table with columns for 'Month', 'Production (kg)', 'Water Consumption (liters)', and 'Consumption (liters/m²)'. The data shows a significant decrease in water consumption over the period from April 2019 to March 2020, with a final average consumption of 1.16 Lt/m².

Month	Production (kg)	Water Consumption (liters)	Consumption (liters/m ²)
Apr-19	4102	1074	2.61
May-19	4000	1074	2.68
Jun-19	3147	1074	3.41
Jul-19	3367	1074	3.19
Aug-19	3145	1074	3.41
Sep-19	3145	1074	3.41
Oct-19	3145	1074	3.41
Nov-19	3145	1074	3.41
Dec-19	3145	1074	3.41
Jan-20	3145	1074	3.41
Feb-20	3145	1074	3.41
Mar-20	3145	1074	3.41
Average	3145	1074	1.16

Evidence #2
Target of Electrical unit Reduction by 5%, achieved from 5.64 MJ/m² to 4.75 MJ/m², by 15.7% MJ/m² from last six month due to best environmental practices.

This is a screenshot of an EMS Objective Realization report for 'Electrical Unit Reduction'. It includes a table with columns for 'Month', 'Production (kg)', 'Electrical Unit (MJ)', and 'Consumption (MJ/m²)'. The data shows a decrease in electrical unit consumption over the period from April 2019 to March 2020, with a final average consumption of 4.75 MJ/m².

Month	Production (kg)	Electrical Unit (MJ)	Consumption (MJ/m ²)
Apr-19	4102	2320	5.64
May-19	4000	2320	5.80
Jun-19	3147	2320	7.37
Jul-19	3367	2320	6.89
Aug-19	3145	2320	7.37
Sep-19	3145	2320	7.37
Oct-19	3145	2320	7.37
Nov-19	3145	2320	7.37
Dec-19	3145	2320	7.37
Jan-20	3145	2320	7.37
Feb-20	3145	2320	7.37
Mar-20	3145	2320	7.37
Average	3145	2320	4.75

Evidence #3
Target of Suspended Particulates Matter Reduction on Auto Spray Stack by 5%, achieved from 14.75 mg/Nm³ to 11.98mg/Nm³, by 17.7% from last six month due to best environmental practices.

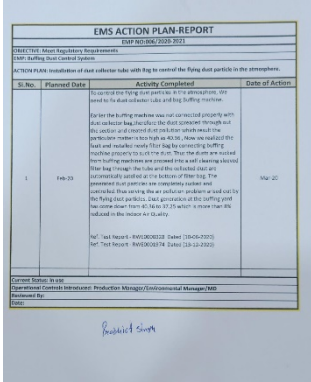
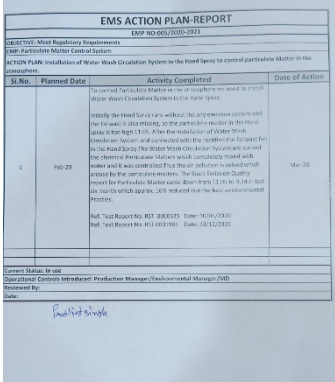
This is a screenshot of an EMS Action Plan Report for 'Suspended Particulates Matter Reduction on Auto Spray Stack'. It includes a table with columns for 'Sl.No.', 'Planned Date', 'Activity Completed', and 'Date of Action'. The report details the implementation of a water wash circulation system to reduce particulate matter emissions.

Sl.No.	Planned Date	Activity Completed	Date of Action
1	Feb-20	Installation of Water Wash Circulation System in the Auto Spray to control particulate matter in the atmosphere.	Mar-20

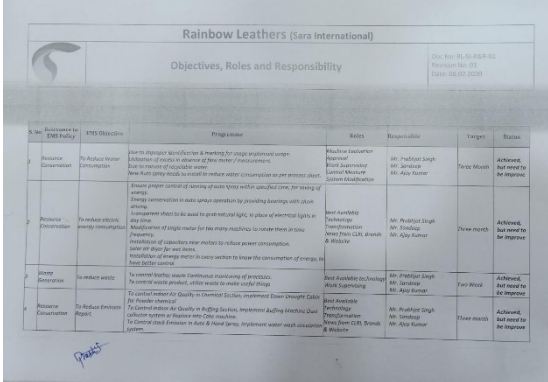
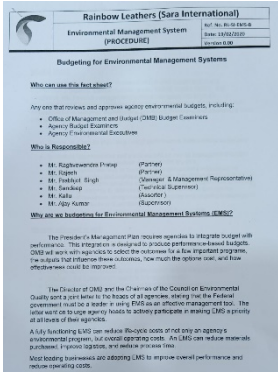
A

10

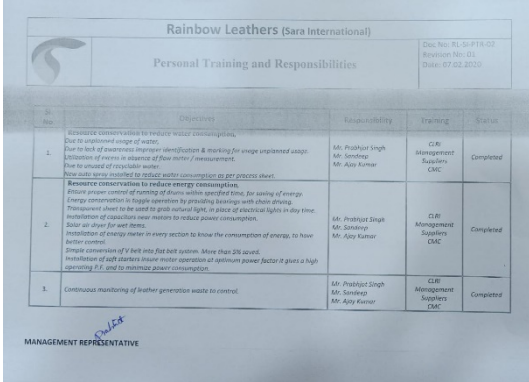
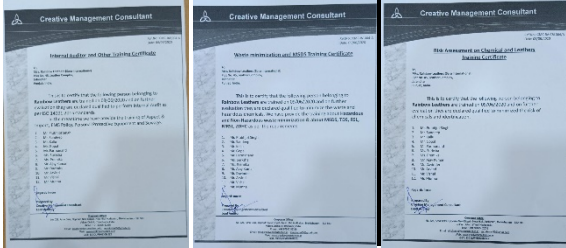
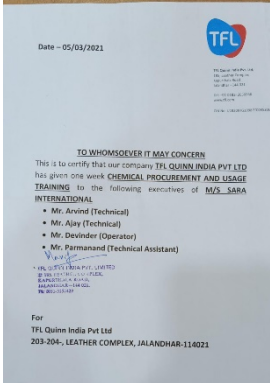
10

	<p>Evidence #4 Target of Suspended Particulates Matter Reduction on Buffing Section by 5%, achieved from 40.36 mg/Nm³ to 37.25 mg/Nm³, by 8.0% from last six month due to best environmental practices.</p>  <p>Evidence #5 Target of Suspended Particulates Matter Reduction on Hand Spray Stack by 5%, achieved from 11.05 mg/Nm³ to 9.24 mg/Nm³, by 16.0% from last six month due to best environmental practices.</p> 		
B	No/only one quantifiable objective has been addressed	0	

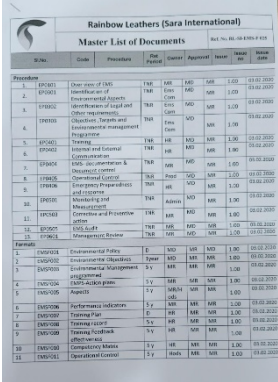
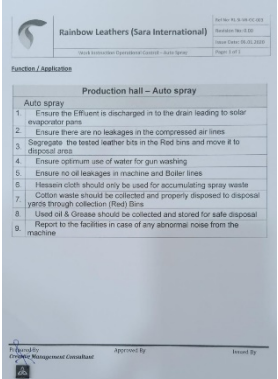
5a	Are there any written environmental procedures for Procedure Ref No. RL-SI-EMS-M01, dt. 19/02/2020	score	attained
A	Ensuring the resources, roles and responsibilities necessary to fulfil environmental objectives are established <i>(What is the procedure for determining budgets? What is the procedure for appointing individuals tasked with attaining the target of the objective? What is the procedure for determining what actions are expected of the people tasked with attaining the objectives?)</i>	4	4
B	There are no written procedures	0	

5b	Can the company provide evidence that the environmental procedures described in 5a have been implemented There is a Guidance Note associated with this question	score	attained
A	<p>Yes, there is evidence that the documented procedures are being followed</p> <p>Evidence #1 Roles and Responsibilities to meet environmental targets RL-SI-R&R-01 dt. 08/02/2020</p>  <p>Evidence #2 Approximately INR 2.5 million spent for implementation on improving environmental performance.</p> 	10	10
B	No	0	

6a	Are there any written environmental procedures for Procedure Ref No. RL-SI-EMS-P01-EP 0401, dt. 19/02/2020	score	attained
A	Ensuring that all personnel allocated to attaining environmental objectives are competent and trained	2	2
B	There are no written procedures	0	

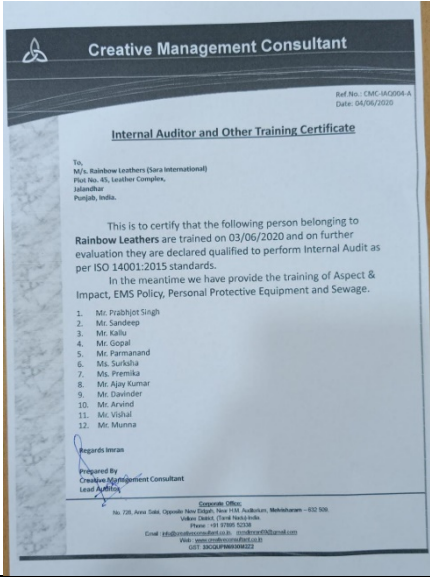
6b	<p>Can the company provide evidence that the environmental procedures described in 6a have been implemented There is a Guidance Note associated with this question</p>	score	attained
A	<p>Yes Evidence #1 Internal training to deals with environmental aspect Ref No. RL-SI-RTP-02 dt. 07/02/2020</p>  <p>Evidence #2 RSL, MRSL, ZDHC, Waste Minimization, Policies, and Chemical Handling training given by Creative Management Consultant. Ref. No. CMC-W-004-A dt.09/06/2020</p>  <p>Evidence #3 Chemical Handling Training from TFL and CMC</p> 	8	8
B	No	0	

7a	<p>Are there any written environmental procedures for Procedure Ref No. RL-SI-EMS-P01-EP 0404, dt. 19/02/2020</p>	score	attained
A	Ensuring that documentation associated with the EMS is correctly maintained	2	2
B	There are no written procedures	0	

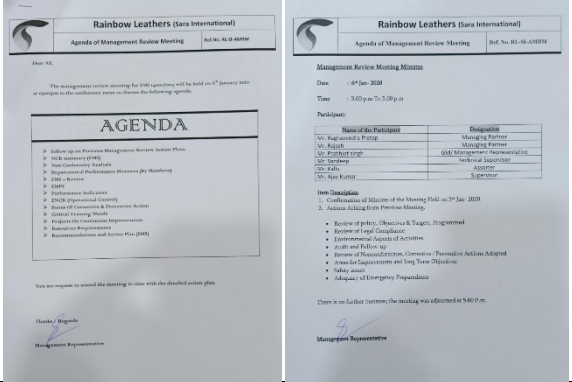
7b	Can the company provide evidence that the environmental procedures described in 7a have been implemented There is a Guidance Note associated with this question	score	attained
A	<p>Yes</p> <p>Evidence #1 Master list of documents reference No. RL-SI-EMS-F025 dt.03/02/2020</p>  <p>Evidence #2 Work Instruction is available nearest to the workers at all machines Ref No. RL-SI-WI-OC-010 dt.06/01/2020</p> 	8	8
B	No	0	

8a	Are there any written environmental procedures for Procedure Ref No.RL-SI-EMS-P01-EP 0505, dt.19/02/2020	score	attained
A	Ensuring that internal audits are undertaken at defined intervals by competent personnel	2	2
B	There are no written procedures	0	

8b	Can the company provide evidence that the environmental procedures described in 8a have been implemented NCR-EMSF020, Internal Audit IA-001 to IA-012	score	attained
A	Yes, internal audits are undertaken monthly	8	8
B	Yes, internal audits are undertaken quarterly	4	
C	Yes, internal audits are undertaken biannually	2	
D	Internal audits are undertaken but less frequently than twice a year	0	
E	No internal audits are undertaken	-8	

8c	Who carries out the audits?	score	attained
	Ref. No. CMC-IAQ0004-A, dt.04/06/2020		
A	<p>Nominated, trained internal auditor taken from a different area of the facility</p> 	4	4
B	Un-trained staff/training records unavailable	-2	

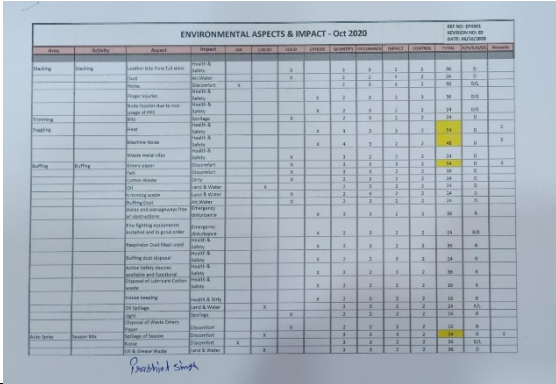
9a	Are there any written environmental procedures for	score	attained
	Procedure Ref No. RL-SI-EMS-P01-EP 0601, dt.19/02/2020		
A	Ensuring that management reviews are undertaken at defined intervals	2	2
B	There are no written procedures	0	

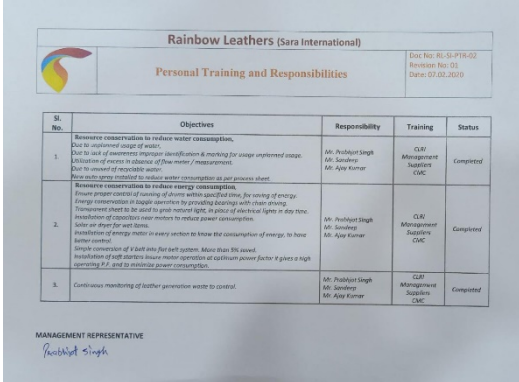

9b	Can the company provide evidence that the environmental procedures described in 9a have been implemented	score	attained
	Ref.No. RL-SI-MRM dt. 07/12/2020, 07/09/2020, 05/05/2020, 06/01/2020		
A	<p>Yes, reviews are undertaken quarterly</p> 	8	8
B	Yes, reviews are undertaken biannually	4	
C	Yes, reviews are undertaken annually	2	
D	No	0	

9c	Who sits on the management review committee? (describe position held in the company)
	Director, MR, Admin Staff, Production Technician

10	To whom does the person having primary responsibility for environmental issues at the site report (section 1, Q8)?	
A	Board of Directors	
B	Managing Director or Chief Executive	✓
C	Production or Technical Director	
D	No formal relationship	

11	Are environmental issues incorporated as part of employee training programmes?		
	Procedure Ref No. RL-SI-EMS-P01-EP 0401, dt. 19/02/2020	score	Attained
A	Yes	2	2
B	No	0	

12	Has the facility performed aspects and impacts analysis as part of its environmental management system?		
	Ref No. EP0301, dt.07/11/2019, 06/05/2020, 03/10/2020	score	attained
A	<p>Yes quarterly</p> 	4	4
B	No	0	

13	<p>Can the facility provide evidence that the aspects and impacts analysis (if undertaken) is being used to improve the environmental performance of the business?</p>	score	attained
A	<p>Yes Evidence #1 Total 106 Environmental Objectives derived based on the 23 significant analysis. Ref No.RL-SI-PTR-02 dt.07/02/2020</p>  <p>Evidence #2 23 significant Objectives derived based on the EMP's programmed. Ref No.RL-SI-EMS-FO-03, dt. 06/08/2020</p> 	10	10
B	No	0	


Environmental Management Systems		
Max score (total) >>>100		Actual
Q1	1	1
Q2	3	3
Q3a	2	2
Q3b	8	8
Q4a	2	2
Q4b	10	10
Q5a	4	4
Q5b	10	10
Q6a	2	2
Q6b	8	8
Q7a	2	2
Q7b	8	8
Q8a	2	2
Q8b	8	8
Q8c	4	4
Q9a	2	2
Q9b	8	8
Q11	2	2
Q12	4	4
Q13	10	10
	Total recorded >>>	100

6 RESTRICTED SUBSTANCES

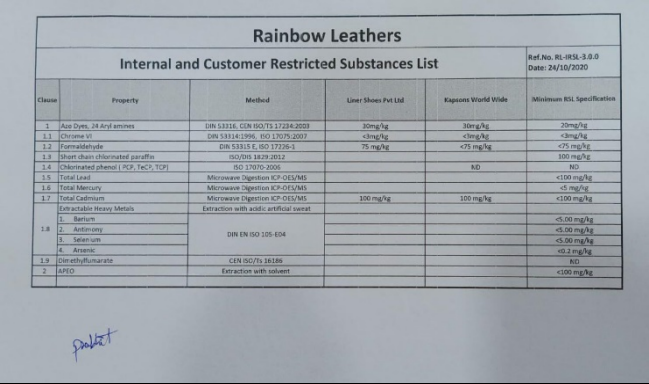
This section is to be completed by all categories.

This section assesses if the facility manages, understands and enacts the RS requirements of their customers. Or in the absence of specifications / requirements from customers, that the facility takes appropriate action to assess and manage RS risk themselves.

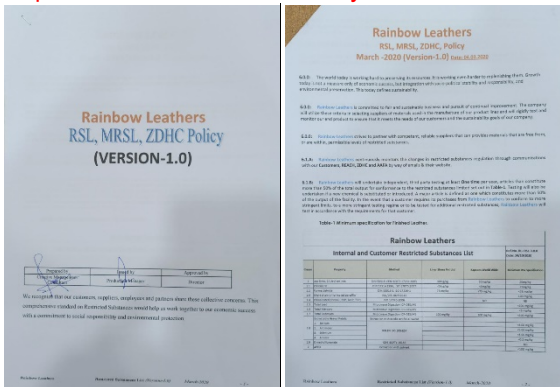
NOTE: In the next evolution of the Protocol, P7, the standalone Chemical Management Module (CMM) will be incorporated. This will include changes to this section relating to Chrome VI Management, inclusion of a new Chemical Management section and inclusion of a new Chemical Health & Safety section.

1	Is there a written restricted substances management system and/or set of written restricted substances procedures for the company which includes reference to the following?		
	<p>Cumulative Score</p> 	score	attained
A	How the organization ensures that it complies with customer requirements RSL Policy RL-SI-RSP-6.0.0 Clause 6.1.A <i>(Does the policy indicate how the company ensures that is conforming to up-to-date requirements of customers? Cross reference against Q5)</i>	3	3
B	The frequency of testing Once a year Clause 6.1.B	3	3
C	The selection and approval of third party testing organizations Clause 6.1.C through ISO 17025 approved laboratories	3	3
D	The nature/manner of communications with suppliers of input material email communication, Clause 6.1.D	3	3
E	The nature/manner of communications with suppliers of chemicals Email sent and acknowledgment from chemical suppliers obtained, Clause 6.1.E	3	3
F	The restricted substance control requirements placed on suppliers of input material (the material to be processed i.e. wet blue, crust leather etc.) Crust RSL from RL-SI is issued to our all suppliers, Clause 6.1.F <i>(processors of fresh, dried and cured hides exempt - score 3 points)</i>	3	3
G	The restricted substance control requirements placed on suppliers of chemicals Declaration received from Chemical supplier, Clause 6.1.G	3	3
		TOTAL	21

2	Is the company in possession of customer specifications for certain product lines?		
	Both customers provided their specifications	score	attained
A	The company can provide evidence of access to a complete and up-to-date specification for all of its clients that issue specifications	6	6

3 Does the company have its own internal restricted substances specification for those products supplied to customers who do not have a specification?			
		score	attained
A	<p>Yes</p> 	0	0
B	No, because <u>all</u> customers of the company have submitted specifications and testing has been demonstrated to have been undertaken for all product lines and all customers (go to Q5)	18	
C	No (go to Q5)	-9	

4 Which of the following substances are specified in the company's internal restricted substances specification? A stated limit must be included to attain a score A schedule of testing must be in place to obtain a score Evidence of testing for leathers supplied to customers without their own specification must be presented to obtain a score Only those parameter tested will be scored				
	Cumulative	score	mg/kg	attained
A	Chromium VI	3	<3 mg/kg	3
B	Formaldehyde	2	<75 mg/kg	2
C	Lead extractable Lead total	2	100 mg/kg	2
D	Mercury extractable Mercury total	2	5 mg/kg	2
E	Cadmium extractable Cadmium total	2	100 mg/kg	2
F	Other heavy metals(extractable) all of Barium, Antimony, Selenium, Arsenic	2	<5.0 mg/kg <5.0 mg/kg <5.0 mg/kg <0.2 mg/kg	2
G	APEO (Alkyl phenol ethoxylate)	1	100 mg/kg	1
H	Dimethylfumarate	1	ND	1
I	Chlorinated fungicides (PCP, TeCP, TCP)	1	ND	1
J	Azo-amines (producers of un-dyed/uncoloured material exempted and score2)	2	20 mg/kg	2
TOTAL (Max 18)				18

5	How frequently are restricted substances specifications reviewed? (How frequently are customers contacted to ensure the specification held by the tanner is the most up-to-date? How often is the internal specification reviewed?)Cross reference against Q1A		
		Score	attained
A	Every 6 months As per clause 6.1.G of RSL Policy RL-SI-RSP-6.0.0 	6	6
B	Every 12 months	3	
C	Never	0	
	The frequency should be explicitly stated in the procedures to record a score The auditor should be shown evidence of reviews		

6	How comprehensive is third party restricted substances testing?		
		Score	attained
A	All major product lines are tested at least annually (This should encompass the company's top three product lines and all of those product lines that are supplied to customers specifying limits , and should apply to at least 50% (100%) of output) All three conditions must be met for full score	12	12
B	Only product lines that are supplied to customers specifying limits are tested	6	
C	Third party testing is not carried out	-32	

Rainbow Leather - Internal Leather Test Report Summary Index																					
Sl. No.	Date	Report No.	Laboratory	Customer	Article	Colour	% of Production	Heavy Metals				Alkyl Phenol Ethoxilate	Total Lead	Chromium (VI) After Aging	Phenols (PCP,TCP, TeCP)	AZO	SCCP	Dimethyl fumarate	Formaldehyde	Total Mercury	Total Cadmium
								Barium As	Selenium As	Antimony As	Arenic As										
1	12/8/2020	0920-029-0187	BV	Self	COW SPLIT SUEDE LEATHER	TAN	37%	<0.5	<0.5	<0.5	<0.1	Not Detected	<10	Not Detected	Not Detected	Not Detected	<100	Not Detected	Not Detected	<1.0	<10
2	12/8/2020	0920-029-0188	BV	Self	SHEEP ONE TOUCH LEATHER	BLUE	10%	<0.5	<0.5	<0.5	<0.1	Not Detected	<10	Not Detected	Not Detected	Not Detected	<100	Not Detected	Not Detected	<1.0	<10
3	12/8/2020	0920-029-0189	BV	Self	COW SPLIT SUEDE LEATHER	BORDO	29%	<0.5	<0.5	<0.5	<0.1	Not Detected	<10	Not Detected	Not Detected	Not Detected	<100	Not Detected	Not Detected	<1.0	<10
4	12/8/2020	0920-029-0190	BV	Self	COW GRAIN LEATHER	BLACK	24%	<0.5	<0.5	<0.5	<0.1	Not Detected	<10	Not Detected	Not Detected	Not Detected	<100	Not Detected	Not Detected	<1.0	<10
Minimum RSL Specification							100%	5.0 mg/kg	5.0 mg/kg	5.0 mg/kg	0.2 mg/kg	100 mg/kg	100 mg/kg	3 mg/kg	Not Detected	20 mg/kg	100 mg/kg	Not Detected	75mg/kg	5 mg/kg	100 mg/kg
Result							100%	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass

7	Can the tannery provide evidence that the laboratory undertaking the testing is ISO 17025 certified or is an approved testing facility?		
	Bureau Veritas Consumer Products Services India Pvt Ltd, Certificate no NABL-216 valid until 14/06/2023	score	attained
A	Yes	4	4
B	No	0	

