

AGENDA

Time	Contents	PIC
2:30PM - 2:40PM	Welcome & Introduction – 10'	LABS/Brands
2:40PM - 2:00PM	LABS Assessment & Remediation Review – 20'	LABS
3:00PM - 3:10PM	Factory Sharing – 10'	Factories
3:10PM - 3:20PM	Good Practices Sharing – 30'	LABS
3:20PM - 3:50PM	Safety Management systems – 10'	LABS
3:50PM - 4:00PM	LABS Graduation – 10'	LABS
4:00 PM – 4:10PM	Update on LABS helpline	LABS
4:10PM – 4:25 PM	Q&A – 15'	Factories
4:25PM - 4:30PM	Closing – 5'	LABS







Life and Building Safety Initiative (LABS)

Promoting a safe and secure working environment in the apparel and footwear industry



The **Life and Building Safety (LABS) Initiative** is an industry-driven program, in which multiple brands and retailers are joining forces with public organizations to operate a scalable program to eliminate preventable **structural**, **fire and electrical safety risks** in key apparel and footwear producing countries in a targeted way.



Achievements in the last 42 months

Sep 2019 till Mar 2023

Enabling environment

LABS associated firms:

- 3 Inspection firms
- 1 Quality Assurance firm
- 3 Safety Training firms

Engineers and trainers trained:

- 12 Engineers (each with a minimum of 10 years' experience)
- **3** Trainers

70% Overall remediation achieved

Program operations



128 Factories onboarded



126 Assessments conducted



179 Safety trainings delivered



163780 Workers reached

3921 people trained including supervisors, machine operators, electricians, boiler operators, compliance incharges

Local ownership

- 1 National Stakeholder
 Committees established
- 1 PPP under planning, to be completed by end of 2023
- National level
 streamlining/harmonization of
 standards across Apparel industry to
 enable effective implementations
 and efficient to achieve safer
 workplaces

