

Questionnaire for OSH assessment in tanneries

INDIAN LEATHER INDUSTRY FOUNDATION

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Date of audit:	Name(s) of auditors:
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COMPANY INFORMATION

General

Name of Company			
Address:			
Phone/Fax			
Email:			
Name of CEO:			
Mobile number:			
Type of process			

Capacity

Raw material processing capacity, t/d	pieces / month		
Finished leather production capacity, sq.ft./month			
Raw material consumption, kg			
	raw	wetblue	EI
Sheep			
Goat			
Cow			

Type of leather produced, sq.ft./month

Garment / gloving	
Upper leather	
Leather goods leather	

Employees

Type of personnel	Numbers
Managers	
Supervisors	
Operators / workers / helpers	
Others	
Total	

Built-up area of the tannery, sq.ft, approx.			
Total area of the tannery, sq.ft., approx			
Markets (%)	Local, %		Exports, %

Persons trained during the safety audit:

<p>Date: _____</p> <p>Safety audit conducted in _____</p> <p>ILIFO Auditor _____ Company representative _____</p>

SECTION A: CHEMICAL STORE

A.1.	Chemical storage	Yes/ No	Observation
	MSDS available for all chemicals?		
	Personnel handling chemicals have been instructed as per MSDS on handling?		
	Classified storage?		
	Properly labelled containers?		
	Steps to eliminate the hazardous chemicals taken?		
	Drain inside the chemical store?		

A.2.	Chemical Handling	Yes/ No	Observation
	Pallet trucks /trolleys used for heavy materials?		
	Containers for handling solid or powder chemicals?		
	Hand pumps for transferring liquid chemicals from carboys?		
	Spoons, spatulas and scoops for transferring powdered chemicals?		

A.3.	Personal Protective Equipment	Yes/ No	Observation
	Gloves ?		
	Rubber boots non-slip ?		
	Aprons PE/PVC?		
	Respirator - dust, mist, acid gases ?		

A.4.	Work environment related	Yes/ No	Observation
	Type of facility		
	Adequate ventilation ?		
	Workplace floor non-slippery?		
	Adequate lighting in workplace - 300 lux		
	General electrical condition is good?		
	Good house keeping (GHK)		

A.5.	Emergency preparedness	Yes/ No	Observation
	Safety shower?		
	Eye/face rinse fountain?		
	First Aid Box?		
	Emergency exit on two sides?		
	Fire fighting equipment?		

SECTION B: RAW SKINS STORE

B.1.	Work environment related	Yes/ No	Observation
	Details of facility		
	Ventilation adequate?		
	Lighting adequate?		
	Good house keeping implemented?		
B.2.	Raw skin handling	Yes/ No	Observation
	Mechanical means of raw skin handling?		
	Floor level and smooth for trolley?		
	Separate place for raw hide trimmings?		
B.3.	Personal Protective Equipment	Yes/ No	Observation
	Gloves ?		
	Rubber boots non-slip ?		
	Aprons PE/PVC?		
B.4	Machine safety: Desalting machine	Yes/ No	Observation
	Specification		
	Active roller guard on operator side?		
	Drive Guard?		
	Motor TEFC (IP54 or IP55)?		
	Motor IP maintained at glands/terminal box?		
	Motor TWIN earthing?		
	Electrical cabling conduited / armoured?		
	Emergency OFF button within reach?		

SECTION C: WET PROCESSING DEPARTMENT

C.1.	Work environment related	Beamhouse	Tanning and dyeing	Observation
	Type of facility:			
	Adequate ventilation ?			
	Drainage adequate?			
	Workplace floor non-slippery?			
	Adequate lighting in workplace - 150 lux			
	General electrical condition is good?			
	Good house keeping implemented?			
	Easy discharge of liming effluent by using paddles or pits above ground level			

C.2.	Material handling	Y/N	Y/N	Observation
	Mechanical means of material handling?			
	Floor level and smooth for trolley?			
	Aisles for movement marked?			
	Is the layout and positioning of wet processing facilities adequate for easy movement of materials?			

C.3.	Personal Protective Equipment	Y/N	Y/N	Observation
	Gloves ?			
	Rubber boots non-slip ?			
	Aprons PE/PVC?			
	Respirator - dust, mist, acid gases ?			