8	<p>Evidence for third-party testing of restricted substance has been presented.</p> <p><i>The auditor should list sufficient of the test report numbers/dates that have been presented to confirm that the frequency and scale of testing justifies the scores awarded in question 6</i></p>
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Product line	Cow Split Suede Tan	Comments
Percentage of total output	37%	
Test house	Bureau Veritas	
Report number	(0920)029-0187	
Date	12/08/2020	
Customer	Self- applicable to all customers	
Specification	As per internal RSL	
Result	Pass	

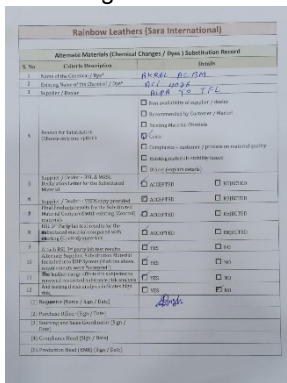
Product line	Sheep One Touch Leather Blue	Comments
Percentage of total output	10%	
Test house	Bureau Veritas	
Report number	(0920)029-0188	
Date	12/08/2020	
Customer	Self- applicable to all customers	
Specification	As per internal RSL	
Result	Pass	

Product line	Cow Split Suede Bordo	Comments
Percentage of total output	29%	
Test house	Bureau Veritas	
Report number	(0920)029-0189	
Date	12/08/2020	
Customer	Self- applicable to all customers	
Specification	As per internal RSL	
Result	Pass	

Product line	Cow Grain Leather Black	Comments
Percentage of total output	24%	
Test house	Bureau Veritas	
Report number	(0920)029-0190	
Date	12/08/2020	
Customer	Self- applicable to all customers	
Specification	As per internal RSL	
Result	Pass	

9	To what extent is the company conforming to customer restricted substances specifications?		
	Note - the following declaration relating to the entire audit that a director of the company will be required to sign prior to issuance of audit certificate - <i>"I understand that in the event that any data or information is found to have been deliberately withheld or presented in a way designed to mislead the auditor the entire audit may be reclassified "Automatic Audit Failure" and certification withdrawn."</i>		
		score	attained
A	The company can present evidence that it is testing and fully conforming to all customer restricted substances specifications. No failures have been recorded	8	8
B	There have been failures but evidence has been presented that the cause has been identified, the product lines affected have been retested, passed and the reasons for failure have been resolved	7	
C	There have been failures and although the cause has not been fully resolved the company can provide evidence that it is actively working to address the issue – production of the affected product lines is currently suspended	6	
D	There have been failures but no evidence has been presented to indicate that the product lines affected have been retested or that production has been suspended	-16	

10	To what extent is the company conforming to its own restricted substances specifications?		
	Note - the following declaration relating to the entire audit that a director of the company will be required to sign prior to issuance of audit certificate - <i>"I understand that in the event that any data or information is found to have been deliberately withheld or presented in a way designed to mislead the auditor the entire audit may be reclassified "Automatic Audit Failure" and certification withdrawn."</i>		
		score	attained
A	The company can present evidence that it is testing and fully conforming to its restricted substances specifications. No failures have been recorded	8	8
B	There have been failures but evidence has been presented that the cause has been identified, the product lines affected have been retested, passed and the reasons for failure have been resolved	7	
C	There have been failures and although the cause has not been fully resolved the company can provide evidence that it is actively working to address the issue – production of the affected product lines is currently suspended	6	
D	There have been failures but no evidence has been presented to indicate that the product lines affected have been retested or that production has been suspended	-16	

11	What procedures are in place whenever any chemical in a process is substituted by an alternative?		
	Cumulative Score	score	attained
A	The change is documented there are four chemical changes 	2	2
B	The leather range affected is subjected to renewed restricted substance risk analysis (and testing if risk analysis indicates high risk)	3	3
	TOTAL		5

12	What percentage of incoming material (by mass) is subject to compliance verification? <i>This question does not imply that the tanner needs to have the material third party tested. Documentation from the supplier certifying that the materials supplied conform to the specifications indicated by the tanner would be sufficient.</i>				
	Cumulative Score	<25%	25% to 50%	>50%	attained
A	mass of incoming materials (only part processed hides i.e. wet blue, crust etc. should be considered) Raw, salted or brined hides score 6 points 100% from Gold rated tanners	0	3	6	6
B	mass of incoming materials (chemicals) declaration received from all suppliers 100%	0	3	6	6
	TOTAL				12

Restricted Substances		
Max score (total) >>> 100		Actual
Q1	21	21
Q2	6	6
Q3	18	0
Q4	18	18
Q5	6	6
Q6	12	12
Q7	4	4
Q9	8	8
Q10	8	8
Q11	5	5
Q12	12	12
	Total recorded >>>	100

7 ENERGY CONSUMPTION

This section is to be completed by all categories.

[There is a Guidance Note associated with this section](#)

This section assesses the energy usage per unit area for the specific type of production that is manufactured. It gives energy rewards for renewable energy generated on-site and energy tables and target metrics for the facility to achieve different medal ratings.

Energy consumption includes ALL aspects of site operations such as administration, engineering, space heating, fork trucks, and operation of the wastewater treatment

Score based on 9 months' worth of data (6 months during the Covid-19 pandemic)

The score for this energy section may be based on nine months' worth of data provided a monthly breakdown of both energy usage and production data for a full year is available at the time of the audit. The purpose of this is to screen out the peak energy requirements encountered during the very hottest or very coldest parts of the year. The nine months' worth of data may be selected by the tannery being audited although the excluded three months must be three consecutive months. An additional three months of energy data may be excluded due to the effects on trade of the Covid-19 pandemic. The periods of interruption may be variable; there may be second waves that could result in production interruptions directly affecting the tannery during non-consecutive months, there could be second waves affecting the customers which then leads to production interruption through delayed orders, even if the tannery is capable of operating. Therefore, the three additional excluded months do not need to be consecutive, but they must be the same as those chosen for water (if water data is also excluded)

Producers of tanned only leather can choose to undertake the score calculation on the basis of area of leather produced or tonnes of hides processed. All other categories must calculate the score based on area of leather produced. Producers undertaking operations that fall into more than one category must calculate the score based on the area of leather produced.

Factors used when auditing processors of skins and splits

Due to the different energy requirements associated with processing different types of raw material the mass of raw material processed or area of leather produced must be converted into "bovine equivalents" in accordance with table 2 below.

Note: Sheep and goat skins scores are to be calculated on the basis of 0.87 bovine equivalents based on data gathered during the audits undertaken whilst version 5.2.3 of the protocol was effective; pigskins and splits are to be scored on the basis of 0.975 bovine equivalents.

Factors to be used for producers/processors of limed and pickled material

For operations that involve starting or finishing in the limed or pickled condition the following factors should be taken into account:

The energy requirements for processing from raw to tanned are 1.7645 that of processing from raw to limed

- *If processing from raw to limed multiply weight by 0.567 and treat as "A" category.*
- *If processing from limed to tanned multiply weight by 0.433 and treat as "A" category.*
- *If processing from limed to crust or finished leather multiply final by 0.433 and treat as "A" category. Thereafter use final area for D or F category operations as applicable*

The energy requirements for processing from raw to tanned are 1.2240 that of processing from raw to pickled

- *If processing from raw to pickled multiply weight by 0.817 and treat as "A" category.*
- *If processing from pickled to tanned multiply weight by 0.183 and treat as "A" category.*
- *If processing from pickle to crust or finished leather multiply final by 0.183 and treat as "A" category. Thereafter use final area for D or F category operations as applicable*

Actual fuel energy values must be supplied by tanner being audited

There is no single conversion factor into MJ for many fuels – the conversion factor depends on the composition and state of the fuel concerned. The energy conversion factors can normally be obtained from the supplier of the fuel. The auditor will use the actual factors provided evidence is supplied as to what these factors are. If the actual factors are not supplied to the auditor, the conversion factors below will be used (which may be higher and may adversely affect the score obtained).

	MJ/kg	MJ/litre
Natural Gas	60	0.045
LPG	55	30
Fuel Oil	50	50
Coal	35	N/A
Diesel	50	45
Petrol/Gasoline	55	40
Wood	20	N/A

Energy associated with waste-water treatment must be included

Those companies that do not operate their own waste-water treatment plant must indicate the energy usage of the plant that is responsible for the treatment of their effluent, the volume of effluent treated and therefore an apportioned amount of energy associated with the treatment of the volume of effluent generated by the tannery. If this information is not available an estimated value of 10 kWh per cubic metre of effluent treated will be used.

Those companies who treat their own effluent to at least a Bronze standard (20 points or more in section 11 questions 10-19) and use their own discharge results for scoring in section 11 may discount the energy associated with the external WWTP.

ENERGY		BOVINE EQUIVALENTS					
		Cow	Sheep	Goat	Splits & Pigs	Bovine Equivalents	
Category A	Mass of hide or skin processed	0	0	0	0	0	kg
Category A	Area of leather produced	0	0	0	0	0	m ²
Category B	Area of leather produced	0	0	0	0	0	m ²
Category C	Area of leather produced	0	0	0	0	0	m ²
Category D	Area of leather produced	0	0	0	0	0	m ²
Category E	Area of leather produced	18683.67	6737.4	0	36177.39	60722.598	m ²
Category F	Area of leather produced	0	0	0	0	0	m ²

Companies undertaking an audit can request an editable copy of the above table from their auditor.

1 kWhr = 3.6 MJ

1 Btu = 1055.056 J

1 therm = 105.5056 MJ

1 calorie = 4.1868 J

1 N/A	Energy Consumption (Subcontractor)					
Supplied energy and fuels	unit	Total usage	Conversion to MJ	Total MJ	% of production on behalf of Principle	Energy attributed to Principle (MJ)
Electricity	kwh		3.6			
LPG	ltr					
Total >>>						

Energy consumption				
3a Energy consumption includes ALL aspects of site operations such as administration, engineering, space heating, fork trucks, operation of the waste water treatment plant, etc (excluding dormitories provided actual values can be shown)				
12 Months data		February-2020 to January-2021		
Energy				
Calculation		Enter data	Conversion	Automatic
Supplied energy and fuels		Annual usage	Factor	MJ
Electricity	Kwhr	83272	3.6	299779
Fuels		units (m³, ltr, kg)		
Natural Gas		0	0	0
LPG		0	0	0
Fuel Oil		0	0	0
Coal		0	0	0
Diesel		0	45	0
Petrol/Gasoline		0	0	0
Steam		0	0	0
Other		0	0	0
External WWTP energy				
Electricity		0	0	0
Renewable energy				
Wood		0	0	0
Tallow		0	0	0
Biomass		0	0	0
Self generated renewable energy				
Wind Turbine		0	0	0
Solar panel		0	0	0
Geothermal well		0	0	0
Other		0	0	0
		Total Energy		299779
		Total bought in Energy		299779
		Total Renewables		0
		Internally generated renewables		0
		Total Renewables Percentage		0.0
Average thickness (b, c, d & f category tanners only)				1.0
Total less self generated renewable Energy (MJ)		299779	Energy MJm ²	
		m ²		
A	Raw to Wet Blue	0		
B	Raw to Crust	0		
C	Raw to Finished	0		
D	Wet Blue to Finished	0		
E	Crust to Finished	60722.598	4.94	
F	Wet Blue to Crust	0		
			Aggregate Score (max 90)	101.8
			Max	90.0
			Min	0

Companies undertaking an audit can request an editable copy of the above table from their auditor.

The following tables are included for illustrative purposes

In the following questions “t”= average thickness of the leather (mm)

2b N/A	<p>Energy Use/Unit Output The value can be calculated on the basis of nine months' worth of data provided month by month production and energy data for a full year has been supplied.</p> <p>In the event that <u>demonstrable, quantifiable</u> changes have been introduced that provide evidence supported by <u>at least</u> 6 months data of on-going long-term energy savings the value base on those 6 months will be used.</p>			
		MJ tonne ⁻¹ raw hide processed	score	SCORE Based on total energy
A	Raw hide to tanned		(recorded usage – 5984) -54.4	
	Score		Average score if more than one production type (based on proportions of area produced)	max 90

2c	<p>Energy Use/Unit Output*</p> <p>The value will be calculated on the basis of nine months' worth of data provided month by month production and energy data for a full year has been supplied.</p> <p>In the event that <u>demonstrable, quantifiable</u> changes have been introduced that provide evidence supported by <u>at least</u> 6 months data of on-going long-term energy savings the value base on those 6 months will be used.</p>			
		MJm ⁻² finished product	score	SCORE Based on total energy
A	Raw hide to tanned		(recorded usage – 37.4) -0.34	
B	Raw hide to crust		(recorded usage -2.12t – 78.644) -0.74	
C	Raw hide to finished leather		(recorded usage –4.24t – 141.888) -1.34	
D	Tanned hide finished leather		(recorded usage – 4.24t – 117.688) -1.12	
E	Crust hide to finished leather	4.94	(4.94 – 66) -0.6	101.8
F	Tanned hide to crust leather		(recorded usage –2.12t - 61.6) -0.56	
	Score		Average score if more than one production type (based on proportions of area produced)	max 90 90

(MJ/tonne)	Energy Consumption
	A
Points	Raw to tanned
0	5984
5	5712
10	5440
15	5168
20	4896
25	4624
30	4352
35	4080
40	3808
45	3536
50	3264
55	2992
60	2720
65	2448
70	2176
75	1904
80	1632
85	1360
90	1088

(MJ/m ²)	Energy Consumption					
	A	B	C	D	E	F
Points	Raw to tanned	Raw to crust	Raw to finished	Tanned to finished	Crust to finished	Tanned to crust
0	37.4	81.4	147.4	123.2	66	61.6
5	35.7	77.7	140.7	117.6	63	58.8
10	34	74	134	112	60	56
15	32.3	70.3	127.3	106.4	57	53.2
20	30.6	66.6	120.6	100.8	54	50.4
25	28.9	62.9	113.9	95.2	51	47.6
30	27.2	59.2	107.2	89.6	48	44.8
35	25.5	55.5	100.5	84	45	42
40	23.8	51.8	93.8	78.4	42	39.2
45	22.1	48.1	87.1	72.8	39	36.4
50	20.4	44.4	80.4	67.2	36	33.6
55	18.7	40.7	73.7	61.6	33	30.8
60	17	37	67	56	30	28
65	15.3	33.3	60.3	50.4	27	25.2
70	13.6	29.6	53.6	44.8	24	22.4
75	11.9	25.9	46.9	39.2	21	19.6
80	10.2	22.2	40.2	33.6	18	16.8
85	8.5	18.5	33.5	28	15	14
90	6.8	14.8	26.8	22.4	12	11.2

3 What proportion of the factory total energy usage comes from renewable sources*?				
		%	Score per %	Overall score (% usage x score)
A	Greenhouse gas emissions reduction technologies (Combined Heat & Power/Co-generation)	0-100	0.05	0
B	Renewable energy* usage provided that the conversion has been undertaken on-site or by plant owned wholly by the tannery.	0 - 5 5.1- 100	0.4 0.084	0
The scoring is designed to award the commissioning of renewable energy generating capacity by weighting the scores at the lower end. A tannery using 7% self-generated renewable energy would score 2 (for the first 5%) and 0.168 (for the remaining 2%) – total 2.168 Max score 10				0

***Renewable Energy:**

For the purposes of this protocol, the definitions in European Union Directives 2009/28/EC and 2003/54/EC apply, namely:

'energy from renewable sources' means energy from renewable non-fossil sources, namely wind, solar, aerothermal, geothermal, hydrothermal and ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases;

and where

'aerothermal energy' means energy stored in the form of heat in the ambient air;

'geothermal energy' means energy stored in the form of heat beneath the surface of solid earth;

'hydrothermal energy' means energy stored in the form of heat in surface water;

'biomass' means the biodegradable fraction of products, waste and residues from biological origin from agriculture (including vegetal and animal substances), forestry and related industries including fisheries and aquaculture, as well as the biodegradable fraction of industrial and municipal waste;

Energy Consumption		
Max score (total) >>>	100	Actual
Q2	90	90
Q3	10	0
	Total recorded >>>	90

8 WATER USAGE

This section is to be completed by all categories.

This section assesses the fresh water usage, per unit area, for the specific type of production that is manufactured. It gives rewards for water that is recycled and usage tables and target metrics for the facility to achieve different medal ratings.

Describe water supply sources and site usage. Identify site usage for each (e.g., process, utility (boilers/cooling towers), sanitary/domestic, drinking, fire water etc.) Note - The term "run-off" refers to the water that falls onto the site e.g. roofing, and which is collected by the company itself into storage tanks from these sources. It is not applied to water that runs off land into a pond, lake, stream, river or other body of water.


Score based on 9 months' worth of data during the Covid-19 pandemic

The score for this water section may be based on nine months' worth of data provided a monthly breakdown of both energy usage and production data for a full year is available at the time of the audit. The three month of water data may be excluded due to the effects on trade of the Covid-19 pandemic. The periods of interruption may be variable; there may be second waves that could result in production interruptions directly affecting the tannery during non-consecutive months, there could be second waves affecting the customers which then leads to production interruption through delayed orders, even if the tannery is capable of operating. Therefore, the three additional excluded months do not need to be consecutive, but they must be the same as those chosen for energy (if energy data is also excluded).

1 N/A	Water Usage (Subcontractor)			
	unit	Total usage	% of production on behalf of Principle	Water attributed to Principle (m ³)
Municipal water system	m ³			
Wells/boreholes	m ³			
River/canal/lake	m ³			
Runoff	m ³			
Other	m ³			
Total >>>				

2a	Water usage. What is the quantity (m ³) fresh water used annually?	
		Quantity m ³
	Municipal water system (including domestic consumption)	93.98
	Wells/boreholes	
	River/canal/lake	
	Runoff	
	Other	
	Subcontractor	
	TOTAL Excluding runoff:	93.98

2b N/A	Water usage. What is the quantity (m ³) recycled/reused water used annually?	
		Quantity m ³
This question is included in P6.5 for data gathering. It may contribute to the score in future versions of the protocol. Volumes recorded here are not used in the scoring of this section in P6.5.		
	Recycled after treatment in tannery's own WWTP	
	Recycled after treatment in CETP	
	Recycled after treatment in METP	
	Reused (without pre-treatment) following use in another industrial facility	
	TOTAL	0

3	Incoming water can be monitored through the effective measurement of		
		score	attained
A	Measurement of EACH water supply (excluding runoff/rainwater if used) 	0	0
B	Incomplete metering or measurement of incoming fresh water	-40	

4	Water usage data has been presented for the previous		Note
A	12 months		✓
B	9 months		
C	6 months		

Due to the different water requirements associated with processing different types of raw material the mass of raw material processed or area of leather produced must be converted into “bovine equivalents” in accordance with the following table.

Water		BOVINE EQUIVALENTS					
		Cow	Sheep	Goat	Splits & Pigs	Bovine Equivalents	
Category A	Mass of hide or skin processed	0	0	0	0	0	kg
Category A	Area of leather produced	0	0	0	0	0	m ²
Category B	Area of leather produced	0	0	0	0	0	m ²
Category C	Area of leather produced	0	0	0	0	0	m ²
Category D	Area of leather produced	0	0	0	0	0	m ²
Category E	Area of leather produced	18683.67	6737.4	0	36177.39	62406.948	m ²
Category F	Area of leather produced	0	0	0	0	0	m ²

Note: Sheep and goat skins are calculated on the basis of 1.12 bovine equivalents based on data gathered during the audits undertaken whilst version 5.2.3 of the protocol was effective, splits and pigs on the basis of 0.91 bovine equivalents (1.0 for D, E and F categories).

Companies undertaking an audit can request an editable copy of the above table from their auditor.

The water requirements for processing from raw to tanned are 1.829 that of processing from raw to limed

- If processing from raw to limed multiply weight by 0.547 and treat as “A” category.
- If processing from limed to tanned multiply weight by 0.453 and treat as “A” category.
- If processing from limed to crust or finished leather multiply final by 0.453 and treat as “A” category. Thereafter use final area for D or F category operations as applicable

The energy requirements for processing from raw to tanned are 1.270 that of processing from raw to pickled

- If processing from raw to pickled multiply weight by 0.787 and treat as “A” category.
- If processing from pickled to tanned multiply weight by 0.213 and treat as “A” category.
- If processing from pickle to crust or finished leather multiply final by 0.213 and treat as “A” category. Thereafter use final area for D or F category operations as applicable

3a		Water Usage	
Water usage includes ALL aspects of site operations such as administration, engineering, operation			
	Total Fresh Water (m ³)	94	
	Quantity of leather	m ²	
A	Raw to Wet Blue	0	
B	Raw to Crust	0	
C	Raw to Finished	0	
D	Wet Blue to Finished	0	
E	Crust to Finished	62406.948	1.5
F	Wet Blue to Crust	0	
		Aggregate Score	103.7
		Max	100.0
		Min	0

Companies undertaking an audit can request an editable copy of the above tables from their auditor.

5b N/A	What is the current level of water consumption in this facility? Expressed in m ³ tonne ⁻¹ of substrate processed <i>the calculation should be based on freshwater only</i> In the event that demonstrable, quantifiable changes have been introduced that provide evidence supported by at least 6 months data of on-going long-term water savings the value based on those 6 months will be used.		
Water consumption includes ALL aspects of site operations such as administration, engineering, space cooling (excluding dormitories etc.)			
		m ³ tonne ⁻¹	SCORE
A	Raw hide to tanned	(recorded usage -61.875) -0.5625	
			max 100

5c		What is the current level of water consumption in this facility? Expressed in dm³m⁻² of leather produced. <i>The calculation should be based on fresh water only.</i> In the event that demonstrable, quantifiable changes have been introduced that provide evidence supported by <u>at least</u> 6 months data of on-going long-term water savings the value based on those 6 months will be used.		
Water consumption includes ALL aspects of site operations such as administration, engineering, space cooling (excluding dormitories etc.)				
		dm³m⁻² ltr/m²		SCORE
A	Raw hide to tanned		(recorded usage – 396) -3.6	
B	Raw hide to crust		(recorded usage – 660) -6	
C	Raw hide to finished leather		(recorded usage – 726) -6.6	
D	Tanned hide to finished leather		(recorded usage – 327.8) -2.98	
E	Crust hide to finished leather	1.5	(1.5 – 26.4) -0.24	103.7
F	Tanned hide to crust leather		(recorded usage – 154) -1.4	
	Score	Average score if more than one production type (based on proportions of area produced)		max 100 100.0

The following tables are included for illustrative purposes

(m ³ per tonne)	Water consumption
	A
Points	Raw to tanned
0	61.9
5	59.1
10	56.3
15	53.4
20	50.6
25	47.8
30	45.0
35	42.2
40	39.4
45	36.6
50	33.8
55	30.9
60	28.1
65	25.3
70	22.5
75	19.7
80	16.9
85	14.1
90	11.3
95	8.4
100	5.6

(dm ³ per m ²)	Water consumption					
	A	B	C	D	E	F
Points	Raw to tanned	Raw to crust	Raw to finished	Tanned to finished	Crust to finished	Tanned to crust
0	396	660	726	327.8	26.4	154
5	378	630	693	312.9	25.2	147
10	360	600	660	298	24	140
15	342	570	627	283.1	22.8	133
20	324	540	594	268.2	21.6	126
25	306	510	561	253.3	20.4	119
30	288	480	528	238.4	19.2	112
35	270	450	495	223.5	18	105
40	252	420	462	208.6	16.8	98
45	234	390	429	193.7	15.6	91
50	216	360	396	178.8	14.4	84
55	198	330	363	163.9	13.2	77
60	180	300	330	149	12	70
65	162	270	297	134.1	10.8	63
70	144	240	264	119.2	9.6	56
75	126	210	231	104.3	8.4	49
80	108	180	198	89.4	7.2	42
85	90	150	165	74.5	6	35
90	72	120	132	59.6	4.8	28
95	54	90	99	44.7	3.6	21
100	36	60	66	29.8	2.4	14

6	What authority/organisation(s) is involved in water supply to the facility?
	The Punjab Small Industries & Export Corporation Ltd

7	Are any active boreholes or wells located on-site?		
A	Yes		
B	No		✓

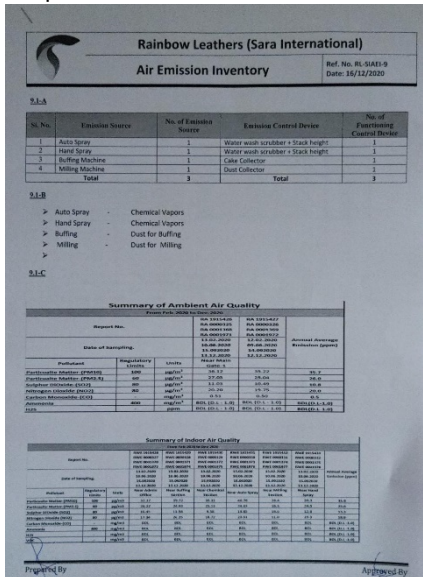
8	Has the processing scope of the tannery changed since the last assessment?	
A	Yes	
B	No First time audit	✓

Water Usage		
Max score (total) >>>100		Actual
Q3	0	0
Q5	100	100
	Total recorded >>>	100

9 AIR & NOISE EMISSIONS

This section to be completed by all categories

This section assesses the management of a facility’s air and noise emissions to the environment and requires inventories, management and monitoring.