11 factories have completed the LABS Program and Graduated

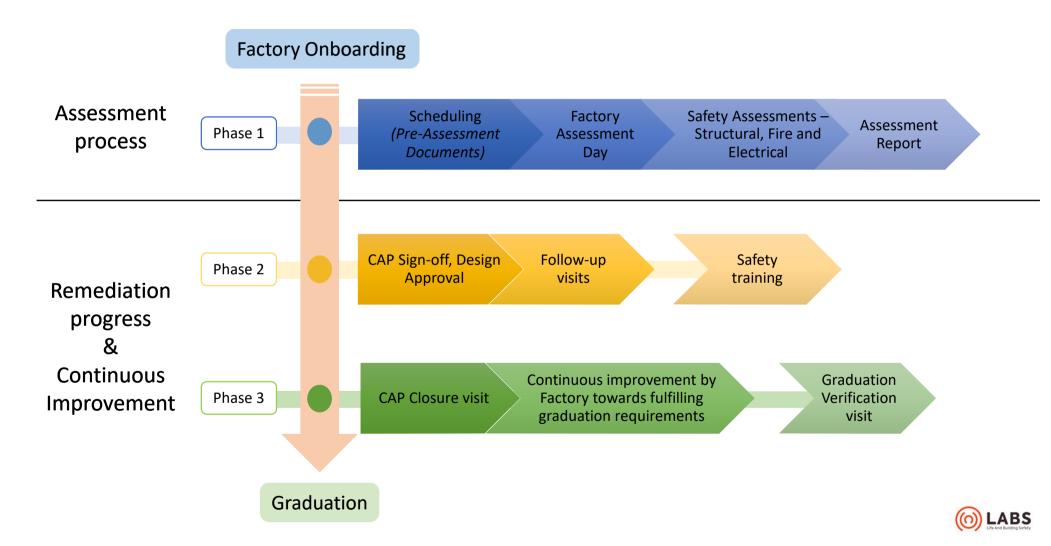


LABS ASSESSMENT & REMEDIATION REVIEW

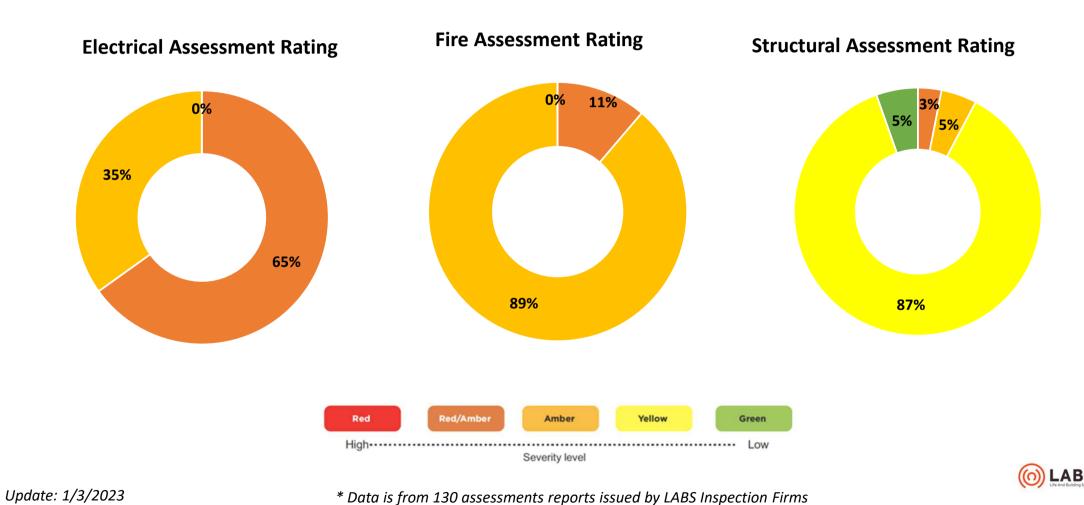




Assessment & Remediation phases



LABS ASSESSMENT RATINGS



LABS ASSESSMENT – ELECTRICAL COMMON ISSUES

P1	High temperature observed during Thermographic survey in electrical equipment's/ panels
	Electrical rooms/ panels are not clean and free from dirt, lint, water, oil, and debris
	Flammable material or combustible goods stored near electrical Panels
P2	Rubber mats not provided over electrical panels
1 2	Cables were not terminated with proper lugs and multi looping of wires was found
	Phase separator not provided between terminals of circuit breakers
כח	Battery backup of emergency light not up to 90 min
P3	Glands not provided in electrical panel or opening in electrical panels
	Electrical wiring and cables were not properly identified, and proper dressing of cables also not provided
	Body earthing not given metal racks or flanges were not bonded in LPG/diesel tank
D/I	No Lightning Protection System (LPS) protection zone layout was available
74	No maintenance records for Transformer substations and Generators
	Access to the panel is less than 1 meter
	SLD/Earthing diagram not available or not signed by competent authority



LABS ASSESSMENT – FIRE COMMON ISSUES

D1	Locking mechanism was observed on the exit doors
PI	Exit doors not side hung to swing correctly in direction of escape
	Escape paths not clear of temporary obstacles
	Emergency lighting and exit signages were not working properly
	Fire Detection and Alarm system was not working during testing
	Inadequate water storage observed for Fire- Fighting purposes
ח	Lack of enclosure of Stairs connecting more than 2 floors
PZ	Inadequate separation of different occupancies. Unprotected window available in between Boiler area, panel area, transformer & compressor
	Use of loose polythene cover for fabric racks
	Capacity of secondary containers not displayed
	Non availability of hydrotest report of fire extinguishers
P3	Handrails are not provided on both sides of the stairway
	Emergency Evacuation Plan was not posted
	Proper testing & training requires for fire hydrant drill, how to handle the nozzle, fire extinguisher, hydrant etc
	Emergency action plan not updated all emergencies are not covered under emergency plan



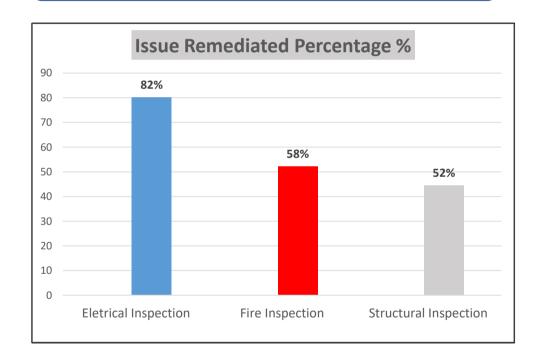
LABS ASSESSMENT – STRUCTURAL COMMON ISSUES

P1	Risk of collapse of metal sheeting canopy
	Severe cracks observed on the concrete beams, slabs, columns
DO	No available load posted at place on the floors
PZ	Missing of lateral column bracings, roof bracings in the steel buildings
	Cracks observed on the Structural members (concrete beams, slabs, columns)
	The non-engineered structural additions were observed
DO	No as-built document for review
P3	Sagging column bracings
	Cracks observed on the Non-Structural members (walls)
	Lack of maintenance works (corrosions)
	Dampness marks are observed on the external & internal walls