C.4	Emergency preparedness	Y/N	Y/N	Observation
	Safety shower?			
	Eye clean fountain?			
	First Aid Box?			
	Fire fighting equipment?			

C.5	Machine safety		
C.5.1	Fleshing machine	M1	Observation
	M1: Working width in mm		
	Machine installation higher than surroundings		
	Active roller guard on operator side		
	Drive Guard?		
	Motor TEFC (IP54 or IP55)?		
	Terminal box in place?		
	Fan and fan cover in place?		
	Motor IP maintained at glands / terminal box?		

Motor TWIN earthing?		
Electrical cabling conduited / armoured?		
Emergency OFF button within reach?		
Grinding stone blade sharpening - mechanical?		
Adequate space for fleshings removal from rear of machine?		
Drainage of waste fleshing water adequate?		
Separate place for storage of fleshings		
Starter panel of adequate protection against water spillage, corrosion		
Isolator (mains) switch proper protection?		
Apron?		
Gloves?		
Boots?		

C.5.2.	Paddles	P1-P2	Observation			
	Specifications: numbers, capacity					
	Drive Guard?					
	Motor TEFC (IP54 or IP55)?					
	Terminal box in place?					
	Fan and fan cover in place?					
	Motor IP maintained at glands / terminal box?					
	Motor TWIN earthing?					
	Electrical cabling conduited / armoured?					
	Emergency OFF button within reach?					
	Starter panel of adequate protection against water spillage, corrosion					

C.5.3.	Tanning drums	D1	D2	D3	D4	D5
	Specifications: numbers capacity					
	Barrier Guard in place (passive/interlocked)?					
	Drive Guard?					
	Motor TEFC (IP54 or IP55)?, positioning					
	Terminal box in place?					
	Fan and fan cover in place?					
	Motor IP maintained at glands / terminal box?					
	Motor TWIN earthing?					
	Electrical cabling conduited / armoured?					
	Emergency OFF button within reach?					
	Noise LEVEL should be <85dBA					
	Fixed funnels for feeding chemicals?					
	Fixed funnel at adequate height for easier dosing of chemicals?					
	Starter panel IP44, corrosion protected, cables conduited					
	Drainage of waste waster adequate?					

C.5.4.	Chrome recovery plant	Y/N	Observation
	Is CRU operational		
	Tanks are guarded?		
	Easy access to main reactor for dissolving and feeding MgO?		
	Easy access to sulphuric acid mixing tank?		
	Fume extraction from sulphuric acid mixing tank provided?		
	Acid masks are used while handling sulphuric acid?		

C.5.5.	Crusting / dyeing drums	D1	D2	D3	D4	D5
	Specifications: numbers capacity					
	Barrier Guard in place (passive/interlocked)?					
	Drive Guard?					
	Motor TEFC (IP54 or IP55)?, positioning					
	Terminal box in place?					
	Fan and fan cover in place?					
	Motor IP maintained at glands / terminal box?					
	Motor TWIN earthing?					
	Electrical cabling conduited / armoured?					
	Emergency OFF button within reach?					
	Noise LEVEL should be <85dBA					
	Fixed funnels for feeding chemicals?					
	Fixed funnel at adequate height for easier dosing of chemicals?					
	Starter panel IP44, corrosion protected, cables conduited					
	Drainage of waste water adequate?					

C.5.6.	Setting /Sammying machine	M1	M2	Observation
	Specifications: working width			
	Active roller guard on operator side?			
	Drive Guard?			
	Motor TEFC (IP54 or IP55)?			
	Motor terminal box in place?			
	Motor fan and fan cover?			
	Motor IP maintained at glands / terminal box?			
	Motor TWIN earthing?			
	Electrical cabling conduited / armoured?			
	Emergency OFF button within reach?			
	Noise LEVEL should be <85dBA			
	Apron?			
	Ear muff or ear plug?			
	Boots?			
	Dust mask for dry setting			

C.5.7.	Process water pump	M1	Observation

Specifications: capacity		
Coupling guard		
Motor TEFC (IP54 or IP55)?		
Motor terminal box in place?		
Motor fan and fan cover?		
Motor IP maintained at glands / terminal box?		
Motor TWIN earthing?		
Electrical cabling conduited / armoured?		
Emergency OFF button within reach?		