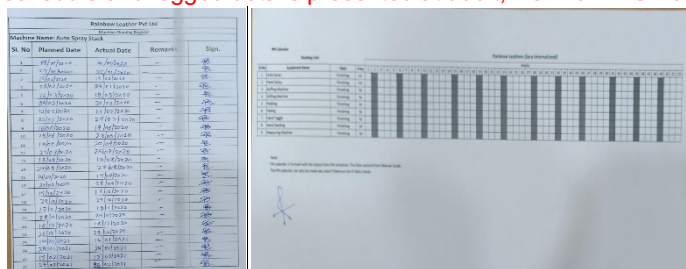
1	Has an air emission inventory been completed? The inventory will detail all points of forced emissions to air i.e. boiler stacks, spray machines, fume cupboards etc. A good inventory will also detail the results of environmental aspects & impacts assessments made upon those emissions		
	Cumulative Ref No. RL-SI-AEI-9 dt.16/12/2020	score	attained
A	All emissions points have been listed or represented on a diagram or a site plan 	4	4
B	The type of material emitted from EACH type of emissions source has been identified	4	4
C	The amount of material from EACH type of emissions source has been measured and subsequently calculated	3	3
D	An air emission inventory has not been created (Go to Q4)	-40	
TOTAL (Max 11)			11

2	Identify the total number of plant emissions sources (including stacks and vents) requiring an emissions limiting/restricting device and the type of device for each one These are to be specifically referenced in question 9.		
	Emissions source requiring control device	Number of each type of emissions source	Emissions control device
	Auto Spray	1	Water wash / Stack height
	Hand Spray	1	Water wash / Stack height
	Buffing Machine	1	Dust collector bags
	Total	3	3

3	Identify the total number of other plant emissions sources (including stacks and vents)not requiring an emissions limiting/restricting device		
	Note - If the auditor considers an emissions source as requiring an emissions limiting/restricting device or if no adequate explanation is given as to why it does not require one it WILL be entered in Q2		
Emissions source without control device	Number of each type of emissions source	State why control device is not required	
Chemical Store	1	Open ventilated area	
Electrical Drier Evaporation Pit	1	Ventilated area	
Milling Drums	2	Enclosed separate room	
Total	4		

4	Indicate percentage of air emissions control devices that are functioning			
	Spray machines, boilers, buffing machines	% of machines fitted with appropriate control device	score per %	
A	Functioning	100%	30	30
B	Not functioning or not fitted		-30	
			Total	30

5	Is there a preventative maintenance programme for the emissions control devices employed? (Give details of frequency)		
		score	attained
A	Yes, and the maintenance department can demonstrate that the maintenance schedule conforms to recommendations program schedule and logged details presented at audit, Ref No.LWG-10.5	5	5
B	Yes, although the maintenance department cannot demonstrate that the maintenance schedule conforms to recommendations	2	
C	No	0	



6	Are any wastes or by-products incinerated either on or off-site? <i>(incineration is not uncontrolled burning, it is a process subject to specified parameters, for example as defined in DIRECTIVE 2000/76/EC OF THE EUROPEAN PARLIAMENT)</i>	score	attained
A	None	9	9
B	Incineration in a regulated co-generation plant	9	
C	Incineration controlled by external authority	7	
D	On-site incineration with regular (at least monthly) emission's monitoring	0	
E	On-site incineration with annual emission's monitoring	-9	
F	On-site or off-site, non-regulated and/or with no evidence of monitoring or monitoring less than annually	Automatic Audit Failure	
Registration details of Incinerator if used			

7	Is emissions monitoring required to comply with a permit condition?	
A	Yes	✓
B	No	

8	How frequently has monitoring of boiler stack emissions been performed in the last 18 months and is it undertaken on a routine basis? Evidence will be required to demonstrate frequency	score	attained
	No boiler on site		
A	Third party analysis of relevant emissions as specified by local legislation is undertaken at least twice a year	5	
B	Evidence has been presented to indicate that emissions are non-existent/do not warrant or do not require monitoring i.e. Heat energy is supplied by gas boiler/direct steam supply	5	5
C	Third party analysis of relevant emissions as specified by local legislation is undertaken at least annually	2	
D	Not undertaken	-5	
TOTAL (max 5)			5

9	How frequently has monitoring of stack emissions been performed in the last 18 months and is it undertaken on a routine basis? Evidence will be required to demonstrate frequency	score	attained
	There is a Guidance Note associated with this question		
A	Third party verification of relevant emissions and emissions points is undertaken at least annually Quarterly monitoring	5	5
B	Evidence has been presented to indicate that emissions are non-existent/do not warrant or do not require monitoring 11.37g/m² <i>It must be demonstrated that VOC emissions could not possibly be more than 35 g/m² of leather (the solvents inventory records total issues fall below 35 g/m² of leather)</i>	5	5
C	In-house analysis of relevant emissions as specified by local legislation is undertaken at least annually	2	
D	Not undertaken	-5	
TOTAL (max 5)			5

10	State the name of the organisation(s) undertaking monitoring
	Test done by J.P. Test & Research Centre ISO 17025 by NABL, Certificate No. TC-8047 and valid until 09/02/2022

11		Summary of air emissions generated by the facility	
Pollutant		Regulatory Limit (if applicable)	Annual Average Emission (ppm)
Noise dB(A)	Day Night	75 dBA Day Time 70 dBA Night Time	48.62 dBA Day Time 46.4 dBA Night Time
Limits Indore Air Quality mg/Nm ³	Particulates PM 10	100	35.7
	Particulates PM 2.5	60	26.0
	Nitrogen Oxides (NOx)	80	20.0
	Sulphur Dioxide (SO ₂)	80	10.8
	Volatile Organic Compounds (VOC)	-	0.5
	Carbon Monoxide	-	BDL
	Ammonia	400	BDL
	H ₂ S	-	BDL
Limits Auto Spray mg/Nm ³	Particulates	150	13.1
	Nitrogen Oxides (NOx)	-	17.0
	Sulphur Dioxide (SO ₂)	-	10.7
	Volatile Organic Compounds (VOC)	-	BDL

Cross-reference emissions test results with discharge permits

12	Describe the presence of detectable odours
	Within buildings
	Slight tannery odour
	Outside buildings, but within site property limits
	Standard tannery odour
	At the site boundary
	Standard tannery odour

13	Are there any other obvious potential sources of air pollution from neighbouring sites?	tick
A	Yes	✓
B	No	

14	If Yes, give details of distance, location, pollutants
	Industrial park-Tannery area – air pollution and smell as it is located in a tannery cluster

15	Does the company calculate the total amount of solvent used in production? Solvents include pure solvents as well as solvents forming a constituent of finishing chemicals		
	There is a Guidance Note associated with this question		
	Score one option only	score	attained
A	The company only processes up to tannage (category A) and/or has provided evidence that less than 10g/m ² of solvent is used as part of processing	10	
B	Monthly data is available for the TOTAL amount of solvent used including solvents forming a constituent of finishing chemicals	10	10
C	Annual data is available for the TOTAL amount of solvent used including solvents forming a constituent of finishing chemicals	6	
D	Monthly data is only available for the amount of pure solvent used (the solvent component of liquid dyes, lacquers, toners etc. has not been included)	5	
E	Annual data is only available for the amount of pure solvent used (the solvent component of liquid dyes, lacquers etc. has not been included)	3	
F	No	-5	

16	What are the VOC emissions (as expressed in term of grams of solvent emitted to the environment per square metre of leather produced)?		
	This question can only be answered if response is “A”, “B”, or “C” in Q15 or if full emissions testing that allows calculation of mass of VOC emitted has been undertaken.		
	If responses D, E or F are recorded in Q15 or if full emissions’ testing has not been undertaken it is not possible to calculate actual emissions and response “B” in this question will be recorded.		
	There is a Guidance Note associated with this question		
		11.37 g/m ²	score attained
A	Score = $\frac{11.37 \text{g/m}^2 - 75}{-5}$	15	12.73
B	Incomplete or non-existent inventory	-15	

Name of finishing chemical	% VOC	kg chemical used per year	kg of VOC used per year	Biodegradability (if biological wastewater treatment not available all values = 0) Yes = 1 No = 0	Potential for biodegradation	Percentage applied by					Percentage applied (must = 100%)	kg VOC to biological WWTP	kg to Environment
						Roller coat	Curtain Coat	Padding	HVLP	Conventional spray			
ACI 4026	1.00	44.28	0.443	0	0.000	0	0	0	0	100	100	0	0.44
HYCRYL 77	20.00	2,620.09	524.018	0	0.000	0	0	0	0	100	100	0	524.02
RODA PUR 5101	45.00	40.90	18.405	0	0.000	0	0	0	0	100	100	0	18.41
RODA FIX 5188	1.00	3.84	0.038	0	0.000	0	0	0	0	100	100	0	0.04
RODA FIX 1051	4.00	5.15	0.206	0	0.000	0	0	0	0	100	100	0	0.21
RODA PUR K 8727	0.10	75.72	0.076	0	0.000	0	0	0	0	100	100	0	0.08
RODA LINK 3315-I	1.00	1,652.74	16.527	0	0.000	0	0	0	0	100	100	0	16.53
RODA WAX K 619	0.10	16.80	0.017	0	0.000	0	0	0	0	100	100	0	0.02
RODA BASE K 5025	0.10	8.65	0.009	0	0.000	0	0	0	0	100	100	0	0.01
HYLAC W 29	22.00	102.59	22.569	0	0.000	0	0	0	0	100	100	0	22.57
HYLAC W 08	50.00	2.82	1.410	0	0.000	0	0	0	0	100	100	0	1.41
ACI ECO GOL YELLOW	0.10	167.79	0.168	0	0.000	0	0	0	0	100	100	0	0.17
ACI ECO RED BROWN	0.10	-	0.000	0	0.000	0	0	0	0	100	100	0	0.00
ACI ECO BLUE CONC	0.10	28.35	0.028	0	0.000	0	0	0	0	100	100	0	0.03
ACI ECO GREEN	1.00	758.43	7.584	0	0.000	0	0	0	0	100	100	0	7.58
ACI ECO YELLOW BROWN	1.00	212.10	2.121	0	0.000	0	0	0	0	100	100	0	2.12
ACI ECO NAVY BLUE	0.10	286.30	0.286	0	0.000	0	0	0	0	100	100	0	0.29
SELLADERM BROWN M2	20.00	469.60	93.920	0	0.000	0	0	0	0	100	100	0	93.92
HYPRO 88	0.10	1,120.37	1.120	0	0.000	0	0	0	0	100	100	0	1.12
SELLADERM NAVY M2	1.00	25.65	0.257	0	0.000	0	0	0	0	100	100	0	0.26
SELLADERM RED BROWN M2	2.00	43.32	0.866	0	0.000	0	0	0	0	100	100	0	0.87
SELLADERM YELLOW M2	1.00	21.85	0.218	0	0.000	0	0	0	0	100	100	0	0.22
RODA PUR 96	1.00	0.56	0.006	0	0.000	0	0	0	0	100	100	0	0.01
RODA FEEL KTA 950	1.00	31.60	0.316	0	0.000	0	0	0	0	100	100	0	0.32
Q FILL D	0.10	855.72	0.856	0	0.000	0	0	0	0	100	100	0	0.86
Q WAX 80	1.00	884.96	8.850	0	0.000	0	0	0	0	100	100	0	8.85
Total kg VOC emitted to environment												700	
Area (square metres) of finished leather produced during period covered by the audit												61598	
Grams of VOC emitted per square metre of finished leather produced												11.37	

Appendix V contains further information regarding VOC emissions calculations, in particular with respect to those emissions which can be discounted because they do not enter the environment by virtue of being recovered or destroyed. Companies undertaking an audit can request an editable copy of the tables that may be used for calculation of the above value from their auditor.

17	Sound level values outside the building are measured and controlled	score	attained
A	At least three times per year (they should have been taken at several periods of the day and in several locations)	10	10
B	At least twice per year (they should have been taken at several periods of the day and in several locations)	8	
C	At least once per year (they should have been taken at several periods of the day and in several locations)	6	
D	The tannery is located such that external noise level measurements are not applicable or appropriate	10	
E	Testing has been undertaken but in only one location OR at only one period of the day	0	
F	Testing has not been undertaken within the past 12 months	-10	

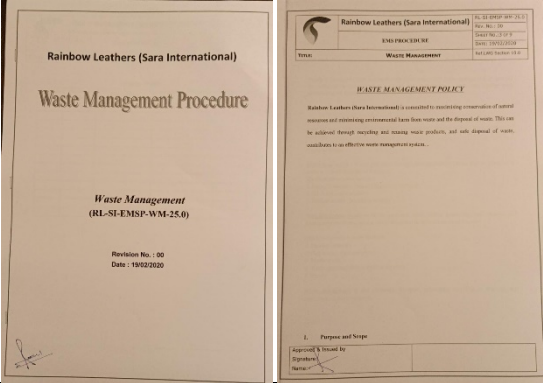
Air & Noise Emissions		
Max score (total) >>>100		Actual
Q1	11	11
Q4	30	30
Q5	5	5
Q6	9	9
Q8	5	5
Q9	5	5
Q15	10	10
Q16	15	12.73
Q17	10	10
	Total recorded >>>	97.73

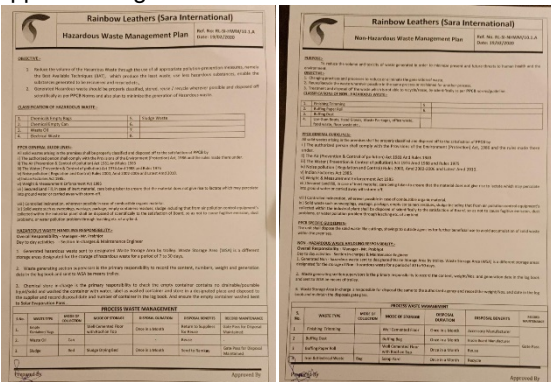
For award of Gold in this section VOC emission (as recorded in Q 16) must be less than 45 gm⁻²
For award of Silver in this section VOC emission (as recorded in Q 16) must be less than 60 gm⁻²
For award of Bronze in this section VOC emission (as recorded in Q 16) must be less than 75 gm⁻²

10 WASTE MANAGEMENT

This section to be completed by all categories.

This section assesses a facility's management and control of the solid wastes generated by the site and requires inventories, categorisation of wastes and appropriate storage and disposal.

1 Does the facility have a formal waste management procedure?			
	Cumulative Waste Management Procedure Ref.No. RL-SI-EMSP-WM-25.0 dt. 19/02/2020	score	attained
A	There are clear written guidelines regarding the identification, collection, storage and disposal of hazardous and non-hazardous wastes 	2	2
B	The individuals (names or positions) within the tannery for management of hazardous and non-hazardous wastes are defined within a written procedure Mr. Prabhjot Singh	2	2
C	There is no formal waste management procedure	-30	
TOTAL (max 4)			4

2 Does the waste management procedure make reference to local regulatory standards for waste management?			
	Ref No. RL-SI-HWM & NHWM/10.1A dt. 19/02/2020	score	Attained
A	The procedures (the waste management plan) makes reference to all applicable national, regional and local laws in addition to any other applicable regulations 	1	1
B	The procedures (the waste management plan) do not make reference to any national, regional and local laws or to any other applicable regulations	-1	

3	Does the waste management procedure comply with regulatory standards for waste management?	score	Attained
A	Evidence has been presented that indicates compliance, for example <ul style="list-style-type: none"> the waste management procedures have been made known to the authorities there are currently no regulatory or other enforcement actions in place against the company in relation to waste management practices The authorities have visited the site – no corrective actions in relation to waste were required <p><i>If response "B" recorded in Q2 state the evidence for response A in this question</i></p>	1	1
B	The procedures (the waste management plan) fail to comply with one or more legal or regulatory standards for waste management	Automatic Audit Failure	

4a	What regulatory authorities are involved in waste management issues at the facility?	score	attained
	PPCB		
4b	Have the authorities inspected the site within the past 18 months to ensure compliance with regulations?		
A	Yes		✓
	Date of most recent inspection		18/03/2021
B	No		
4c	Was the facility found to be in compliance during the last inspection?		
		score	attained
A	Yes	1	1
B	The authorities have not visited within the past 18 months	1	
C	The facility was not found to be in compliance - corrective actions were required and have been completed or are on-going in accordance with the regulator's schedule	-10	
List the corrective actions required N/A			

The primary product of a tannery is leather. Tanners do not produce shavings, buffing dust, trimmings etc. These are wastes that are generated by the process. Even if these products are generated and sold they are still considered first and foremost as wastes.

5a	Has the company prepared a list of the type and quantity of hazardous, non-hazardous waste, by-product and part-product disposed of or sold?	score	attained
	(i.e. does the company have data that permits rapid completion of table 5b?)		
A	Yes	10	10
B	No	0	

For example – trimmings that are converted to gelatin are classified as wastes by the EU (and by extension by this protocol), even if sold. This is indicated by the definition of recycling from the EU definitions

'recycling' means any recovery operation by which waste materials (e.g. trimmings) are reprocessed into products (e.g. gelatine), materials or substances whether for the original or other purposes. It includes the reprocessing of organic material but does not include energy recovery and the reprocessing into materials that are to be used as fuels or for backfilling operations;

Completion of the following table (available as an editable table from an LWG auditor or info@leatherworkinggroup.com) would be one example of a suitable response to question 5a. It may be necessary to modify the waste types in accordance with the types of waste generated and/or the wastes classifications used by the authorities.

5	General summary of hazardous and non-hazardous waste & part-product disposed (kg)										
	Waste Classification								Disposal Arrangements		
	Mass reused, recycled, recovered, sent to refuse								Kind of disposal (gelatine, compost etc.)	Carrier	Disposal agent
Type of waste or byproduct (solids)	Hazardous				Non-Hazardous						
	reuse (retains same function)	recycle (into other product)	recovery (heat, nutrient etc)	refuse (landfilled, destroyed)	reuse (retains same function)	recycle (into other product)	recovery (heat, nutrient etc)	refuse (landfilled, destroyed)			
Pallets											
Iron Waste Kgs						9970			Recycle	A	A
Polythene Kgs					22				Reuse	D	D
De-dusted Salt											
Raw hide fleshings											
Raw hide trimmings											
Limed hide fleshings											
Limed hide splits & trimmings											
Hair											
Tanned trimming waste											
Tanned shaving waste											
Tanned split waste											
Finished leather wastes Kgs						696			Small Leather Goods	C	C
Buffing dust Kgs						801			Leather Board	C	C
Emery paper roll Nos						79			Recycle	C	C
Finishing wastes											
Pigment, resins, dyes, chemicals											
Activated carbon											
WWTP sludge (contains chromium)											
WWTP sludge (chromium free)											
Chrome precipitation sludge											
Chemical contaminated packaging.											
Batteries/ lights/ ink cartridges											
Card & Paper											
Empty Container						583			Recycle	D	D
Employee & General waste							250		Recovery	E	E
Coal ash											
Type of waste or byproduct (Liquids)											
Waste Oil											
Waste Solvent											
Total kg of Solids (per category)	0	0	0	0	22	12129	250	0			
Total kg solids	Hazardous			0	Non-Hazardous			12401			
Percentage reused/recycled/recovered				#DIV/0!				100%			
Total kg of Liquids (per category)	0	0	0	0	0	0	0	0			
Total kg liquids	Hazardous			0	Non-Hazardous			0			
Percentage reused/recycled/recovered				#DIV/0!				#DIV/0!			

If a wastes table has not been completed in advance the table on the following page will need to be completed during the audit. All wastes should be included regardless of how they are disposed of (landfilled, incinerated, destroyed, given away, sold etc.)