REMEDIATION REVIEW – OVERVIEW

70% issues have been remediated

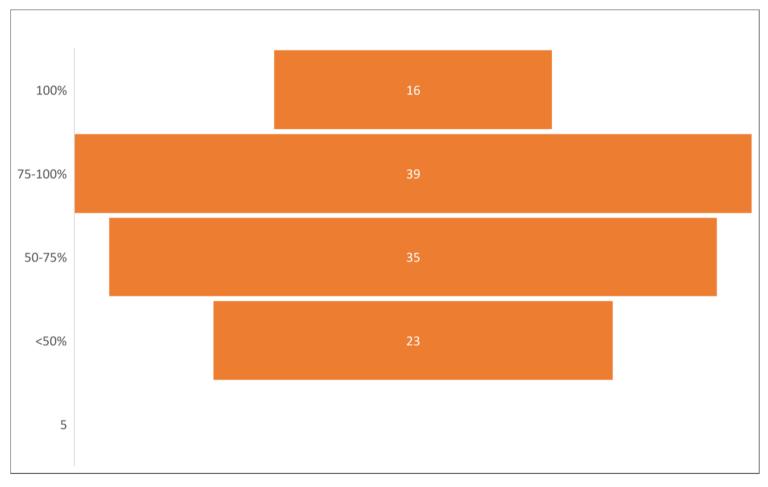


Note: - Remediation data is based on the observations during the Follow up visits conducted by LABS team.

- All issues will be verified by Inspection Firms during the CAP Closure visits



REMEDIATION REVIEW – OVERVIEW



Note: - Remediation data is based on the observations during the Follow up visits conducted by LABS team for active factories.

- All issues will be verified by Inspection Firms during the CAP Closure visits



FACTORY SHARING





FACTORY SHARING – Shahi Exports Pvt Ltd Unit 27



Sprinkler system not installed in **Fabric store & CTPAT**



Electrical wiring and cables not properly identified



Single 7.5 HP pump installed for firefighting



Hose pipe cabinet having single 15 Damage boundary wall. meter length hose pipe





Sprinkler protection systems has been installed



Cable identification has been given to all wiring.



Jockey/Electrical/Diesel Operated pumps installed



Double hose 2X15m Has been fixed all existing setup.



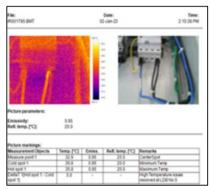
Boundary wall repaired



FACTORY SHARING – Indian design exports Pvt ltd unit 9



No identification of panels and cables



High temperature in panels



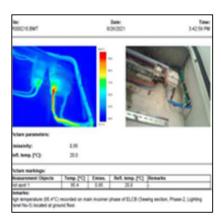
Rolling shutter on Exits



Uncontrolled storage area without sprinklers



Panels and cables identified



High temperature has been resolved



Rolling shutter replaced with fire rated doors with push bar



Sprinklers installed in storage area



FACTORY SHARING – Fancy Fashion



Wooden door installed on stair enclosure



Earthing not provided to Ms truss



Diesel storage in evacuation path



Diesel storage has been removed



Insulated rubber mat not installed under electrical panel



Electrical mats provided under electrical panel



Body earthing not provided to electrical panel



Body earthing provided to electrical panel



Fire rated doors installed



Earthing provided to MS truss

Safety Trainings

Through associated Safety Training Firms, LABS trains staff members and key safety personnel of factories to build up their skills around flagging safety issues, evacuation, and create additional awareness around structural, electrical, and fire safety proficiency.

- Three levels of Safety Training are provided to the factory (1 level per year):
 - Basic Safety Training
 - Advanced Safety Training Level 1
 - Advanced Safety Training Level 2
- Topics covered:
 - Identifying and flagging of the issues related to Structural, Fire & Electrical safety
 - Usage of PPE's (Personal Protective Equipment)
 - Emergency drills that includes evacuation, usage of fire extinguishing equipment and hydrant system
 - Effective workplace precautions provided, etc.