C.6	Electrical distribution panels	DB	Observation
	Location of DB:		
	Guard to avoid inadvertent access?		
	Corrosion protection by re-painting?		
	Proper enclosure?		
	Cable glands?		
	Metal casings are earthed?		
	Protective rubber mat?		

SECTION D. POST TANNING DRY OPERATIONS

D.1.	Work environment related	Yes/ No	Observation
	Details of facility		
	Adequate ventilation		
	Lighting adequate?		
	Good house keeping (GHK)?		

D.2.	Material handling	Yes/ No	Observation
	Mechanical means of material handling?		
	Floor level and smooth for trolley?		
	Aisles for movement marked?		
	Pallets for storing materials in-process		
	Is the layout and positioning of post tanning dry operations adequate for easy movement of materials?		

D.3.	Personal Protective Equipment		Observation
	Aprons PE/PVC?		
	Respirator - dust?		

D.4.	Emergency preparedness		Observation
	First Aid Box?		
	Fire fighting equipment?		

D.5	Machine safety			
D.5.1.	Shaving M/c - Dry	M1	M2	Observation
	Specification: working width in mm			
	Active roller guard on operator side?			
	Drive Guard			
	Motor TEFC (IP54 or IP55)?			
	Motor terminal box in place?			
	Motor fan and fan cover in place?			
	Motor IP maintained at glands / terminal box?			
	Motor TWIN earthing?			
	Electrical cabling conduited/armoured?			
	Emergency OFF button within reach?			
	Is grinding done after removal of shavings and when the machine is not fed with leather?			
	Dust extraction arrangement for machine?			
	Dust exhaustion from dusty machine area?			
	Dust mask?			
	Goggles?			

D.5.2.	Staking - Slocomb	M1	Observation
	Specification: no.,		
	Drive Guard?		
	Motor TEFC (IP54 or IP55)?		
	Motor terminal box in place?		
	Motor fan and fan cover in place?		
	Motor IP maintained at glands / terminal box?		
	Motor TWIN earthing?		
	Electrical cabling conduited / armoured?		
	Emergency OFF button within reach?		

D.5.3.	Staking - Mollisa Vibratory	M1	Observation
	M1: Specification: no., working width		
	Anti-vibration mounts?		
	Motor TEFC (IP54 or IP55)?		
	Motor terminal box in place?		
	Motor fan and fan cover in place?		
	Motor IP maintained at glands / terminal box?		
	Motor TWIN earthing?		
	Electrical cabling conduited / armoured?		
	Emergency OFF button within reach?		
	Noise level >85 dBA		
	Ear muffs		

D.5.4.	Buffing M/c - Dry	M1	M2	M3
	Specification: working width in mm			
	Guard on operator side?			
	Drive Guard?			
	Motor TEFC (IP54 or IP55)?			
	Motor terminal box in place?			
	Motor fan and fan cover in place?			
	Motor IP maintained at glands / terminal box?			
	Motor TWIN earthing?			
	Electrical cabling conduited / armoured?			
	Emergency OFF button within reach?			
	Dust extraction arrangement for machine?			
	Dust exhaustion from dusty machine area?			
	Dust mask?			
	Goggles?			

D.5.5.	Dry milling drums	D1	D2	Observation
	Specifications: numbers capacity			
	Barrier Guard in place (passive/interlocked)?			
	Drive Guard?			

Motor TEFC (IP54 or IP55)?			
Terminal box in place?			
Motor fan and fan cover in place?			
Motor IP maintained at glands / terminal box?			
Motor TWIN earthing?			
Electrical cabling conduited / armoured?			
Emergency OFF button within reach?			
Starter panel IP44, non-corrosive?			
Noise LEVEL should be <85dBA			
Dust extraction arrangement for drum?			

D.5.6.	Tumble drier	M1	Observation
	Specifications: numbers capacity		
	Drive Guard?		
	Motor TEFC (IP54 or IP55)?		
	Terminal box in place?		
	Motor fan and fan cover in place?		
	Motor IP maintained at glands/terminal box?		
	Motor TWIN earthing?		
	Electrical cabling conduited/armoured?		
	Emergency OFF button within reach?		
	Starter panel IP44, non-corrosive?		
	Motor 2: Motor TEFC		
	Terminal box in place?		
	Motor fan and fan cover in place?		
	Motor IP maintained at glands/terminal box?		
	Motor TWIN earthing?		
	Electrical cabling conduited / armoured?		