6	Identify Disposal Agents and Carriers that indicate that wastes are removed from the site and disposed of in a suitable and legal manner.			
	Disposal agent or carrier	Company registration	Permit number	Permit expiry
A	Sara International	-	-	-
B	Nimbua (Ramky)	R13SAS660386	HWM/renew/SAS/2020/121	31.08.2021
C	Fiber Leather Pvt Ltd	R17JAL5316118	CTOW/Variied/JAL/2020/121	31.03.2024
D	Shiv Shanker Traders	R20ASR738928	CTOA/Fresh/ASR/2020/133	19.08.2021
E	Local Municipal Office	-	-	-
F				
G				
H				

7	Does the facility maintain records for collection and disposal of hazardous wastes (manifests, collection receipts etc.)? (All necessary statutory waste consignment documents have been completed)		
	No hazardous waste generated during audit period, some stored on site for collection.	score	attained
A	None of the wastes generated require disposal manifests as part of the disposal process	6	6
B	Yes, they are up-to-date and have been maintained for the past 18 months	6	
C	Yes, they are up-to-date and have been maintained for the past 12 months	4	
D	Yes, they are up-to-date and have been maintained for the past 6 months	2	
E	They are incomplete or have not been maintained for the periods identified above	Automatic Audit Failure	

8	Does the facility maintain records for collection and disposal of non-hazardous wastes (manifests, collection receipts etc.)? (All necessary statutory waste consignment documents have been completed)		
	Gate pass	score	attained
A	None of the wastes generated require disposal manifests as part of the disposal process	6	
B	Yes, they are up-to-date and have been maintained for the past 18 months	6	6
C	Yes, they are up-to-date and have been maintained for the past 12 months	4	
D	Yes, they are up-to-date and have been maintained for the past 6 months	2	
E	They are incomplete or have not been maintained for the periods identified above	-4	

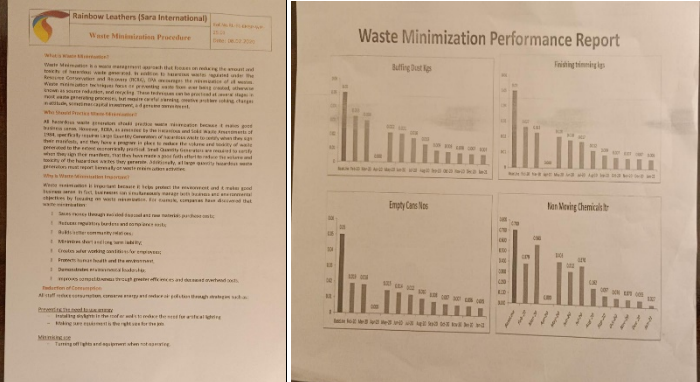
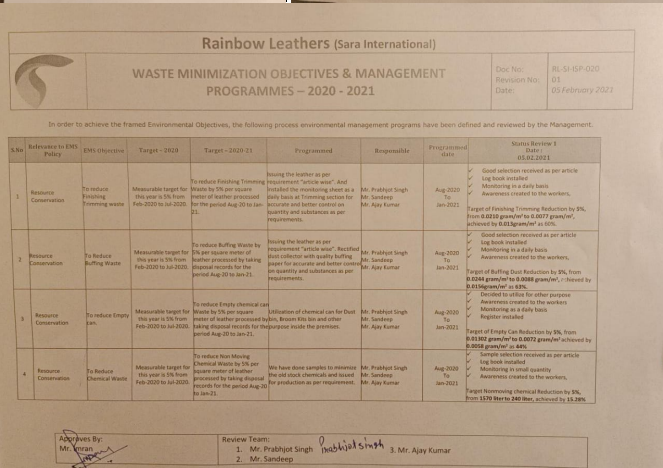
9	What % of solid hazardous wastes are			
		%	score per %	% x score
A	Recovered/recycled No solid hazardous wastes were disposed of during audit period, although they were generated and seen in the hazardous waste store.		0.06	6
B	Incinerated by licensed, regulated agent		0.03	
C	Landfilled by a licensed operator		0.03	
D	No evidence has been presented to indicate that they are legally disposed of		Automatic Audit Failure	
	TOTAL			6


10	What % of solvent and oil wastes are			
		%	score per %	% x score
A	Recovered/recycled OR No solvent or oil wastes are generated		0.06	6
B	Incinerated by licensed, regulated agent		0.03	
C	Landfilled by a licensed operator		0.03	
D	No evidence has been presented to indicate that they are legally disposed of		Automatic Audit Failure	
	TOTAL			6


11	What % of non-hazardous wastes are			
		%	score per %	% x score
A	Recovered/recycled	100%	0.04	4
B	Incinerated by licensed, regulated agent		0.02	
C	Landfilled by a licensed operator		0.02	
D	No evidence has been presented to indicate that they are legally disposed of		Automatic Audit Failure	
	TOTAL	100%		4

12	If wastes are used as a fuel source on-site which of the following gaseous emissions have been monitored within the past 18 months? <i>Wastes include both those generated by the tannery and/or any other organisation</i>		
	Cumulative	score	attained
A	No wastes are used as fuels on-site	12	12
B	Particulates	2	
C	NOx	2	
D	SO ₂	2	
E	Heavy metals	3	
F	Dioxins	3	
G	The waste is biomass that has not been contaminated with chemicals and the tannery has provided evidence that the emissions of heavy metals, dioxins, furans etc. would be unlikely	12	
H	Gaseous emissions have not been analysed within the past 18 months	-10	
I	No evidence of monitoring has been presented other than particulate matter	-45	
	Total		12

13	If wastes are used as a fuel source on-site which of the following possible contaminants of residues (ash etc.) are determined at least every 18 months?		
	Cumulative	score	attained
A	Chromium VI	1	
B	Lead	1	
C	Mercury	1	
D	Antimony	1	
E	Arsenic	1	
F	Selenium	1	
G	Barium	1	
H	Cadmium	1	
I	No wastes are used as fuels on-site	6	6
J	The waste is biomass that has not been contaminated with chemicals and the tannery has provided evidence that none of the heavy metals (lines D to K) would be present.	6	
K	The waste is classed as hazardous and disposed of as hazardous waste to a licensed operator	6	
L	Residues have not been analysed within the past 18 months	-10	
M	There is no evidence that residues have ever been analysed to ensure that they do not contain hazardous substances	-45	
	MAX 6		6

14	Is the amount of waste monitored to ensure that excessive quantities are not generated?	score	attained
A	<p>At least two major waste streams generated per unit of leather produced are regularly calculated (at least monthly). Procedures have been developed that are to be implemented if the waste generated exceeds specified levels Ref No. RL-SI-W-10.14</p>  	6	6
B	The amount of waste generated per unit of leather produced is regularly calculated (at least monthly)	2	
C	There is no monitoring of the amount of waste per unit	0	
<p>The auditor should assess that any schemes referred to are actively being progressed for scores to be awarded well presented and assessed.</p>			

15 Describe on-site storage arrangements for hazardous waste			
		score	attained
A	<p>Correctly marked, adequately segregated, locations of storage areas, good condition sealed containers, spillage containment etc</p> 	6	4
B	Adequately segregated, locations of storage areas, good condition sealed containers	3	
C	No formal segregation of stored materials is evident	-2	
D	Storage is such that ground/soil contamination could occur	Automatic Audit Failure	

16 Describe on-site storage arrangements for non-hazardous waste			
		score	attained
A	<p>Correctly marked, adequately segregated, locations of storage areas, good condition sealed containers, spillage containment etc</p> 	4	3
B	Adequately segregated, locations of storage areas, good condition sealed containers	2	
C	No formal segregation of stored materials is evident	-1	
D	Storage is such that ground/soil contamination could occur	Automatic Audit Failure	

17 Describe all on-site waste disposal methods	
N/A	

18	Empty barrels/containers from incoming hazardous chemicals and empty barrels, containers, pallets etc. that have been rendered hazardous due to contamination are		
		score	attained
A	Utilised in the factory prior to disposal in an approved manner by a licensed operator	6	
B	Returned to supplier/Recycled by a licensed agent	6	6
C	Disposed of in an approved manner by a licensed operator	2	
D	No evidence has been presented to indicate that they are legally disposed of	Automatic Audit Failure	

19	Empty barrels/containers from incoming non-hazardous chemicals are		
		score	attained
A	Utilised in the factory prior to disposal in an approved manner by a licensed operator	2	
B	Returned to supplier/Recycled by a licensed agent	2	2
C	Disposed of in an approved manner by a licensed operator	1	
D	No evidence has been presented to indicate that they are legally disposed of	Automatic Audit Failure	

20	Detail cleaning procedures employed for non-hazardous chemical containers		
		score	attained
	Ref No. RL-SI-CP/10.20, dt. 19/02/2020		
A	After checking for complete emptiness, they are washed out and the wash-water goes to the effluent system	2	2
B	No evidence that wash water goes to effluent treatment system	-2	
C	No cleaning process employed	-2	

21	Tanned-only trimmings (wet or dried) from the operation are			
		%	score per %	% x score
A	Not generated , there is no trimming of tanned-only leather(Score 4)		0.04	4
B	Recovered or recycled		0.04	
C	Landfilled or incinerated by a licensed operator		0.02	
D	No evidence has been presented to indicate that they are legally disposed of		Automatic Audit Failure	

22	Leather trimmings (retanned through to finished leather) from the operation are			
		%	score per %	% x score
A	Not generated, there is no trimming of crust or finished leather (Score 4)		0.04	
B	Recovered or recycled small leather goods	100%	0.04	4
C	Landfilled or incinerated by a licensed operator		0.02	
D	No evidence has been presented to indicate that they are legally disposed of		Automatic Audit Failure	



23	What is the recycled content and what is the recyclability of packaging materials used for despatching orders? <i>This question does not include pallets. Pallets are not recycled they are re-used</i>			
	Cumulative	%	score per %	% x score
A	What is the percentage of packaging material by weight that has been made from recycled material, (i.e. what is the recycled material content of packaging materials)?	100	0.02	2
B	To what extent are the materials used for packaging recyclable after use?	100	0.01	1


Waste Management		
Max score (total)>>> 100		Actual
Q1	4	4
Q2	1	1
Q3c	1	1
Q4a	1	1
Q5	10	10
Q7	6	6
Q8	6	6
Q9	6	6
Q10	6	6
Q11	4	4
Q12	12	12
Q13	6	6
Q14	6	6
Q15	6	4
Q16	4	3
Q18	6	6
Q19	2	2
Q20	2	2
Q21	4	4
Q22	4	4
Q23	3	3
	Total recorded >>>	97

11 EFFLUENT TREATMENT

This section is to be completed by all categories.

This section assesses a facility's management of their liquid wastes, either at their own site or at a third-party provider. It requires legal discharge of the waste water and provides higher scores for those that achieve target levels of water quality using a range of appropriate metrics.

1a	<p>Is outgoing water from the tannery monitored through effective measurement? Note - Acceptable effective measurement is by means of automatic metering, namely: Parshall with ultrasound, in-line meter, tanker of known volume with supporting transfer records.</p> <p>Internal use for non-production purposes (e.g. watering gardens, washing trucks etc.) must also be measured.</p> <p>Outgoing water volumes of less than 3m³ per day may be excluded.</p>		
	<p>This unit is ZLD, no need of water meter, but there is a water meter to the evaporation pans.</p> 	score	attained
A 	Yes, by measurement / metering of outgoing water (data available for the full 12 consecutive months of the audit period under consideration)	0	0
B	There is incomplete measurement / metering of outgoing water (data available for less than the full 12 consecutive months of the audit period under consideration)	-3.33 x months without data	
C	No measurement / metering of outgoing water	-40	

1b	What proportion of incoming water is discharged as effluent?	
		m ³
A	Incoming water volume	93.98
B	Outgoing water volume <i>to the evaporation pans/ to the environment</i>	9.39/ 0
	Proportion of incoming water that is discharged as effluent	%
	<p>If outgoing water is less than 85% of incoming water an explanation (with evidence) must be provided here</p> <p><i>This is category E facility processing dyed crust through a finishing operation. The incoming water volume includes water for finishing chemical preparation, washing of guns and domestic purpose. The domestic effluent is discharged to the industrial STP separately. The wash water is sent to an electric drier evaporation pit, no liquid is discharged to the environment.</i></p>	
	 <p><i>Water circulation system on their spray line</i></p>	

2	Which of the following types and/or sources of waste-waters are generated at the facility?	
		tick
A	Process waste-water (i.e. water that comes into contact with the tannery operations)	✓
B	Non-contact water (i.e. heat exchanged cooling water)	
C	Sanitary waste-water (i.e. domestic waste-water from food preparation areas, bathrooms, showers etc.)	✓
D	Surface water (i.e. storm water runoff)	✓

3	Do separate site drainage systems exist for the following?		
	(Check all that apply)	score	attained
A	Surface water runoff	4	4
B	Foul/sanitary effluent	4	4
C	Process effluent	4	4
D	No	-8	
	Total score (max score 8)		8

4 The treatment of process liquors is How are tannery process waste waters treated?			
Note – the period of compliance covers the 12 month period of the audit under consideration (see S3q1) as well as the follow-on period leading up to and including the date of the audit.			
(Cumulative check all that apply)		score	attained
A	Within the tannery's own waste-water treatment plant and in compliance with regulatory limits for discharge and other permit or legislative requirements (internal WWTP) ZLD Internal electrical drier evaporation pit	8	8
B	Within an external common effluent treatment plant (CETP) and in compliance with regulatory limits for discharge and other permit or legislative requirements <i>This response must be supported by 12 consecutive sets of monthly analysis covering the current audit period. The analysis must have been undertaken in an ISO 17025 certified laboratory or laboratory specified by the authority to whom the CETP reports. Recording (in this protocol document) of all possible permit/legislative discharge parameters is not required however those parameters that are jointly specified by permit legislation and marked with an asterisk in q7 are required for this question.</i>	8	
C	Within an external municipal effluent treatment plant (METP) and in compliance with regulatory limits for discharge and other permit or legislative requirements	8	
D	Within an external common effluent treatment plant (CETP) Only 4-11 data sets presented within the audit period and/or not undertaken in ISO 17025 certified laboratory or laboratory specified by the authority to whom the CETP reports.	-40	
E	Either Not undertaken (Internal WWTP, CETP, METP), Or Less than 4 data sets presented (CETP) Or Not in compliance with regulatory limits for discharge and/or other permit or legislative requirements (Internal WWTP, CETP, METP),	Automatic Audit Failure	
Total score (max score 8)			8

4b N/A	General Operating Permit of CETP/METP	
Name		
Address		
Permit Number		
Issuing Authority		
Date Permit Expires		
Geo-reference of WWTP		

5	Salt discharge (expressed as chloride) What is the mass of chloride discharged to the environment by the tannery per unit of production? This excludes legal discharge to controlled or approved receptors (i.e. landfill, marine environment) and for which evidence of permitted disposal has been presented. <i>The tannery should provide data demonstrating that the salt in ALL applicable waste streams discharged directly to the environment has been accounted for</i>		
			score (max 20, min 0)
	The mass of chloride discharged from the tannery Category "A" tanners	points = $\frac{\text{total discharge} - 182.2}{6.9871}$ Total discharge kg per tonne of hide processed (all liquid and solid waste streams)	
	The mass of chloride discharged from the tannery Category "B & C" tanners	points = $\frac{\text{total discharge} - 1181.8}{45.455}$ Total discharge grams per square metre of leather produced (all liquid and solid waste streams)	
D, E, F category tanners all score 20 points			20
	<i>EXAMPLE</i>		
	<i>The total amount of leather produced by the tannery</i>	<i>Less than 275 g/m²</i>	<i>Less than 42.5 kg per tonne</i> 20
		<i>More than 1185g/m²</i>	<i>More than 180 kg per tonne</i> 0

6	By what means do treated waste-waters enter the environment?	
		tick
A	They are used for irrigation (Go to Q20)	
B	They are discharged to a river or other inland water course	
C	They are discharged to coastal or tidal waters	
D	Evaporation (Go to Q8)	✓

7 N/A	Summary of treated waste-water generated by the facility <i>Treatment may occur on-site or off-site (such as at a common effluent treatment plant)</i>		
	Regulatory Limit (if applicable)	Annual Average Emission (ppm) At least 4 composite data points per year	
	Volume per hour		
	Volume per day		
	Volume per month		
	Volume per year		
*	Chemical Oxygen Demand*		
*	Biological Oxygen Demand		
*	Total Kjeldahl Nitrogen		
*	Suspended Solids		
*	Oil & Grease		
*	Total Chromium		
*	Chromium VI		
*	Ammonia (nitrogen)		
*	Sulphides		
	Chlorides		
	Synthetic detergent limit		
	Copper		
	Cyanide		
	Lead		
	Mercury		
	Nickel		
	Cadmium		
	Zinc		
	Sulphates		
	Phosphorous		
	pH range		
	Temperature limits		
	Prohibited contaminants		

*Chemical Oxygen Demand (must be dichromate method)

8	How frequently does the tanner/ETP operator monitor the wastewater discharge quality? <i>This question refers to</i> <ul style="list-style-type: none"> the quality of the effluent discharged from the tannery ETP (for those tanners who operate their own plant) the quality of the effluent discharged from the common ETP (for those tanners who discharge into a jointly operated plant) the quality of the effluent discharged from the municipal ETP (for those tanners who have no direct control over their own effluent treatment) 		
	Any two or more starred (*) parameters from box 7 At least TWO parameters must be recorded in order to record a score. Recording one parameter only results in no score. Two parameters at different frequencies gains the lower score, NOT the average of the two scores	score	attained
A	Daily	11	
B	At least three times per week	8	
C	Weekly or twice weekly	6	
D	Monthly Between one and three time per month	2	
E	Quarterly or every two months	0	
F	Only one parameter, regardless of frequency	0	
G	Biennially	-4	
H	Annually	-10	
I	Never	-50	
J	All water is evaporated so testing is not applicable (Go to end)	64	64

9 N/A	How frequent is 3rd party verification monitoring of the waste-water discharges (including regulatory)? <i>For tanners 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.</i>		
		score	attained
A	Monthly	13	
B	Quarterly	8	
C	Biennially	4	
D	Annually	0	
E	None in the past 12 months	-16	

Provided data exists, four out of questions 10 to 19 should be answered for scoring purposes. If tests are required, either by permit or legislation, for Oxygen Demand, Suspended Solids, Nitrogen and chromium VI, this data must be used for scoring questions 10 to 19. Selection of alternative data is only permitted when there is no permit or legislative requirement for analysis of the four specified tests.

Oxygen Demand COD, or BOD – choose one only
Suspended Solids
Nitrogen Total Kjeldahl, or Ammonia– choose one only
Chromium VI

In those instances where a tannery has its own effluent treatment plant and would be capable of legal discharge to the environment but is obliged to discharge to a municipal or common waste water treatment plant the quality of the treated tannery wastewaters may be used for scoring purposes.

10 N/A	COD Annual Average Emission (ppm). Must be dichromate based analysis		
		score	attained
A	Not measured	0	
B	> 500 ppm	0	
C	400 – 500 ppm	2	
D	300 – 400 ppm	4	
E	200 – 300 ppm	6	
F	100 – 200 ppm	8	
G	< 100 ppm	10	

11 N/A	BOD Annual Average Emission (ppm)		
		score	attained
A	Not measured	0	
B	> 300 ppm	0	
C	240 – 300 ppm	2	
D	180 – 240 ppm	4	
E	120 – 180 ppm	6	
F	60 – 120 ppm	8	
G	< 60 ppm	10	

12 N/A	TKN Annual Average Emission (ppm)		
		score	attained
A	Not measured	0	
B	> 100 ppm	0	
C	80 – 100 ppm	2	
D	60 – 80 ppm	4	
E	40 – 60 ppm	6	
F	20 – 40 ppm	8	
G	< 20 ppm	10	

13 N/A	Suspended Solids Annual Average Emission (ppm)		
		score	attained
A	Not measured	0	
B	> 100 ppm	0	
C	80 – 100 ppm	2	
D	60 – 80 ppm	4	
E	40 – 60 ppm	6	
F	20 – 40 ppm	8	
G	< 20 ppm	10	

14 N/A	Total Chromium Annual Average Emission (ppm)		
		score	attained
A	Not measured	0	
B	> 2 ppm	0	
C	1.6 – 2 ppm	2	
D	1.2 – 1.6 ppm	4	
E	0.8 – 1.2 ppm	6	
F	0.4 – 0.8 ppm	8	
G	< 0.4 ppm	10	

15 N/A	Chromium VI Annual Average Emission (ppm)		
		score	attained
A	Not measured	0	
B	> 0.1 ppm	0	
C	0.08 – 0.1 ppm	2	
D	0.06 – 0.08 ppm	4	
E	0.04 – 0.06 ppm	6	
F	0.02 – 0.04 ppm	8	
G	< 0.02 ppm	10	

16 N/A	Ammonia Annual Average Emission (ppm)		
		score	attained
A	Not measured	0	
B	> 50 ppm	0	
C	40 – 50 ppm	2	
D	30 – 40 ppm	4	
E	20 – 30 ppm	6	
F	10 – 20 ppm	8	
G	< 10 ppm	10	

17 N/A	Ammoniacal Nitrogen Annual Average Emission (ppm)		
		score	attained
A	Not measured	0	
B	> 50 ppm	0	
C	40 – 50 ppm	2	
D	30 – 40 ppm	4	
E	20 – 30 ppm	6	
F	10 – 20 ppm	8	
G	< 10 ppm	10	

18 N/A	Sulphide Annual Average Emission (ppm)		
		score	attained
A	Not measured	0	
B	> 5 ppm	0	
C	4 – 5 ppm	2	
D	3 – 4 ppm	4	
E	2 – 3 ppm	6	
F	1 – 2 ppm	8	
G	< 1 ppm	10	

19 N/A	Oil & Grease Annual Average Emission (ppm)		
		score	attained
A	Not measured	0	
B	> 100 ppm	0	
C	80 – 100 ppm	2	
D	60 – 80 ppm	4	
E	40 – 60 ppm	6	
F	20 – 20 ppm	8	
G	< 20 ppm	10	

The following questions (21 - 23) relate to waste-waters used for irrigation. Waste-water treatment plants discharging to a water course should by pass these questions and proceed to question 24

20 N/A	Is irrigation subject to permit conditions?		
		score	attained
A	Yes – the permit is issued in the name of the tannery The permit details must be listed in Section 2 Operations/discharges should already have been checked - return to Section 2 if this has been overlooked.	10	
B	Yes – the permit is issued in the name of the organisation undertaking treatment on behalf of the tannery (identified below) and evidence has been presented that this organisation is irrigating in accordance with its permit conditions	10	
C	Yes – the permit is issued in the name of the organisation undertaking treatment on behalf of the tannery (identified below) but no evidence has been presented that this organisation is irrigating in accordance with its permit conditions	Automatic Audit Failure	
D	No – there are no conditions applicable in the state/country where irrigation is occurring but the organisation adheres to the requirements of a neighbouring state/country where standards are applicable	10	
E	No permit is required but the tannery has presented evidence that it is irrigating in accordance with all local/regional/national legislations	10	
	Name of organisation irrigating if not the tannery		


21a N/A		For which of the following properties are wastewaters analysed prior to discharge on to land for the purposes of irrigation			
		Note; if the irrigator is a municipal authority they will be deemed competent to undertake the required analysis. Full marks should be awarded for this question if a declaration is obtained from the authority that it is irrigating in accordance with its legislative and permit requirements.			
	Pollutant	Regulatory Limit (if applicable)	Annual Average Emission (ppm) At least 4 measures	Score	attained
	Total Chromium			2	
	Chromium VI			2	
	Chloride			2	
	TKN or other N determination			2	
	Other State type			1	
	Other State type			1	
	Other State type			1	
	Other State type			1	
	Other State type			1	
	Other State type			1	
	Other State type			1	
	Other State type			1	
	Other State type			1	
	Other State type			1	
			TOTAL	17	

21b N/A	Has the data above been obtained from an independent laboratory?			
	Yes			0
	No – deduct all points attained in 22a			
			TOTAL	

22a N/A		For which of the following properties are soils analysed following irrigation with tannery wastewaters?			
		Note; if the irrigator is a municipal authority they will be deemed competent to undertake the required analysis. Full marks should be awarded for this question if a declaration is obtained from the authority that it is irrigating in accordance with its legislative and permit requirements.			
	Pollutant	Regulatory Limit (if applicable)	Last recorded average concentration	Score	
	Total Chromium			4	
	Chromium VI			4	
	Chloride			4	
	TKN or other N determination			4	
	Other State type			3	
	Other State type			3	
	Other State type			3	
	Other State type			3	
	Other State type			3	
	Other State type			2	
	Other State type			2	
	Other State type			1	
	Other State type			1	
Total				37	

22b N/A	Has the data above been reviewed and approved as acceptable by an independent soil analyst?			
	Yes		0	
	No – deduct all points attained in 24a			
			TOTAL	

23 N/A	What types of primary treatment system are in place and observed?		
	<i>Treatment may occur on-site or off-site (such as at a common effluent treatment plant)</i>		
	(check all that apply)	Observed on-site	Observed off-site
A	Automatic/manually raked screen (s)	<input checked="" type="checkbox"/>	
B	Oxidation of S2-		
C	Settlement		
D	Grease traps		
E	Clarification by coagulation		
F	Clarification by flocculation		
G	DAF- Dissolved Air Flotation system		
H	Other (state type)		

24	Which of the following techniques are used to reduce the biological loading of the effluent? <i>Treatment may occur on-site or off-site (such as at a common effluent treatment plant)</i>		
	(check all that apply)	Observed on-site	Observed off-site
A	Anaerobic treatment or UASB	<input checked="" type="checkbox"/>	
B	Oxidation ditch with activated sludge		
C	De-nitrification		
D	Nitrification		
E	Other (state type) ZLD – Electrical Drier Evaporation Pit 	<input checked="" type="checkbox"/>	

25 N/A	Tertiary Treatment technology applied consists of (select main type only) <i>Treatment may occur on-site or off-site (such as at a common effluent treatment plant)</i>		
	(check all that apply)	Observed on-site	Observed off-site
A	Final clarifier	<input checked="" type="checkbox"/>	
B	Sand filter		
C	Reed beds/controlled wetlands		
D	Activated carbon filter		
F	Fenton system		
G	Membrane filtration nanofiltration		
H	Membrane filtration ultrafiltration		

For award of Gold tanneries must be able to demonstrate measurement of emissions for any of the 4 discharge pollutants specified and achieve at least 32 points from in questions 10 to 19

For award of Silver tanneries must be able to demonstrate measurement of emissions for any of the 4 discharge pollutants specified and achieve at least 24 points from questions 10 to 19

For award of Bronze tanneries must be able to demonstrate measurement of emissions for any 4 discharge pollutants specified but must achieve at least 20 points from questions 10 to 19

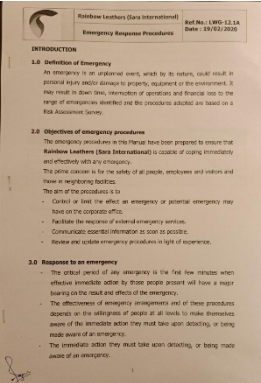
Parameter	Score	
Total score		Possible Award level:

Effluent Treatment				
		Discharge of liquid effluent	Tanners who irrigate	
Max score (total) >>> 100				
Q1		0	0	0
Q3		8	8	8
Q4		8	8	8
Q5		20	20	20
Q8		11	0	64
Q9		13	0	0
Q10	Only four of these questions are to be scored	10	0	0
Q11		10	0	0
Q12		10	0	0
Q13		10	0	0
Q14		0	0	0
Q15		0	0	0
Q16		0	0	0
Q17		0	0	0
Q18		0	0	0
Q19		0	0	0
Q20		0	10	0
Q21		0	17	0
Q22		0	37	0
Total recorded >>>				100


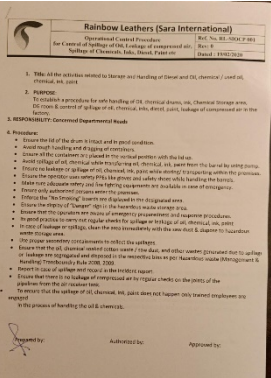
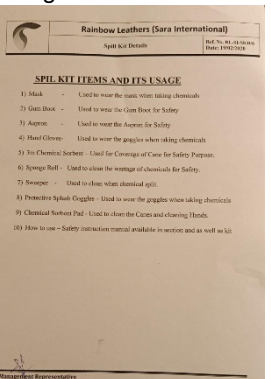
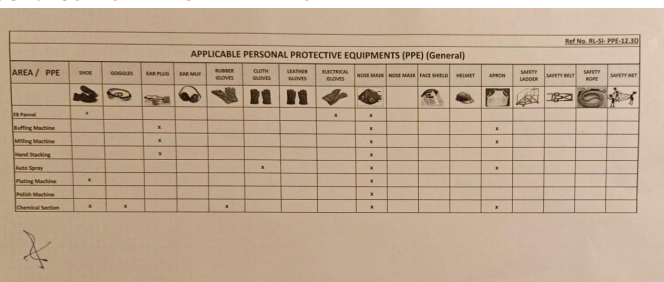
12 EMERGENCY PLANS


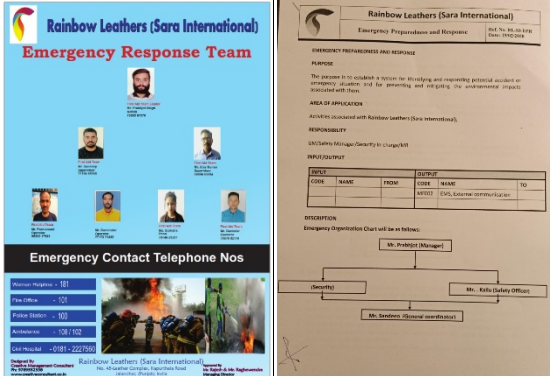
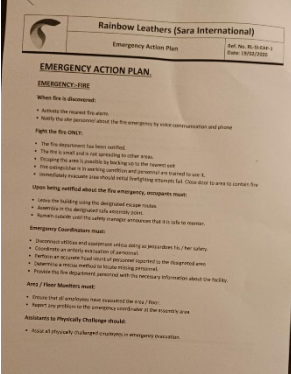
This section is to be completed by all categories.