Targeted audience:

- → Members of Occupational Health and Safety (OHS) Committee, Factory Management
- → Engineers and Technicians
- → Supervisors (Floor supervisors, Factory supervisors etc.)
- → Maintenance and Compliance Staff
- → Fire Safety Officers
- → Security Guards (selected security guards)
- → Workers
- → Any other staff/worker who the factory believes can contribute towards ensuring safe working environment











FIRE SAFETY PRACTICES Insufficient water storage

Description	LABS Standard
Fire Water requirement should be maintained	5.8.1.2









FIRE SAFETY PRACTICES Fire pumps

Description	LABS Standard
Provide new pumps that meet the pressure and flow capacity	5.4











FIRE SAFETY PRACTICES Lift Separation

Description	LABS Standard
Openings through floors shall be enclosed with fire barrier walls	4.10.1









Description	LABS Standard
No furnishings, decorations, or other objects shall obstruct exits and access to exits	6.3.9
A means of escape shall be a continuous and unobstructed way of exit travel from any point	6.1.1



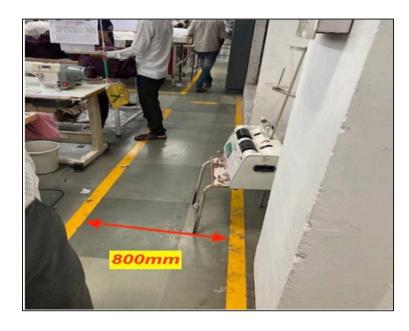








Description	LABS Standard
Aisles shall be provided with a minimum unobstructed clear-width of 915mm.	6.5.6.1











Description	LABS Standard
The total capacity of the means of egress shall for any story, floor, or other occupied space shall be sufficient for the occupant load. The capacity factors as below	6.5.4

Area	Stairways (mm / person)	Corridors, doors, other level components and ramps (mm / person)
Industrial	7.6	5
Storage	7.6	5
All others	7.6	5
High Hazard Contents	18	10

Minimum numbers of exits

- 500 people or less minimum of 2 exits
- 501-1000 people minimum of 3 exits
- More than 1000 people minimum of 4 exits

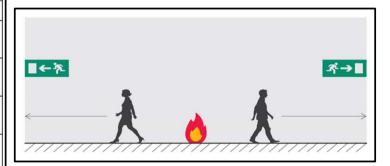


^{*} LABS methodology 5.3.1.1

To be updated

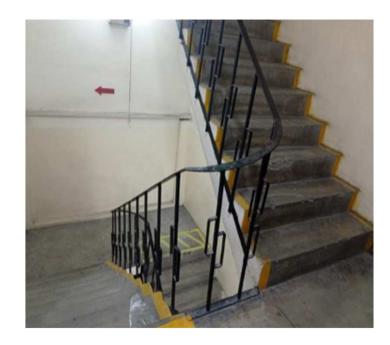
Description	LABS Standard
Travel distance to reach an exit for new or existing building shall not be exceed the values listed as below	6.7

Table 6.7 Common path, Dead-End and Travel Distance Limits (by occupancy)						
Occupancy Type	Common Path Limit (single way)		Dead-End Limit (closed corridor branch)		Travel Distance Limit (alternate ways)	
	No auto suppression system	Automatic suppression system	No auto suppression system	Automatic suppression system	No auto suppression system	Automatic suppression system
Industrial - General	(15 m)	30 m	15 m	(15 m)	61 m	76 m
Industrial - Special Purpose	15 m	30 m	15 m	15 m	91 m	122 m
Industrial - High Hazard	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	23 m
Storage - Low Hazard	Unrestricted	Unrestricted	Unrestricted	Unrestricted	Unrestricted	Unrestricted
Storage - Medium Hazard	15 m	30 m	15 m	30 m	61 m	122 m
Storage - High Hazard	Prohibited	Prohibited	Prohibited	Prohibited	23 m	30 m
Parking - Open	15 m	15 m	15 m	15 m	91 m	122 m
Parking - Enclosed	15 m	15 m	15 m	15 m	46 m	60 m
Other	Refer to NFPA 101 (2015) Table A.7.6					