D.5.7	Dedusting machine	Observation	
	Specification		
	Drive Guard?		
	Motor TEFC (IP54 or IP55)?		
	Motor terminal box in place?		
	Motor fan and fan cover in place?		
	Motor IP maintained at glands / terminal box?		
	Motor TWIN earthing?		
	Electrical cabling conduited / armoured?		
	Emergency OFF button within reach?		
	Noise level		
	Dust extraction from machine		
	Ventilation in the area		

D.5.7	Other machine	Observation	
	Specification		
	Drive Guard?		
	Motor TEFC (IP54 or IP55)?		
	Motor terminal box in place?		
	Motor fan and fan cover in place?		
	Motor IP maintained at glands / terminal box?		
	Motor TWIN earthing?		
	Electrical cabling conduited / armoured?		
	Emergency OFF button within reach?		
	Noise level		
	Dust extraction from machine		
	Ventilation in the area		

D.6	Electrical distribution panels	DB	Observation
	Location of DB:		
	Guard to avoid inadvertent access?		
	Corrosion protection by re-painting?		
	Proper enclosure?		
	Cable glands?		
	Metal casings are earthed?		
	Protective rubber mat?		Provide mat conforming to IS: 15652: 2006

SECTION E: Finishing

E.1.	Work environment related	Yes/ No	Observation	
	Details of facility			
	Adequate ventilation			
	Lighting adequate?			
	Good house keeping (GHK)?			

E.2.	Material handling	Y/N	Observation	
	Mechanical means of material handling?			
	Floor level and smooth for trolley?			
	Aisles for movement marked?			
	Is the layout and positioning of finishing operations adequate for easy movement of materials?			

E.3.	Personal Protective Equipment	Y/N	Observation	
	Gloves ?			
	Aprons PE/PVC?			
	Respirator - dust, mist, VOCs ?			

E.4.	Emergency preparedness	Y/N	Observation	Recommendation
	First Aid Box?			
	Fire fighting equipment?			

E.5	Machine safety			
E.5.1.	Autospray	M1	M2	Observation
	M1: Specification: no., working width			
	Doors for spray booth			
	Motor TEFC (IP54 or IP55)?			
	Motor terminal box in place?			
	Motor fan and fan cover in place?			
	Motor IP maintained at glands / terminal box?			
	Motor TWIN earthing?			
	Electrical cabling conduited /armoured?			
	Spray booth exhaustion has scrubber?			
	Spray booth has auto cleaning using water circulation?			
	Glass panel are closed while operating?			
	Exhaust for tunnel driers to outside the room?			
	Insulation for heating oil / steam?			
	Mask -dust/mist& organic vapour?			
	Apron?			
	Gloves-Acid & solvent-resistant?			
	Noise level < 85dBA			

E.5.2.	Plating / ironing roller type	M1	Observation
	Specification: no., working width		
	Roller side guards?		
	Drive Guards?		
	Motor TEFC (IP54 or IP55)?		
	Motor terminal box in place?		
	Motor fan and fan cover in place?		
	Motor IP maintained at glands/terminal box?		
	Motor TWIN earthing?		
	Electrical cabling conduited/armoured?		
	Emergency OFF button within reach?		
	Dust exhaustion system working?		

E.5.3.	Plating machine: Press type	M1	Observation
	Specification		
	Press guards on either side?		
	Drive Guards		
	Motor TEFC (IP54 or IP55)?		
	Motor terminal box in place?		
	Motor fan and fan cover in place?		
	Motor IP maintained at glands/terminal box?		
	Motor TWIN earthing?		
	Electrical cabling conduited/armoured?		
	Emergency OFF button within reach?		

E.5.4.	Polishing machine	M1	Observation
	Specification: no., working width in mm		
	Roller side guard?		
	Drive Guards?		
	Motor TEFC (IP54 or IP55)?		
	Motor terminal box in place?		
	Motor fan and fan cover in place?		
	Motor IP maintained at glands/terminal box?		
	Motor TWIN earthing?		
	Electrical cabling conduited/armoured?		
	Emergency OFF button within reach?		