This section assesses the facility's ability to manage a range of emergency and health and safety risks. This includes systems, processes and responsibilities. It also requires an assessment of risk and management in relation to the creation of Hydrogen Sulphide on site.

1	Has the facility prepared a formal fire and environmental protection plan addressing emergencies?	score	attained
	Ref. No. LWG-12.1.A dt. 19/02/2020		
A	Full, integrated multi-point plan presented 	5	5
B	Partial plan in existence but not formalised	3	
C	No evidence of protective measures exists	-3	

2	Does the company have a representative on-site who manages the emergency plan?	score	attained
A	Yes, individual whose sole responsibility is health and safety issues	4	
B	Yes, individual who is appointed but who has other duties Mr. Prabhjot Singh	2	2
C	No	0	

3	Does the plan specify the following? (CUMULATIVE check all that apply)	score	attained
A	Emergency contacts list RL-SI-ECL/12-3F 	2	2
B	Emergency events that could occur; for example, fire, toxic chemical releases, explosions etc. Ref.RL-SI-OCP-001 to 012 	2	2
C	Provision and contents of spill-kits required to deal with the emergencies identified Ref. RL-SI-SKD/6 dt. 19/02/2020 	2	2
D	Personal protective equipment required to deal with the emergencies identified Ref. RL-SI-PPE-12.3.D 	2	2

E	<p>First aid measures, key personnel Ref.No. ERP-12.1</p> 	2	2
F	<p>How the emergency services are contacted, how they gain access to the plant and with whom they liaise Ref.No. ERT-12.1A</p> 	2	2
G	<p>Evacuation procedures Ref.No. RL-SI-EAP-1 dt. 19/02/2020</p> 	2	2
Total score			14

4	How are emergency responses provisions reviewed and updated?	score	attained
A	Regular assessment and updating as a matter of company policy (at least monthly)	5	
B	Periodical review of internal audit reports by the Safety Manager, improvements agreed with the company directors on a quarterly basis.	3	3
C	No up-dating is envisaged as necessary, the current plan is adequate	0	

5	What training is given to emergency response team members? <i>(documentary evidence required to support the statement selected below):</i>	score	attained
Fire fighting, Mock drill, First Aid, Chemical Handling			
A	External certification by external 3 rd party authority, including regular exercises and periodical re-assessment	8	
B	External certification by external 3 rd party authority	4	4
C	Internal training system with regular re-assessment	2	
D	No formal training given	0	

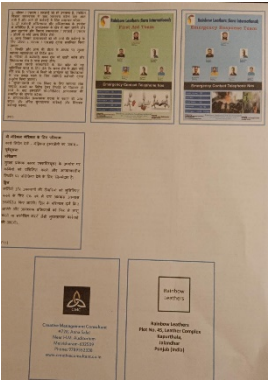
6	What is the frequency of emergency practice drills?		
		score	attained
A	Monthly	4	4
B	Every 6 months	2	
C	Every 12 months	1	
D	No formal arrangement	0	

7	Have local agencies/authorities been informed of the emergency procedures and facility operations?		
		score	attained
A	Yes	5	5
B	No	0	

8	How many events requiring implementation of an emergency response have occurred in the past 3 years (excluding natural phenomena and events originating off-site due to third party activity)?		
		score	attained
A	None	4	4
B	1-3	0	
C	More than 3	-4	

9	Did the company notify the auditor in writing (within 30 days) of any fatalities? Only applies to tanneries undergoing re-audit but applies to the period since the previous audit		
		Score	attained
A	There have been no fatalities	0	0
B	There have been fatalities and they have been reported to the auditor within 30 days	Number of instances 0	
C	There have been fatalities but they have not been reported to the auditor within 30 days	Number of instances -20	
D	This is the first audit for the company	0	0
State details and dates of fatality N/A			

10	Is there a formal induction programme for new employees?		
		score	attained
	RL-SI-OHS-IT-01, dt. 19/02/2020		
A	Yes, it is completed on or prior to the first day of employment	4	
B	Yes, it is completed within the first week of employment	2	2
C	Yes, it is completed within the first month of employment	0	
D	A new employee could have been working in excess of a month without formal induction	-10	

11 Emergency response actions are demonstrated by			
CUMULATIVE		score	attained
A	Exit signs and exit areas being clearly marked and accessible.	3	3
B	Evacuation routes and destinations being clearly marked	3	3
C	There is at least one externally trained emergency response team member for every 30 workers (state number...15/15.....)	3	3
D	All employees are issued with a manual describing emergency response requirements 	3	3

12 Monitoring of workplace exposure to VOCs is undertaken by			
		score	attained
A	Not undertaken because usage is less than 35 g/m ² of finished leather.	12	
B	Third party, quarterly monitoring in the vicinity of the release points close to workers	12	12
C	Quarterly monitoring in the vicinity of the release points close to workers	8	
D	Third party annual monitoring in the vicinity of the release points close to workers	4	
E	Annual monitoring in the vicinity of the release points close to workers	2	
F	Not undertaken even though usage is more than 35 g/m ² of finished leather	-30	

13a	<p>Has a risk assessment of beamhouse or other workplace exposure to hydrogen sulphide (H₂S) been undertaken by a competent assessor?</p> <p><i>RISK ASSESSMENT means considering the potential harm to employees when on the site and must be based on the current scope of operations. These risks maybe in different parts of the site and could include:</i></p> <ul style="list-style-type: none"> • Beamhouse processing either in the drum or in the working areas; • Chemical handling e.g. of sulphides and acids –for delivery systems, storing and handling; • Inside confined spaces (e.g. process drums, pipes or tanks) where hydrogen sulphide may build up and employees may enter; • Other risks not identified here <p><i>A risk assessment is NOT a single or annual hydrogen sulphide test which shows compliant results – with no further action required. The risk of injury or death by H₂S is often a “one off” event or accident; therefore, a good risk assessment would consider these potential issues of risk and implement actions to reduce risk.</i></p> <p><i>The assessment may be made by third parties with H₂S expertise or by in-house personnel with training/ qualifications in gas management or confined space entry.</i></p> <p>Recommendations made by the assessor must be demonstrated to have been acted upon</p>		
<p>Cumulative Risk assessment ref# CMC-RAR004-A 17/07/2020</p>		score	attained
A	<p>The written assessment includes the risks of H₂S release and poisoning associated with processing and the conclusions and/or recommendations have been shown to have been implemented. Category E facility- no risk found, however have installed signage board and training given to all employees.</p>	4	4
Not undertaken for this area		-5	
B	<p>The written assessment includes the risks of H₂S release and poisoning associated with chemical management (storage, weighing, transfer to drum etc.) and the conclusions and/or recommendations have been shown to have been implemented. No Risk found, but have installed signage board and training given to all employees.</p>	4	4
Not undertaken for this area		-5	
C	<p>The written assessment includes the risks of H₂S poisoning associated with maintenance activities (entry into confined spaces, drainage sumps etc) and the conclusions and/or recommendations have been shown to have been implemented. No Risk found, but have installed signage board and training given to all employees.</p>	4	4
Not undertaken for this area		-5	
D	<p>Risk assessment has been undertaken but the assessor’s recommendations not acted upon (for any of A, B, or C).</p>	-15	
		(Max 12)	12

Basis upon which the assessor is considered competent to undertake the assessment Undertaken by Mr. Mohamed Imran trained by UNIDO on How to Deal with H₂S gas

Monitoring Results:

The Monitoring in different areas is carried out Rainbow Leathers to find the H₂S and NH₃ releases during the process. The Monitoring results for H₂S and NH₃ is depicted in Table 1. The risk assessment taken as a monthly basis in all action, the below report is found as on 15th July 2020.

Table 1: Monitoring Results

Sl. No.	Location	Sampling Code	H ₂ S ppm	NH ₃ ppm
1	Near Main Gate	SA1	BDL (DL-1.0)	BDL (DL-1.0)
2	Near Waste Water Collection Tank	SA2	BDL (DL-1.0)	BDL (DL-1.0)
3	Near Admin Office	SA3	BDL (DL-1.0)	BDL (DL-1.0)
4	Near Fresh Water Sump	SA4	BDL (DL-1.0)	BDL (DL-1.0)
5	Crust Leather Store	SA5	BDL (DL-1.0)	BDL (DL-1.0)
6	Finishing Sample Section	SA6	BDL (DL-1.0)	BDL (DL-1.0)
7	Near Acid Spray	SA7	BDL (DL-1.0)	BDL (DL-1.0)
8	Finishing Chemical Section	SA8	BDL (DL-1.0)	BDL (DL-1.0)
9	Near Workers Toilet	SA9	BDL (DL-1.0)	BDL (DL-1.0)
10	Near Buffering Section	SA10	BDL (DL-1.0)	BDL (DL-1.0)
11	Near Collection Tank	SA11	BDL (DL-1.0)	BDL (DL-1.0)
12	Near Holding Tank	SA12	BDL (DL-1.0)	BDL (DL-1.0)
13	Near Finishing Sump	SA13	BDL (DL-1.0)	BDL (DL-1.0)
14	Near Plunge Storage Area	SA14	BDL (DL-1.0)	BDL (DL-1.0)
15	Near Rain Water Harvesting	SA15	BDL (DL-1.0)	BDL (DL-1.0)
16	Near Empty Container Area	SA16	BDL (DL-1.0)	BDL (DL-1.0)
17	Stacking Section	SA17	BDL (DL-1.0)	BDL (DL-1.0)
18	Near Power Room	SA18	BDL (DL-1.0)	BDL (DL-1.0)
19	Near Buffering Dust Section	SA19	BDL (DL-1.0)	BDL (DL-1.0)

Recommendations:

In order to take efficient control measures, training sessions has been conducted to all concerned workers, securities and staff regarding the dangers of H₂S & NH₃ gas and what to do if such exposure had occurred. Overall, it was found that the Unit follows a very good infrastructure practices pertaining to H₂S & NH₃ gas control, and the limits were found to be well within the permissible norms (negligible).

There is no Beamhouse in this premises, this tannery is from Crust to finished leather (Dry Unit) and there is no chance to produce H₂S, all the finishing waste water goes to Solar Evaporation Plant for further evaporation (DD), and there is some chance to produce H₂S gas in this premises. There is no requirement of H₂S in this premises.

We have advised to monitor the gas in this whole tannery along with office, maintenance, and other process area like near Chemical area, confined spaces, drainage, sump etc as a regular basis.

Safety was the top priority of the organization and the management and this was further emphasized in the training session at the Rainbow Leathers.

Mohamed Imran
Creative Management Consultant
Environmental and Safety Competent Person
UNIDO Certified for H₂S

13a(i)	Does the risk assessment include or make reference to a site plan on which the areas of risk have been identified?	score	attained
	Category E facility- no risk areas identified.		
A	There is a plan which shows the areas where a release of H ₂ S would be expected to be detected by a fixed point detector (Including an indication of where the detector(s) are located)	0	0
B	There is a plan which shows the areas where entry is not permitted without a personal monitor.	0	
C	There is no plan indicating areas of risk	-25	

13b	In the event of release of hydrogen sulphide (H ₂ S) in general production areas. is there a mechanism for detection?	score	attained
	Responses relating to personal monitors are only accepted for those monitors that have a triple alarm system of sound, vibration and light. The type, number and position of detection equipment necessary for the site should be identified within the competent risk assessment. Category E tannery no risk identified		
A	There is constant, fixed , monitoring detection coupled to an alarm system which alerts all areas of the site including offices, and ALL workers in at risk areas at all times carry personal H ₂ S detectors	6	6
B	There is constant, fixed , monitoring detection coupled to an alarm system which alerts all of the process areas on the site and ALL workers in at risk areas at all times carry personal H ₂ S detectors	4	
C	There is constant, fixed , monitoring detection coupled to an alarm system which alerts certain process areas e.g. beamhouse and areas where sulphide containing chemicals are stored, weighed transported etc and ALL workers in at risk areas at all times carry personal H ₂ S detectors	2	
D	There is constant, fixed , monitoring detection coupled to an alarm system which alerts at least certain process areas e.g. beamhouse only, without personal detectors.	1	
E	There is NO constant, fixed , monitoring detection coupled to an alarm system however ALL workers in at risk areas carry personal H ₂ S detectors	1	
F	There is no constant, fixed, or personal detection monitoring of potential high levels of hydrogen sulphide	Automatic Audit Failure	
		(Max 6)	6

14a	Has a risk assessment of exposure to hydrogen sulphide (H₂S) at the waste water treatment plant been undertaken by a competent assessor?		
	Recommendations made by the assessor must be demonstrated to have been acted upon	score	attained
A	The written assessment includes the risks of H ₂ S release and poisoning associated with waste water treatment operations and the conclusions and/or recommendations have been shown to have been implemented.	5	
B	Risk assessment has not been undertaken, the assessor's recommendations not acted upon and/or the assessor was found not to be competent, because existing risks were not mentioned.	-15	
C	The company does not operate its own WWTP	5	5

Basis upon which the assessor is considered competent to undertake the assessment
Risk Assessment report Ref No.CMC-RAR004-A dt 15/07/2020 by Mohamed Imran certified by UNIDO on How to Deal with Hydrogen Sulphide Gas dt 15/07/2020

Creative Management Consultant

Report on
Studies on Risk Assessment
of Hydrogen Sulphide and Ammonia Gas
for
M/s. Rainbow Leathers,
Plot No. 45, Kapurthala Road,
Leather Complex,
Jalandhar – 144 027,
Punjab, India.

Submitted to
M/s. Rainbow Leathers,
Plot No. 45, Kapurthala Road,
Leather Complex,
Jalandhar – 144 027,
Punjab, India.

Prepared By
Creative Management Consultant
Competent Person Certified by UNIDO

Monitoring Results:
The Monitoring in different areas is carried out Rainbow Leathers to find the H₂S and NH₃ releases during the process. The Monitoring results for H₂S and NH₃ is depicted in Table 1.
The risk assessment is taken as a monthly basis in all section, the below result is found as on 15th July 2020.

Table -1 Monitoring Results

S. No.	Location	Sampling Code	H ₂ S ppm	NH ₃ ppm
1	Near Main Gate	SA3	BOL (DL-1.0)	BOL (DL-1.0)
2	Near Waste Water Collection Tank	SA2	BOL (DL-1.0)	BOL (DL-1.0)
3	Near Admin Office	SA3	BOL (DL-1.0)	BOL (DL-1.0)
4	Near Fresh Water Pump	SA4	BOL (DL-1.0)	BOL (DL-1.0)
5	Crust Leather Store	SA5	BOL (DL-1.0)	BOL (DL-1.0)
6	Finishing Sample Section	SA6	BOL (DL-1.0)	BOL (DL-1.0)
7	Near Auto Spray	SA7	BOL (DL-1.0)	BOL (DL-1.0)
8	Finishing Chemical Section	SA8	BOL (DL-1.0)	BOL (DL-1.0)
9	Near Workers Toilet	SA9	BOL (DL-1.0)	BOL (DL-1.0)
10	Near Buffer Section	SA10	BOL (DL-1.0)	BOL (DL-1.0)
11	Near Collection Tank	SA11	BOL (DL-1.0)	BOL (DL-1.0)
12	Near Holding Tank	SA12	BOL (DL-1.0)	BOL (DL-1.0)
13	Near Finishing Solar Evaporation pans	SA13	BOL (DL-1.0)	BOL (DL-1.0)
14	Near Sludge Storage Area	SA14	BOL (DL-1.0)	BOL (DL-1.0)
15	Near Rain Water Harvesting	SA15	BOL (DL-1.0)	BOL (DL-1.0)
16	Near Empty Container Area	SA16	BOL (DL-1.0)	BOL (DL-1.0)
17	Stacking Section	SA17	BOL (DL-1.0)	BOL (DL-1.0)
18	Near Power Room	SA18	BOL (DL-1.0)	BOL (DL-1.0)
19	Near Buffer Dust Section	SA19	BOL (DL-1.0)	BOL (DL-1.0)

Recommendations:

In order to take efficient control measures, training sessions has been conducted to all concerned workers, accidents and death regarding the dangers of H₂S & NH₃ gas and what to do if such exposure had occurred. Overall, it was found that the Unit follows a very good infrastructure practice pertaining to H₂S & NH₃ gas control, and the limits were found to be well within the permissible norms (negligible).

There is no Beamhouse in this premises, this tertiary is from Crust to finished leather (Dry Unit) and there is no chance to produce H₂S at the finishing waste water gas to Solar Evaporation Pans for further evaporation (ZLD). And there is some chance to produce H₂S gas in this premises. There is no requirement of H₂S to this premises.

We have advised to monitor the gas in this whole tannery along with office, maintenance, and other process areas like near Chemical area, confined spaces, drainage, jumps etc at a regular basis.

Safety was the top priority of the organization and the management and this was further emphasized in the training session at the Rainbow Leathers.

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Environmental and Safety Competent Person
UNIDO Certified for H₂S

14b	In the event of release of hydrogen sulphide (H₂S) in the WWTP areas is there a mechanism for detection?		
	Responses relating to personal monitors are only accepted for those monitors that have a triple alarm system of sound, vibration and light. The type, number and position of detection equipment necessary for the site should be identified within the competent risk assessment.	score	attained
	There is no WWTP, ZLD Unit		
A	All workers in the WWTP areas at all times carry personal H ₂ S detectors	0	0
B	There is no personal detection monitoring of potential high levels of hydrogen sulphide in WWTP areas	Automatic Audit Failure	

Emergency Plans		
Max score (total) >>> 100		Actual
Q1	5	5
Q2	4	2
Q3	14	14
Q4	5	3
Q5	8	4
Q6	4	4
Q7	5	5
Q8	4	4
Q9	0	0
Q10	4	2
Q11	12	12
Q12	12	12
Q13a	12	12
Q13a(i)	0	0
Q13b	6	6
Q14a	5	5
Q14b	0	0
	Total recorded >>>	90

13 HOUSEKEEPING

This section is to be completed by all categories.
 This section is now a critical section for scoring and awards (P6.6.0 onwards)
 There is a [Guidance Note](#) associated with this question

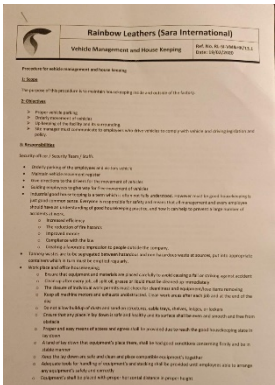
This section assesses the facility’s general management of manufacturing space, such as machinery, work in progress, material storage, walking and transport areas, etc. Although not a requirement of the audit, there is also the ability for an auditor to identify significant risks that fall outside the scope of the audit protocol (see q9).

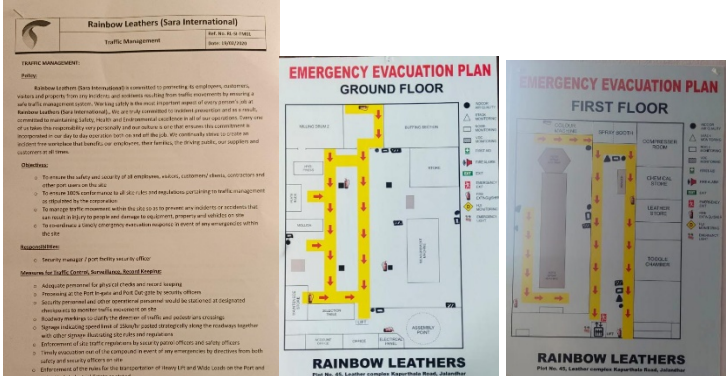

The auditor will assess the questions in relation to three departments (manufacturing sections) taken at random but appropriate to the range of operations of the tannery plus the external areas of the tannery. The score for each question will be the average of the scores recorded for each department. Depending upon the scale of operations the auditor may decide to assess more than three departments in order to more accurately report the state of housekeeping.







If an assessment of the state of housekeeping of the external areas of the tannery is possible this should be done, if it is not applicable an additional area should be substituted instead.







NB: In some organisations it is not possible to clearly identify three distinct departments. Examples include wet blue tanneries (where there is often only the drum platform and samming/sorting areas) and PU coating plants (where there is often only the main PU coating line). In such circumstances the score should be based on the departments that can be assessed. A justification must be included in the report if less than three departments are assessed.