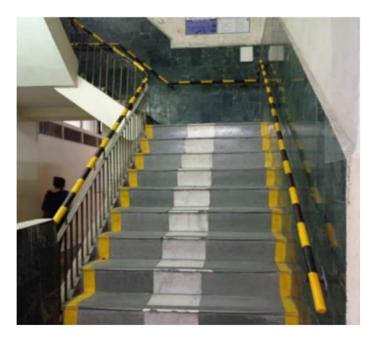




Description	LABS Standard
Handrails shall be provided on both sides of each stairway	6.10.8











Description

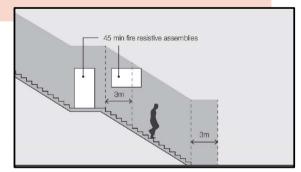
Exterior exit stairs shall be separated from the building with Exits connecting three or fewer stories shall be enclosed with a minimum 1-hr fire-resistance rating. The rating of the exterior wall shall extend 3.0 m beyond the ends of the stair structure

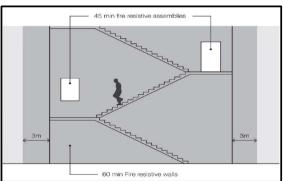
6.3.1.3

LABS Standard











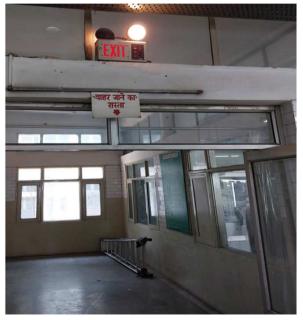




Description	LABS Standard
All paths of egress shall be provided with illumination, Emergency illumination shall be provided for not less than 90 minutes in the event of failure of normal	6.8
lighting	











Description	LABS Standard
Provide fire rated protective enclosures to the exit stairs	4.8, 4.10 ,6.14









Description	LABS Standard	
Separate storage areas from adjacent areas by means of 1-hour fire rated construction	3.10 & 3.11	



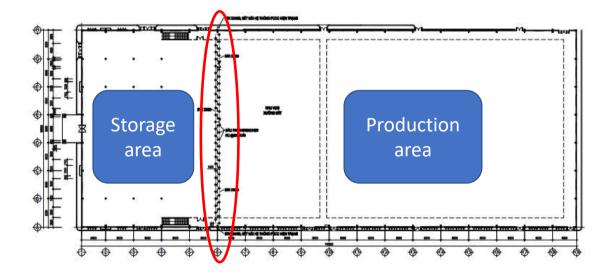








Description	LABS Standard	
Separate storage areas from adjacent areas by means of 1-hour fire rated construction	3.14.3	

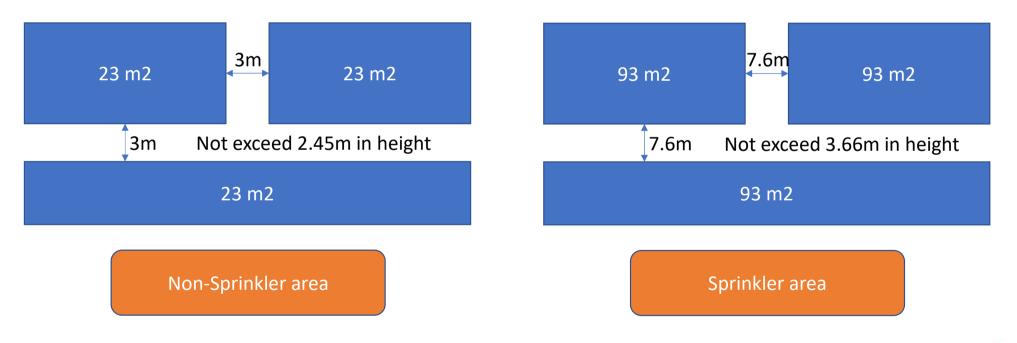




Alternative Option
Drencher System Installing



Description	LABS Standard	
in-process temporary storage arrangement for non-sprinklered areas material should be stored as per Labs compliance	3.14.11	