E.5.5.	Measuring machine	M1	
	Specification: nos., and working width		
	Drive Guards?		
	Motor TEFC (IP54 or IP55)?		
	Motor IP maintained at glands/terminal box?		
	Motor TWIN earthing?		
	Electrical cabling conduited/armoured?		

E.6.	Electrical distribution panels	DB	Observation
	Location of DB:		
	Guard to avoid inadvertent access?		
	Corrosion protection by re-painting?		
	Proper enclosure?		
	Cable glands?		
	Metal casings are earthed?		
	Protective rubber mat?		

SECTION F: EFFLUENT AND WASTE

F.1	Drain	Observation	
	Cleaning frequency per day adequate?		
	Bar chamber is use? Size----mm, approx.		
F.2	Effluent collection tank		
	Presettling tanks?		
	Combined effluent tank dimensions (L x B x D) ft		
	Soak liquor tank dimensions (L x B x D) - ft		
	Pits and tanks guarded?		
	Easy access for cleaning the tank / screening		
	Adequate ventilation?		
F.3	Pumps & Motors		
	Motor TEFC (IP54 or IP55)?		
	Motor terminal box in place?		
	Motor fan and fan cover in place?		
	Motor IP maintained at glands / terminal box?		
	Motor TWIN earthing?		
	Electrical cabling conduited / armoured?		
	Emergency OFF button within reach?		
Coupling guard?			
F.4.	Flow meters		
	Flow meter IP maintained at glands		
	Adequate space for observing the flow?		
	Floor non-slippery		
	Easy access to take readings		
F.5	Solid waste handling		
	Dedicated place for solid wastes		
	Movement by handling equipment		
	Personal protective equipment		
F.6.	Cleaning of tanks		
	Effluent tanks cleaning frequency - days, adequate?		
	Mechanical means of cleaning to avoid manual entry in to tanks and pits		
	Proper cleaning method practiced?		
	Tank effluent aerated/agitated prior to cleaning?		
	Air-supplied respirators used during tank cleaning?		
F.7	Disposal of empty containers		
	Returned to supplier company?		
	Sold?		

SECTION G: Utilities

	Description	Obsvn		
G.1.	Thermic Fluid Heater			
	Guard for oil pump			
	Chimney insulated?			
	Cooling water pump motor			
	Air exhaust fan in the TFH area			
	Gloves - Heat resistant?			
G.2.	Compressor	C1	Observation	
	Motor TEFC (IP54 or IP55)?			
	Motor terminal box in place?			
	Motor fan and fan cover in place?			
	Motor IP maintained at glands / terminal box?			
	Motor TWIN earthing?			
	Electrical cabling conduited/armoured?			
	Capacity (cfm atpsi)			
	Type (recipr./rotary)?			
	Noise < 85dBA?			
G.3	Diesel Genset	DG1	DG2	Observation
	Capacity kVA			
	Diesel storage safety?			
	Noise Attenuated?			
	Insulation of exhaust gas pipe?			
	Ventilation for DG set room			
	GHK?			
G.4.	Main Electrical panel	E1	E2	Observation
	Insulated mat to BIS Standard?			
	Earthing for casings			
	Gloves electrical?			
	Proper enclosure to avoid inadvertent contacts			
	Standard colour codes for electrical cables			
	Fire extinguisher Dry powder(C)?			

SECTION H: Utilities

H.1.	Related hazardous processes	Y/N	Observation
	Are the emergency contact numbers (responsible manager, doctor) of are available or displayed		
	Disclosure of health hazards?		
	Disclosure on information of waste?		
	On-site emergency plan and disaster control measures available?		
	Is the health monitoring of workers conducted in the past?		
	Measures for the handling usage, transportation and storage of hazardous substances available?		
	Is the general awareness on safety and health in the tannery has been conducted?		
	Are the workers trained in basic emergency procedures?		
	Safety committee		
	Maximum permissible limits of exposure of chemical and toxic substances are within the limit?		
	Is there emergency drill conducted in the past?		
	Is the accident / incident reporting system in place?		