Department #1	Department #2	Department #3
Spray Section	Milling/ Buffing Section	Mechanical Section







1	Is there a procedure in place for regular/ongoing cleaning/housekeeping?		
	Ref No. RL-SI-VM&HK/13.1, dt. 19/02/2020	score	attained
A	Yes 	2	2
B	No	0	







2	<p>Is there a traffic management system for controlling motor vehicle and pedestrian movement within the internal production areas and external perimeter of the site?</p>		
	<p>Cumulative Score Ref No.RL-SI-TM01, dt.19/02/2020</p>	score	attained
A	<p>Yes, there is a written document and site map</p> 	2	2
B	<p>Signage throughout the site clearly indicates those areas which are pedestrian traffic only and those which are not. Markings indicate separate access routes for pedestrians and vehicles (other than designated crossing points).</p>	2	0
C	<p>Signage throughout the site clearly indicates access routes; pedestrians and vehicles share the same access routes.</p> 	1	1
D	<p>Traffic management is included in the induction of employees, visitors and contractors.</p>	2	2
	<p>TOTAL (Max 6)</p>		5





3 Access routes (walkways, fork-truck routes, etc) If the area being assessed is a wet area, painted lines are not expected (respond to the first of the two options for each wet area).			
		Maximum Score	Score
Dept 1 SS 	Access routes are clearly marked (e.g. with clearly defined visible lines) and are free from obstruction 	15	15
	Access routes are not marked (e.g. with clearly defined visible lines) but are free from obstruction	10	
Dept 2 MBS 	Access routes are clearly marked (e.g. with clearly defined visible lines) and are free from obstruction 	15	15
	Access routes are not marked (e.g. with clearly defined visible lines) but are free from obstruction	10	
Dept 3 MS 	Access routes are clearly marked (e.g. with clearly defined visible lines) and are free from obstruction 	15	15
	Access routes are not marked (e.g. with clearly defined visible lines) but are free from obstruction	10	
		Maximum possible average = 15 Average	15


4 Work in Progress (WIP) If the area being assessed is a wet area, painted lines are not expected (respond to the first of the two options for each wet area).			
		Maximum Score	Score
Dept 1 SS 	WIP is in areas that are clearly marked (e.g. with clearly defined visible lines) and are free from obstruction 	15	15
	WIP is in areas that are not marked but are free from obstruction.	10	
Dept 2 MBS 	WIP is in areas that are clearly marked (e.g. with clearly defined visible lines) and are free from obstruction 	15	15
	WIP is in areas that are not marked but are free from obstruction.	10	
Dept 3 	WIP is in areas that are clearly marked (e.g. with clearly defined visible lines) and are free from obstruction 	15	15
	WIP is in areas that are not marked but are free from obstruction.	10	
Maximum possible average = 15 Average			15


5		Chemicals	
		Maximum Score	Score
Dept 1 SS 	Chemicals are not used in the department	15	
	Chemicals are in areas that are clearly marked (e.g. with clearly defined visible lines) and are free from obstruction 	15	15
	Chemicals are in areas that are not marked but are free from obstruction.	10	
Dept 2 	Chemicals are not used in the department	15	15
	Chemicals are in areas that are clearly marked (e.g. with clearly defined visible lines) and are free from obstruction	15	
	Chemicals are in areas that are not marked but are free from obstruction.	10	
Dept 3 	Chemicals are not used in the department	15	15
	Chemicals are in areas that are clearly marked (e.g. with clearly defined visible lines) and are free from obstruction	15	
	Chemicals are in areas that are not marked but are free from obstruction.	10	
		Maximum possible average = 15 Average	15

6	Equipment		
	Does the equipment used by staff in the department (for example brooms, thermometers, buckets etc.) have defined storage locations?	Maximum Score	Score
Dept 1 		2	2
Dept 2 		2	2
Dept 3 		2	2
Maximum possible average = 2 Average			2

7	General cleanliness	Maximum Score	Score
Dept 1 		10	7
Dept 2 		10	7
Dept 3 		10	7
Maximum possible average = 10 Average			7

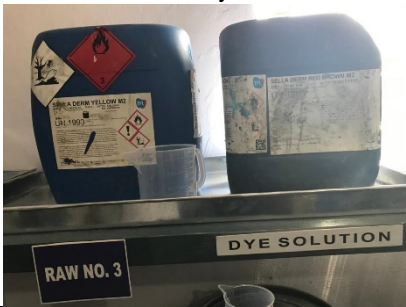
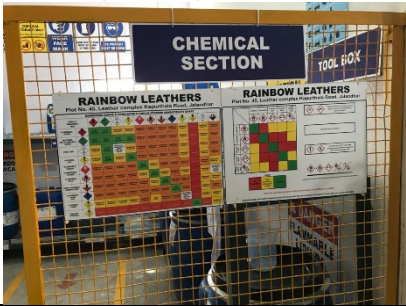

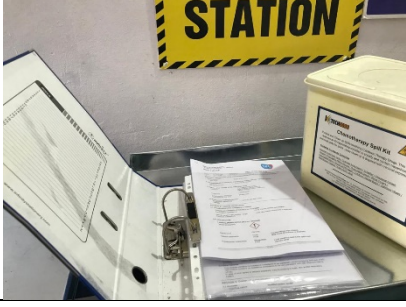
8 The grounds/outside areas(or other internal area if not applicable)			
	What proportion of the grounds/the outside areas (or other internal area if not applicable) are clean and tidy?	Maximum Score	Score
A 	The grounds/outside areas 	5	4
B 	Other internal area crust storage area 	5	4
Maximum possible average = 5 Average			4



9a	Are drums / vessels appropriately and sufficiently guarded at ground level? The minimum required method of guarding must physically prevent contact with any moving drum and be secured from a fixed position.	Marks	Score
		10	
A 🚫	Drums are of a sufficient height that physical contact is not possible (evidence must be provided)	10	
B 🚫	All drums have fine grill, full height level guarding (infrared technology will be accepted on floor level)	10	
C 🚫	All drums have at least flat panel guarding to waist height 	8	8
D 🚫	All drums have at least solid metal bar guarding	6	
E 🚫	All drums have at least the minimum required standard of guarding as described above	3	
F 🚫	One or more drums has insufficient or no guarding	Referral	
	Total (Maximum 10)		8
	Referral: If the issue is considered serious the auditor could refer directly to TSG. If direct referral is not considered necessary a justification, with any corrective action (if appropriate), including timeframe, must be entered here:		

9b Does the drum guarding include an auto cut-off mechanism?			
		Marks	Score
A 📷	Yes 	0	0
B 📷	No	-2	
Total			0

10a Are platforms and overhead working areas (including drum access) appropriately and sufficiently guarded? The minimum required method of guarding must physically prevent contact with any moving drum, risk of falling from height and be securely fixed.			
	N/A	Marks	Score
A 📷	All platforms and overhead working areas have fine grill guarding from drums and safety rails for walkway and staircase access.	10	
B 📷	All platforms and overhead working areas have at least solid metal bar guarding at waist height.	6	
C 📷	One of more areas has no guarding	Referral	
Total (Maximum 10)			10
Referral: If the issue is considered serious the auditor could refer directly to TSG. If direct referral is not considered necessary a justification, with any corrective action (if appropriate), including timeframe, must be entered here:			

10b Does the drum guarding include an auto cut-off mechanism?			
	N/A	Marks	Score
A 📷	Yes	0	
B 📷	No	-2	
Total			0

11 Main Chemical Storage Area: Are the chemicals within the storage area adequately stored and labelled?			
Cumulative Scoring Questions		Marks	Score
A	Are chemicals clearly labelled? 	2	2
B	IBCs are not stored more than 3 units high No IBC's on site	2	2
C	Incompatible chemicals are not stored together (refer to an incompatibility chart for guidance) 	2	2
D	If racking is used, all liquid chemicals are NOT stored above powder chemicals All chemicals on site are liquid, see below	1	1
E	If racking is used, is it correctly weight labelled and in good condition / fit for purpose 	1	1
F	Health & safety information is available for workers in the area 	2	2
Total (Maximum 10)			10

12	Is the company operating in a manner that could be considered to conform to globally recognized standards or are there practices that are likely to lead to detriment of the reputation of LWG should the tanner be otherwise awarded certification?		
Caveat #1			
The LWG audit is principally an environmental audit undertaken by auditors approved by LWG as specialists in tannery environmental auditing. The auditors are not necessarily specialists in building stability, electrical & mechanical safety or issues related to corporate social responsibility. A positive assessment in response to the issues below is only a value judgment based on experience and observations made at the time of the audit. It is not an endorsement of compliance to the legislative requirements to which the tannery may be subject. It does not imply that the tannery is operating legally with respect to these issues.			
	Does the tannery appear to be operating suitably with respect to the following issues?	Yes	No
A 📷 (if "no")	Buildings and infrastructure appear to be well maintained	✓	
B 📷	Moving equipment (splitting machines, staking machines, presses, let driven motors, etc) appear to be appropriately and sufficiently guarded 	✓	
C 📷	Appropriate PPE is provided and its use enforced 	✓	
D 📷 (if "no")	Electrical systems appear to be suitably enclosed so as to prevent electrocution	✓	
E 📷 (if "no")	Chemicals and wastes appear to be stored such that soil contamination cannot occur	✓	
F 📷 (if "no")	Soils/grounds within and surrounding the tannery appear to be free from signs of contamination	✓	
G 📷 (if "no")	All other aspects of the business appear to be conducted in a manner such that they would not lead to detriment of the reputation of LWG should the tanner be awarded certification <i>In the event that other situations not covered by criteria A-H are observed, a description (with photographs) of the situation should be inserted here:</i>	✓	

Caveat #2

The issues above have not been extensively addressed thus a positive assessment is not an endorsement nor an indication of legal compliance

If the response to any of the above criteria is "No" the auditor may refer the situation to the facilitator who will submit to TSG as appropriate. TSG could downgrade or fail the audit depending on the seriousness of the situation.

The tanner and/or auditor can submit a report of the situation to the LWG facilitator for guidance/appeal if considered necessary or desirable.

Housekeeping		
Max score (total) >>>100		Actual
Q1	2	2
Q2	6	5
Q3	15	15
Q4	15	15
Q5	15	15
Q6	2	2
Q7	10	7
Q8	5	4
Q9a	10	8
Q9b	0	0
Q10a	10	10
Q10b	0	0
Q11	10	10
	Total recorded >>>	93

14 MANUFACTURING PROCESSES

This section is to be completed by all categories.


This is a non-critical section that assesses the facility's ability to control its manufacturing processes, reviewing best practices, measuring equipment use and calibrations, etc.

1	Evidence of calibration of measuring equipment (directly related to processing) exists for the following equipment (CUMULATIVE)	score	attained
A	Factory weigh scales Metrological Department	2	2
B	Water metering systems N/A	2	2
C	pH meters N/A	2	2
D	Thermometers	1	0

2	Evidence of calibration of measuring equipment has been requested and the result is:	score	attained
A	Full calibration data available and up-to-date	4	
B	Full calibration data available but not up-to-date	2	
C	Partial calibration data available and up-to-date	1	1
D	Partial calibration data available but not up-to-date	0	
E	No calibration information available	-2	

3	Are there material inventory lists, including quantities and locations available?	score	attained
	Evidence required		
A	Yes, hazardous and flammable materials are highlighted	5	5
B	Yes, no distinction between hazardous/non-hazardous	2	
C	No, (go to Q5)	0	

4	If yes, what is the target frequency for review and update of these inventories?	score	attained
	Evidence required		
A	Daily	4	4
B	every week	3	
C	every month	2	
D	every 6 months	1	
E	Less than every 6 months	0	

5	Has the facility labelled and stored hazardous substances appropriately?	score	attained
	Evidence required		
A	Yes need more separation. -reduced score 	5	3
B	No	0	

6	Are personnel involved in the handling and storage of hazardous materials competent (trained and knowledgeable)?		
	(Provide details of any documented procedures)	score	attained
A	Yes Chemical safety handling training given by chemical suppliers TFL, CMC etc.,	4	4
B	No	0	

7	Are materials safety data sheets, in the local language, readily available to workers?		
	(Provide details of any documented procedures)	score	attained
A	Yes Combined MSDS available in local language for all chemicals	4	4
B	No	0	

8	Are main chemical storage areas?		
	Cumulative	score	attained
A	Provided with fire extinguishing facilities	2	2
B	Bunded (i.e. potential liquid spills would be contained)	2	0
C	Ventilated	2	2
D	Separated from process areas	2	2
	TOTAL (Max 8)		6

9	Category of raw material input used is		
		score	Tick
A	Fresh (go to Q12)	12	
B	Brined (go to Q12)	5	
C	Salted	0	
D	Part processed, supplied pre-tanned, wet blue, or crust condition (go to Q12) 100%	12	12

10 N/A	Prior to processing, physical salt removal is		
		score	attained
A	By desalting machine	3	
B	By shaking the hide/skins	1	
C	By brushing off the excess	2	
D	Not performed (go to Q12)	0	

11 N/A	Destination of the excess/waste salt is		
		score	attained
A	Sent for re-use	4	
B	Landfill	0	
C	Uncontrolled disposal	-10	

12	On completion of the leather making processes		
	Choose one	score	Tick
A	Each hide is individually marked and traceable through the process	6	
B	Each batch of leather is traceable through the manufacturing process	4	4
C	Leather is only identifiable to the tannery (process detail is not available)	0	

13	If fungicide is used in the retanning/dyeing process is excess use avoided?	Score	Attained
A	Yes, the fungicide has been selected with the assistance of the supplier including testing, to ensure that it is appropriate	6	
B	Yes, the fungicide has been selected based on the recommendations contained in the technical literature	3	
C	Yes, but no evidence has been presented to indicate that the fungicide used is appropriate to the process or the leather being made	0	
D	No fungicide is used OR retanning/dyeing is not part of the facility's operations	6	6

14	Are splits generated during the process physically stamped? This question applies to splits that are generated with the intention of being sold for leather making operations. Choose one	score	Tick
A	Wet blue splits are stamped/physically marked such that each split can individually be traced to the producing tannery	10	
B	Crust splits are stamped/physically marked such that each split can individually be traced to the producing tannery	10	
C	Splitting is not part of tannery operations	10	10
D	Splits are generated but are not stamped	0	

Manufacturing Processes		
Max score (total) >>>75		Actual
Q1	7	6
Q2	4	1
Q3	5	5
Q4	4	4
Q5	5	3
Q6	4	4
Q7	4	4
Q8	8	6
Q9	12	12
Q10	3	0
Q11	4	0
Q12	6	4
Q13	6	6
Q14	10	10
Total recorded >>>		65

15 BEAMHOUSE PROCESSES

This section to be completed by categories A, B, C and G. **N/A**

This is a non-critical section that assesses the facility's ability to control its manufacturing processes in the beamhouse, reviewing best practices, measuring equipment use and calibrations, etc.

1	Wetting agents used are of the following chemical classification		
	Cumulative	score	attained
A	Biodegradable	2	
B	NPE free	2	
C	Non-Biodegradable	-1	
D	Contain NPE	-1	
	TOTAL (Max 4)		

2	The amount of bactericide used is		
		score	attained
A	Well controlled (i.e. by regular dip slide monitoring)	2	
B	Uncontrolled	0	

3	Control of liquid process chemicals is achieved by		
		score	attained
A	Dosing/metering system (all liquid chemicals in 1 m ³ containers or greater)	4	
B	Dosing/metering system (bulk liquids chemicals only)	3	
C	Measurement	2	
D	Visual/estimation method	0	

4	Control of solid process chemicals is achieved by		
		score	attained
A	Manual measurement	2	
B	Visual/estimation method	0	

5	Control of process water is achieved by		
		score	attained
A	Dosing/metering system	2	
B	Manual measurement	1	
C	Visual/estimation method	0	

6	Solid waste (fleshings) produced by this process are		
		score	attained
A	Rendered for recovery of tallow	3	
B	Composting	3	
C	Sent to landfill	0	

7	Fleshing operation is normally carried out in		
		score	attained
A	Green state	4	
B	Limed state	2	
		Max 4	

8 Trimmings from the operation are sent for			
		score	attained
A	Gelatin production	4	
B	Rendering	4	
C	Landfill	0	

9 General description of the unhairing process			
		score	attained
A	Hair save system	4	
B	Hair burn system but the beamhouse sludge is used for controlled agricultural application	4	
C	Hair burn system and the beamhouse sludge is land filled	0	

10 Waste hair from the process is			
		score	attained
A	Used (i.e. as product input, fertiliser component etc.)	4	
B	Filtered out but not used	2	
C	Not filtered out	0	

11 Stated use of recovered hair is			

12 Technology is in place to reduce sulphide in the process			
		score	attained
A	Total sulphide (60% Na ₂ S equivalents) is less than 2.0% offer	6	
B	Total sulphide (60% Na ₂ S equivalents) is more than 2.0% offer	4	
C	None	0	

% offer Na ₂ S	0.00
% purity of Na ₂ S	60.00
% offer NaHS	0.00
% purity of NaHS	56.00
Na ₂ S equivalents	0.00

Companies undertaking an audit can request an editable copy of the above table from their auditor.

13 The delime process follows one of the general descriptions below			
		score	attained
A	Ammonium-free system	6	
B	Ammonium-reduced system Total ammonium salt ((NH ₄) ₂ SO ₄ equivalents) is less than 1.5% offer	4	
	Ammonium-reduced system Total ammonium salt ((NH ₄) ₂ SO ₄ equivalents) is less than 2.5% offer	2	
C	Standard system based on ammonium salts	0	

% offer (NH ₄) ₂ SO ₄	0.00
% purity of (NH ₄) ₂ SO ₄	100.00
% offer NH ₄ Cl	0.00
% purity of NH ₄ Cl	100.00
(NH ₄) ₂ SO ₄ equivalents	0.00

Companies undertaking an audit can request an editable copy of the above table from their auditor.

14	Monitoring of ammonia is undertaken	score	attained
	Cumulative		
A	In the vicinity of the release points close to workers	3	
B	Inside the building	3	
C	Outside the building	3	
D	Not undertaken	0	
	TOTAL (Max 9)		

15	The earliest point at which waste liquors from the beamhouse are mixed with other liquors from within the tannery is	score	attained
A	At the waste water treatment plant	6	
B	Before the waste-water treatment plant but outside of the building	0	
C	At any point inside the building	-6	

Beamhouse Processes		
Max score (total) >>>60		Actual
Q1	4	
Q2	2	
Q3	4	
Q4	2	
Q5	2	
Q6	3	
Q7	4	
Q8	4	
Q9	4	
Q10	4	
Q12	6	
Q13	6	
Q14	9	
Q15	6	
	Total recorded >>>	N/A

16 POST TANNING PROCESSES

This section to be completed by categories B, C, D, E and F.


This is a non-critical section that assesses the facility's ability to control its manufacturing processes in the post tanning and dyeing areas, reviewing best practices, measuring equipment use and calibrations, etc.

1	De-greasing chemicals used to clean the samming machine are	score	attained
A	Monitored	1	
B	Not monitored	-1	
C	There is no samming operation	1	1

2	The flesh splits are	score	attained
A	60-100% utilised	5	
B	20 –60% utilised	4	
C	0-20% utilised	3	
D	Disposed of by landfill	-2	
E	No flesh splits are generated	5	5

3	Shavings are handled by	score	attained
A	Recovery or reuse as a by-product	5	
B	Disposed of	0	
C	There is no shaving operation	5	5

4	Trimmings, post shaving are handled by	score	attained
A	Recovery or reuse as a by-product small leather goods	5	5
B	Disposed of	0	
C	There is no trimming operation	5	

5 N/A	Inappropriate exposure of personnel to dyestuffs and other chemicals in powder form is controlled by	score	attained
	Category E facility no powders used on site		
A	Weighing in down-draught air-flow cabinet and appropriate PPE	5	5
B	Weighing in down-draught air-flow cabinet	2	
C	Issuing appropriate PPE	1	
D	No special measures	0	

6 N/A	Wetting agents used are of the following chemical classification	score	attained
	Cumulative		
A	Biodegradable	1	
B	NPE free	1	
C	Non-biodegradable	-2	
D	Contain NPE	-2	
	TOTAL (Max 2)		2

7 N/A	Control of liquid process chemicals is achieved by		
		Score	attained
A	Dosing/metering system (all liquid chemicals in 1 m ³ containers or greater)	2	2
B	Dosing/metering system (bulk liquids chemicals only)	1	
C	Measurement	0	
D	Visual/estimation method	-2	

8 N/A	Control of process water is achieved by		
		score	attained
A	Dosing/metering system	2	2
B	Manual measurement	1	
C	Visual/estimation method	0	

9 N/A	Processes are controlled at key points to ensure efficiency and exhaustion (time, temperature, pH, etc.)		
		score	attained
A	Always checked (all required checks indicated on process sheets and all process loads)	3	3
B	Sometimes checked (checks on some process sheets not recorded)	2	
C	Rarely checked (checks recorded on some process sheets, other sheets with no checks recorded)	1	
D	Never checked	0	

10 N/A	Moisture content in the leather is carefully controlled		
		score	attained
A	Every batch	4	4
B	Some batches	2	
C	No formal control	0	

11 N/A	Energy consumption in the drying department is		
		score	attained
A	Monitored and records of both electrical and thermal energy usage kept up-to-date	6	6
B	Monitored but records for only one of electrical or thermal energy usage kept up-to-date	3	
C	Not monitored/no records available	0	

12	Dust generated by the buffing operation is controlled by		
		score	attained
A	High level of extraction and automatic compacting for disposal	5	
B	Manual collection and compacting for disposal	3	3
C	Manual collection and disposal to landfill	0	

13	Contamination with stray buffing department dust for both people and product is prevented by		
		score	attained
A	Very efficient extracting systems, ensuring that no stray dust is emitted closing-off the department from the rest of the factory	5	
B	Efficient extraction systems	3	3
C	Regular cleaning of any dust that escapes from the machines	2	
D	No special measures adopted	0	

Post Tanning Processes		
Max score (total) >>>50		Actual
Q1	1	1
Q2	5	5
Q3	5	5
Q4	5	5
Q5	5	5
Q6	2	2
Q7	2	2
Q8	2	2
Q9	3	3
Q10	4	4
Q11	6	6
Q12	5	3
Q13	5	3
	Total recorded >>>	46

17 FINISHING PROCESSES

This section to be completed by categories C, D and E

This is a non-critical section that assesses the facility's ability to control its manufacturing processes in the finishing areas, reviewing best practices, measuring equipment use and calibrations, etc.

1 Use of solvents in finishing is controlled, the company has produced evidence of monitoring (The company must provide evidence of how it is using its monitoring data to reduce or control solvent usage)			
		score	attained
A	Monthly	5	5
B	Annually	2	
C	No evidence available	0	
D	Solvent accounts for less than 10% of total finishing chemicals	5	

2 Finishing systems are of the following chemical type				
		%	score	attained
A	Fundamentally aqueous systems with a trace (<10%) of solvent	700/9480= 0.07%	10	10
B	Systems (typically 10-40% solvent content)		4	
C	Systems (typically 40-80% solvent content)		-2	
D	Systems (typically greater than 80% solvent content)		-4	

3 The department uses pigments containing			
	Cumulative	score	attained
A	No toxic heavy metals and toxic fractions	5	5
B	Chromium VI	-5	
C	Lead	-5	
D	Cadmium	-5	
TOTAL (Max 5)			5

4 Facilities in the mixing area can be described as			
		score	attained
A	Excellent	5	
B	Very good	3	3
C	Good	1	
D	Fair	-3	
E	Poor	-5	

5 Measurement & dispensing of the various chemicals is achieved by			
		score	attained
A	Fully automated dosing system	8	
B	Metering system	6	
C	Accurate manual measurement/weighing	3	3
D	Visual/estimation method	0	

6 The principal method of finish application can be described as				
		% of production	score per %	% x score
A	Roller coating		0.1	
B	Curtain coating		0.1	
C	Padding		0.1	
D	Automated, HVLP, with economiser controls		0.08	
E	Automated, conventional with economiser controls	100	0.05	5
F	Automated, no economiser		0	
Total				5

7 Finish application is measured and controlled			
		score	attained
A	Formal monitoring system directly related to the area of leather to be finished	7	7
B	Standard quantity of finish made each time for each lot of leather	2	
C	No system	0	

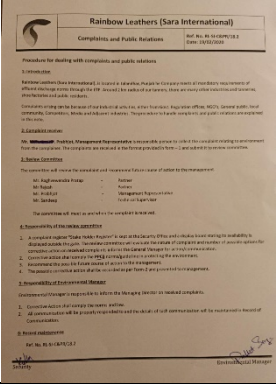
Finishing Processes		
Max score (total)>>>50		Actual
Q1	5	5
Q2	10	10
Q3	5	5
Q4	5	3
Q5	8	3
Q6	10	5
Q7	7	7
Total recorded >>>		38

18 COMPLAINTS AND PUBLIC RELATIONS

This section to be completed by all categories.