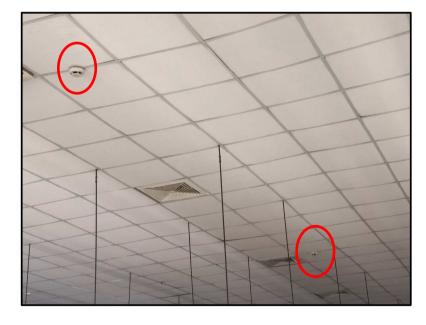




FIRE SAFETY PRACTICES Fire Safety Systems

Description	LABS Standard
Automatic and manual fire alarm and detection systems shall be provided throughout all new and existing buildings, regardless of occupancy type	5.9.3











FIRE SAFETY PRACTICES Fire Safety Systems

Description	LABS Standard
Test decibel levels of alarm sounders in all areas. Add sounders for all areas where the alarm decibel level is not sufficient. Hooter Cum strobe installation is recommended. Note: Minimum sound level usually around 65dB throughout the building but importantly 5dBA above any background noise	5.9











FIRE SAFETY PRACTICES Fire Safety Systems

Description	LABS Standard	
Emergency illumination shall be provided for not less than 90 minutes in the event		
of failure of normal lighting. Emergency lighting facilities shall be arranged to	6.8.3	
provide initial illumination that is not less than an average of 10.0 lux (lumen/m2)	3.3.3	









Escape lighting luminaires should be sited to cover the following locations:

- Near each intersection of corridors
- At exits and at each exit door
- Near each change of direction in the escape route
- Near each staircase so that each landing of stairs receives direct light
- Near any other change of floor level
- Outside each final exit and close to it
- Near each fire alarm call point
- Near firefighting equipment

For the purpose of above clause 'near' is normally considered to be within 2m measured horizontally.



Description	LABS Standard
Provide adequate fire water pumps and water storage tanks with capacity required by Cl.5.7 of the LABS standards. Comprehensive fire hydrant and wet riser system (fully charged at the rated pressure and pumps maintained on Auto mode at all times) designed and installed as per TAC rules/	5.7





Note:

Diesel driven and electrical (with independent power supply) standby pump and jockey pump to be provided. (Chart of jockey, main and standby pumps cut-in and cut-off pressures should be displayed in the pump room)

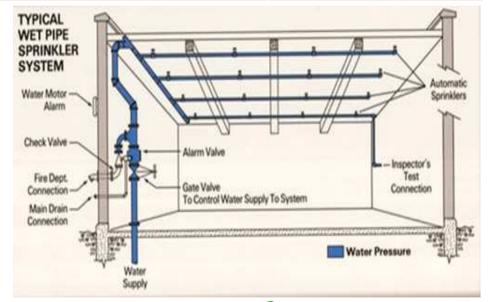






Description	LABS Standard
To ensure the protection coverage of sprinkler for materials, all storage shall be maintained with 460 mm minimum clearance from the top of storage to sprinkler deflector. Automatic sprinklers system designed, as per TAC rules/IS15105 Guidelines to be provided in all manufacturing, storage, utility and service areas, including fire pump rooms.	5.3.8











Description	LABS Standard
Unless in-rack automatic sprinklers have been designed and installed, solid shelf racking shall not be used	5.3.8.2











Description	LABS Standard
Unless in-rack automatic sprinklers have been designed and installed, solid shelf racking shall not be used	5.3.8.2



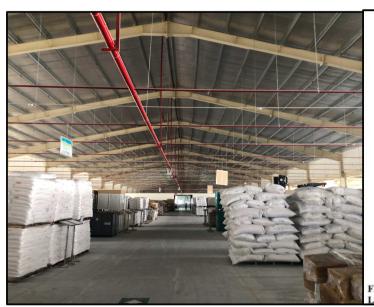


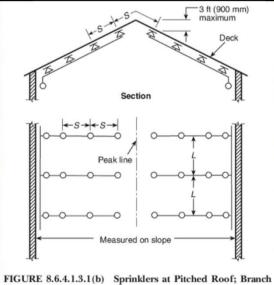






Description	LABS Standard
The distance between the sprinkler deflector and the ceiling shall be from 1 in. (25	5.3.4
mm) to 12 in. (300 mm) throughout the area of coverage of the sprinkler	TCVN 7336:2003 (CI 6.6)