This is a non-critical section that assesses the facility's processes to manage and deal with site related complaints such as noise or odour.

1	Have neighbours or the public complained about nuisance/visual impact from any of the following in the past 18 months:	
	(check all that apply)	
A	Site aesthetics	
B	Lighting at night	
C	Litter	
D	Waste materials storage	
E	Dust	
F	Vehicle movements	
G	Noise	
H	Odour	
I	No complaints	✓
Give details of the number of complaints per year in each category		

2	How are complaints processed?	score	attained
	Ref No.RL-SI-C&PR/18.2 dt.19/02/2020		
A	There is a defined, written procedure that ensures all complaints are investigated and acted upon (including records being maintained)	12	12
			
B	There is a procedure (but not written) that ensures all complaints are investigated and acted upon/There is no defined procedure	0	

3	Are any regulatory enforcement actions or prosecutions outstanding related to the above?	score	attained
A	No	8	8
B	Caution/warning	-4	
C	Prosecution	-8	

Complaints and Public Relations		
Max score (total) >>> 20		Actual
Q2	12	12
Q3	8	8
	Total recorded >>>	20

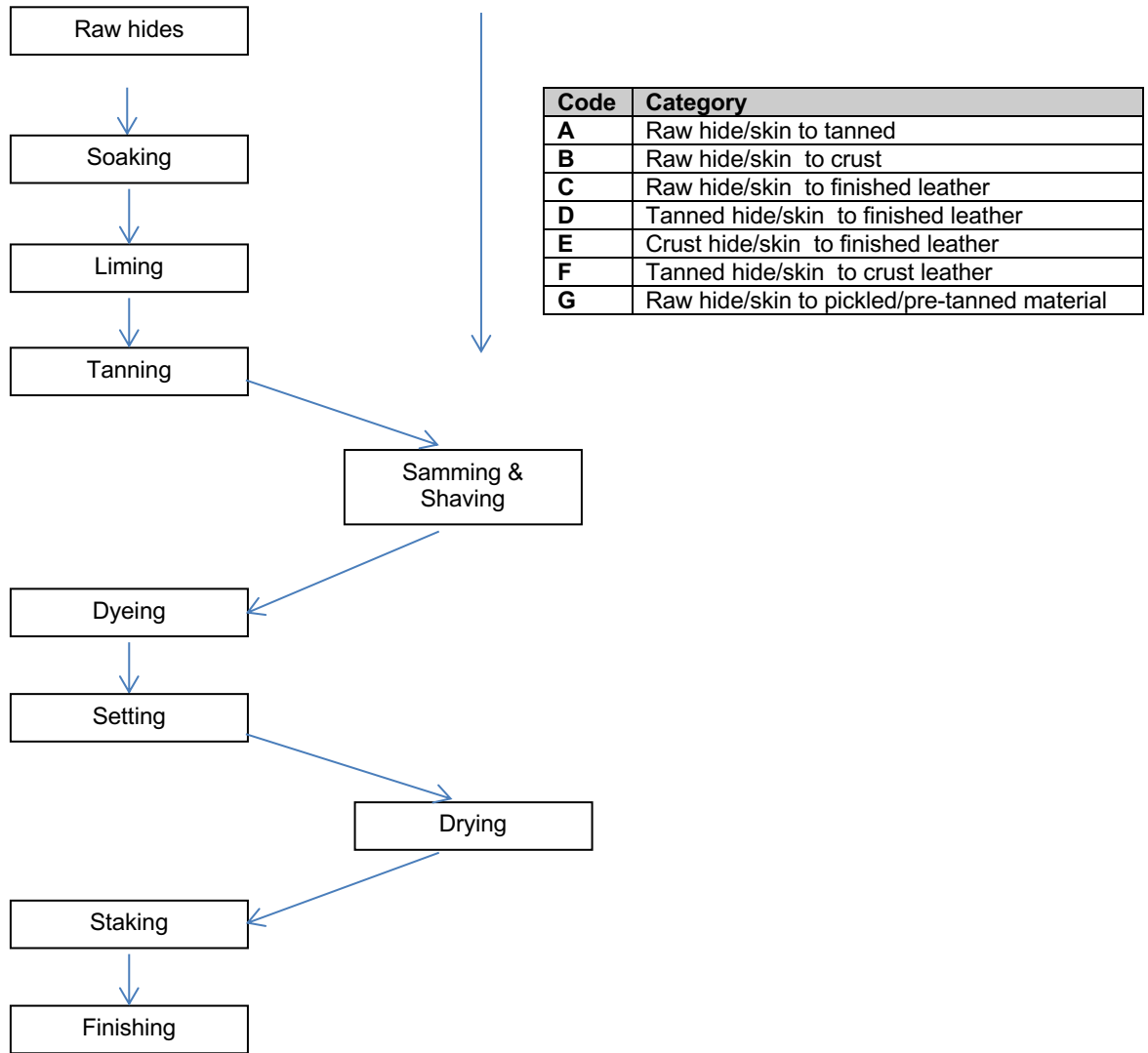
Appendix I Examples of Sub-Contracting

Example #1

Tannery A1 is being audited. Some operations are sub-contracted to Tannery B2

Operations undertaken by A1

Operations undertaken by B2



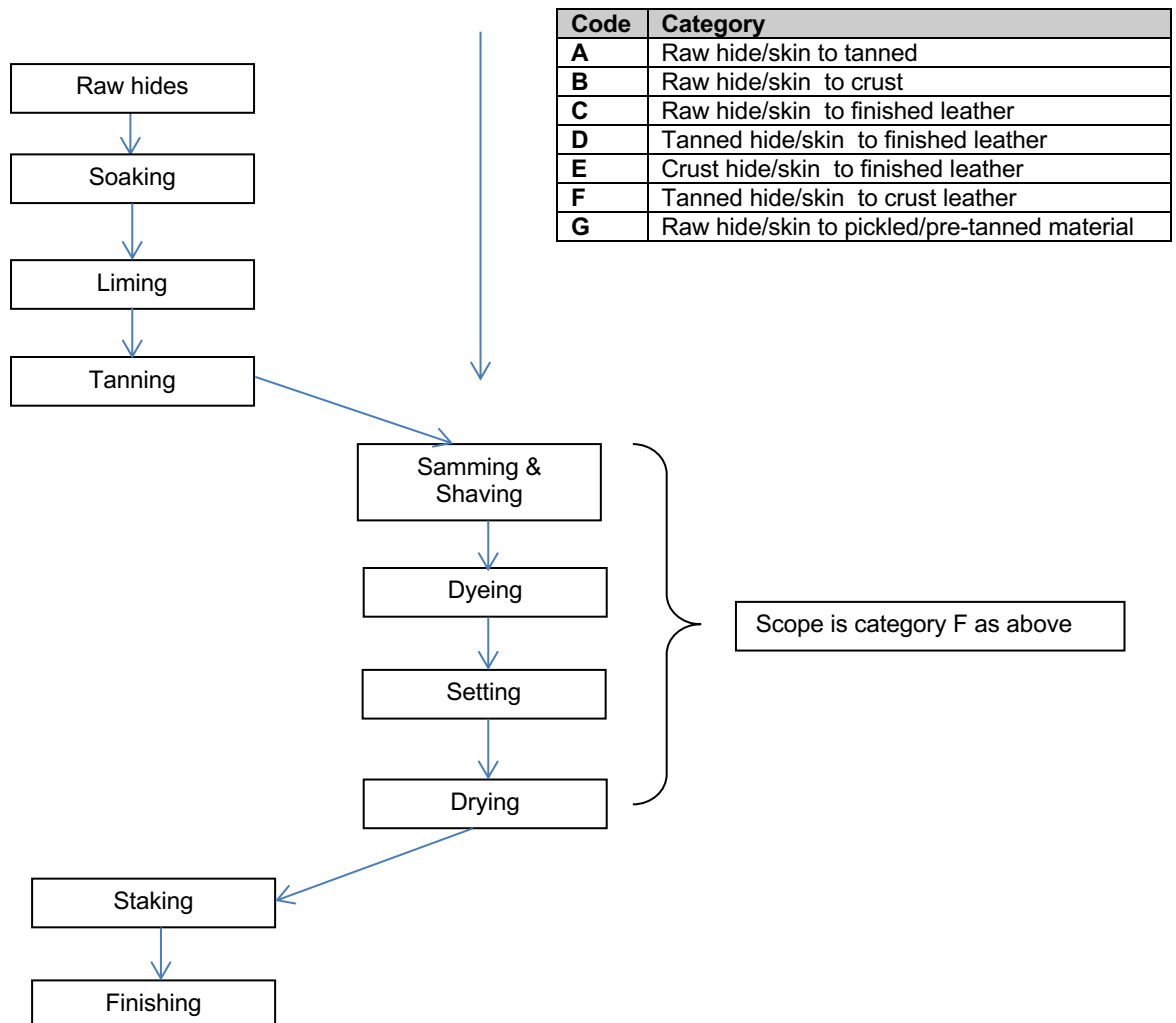
- Tannery A1 requires the full LWG audit.
- Tannery B2 requires the mini audit with respect to the samming, shaving and drying operations.
- The energy and water usage of B2 undertaking samming, shaving and drying operations for A1 must be incorporated into the overall energy and water usage for A1.
- Tannery A1 is a “C” category tanner – Raw hide to finished leather

Example #2

Tannery A1 is being audited. Some operations are sub-contracted to Tannery B2

Operations undertaken by A1

Operations undertaken by B2



- Tannery A1 requires the full LWG audit.
- Tannery B2 also requires a full audit because the scope of operations undertaken falls within category “F” – tanned hide to crust leather.
- The energy and water usage of B2 required undertaking these operations for A1 must be incorporated into the overall energy and water usage for A1.
- Tannery A1 is a “C” category tanner – Raw hide to finished leather.
- Although the final two operations undertaken by A1 fall into category “E” crust hide to finished leather, the tannery is responsible for the full range of operations, choosing to sub-contract some of them to B2

Appendix II Traceability

The current environment requires companies to have visibility through the supply chain of their raw material. While Brazil is currently the focus, it is clear that another country or raw material issue may soon take its place as an area of concern.

Those sourcing material originating in Brazil will additionally need to demonstrate traceability to the slaughterhouse including the date of slaughter. Therefore, as a minimum, suppliers will need to identify their hides either with a physical stamp and a unique reference number or a robust paper based system that identifies the specific slaughterhouse and, for tanners processing material originating from Brazil, the date upon which the hide/animal was processed at that slaughtering facility. This should (in most cases) enable the tanner to identify a list of farms that have supplied to that slaughterhouse on that day. Suppliers processing material originating from Brazil will need demonstrate the extent to which they ensure that the meat packers from where the material originates meet minimum acceptable criteria which includes the following;

- The direct farms (within the Amazon Biome should be GPS mapped in at least one location by July 05, 2010 and have their complete boundary shape registered by November 13, 2010
 - The farms should not have been involved in any form of deforestation in the Amazon biome since October 05, 2009. The map is available at:http://mapas.mma.gov.br/geodados/brasil/vegetacao/vegetacao2002/amazonia/mapas_pdf/cartas_imagem/mosaico/mosaico_a0.pdf
- The farms should not be involved in slave labour, invasion of indigenous lands and protected areas, or farms included in IBAMA's embargo list (www.ibama.gov.br)

Until then, references to details of the farm-to-slaughterhouse relationships/activities may be informational, but are not part of the audit scoring.

Therefore, for Brazilian material the slaughterhouse or the tanner will need either a robust paper based traceability system, or to physically stamp their hides with a unique reference number that identifies the specific slaughterhouse and the date upon which the hide/animal was processed at that slaughtering facility.

The questions in this section are designed to assess a leather manufacturer's ability to determine where their raw material is coming from so that a better understanding of any associated impact can be determined and should be answered bearing the following guidelines in mind.

Traceability Systems Guidelines

Ideally a physical traceability system such as stamping of the hides would be in place, however a robust document based system will be accepted provided that a high degree of certainty over confidence in the document trail can be presented. If documented procedures governing the operation of the traceability system have been developed they will be expected to reflect the reality of the traceability system.

Processors receiving hides in a fresh, salted or brined condition.

Processors should be able to present documents that indicate the facility where slaughter occurred.

Processors receiving hides in a part processed wet condition

Consignments may be made up on the basis of weight or quality and may therefore be made up of several pallets of wet blue each of which may or may not support hides originating from different process loads. Only those hides on individually marked pallets for which documentation can be presented that indicates that the entire pallet contains hides originating from the same (named) slaughterhouse, can be considered to be traceable

It is expected that traceability to the slaughter house will be demonstrated on 3 to 5 lots taken at random during the audit, the details of the slaughterhouses being provided to the auditor prior to departure from the audit site. In those audits where the traceability is possible but the system has not been fully developed, details of the slaughterhouse will be accepted up to one month after the audit, but subject to a penalty in the achievable score. It is anticipated that this concession will apply during the period of operation of protocol version 5 and that future versions of the protocol will require full disclosure during the on-site period of the audit.

For Brazilian material, the provision of a date of slaughter in the traceability system will in most cases enable the direct supplying farms to be identified. A physical stamping system is ideal for grain leather but a robust and auditable paper based system will be acceptable.

There are no gradations in determining traceability, either the material is traceable or it is not. However, there may be circumstances where certain suppliers may offer traceability and others do not. In this instance, the percentage volume of traceable supply will be important for scoring purposes.

EXAMPLE SCORING

The following data has been entered into the question below as an example;

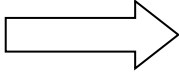
A wet blue tannery obtains hides from Argentina, Bolivia, Brazil, Chile, and Uruguay in the following proportions:

Argentina	40%
Bolivia	10%
Brazil	10%
Chile	10%
Uruguay	30%
Total	100%

- All the hides from Brazil are traceable to the slaughterhouse
- All the hides from Argentina and Chile are traceable to the slaughterhouse.
- 50% of the hides from Uruguay are traceable to the slaughterhouse
- None of the hides from Bolivia can be traced to the slaughterhouse

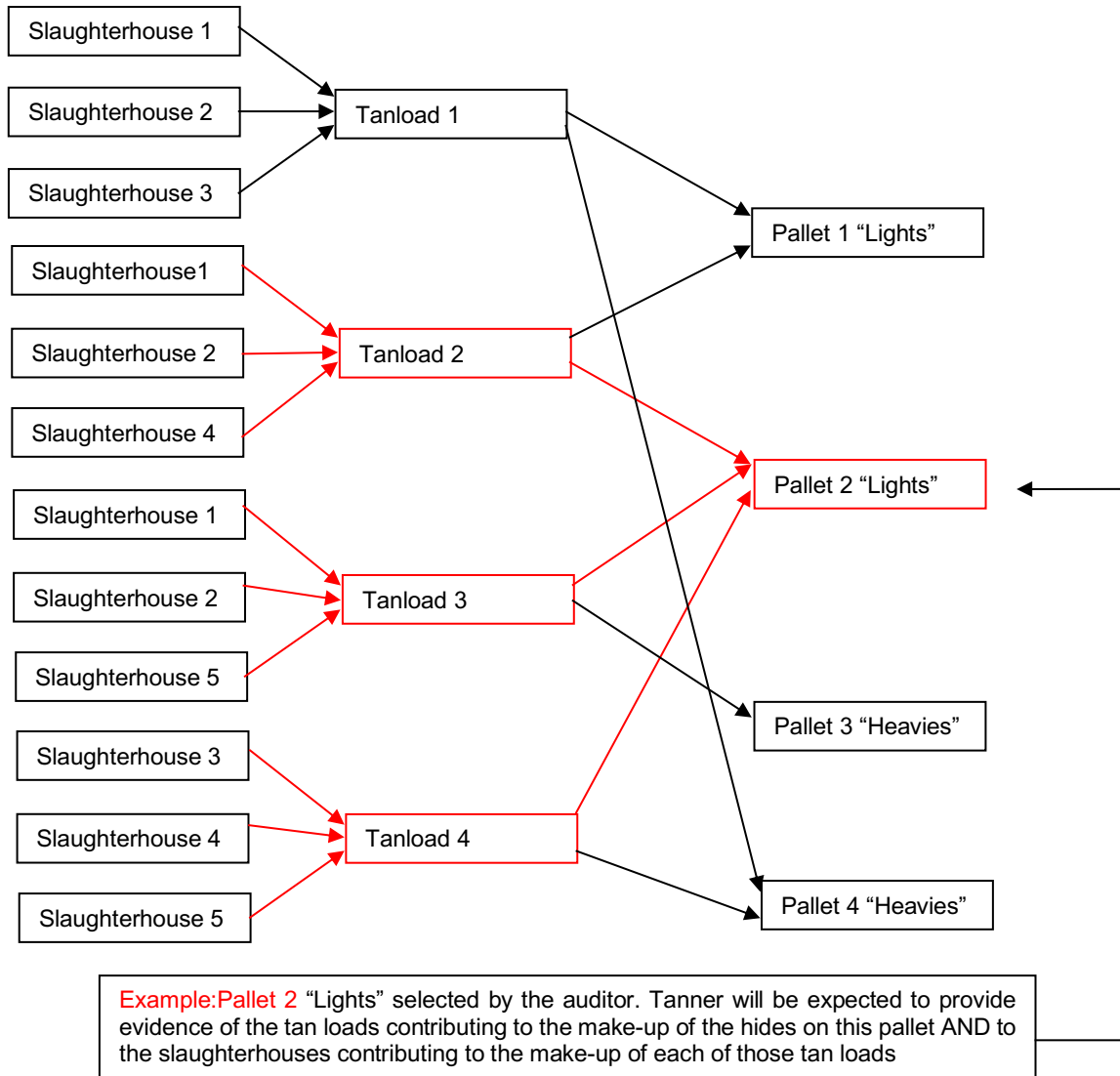
There are no written procedures describing how traceability is to be demonstrated.

1	Is there a written procedure that describes the manner in which the organisation ensures traceability of incoming material to the slaughterhouse	
A	Yes	Attained
B	No	

2	List countries from which raw material has been obtained in the past 18 months (or since 1 October 2010 for audits undertaken prior to 1 April 2012), indicating the earliest stage to which they are traceable. In completing this table only that proportion of hides that are								
List country from which hides are sourced 	Argentina	Bolivia	Brazil	Chile	Uruguay			B, Total percentage traceable to this level ↓	Score (% x 1)
% of hides that are traceable to the country of origin		10			15				No score at this level
% of hides that are traceable to the slaughterhouse (note A)	40			10	15				65
% of Brazilian hides that are traceable to the slaughterhouse and include date of slaughter (note B)			10						10
Example Score	Traceability demonstrated during on-site audit activity Multiply percentage of hides traceable X 1								75
	Traceability demonstrated subsequent to on-site audit activity Multiply percentage of hides traceable X 0.8								

Note A This is a minimum requirement for all material
Note B This is a minimum requirement for all hides sourced from Brazil

Illustration



Appendix III Steam Pressure Table

Absolute pressure	Boiling point	Specific volume (steam)	Density (steam)	Specific enthalpy of liquid water (sensible heat)		Specific enthalpy of steam (total heat)		Latent heat of vaporization		Specific heat
				(kJ/kg)	(kcal/kg)	(kJ/kg)	(kcal/kg)	(kJ/kg)	(kcal/kg)	
0.02	17.51	67.006	0.015	73.45	17.54	2533.64	605.15	2460.19	587.61	1.8644
0.03	24.10	45.667	0.022	101.00	24.12	2545.64	608.02	2444.65	583.89	1.8694
0.04	28.98	34.802	0.029	121.41	29.00	2554.51	610.13	2433.10	581.14	1.8736
0.05	32.90	28.194	0.035	137.77	32.91	2561.59	611.83	2423.82	578.92	1.8774
0.06	36.18	23.741	0.042	151.50	36.19	2567.51	613.24	2416.01	577.05	1.8808
0.07	39.02	20.531	0.049	163.38	39.02	2572.62	614.46	2409.24	575.44	1.8840
0.08	41.53	18.105	0.055	173.87	41.53	2577.11	615.53	2403.25	574.01	1.8871
0.09	43.79	16.204	0.062	183.28	43.78	2581.14	616.49	2397.85	572.72	1.8899
0.1	45.83	14.675	0.068	191.84	45.82	2584.78	617.36	2392.94	571.54	1.8927
0.2	60.09	7.650	0.131	251.46	60.06	2609.86	623.35	2358.40	563.30	1.9156
0.3	69.13	5.229	0.191	289.31	69.10	2625.43	627.07	2336.13	557.97	1.9343
0.4	75.89	3.993	0.250	317.65	75.87	2636.88	629.81	2319.23	553.94	1.9506
0.5	81.35	3.240	0.309	340.57	81.34	2645.99	631.98	2305.42	550.64	1.9654
0.6	85.95	2.732	0.366	359.93	85.97	2653.57	633.79	2293.64	547.83	1.9790
0.7	89.96	2.365	0.423	376.77	89.99	2660.07	635.35	2283.30	545.36	1.9919
0.8	93.51	2.087	0.479	391.73	93.56	2665.77	636.71	2274.05	543.15	2.0040
0.9	96.71	1.869	0.535	405.21	96.78	2670.85	637.92	2265.65	541.14	2.0156
1	99.63	1.694	0.590	417.51	99.72	2675.43	639.02	2257.92	539.30	2.0267
1.1	102.32	1.549	0.645	428.84	102.43	2679.61	640.01	2250.76	537.59	2.0373
1.2	104.81	1.428	0.700	439.36	104.94	2683.44	640.93	2244.08	535.99	2.0476
1.3	107.13	1.325	0.755	449.19	107.29	2686.98	641.77	2237.79	534.49	2.0576
1.4	109.32	1.236	0.809	458.42	109.49	2690.28	642.56	2231.86	533.07	2.0673
1.5	111.37	1.159	0.863	467.13	111.57	2693.36	643.30	2226.23	531.73	2.0768
1.5	111.37	1.159	0.863	467.13	111.57	2693.36	643.30	2226.23	531.73	2.0768
1.6	113.32	1.091	0.916	475.38	113.54	2696.25	643.99	2220.87	530.45	2.0860
1.7	115.17	1.031	0.970	483.22	115.42	2698.97	644.64	2215.75	529.22	2.0950
1.8	116.93	0.977	1.023	490.70	117.20	2701.54	645.25	2210.84	528.05	2.1037
1.9	118.62	0.929	1.076	497.85	118.91	2703.98	645.83	2206.13	526.92	2.1124
2	120.23	0.885	1.129	504.71	120.55	2706.29	646.39	2201.59	525.84	2.1208
2.2	123.27	0.810	1.235	517.63	123.63	2710.60	647.42	2192.98	523.78	2.1372
2.4	126.09	0.746	1.340	529.64	126.50	2714.55	648.36	2184.91	521.86	2.1531
2.6	128.73	0.693	1.444	540.88	129.19	2718.17	649.22	2177.30	520.04	2.1685
2.8	131.20	0.646	1.548	551.45	131.71	2721.54	650.03	2170.08	518.32	2.1835
3	133.54	0.606	1.651	561.44	134.10	2724.66	650.77	2163.22	516.68	2.1981
3.5	138.87	0.524	1.908	584.28	139.55	2731.63	652.44	2147.35	512.89	2.2331
4	143.63	0.462	2.163	604.68	144.43	2737.63	653.87	2132.95	509.45	2.2664
4.5	147.92	0.414	2.417	623.17	148.84	2742.88	655.13	2119.71	506.29	2.2983
5	151.85	0.375	2.669	640.12	152.89	2747.54	656.24	2107.42	503.35	2.3289
5.5	155.47	0.342	2.920	655.81	156.64	2751.70	657.23	2095.90	500.60	2.3585
6	158.84	0.315	3.170	670.43	160.13	2755.46	658.13	2085.03	498.00	2.3873
6.5	161.99	0.292	3.419	684.14	163.40	2758.87	658.94	2074.73	495.54	2.4152
7	164.96	0.273	3.667	697.07	166.49	2761.98	659.69	2064.92	493.20	2.4424

7.5	167.76	0.255	3.915	709.30	169.41	2764.84	660.37	2055.53	490.96	2.4690
8	170.42	0.240	4.162	720.94	172.19	2767.46	661.00	2046.53	488.80	2.4951
8.5	172.94	0.227	4.409	732.03	174.84	2769.89	661.58	2037.86	486.73	2.5206
9	175.36	0.215	4.655	742.64	177.38	2772.13	662.11	2029.49	484.74	2.5456
9.5	177.67	0.204	4.901	752.82	179.81	2774.22	662.61	2021.40	482.80	2.5702
10	179.88	0.194	5.147	762.60	182.14	2776.16	663.07	2013.56	480.93	2.5944
11	184.06	0.177	5.638	781.11	186.57	2779.66	663.91	1998.55	477.35	2.6418
12	187.96	0.163	6.127	798.42	190.70	2782.73	664.64	1984.31	473.94	2.6878
13	191.60	0.151	6.617	814.68	194.58	2785.42	665.29	1970.73	470.70	2.7327
14	195.04	0.141	7.106	830.05	198.26	2787.79	665.85	1957.73	467.60	2.7767
15	198.28	0.132	7.596	844.64	201.74	2789.88	666.35	1945.24	464.61	2.8197
16	201.37	0.124	8.085	858.54	205.06	2791.73	666.79	1933.19	461.74	2.8620
17	204.30	0.117	8.575	871.82	208.23	2793.37	667.18	1921.55	458.95	2.9036
18	207.11	0.110	9.065	884.55	211.27	2794.81	667.53	1910.27	456.26	2.9445
19	209.79	0.105	9.556	896.78	214.19	2796.09	667.83	1899.31	453.64	2.9849
20	212.37	0.100	10.047	908.56	217.01	2797.21	668.10	1888.65	451.10	3.0248
21	214.85	0.095	10.539	919.93	219.72	2798.18	668.33	1878.25	448.61	3.0643
22	217.24	0.091	11.032	930.92	222.35	2799.03	668.54	1868.11	446.19	3.1034
23	219.55	0.087	11.525	941.57	224.89	2799.77	668.71	1858.20	443.82	3.1421
24	221.78	0.083	12.020	951.90	227.36	2800.39	668.86	1848.49	441.50	3.1805
25	223.94	0.080	12.515	961.93	229.75	2800.91	668.99	1838.98	439.23	3.2187
26	226.03	0.077	13.012	971.69	232.08	2801.35	669.09	1829.66	437.01	3.2567
27	228.06	0.074	13.509	981.19	234.35	2801.69	669.17	1820.50	434.82	3.2944
28	230.04	0.071	14.008	990.46	236.57	2801.96	669.24	1811.50	432.67	3.3320
29	231.96	0.069	14.508	999.50	238.73	2802.15	669.28	1802.65	430.56	3.3695
30	233.84	0.067	15.009	1008.33	240.84	2802.27	669.31	1793.94	428.48	3.4069

Appendix IV Wood Heating and Weight Values

Wood Heating and Weight Values			
Species	Million Btu/Cord*	Cord Weight (pounds) ** DRY	Cord Weight (pounds) ** GREEN
Alder, Red	18.4 - 19.5	2000 - 2600	3200 - 4100
Ash	24.5 - 26.0	2680 - 3450	4630 - 5460
Aspen	17.0 - 18.0	1860 - 2400	3020 - 3880
Beech	28.6 - 30.4	3100 - 4000	4890 - 6290
Birch	25.9 - 27.5	2840 - 3650	4630 - 5960
Cedar, Incense	17.8 - 20.1	1800 - 2350	3020 - 3880
Cedar, Port Orford	20.7 - 23.4	2100 - 2700	3400 - 4370
Cherry	22.3 - 23.7	2450 - 3150	4100 - 5275
Chinquapin	23.2 - 24.7	2580 - 3450	3670 - 4720
Cottonwood	15.8 - 16.8	1730 - 2225	2700 - 3475
Dogwood	28.6 - 30.4	3130 - 4025	5070 - 6520
Douglas-Fir	23.5 - 26.5	2400 - 3075	3930 - 5050
Elm	22.3 - 23.7	2450 - 3150	4070 - 5170
Eucalyptus	32.5 - 34.5	3550 - 4560	6470 - 7320
Fir, Grand	17.8 - 20.1	1800 - 2330	3020 - 3880
Fir, Red	18.3 - 20.6	1860 - 2400	3140 - 4040
Fir, White	18.8 - 21.1	1900 - 2450	3190 - 4100
Hemlock, Western	21.6 - 24.4	2200 - 2830	4460 - 5730
Juniper, Western	23.4 - 26.4	2400 - 3050	4225 - 5410
Laurel, California	24.6 - 26.1	2690 - 3450	4460 - 5730
Locust, Black	29.5 - 31.4	3230 - 4150	6030 - 7750
Madrone	29.1 - 30.9	3180 - 4086	5070 - 6520
Magnolia	22.3 - 23.7	2440 - 3140	4020 - 5170
Maple, Big Leaf	21.4 - 22.7	2350 - 3000	3840 - 4940
Oak, Black	25.8 - 27.4	2821 - 3625	4450 - 5725
Oak, Live	34.4 - 36.6	3766 - 4840	6120 - 7870
Oak, White	26.4 - 28.0	2880 - 3710	4890 - 6290
Pine, Jeffery	19.3 - 21.7	1960 - 2520	3320 - 4270
Pine, Lodgepole	19.7 - 22.3	2000 - 2580	3320 - 4270
Pine, Ponderosa	19.3 - 21.7	1960 - 2520	3370 - 4270

Pine, Sugar	17.3 - 19.6	1960 - 2270	2970 - 3820
Redwood, Coast	17.8 - 20.1	1810 - 2330	3140 - 4040
Spruce, Sitka	19.3 - 21.7	1960 - 2520	3190 - 4100
Sweetgum (Liquidambar)	20.6 - 21.9	2255 - 2900	4545 - 5840
Sycamore	21.9 - 23.3	2390 - 3080	4020 - 5170
Tanoak	25.9 - 27.5	2845 - 3650	4770 - 6070
Walnut, Black	24.5 - 26.0	2680 - 3450	4450 - 5725
Western Red Cedar	15.4 - 17.4	1570 - 2000	2700 - 3475
Willow, Black	17.5 - 18.6	1910 - 2450	3140 - 4040

*** British thermal unit (Btu) values based on specific gravity of 80 cubic feet per cord. 8000 to 8500 Btu per pound for non-resinous woods. 8600 to 9700 Btu per pound for resinous woods.**

**** Weights:**

- Lower value of range assumes 70 cubic feet of wood per cord.
- Higher value of range assumes 90 cubic feet of wood per cord.
- Dry weight at 12 percent moisture content.
- Green weight at 40 to 60 percent moisture content.

All moisture contents based on "wet" wood basis.

http://www.consumerenergycenter.org/home/heating_cooling/firewood.html

Appendix V Determination of VOC emissions

EU Council Directive 199/13/EC states (with respect to leather manufacture)

Where the organic solvent consumption per year is more than 10, but less than 25 tonnes, the total emission limit value is 85 g/m². Where it is over 25 tonnes per year, the limit is 75 g/m². The emission limits are expressed in grams organic solvent emitted per m² of end-product (p15).

EU Council Directive 199/13/EC defines emissions:

9. emission shall mean any discharge of volatile organic compounds from an installation into the environment; (p3)

Although most VOCs are emitted into air other environmental receptors such as water and soil are not excluded:

The purpose of this Directive is to prevent or reduce the direct and indirect effects of emissions of volatile organic compounds into the environment, mainly into air, and the potential risks to human health, by providing measures and procedures to be implemented for the activities defined in Annex I, in so far as they are operated above the solvent consumption thresholds listed in Annex IIA. (p3)

The Directive indicates that VOCs that are recovered for reuse or destroyed are not included amongst that calculations for those that are emitted into air other environmental receptors. Emissions can be calculated according to the following equations given in Annex III (pp 21-22):

The spraying operations in the tannery do not result in complete transfer of finishing chemicals onto the leather. There is a certain amount of "bounce-back" and "overspray". The amount of chemical transferred to the waste water stream is approximately 70% of that applied via conventional spray equipment, 25% if HVLP guns are used¹ although industrial studies indicate transfer efficiencies closer to 45% for conventional spray equipment and 60% for HVLP²

If a water wash scrubber is used those chemicals that are not transferred onto the surfaces of the leather will be collected by the water wash. Water miscible solvents will be transferred in these washings to the effluent treatment plant. If the effluent treatment plant incorporates biological treatment biodegradable solvents will be destroyed. This quantity can be counted within output "O5".

¹(Integrated Pollution Prevention and Control (IPPC) Reference Document on Best Available Techniques for the Tanning of Hides and Skins May 2001. p139)

² Reduction Of Voc Emissions Using Hvlp Guns And Electrostatic Spraying (Translated Title) Tomaselli M et al, Cuoio Pelli Mater Concianti 1996, 72 (1) 21-31

Solvents that are biodegradable can be ascertained by reference to various International sources such as the OECD Screening Information Dataset that can be accessed via various links i.e. (<http://www.inchem.org/pages/sids.html>)

Classification as VOC, water miscibility and biodegradability data for chemicals encountered in tanneries are given in the tables below.

For the purposes of establishing whether VOC emissions are being controlled VOC emissions per unit area can be determined as follows:

Mass of VOC issued into production during the period under consideration

Less (% finish applied via HVLP system X 0.40)

provided overspray finish is adsorbed in a water wash, the solvent is biodegradable and the water wash is treated up to and including biological effluent treatment

Less (% finish applied via conventional system X 0.65)

provided overspray finish is adsorbed in a water wash, the solvent is biodegradable and the water wash is treated up to and including biological effluent treatment

Less mass of solvent recovered

provided proof of mass of solvent recovered is provided

Divided by Area of leather produced during the period under consideration

Appendix VI Properties of Waste Which Render it Hazardous

ANNEX III

PROPERTIES OF WASTE WHICH RENDER IT HAZARDOUS

- H 1 'Explosive': substances and preparations which may explode under the effect of flame or which are more sensitive to shocks or friction than dinitrobenzene.
- H 2 'Oxidizing': substances and preparations which exhibit highly exothermic reactions when in contact with other substances, particularly flammable substances.
- H 3-A 'Highly flammable'
- liquid substances and preparations having a flash point below 21 °C (including extremely flammable liquids), or
 - substances and preparations which may become hot and finally catch fire in contact with air at ambient temperature without any application of energy, or
 - solid substances and preparations which may readily catch fire after brief contact with a source of ignition and which continue to burn or to be consumed after removal of the source of ignition, or
 - gaseous substances and preparations which are flammable in air at normal pressure, or
 - substances and preparations which, in contact with water or damp air, evolve highly flammable gases in dangerous quantities.
- H 3-B 'Flammable': liquid substances and preparations having a flash point equal to or greater than 21 °C and less than or equal to 55 °C.
- H 4 'Irritant': non-corrosive substances and preparations which, through immediate, prolonged or repeated contact with the skin or mucous membrane, can cause inflammation.
- H 5 'Harmful': substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may involve limited health risks.
- H 6 'Toxic': substances and preparations (including very toxic substances and preparations) which, if they are inhaled or ingested or if they penetrate the skin, may involve serious, acute or chronic health risks and even death.
- H 7 'Carcinogenic': substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce cancer or increase its incidence.
- H 8 'Corrosive': substances and preparations which may destroy living tissue on contact.
- H 9 'Infectious': substances and preparations containing viable micro-organisms or their toxins which are known or reliably believed to cause disease in man or other living organisms.
- H 10 'Toxic for reproduction': substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce non-hereditary congenital malformations or increase their incidence.
- H 11 'Mutagenic': substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce hereditary genetic defects or increase their incidence.
- H 12 Waste which releases toxic or very toxic gases in contact with water, air or an acid.
- H 13 (*) 'Sensitizing': substances and preparations which, if they are inhaled or if they penetrate the skin, are capable of eliciting a reaction of hypersensitization such that on further exposure to the substance or preparation, characteristic adverse effects are produced.
- H 14 'Ecotoxic': waste which presents or may present immediate or delayed risks for one or more sectors of the environment.
- 22.11.2008 EN Official Journal of the European Union L 312/25
- (*) As far as testing methods are available.
- H 15 Waste capable by any means, after disposal, of yielding another substance, e.g. a leachate, which possesses any of the characteristics listed above.

Appendix VII Water Consumption

All tannery processes are demanding of water consumption and while water is the most abundant chemical in the process, it is often the most abused. In various areas of the world, tanneries are licensed according to their effluent volumes as well as the constituents (e.g. Mogden formula). Water consumption is then a key indicator to a factory's environmental performance.

In "Integrated Pollution Prevention and Control (IPPC) Reference Document on Best Available Techniques for the Tanning of Hides and Skins" Published by the European Commission May 2001, it is reported that "... a water consumption of 40 - 50 m³/t raw hide can be cut to 12 - 30 m³/t, if the tannery operates efficient technical control and good housekeeping. Therefore, a tannery operating to Best Available Techniques should be able to return a figure for water usage of less than 30 m³/t. A tannery returning usage figures of greater than 40 m³/t is still operating according to traditional techniques. This forms the basis of the scoring for category "C" - Rawhide to finished leather (Question 5).

The same document breaks down the average water consumption at various process stages.

Table 13 IPPC water usage figures and basis for water consumption calculations

Water consumption (IPPC process stage)	IPPC % (rough average)	Process stages	Water consumption based on IPPC Reference document	Assumed water consumption
Soaking	~15-25			
Liming Rinsing	~23-27			
Deliming/Bating Rinsing	~10-15			
BEAMHOUSE SUM	~50-65			
Picking /Tanning Rinsing after tanning Neutralisation/Rinsing	~10			
		Beamhouse including tanning	~55-70	55
Retanning, Dyeing, Fatliquoring, Rinsing	~30			
POST TANNING OPERATIONS SUM	~30-40	Post tanning including neutralisation	~35-45	35
Finishing	~10	Finishing	~10	10
Total	~100			

Appendix VII Aspects of Processing

MANUFACTURING PROCESSES

One of the most effective ways of reducing pollution is to optimise processes to reduce waste. Optimised processes need to be carefully measured and assessed with accurate equipment. Calibration of measuring equipment within the production environment is therefore a necessity for waste reduction. This section of the questionnaire seeks to identify the level of metrology applied as standard practice.

Legislation on chemical handling and storage varies widely from country to country. There are, however, widely accepted good practice codes, particularly in relation to bulk storage, spill containment and segregation of incompatible materials. Often, inspectors from local municipalities may wish to inspect chemical storage facilities prior to awarding licences or fire certificates. The assessment should therefore include a detailed visual inspection and a review of all associated documentation.

One of the principal sources of salt discharge to waste water streams occurs during the soaking of salted or brined hides. Salts must be eliminated from the hides in order to be able to process the raw material correctly. Excess salt often added can however be recovered by mechanical means thus limiting the discharge of salt in aqueous media. In leather manufacture, poor hides do not necessarily take more water/chemicals/energy to process; the hide house condition will simply give an indication of how well the company takes care of incidental pollution from waste salt in particular. If allowed to enter general drains because of obvious housekeeping issues, the levels of Cl⁻ in the effluent will be increased. The tannery could be causing one of its own major problems, unwittingly.

BEAMHOUSE PROCESSES

The first leather making process consists of soaking the hides in water to allow them to re-absorb any water which may have been lost after flaying, in the curing process or during transport. This absorbed water rehydrates dried interfibrillary protein, loosening its cementing action on the fibres. The collagen fibres and keratin cells of the hair and epidermis also take up water and become more flaccid and flexible. The length of time and the conditions required depend on the size and thickness of the hide, the curing method used, and the greasiness of the hide.

Process measurement is key to controlling the outflows from manufacturing, effluent constituents and consistency of waste for treatment. It is important to note that in several areas of the factory, different methods of application may be in force. (Theoretically, there could be a metered/dosed system in operation within the tanning department while the staff doing the dyeing process, in a different area of the factory, could be working completely by estimation). If a tannery is not effectively controlling what goes into the process, they cannot effectively claim to be controlling what comes out.

Nonyl Phenyl Ethoxylates (NPEs)

The Vorsorgeprinzip was described in 1976 by the Federal German Government thus:

“Environmental policy is not fully accomplished by warding off imminent hazards and the elimination of damage that has occurred. Precautionary environmental policy requires furthermore that natural resources are protected and that demands on them are made with care.” In other words, if the consequences of an action are unknown, but are judged to have some potential for major or irreversible negative consequences, then it is better to avoid that action. Given the differences between current US and European opinions regarding the acceptability or otherwise of using NPEs the Precautionary Principle should be applied and NPEs considered environmentally unsound.

Fleshing uses mechanical means to remove adipose tissue from the inside surface of the hide or skin, facilitating penetration of processing chemicals. This operation can be carried out at several process stages, but generally, the more advanced the process stage, the fewer possible uses there are for the waste products.

Chemical degradation of keratin protein of the hair and epidermal layer uses strong chemical agents and contributes to TDS, TKN, BOD, COD, S^{2-} and alkalinity of the effluent. There are many commercial hair-save systems in use, some of which have a more environmentally sound approach than others. The COD and BOD is drastically reduced due to physical removal of partially degraded hair. Opening-up the fibre structure in order to facilitate tanning removes still further quantities of unwanted protein fractions that influence leather properties. All of the degraded proteins will appear in the effluent, along with residual lime contributing to TDS, BOD, COD, S^{2-} and alkalinity of the effluent.

The aim of deliming is to take the limed hides to the optimum condition for bating (removal of the final degraded, unwanted protein by enzymatic digestion). Therefore, three main changes have to occur: removal of unhairing and liming chemicals, reduction in pH and associated reduction in swelling, and increase in temperature. The traditional system for deliming makes use of

ammonium salts (ammonium sulphate or ammonium chloride). These salts have the greater advantage that addition of excess to the liquors is unlikely to bring the pH much below 8.0. Generally, the ammonia released maintains a pH in the liquor of between 8.5 and 9.0, ideal for most enzymatic action during the subsequent bating process. Ammonia discharges to atmosphere or watercourse are the principal environmental pollutants of the process and have spurred the development of other systems such as carbon dioxide deliming.

This section of the process is critical to the level of nitrogen present in the effluent. Best practice measures can be taken to manage this effect.

TANYARD PROCESSES

After this point in the process, the hides or skins are converted to leather. This process stage is concerned with adding chemicals that will chemically cross-link and stabilise the collagen, creating a structure that will not putrefy. This is the first stage where the efficiency of fixation of chemicals is critical to the end product.

Chromium will be found in both liquid and solid phases of waste from the leather making process, as well as within the leather itself. There are two main approaches to minimising the environmental impact of the chrome tanning process - managing the main chrome tanning process or managing waste chrome.

In the absence of strict control, main chrome tanning is the major source of discharged chrome. It is a widely held view that a substantial increase in the efficiency of exhausting the chrome offer will solve most of the problems in the final effluent.

Maximising chrome uptake should be the first priority in any plan of action: regardless of the economic implications, reducing the concentration of chrome in the spent tan liquor reduces the losses to effluent during the management of that waste stream. It is not always recognised that considerable improvements to tanning efficiency can be achieved by manipulating the parameters of the process or by making minor changes to the way in which the process is conducted, without necessarily resorting to high cost proprietary auxiliaries. Accurate and regular process control helps to ensure repeatability of results in tanning. Consistency of product also contributes to consistency of the effluent quality leaving the department.

In the event that there is a mixture of tanning methods the auditor should allocate a percentage score to all questions in proportion to the tanning method mix.

A high exhaustion chrome tannage will be considered as one that has a chrome exhaustion efficiency in excess of 90%, as indicated in the Integrated Pollution Prevention and Control (IPPC)

Reference Document on Best Available Techniques for the Tanning of Hides and Skins, May 2001.

POST TANNING PROCESSES

Starting to adjust the physical and aesthetic characteristics of the leather in line with customer expectations involves machines that remove moisture (samming or wringing machine) and adjusting substance/thickness (splitting/shaving machines) of the hides or skins in process. From this stage of the manufacturing cycle, there is a range of outflows of liquid and solid nature that good management practice aims to control.

Dyehouse operations augment the prime characteristics of the rough-tanned product, imparting the character desired by the customer. At this stage, processing in the aqueous phase allows combinations of other tanning agents, dyes, auxiliary chemicals and oils to be fixed to the leather fibres.

Drying of leather following the wet processes produces the first evidence of the finished product's nature and character. Because the product is sensitive to extreme conditions and can easily be over-dried, it is best practice to exercise good control over the function, safeguarding the fraction of moisture that is chemically bound to the leather protein matrix. Excessive drying causes irreversible hardening of the product, unnecessary expense on fuel bills (especially in colder climates) and un-warranted energy use adversely affects the company's environmental impact.

Many leather products require individual and specific preparation prior to surface coatings being applied. Physical and mechanical operations that produce pollutant portions are controlled well by best practice methods.

FINISHING PROCESSES

Finishing operations provide the final blend of customer aesthetics and performance attributes for each product made. The adequate control of the activity is paramount in waste avoidance (thereby reducing pollution levels to a practical minimum). Finishing techniques are frequently governed by company technical policy as to use of certain chemicals and agents that can be serious pollutants.

The dispensing of chemicals and mixing of finishes is a critical activity, a well-controlled mixing area is tidy, organised, with base constituents and stock mixes kept in good ambient conditions, covered at all times to prevent contamination. Cleanliness in weighing and dispensing is of paramount importance and matching and record keeping critical to the repeatability of the work, batch-to-batch. It is normal, good practice to hold returned mixes from the production floor for only a defined time and have a policy method for their re-use or disposal. A facility run along these lines can normally be said to be under best practice management.

Finish application offers a range of choices to the company, some having more flexible aesthetic possibilities and some more limited in their appearance but more efficient in terms of materials transfer to the leather surface. Spraying is typically wasteful, but roller coating offers higher efficiencies. Both common methods are influenced greatly by both technology and best practice control methods

HOUSEKEEPING

Good housekeeping practices minimise the risk of both environmental (e.g., spillage) and health and safety (e.g., tripping) incidents taking place. This section of the protocol is designed for the assessor to make notes from visual observation, rather than through interview. Good housekeeping generally indicates that environmental management issues are being effectively addressed. As there are many areas involved in different factory departments, specific comment is made here on production facilities.

Housekeeping within a tannery is typically under the control of a number of different section heads. This makes it important for standards to be consistently high. (In many tanneries observed standards can be substantially different from one department to another). External areas may be subject to no overall control being enforced, leading to serious environmental risks arising.

EMERGENCY PLANS

Emergency planning is about preparing to cope with situations that have the potential to cause a great deal of harm. It may involve organisations who do not routinely work together, and who work in different ways, having to co-ordinate their activities to provide an integrated response. ISO14001 for example requires companies to "...Define and maintain procedures for responding to emergency situations... Prepare procedures for preventing/mitigating environmental effects... Review applicable procedures after the event...". Guidance documents and liaison arrangements must be flexible enough to ensure that local or special needs can be taken into account.