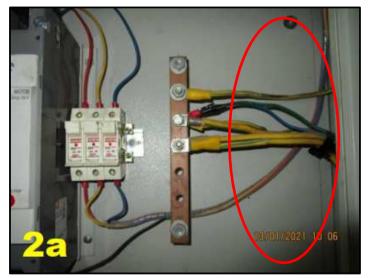






ELECTRICAL SAFETY PRACTICES Earthing and Bonding

Description	LABS Standard
Cross sectional area check of all conductors with respect to short circuit current levels e.g., cable, PE Conductor (as per IS3043) sizing calculations for short circuit current, etc.	10.25.2.2 and 10.32.1 10.33.2.5





Cross-sectional area of line conductors	Minimum cross- sectional area of the PE
(mm²)	(mm²)
S<=16	S
16 <s<=35< td=""><td>16</td></s<=35<>	16
S>35	S/2







Description	LABS Standard
Post first aid signage and provide first aid equipment in Main distribution panel room	10.7.6











Description	LABS Standard
Transformers and equipment installed outdoors (having an individual or aggregate) oil content of 2000 liters or more to be located in a suitably fenced & locked enclosure separated. At least 6m from any building including substation.	10.7.7









Description	LABS Standard
Post adequate warning/danger, voltage level signage & also it should be legible at transformer/substation areas	10.7.6





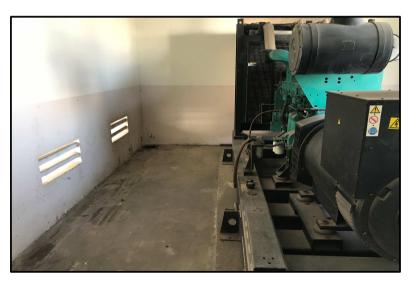






Description	LABS Standard
Electrical safety is the overriding concern of all electrical design work. Safety is basically governed by the electrical codes and standards as adopted by government agencies, commercial entities and good engineering judgement on the part of the designer.	10.6.3





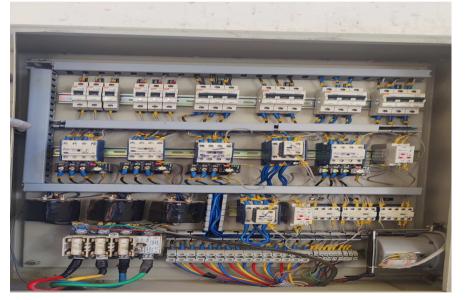






Description	LABS Standard
Housekeeping and hygiene go hand in hand with safe working practices. Contractors and sub-contractors must leave work areas in a clean, tidy and safe condition at the end of each working period. Special attention must be paid to potential fire hazards, trip hazards and equipment left in a hazardous condition.	10.11.1.2











Description	LABS Standard
 1) For good electrostatic & electromagnetic shielding galvanized steel cable trays with solid alluminium top and bottom covers are recommended. 2) For corrosive atmosphere stainless steel or GI with corrosion resistant coating are recommended. 3) Ladder type trays are recommended for power circuit and less sensitive control circuits. 4) For cables used on circuits that are very noise sensitive, the path between the cable tray and equipment should be via metallic conduits. 	10.16.4









Description	LABS Standard
PE and Neutral cable should be identified with proper installation	10.15.1.4











Description	LABS Standard
The circuit should be protected by suitable Protective Devices	10.27.1 and 10.29





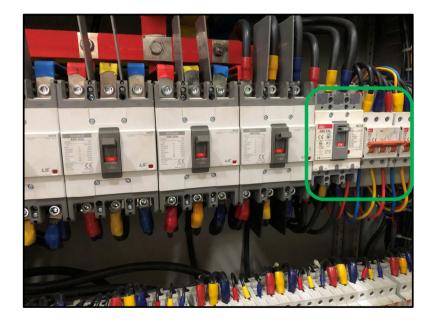






Description	LABS Standard
The small cable should be separated with the suitable Protective Device	10.27.1 and 10.29











Description	LABS Standard
Insulation and shrouding of electrical live parts is not only a must for the performance of electrical system but also safety of the operation and maintenance personnel.	10.5.2.1



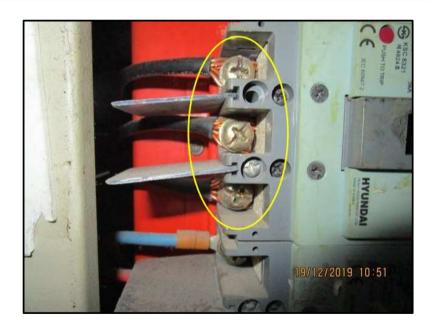


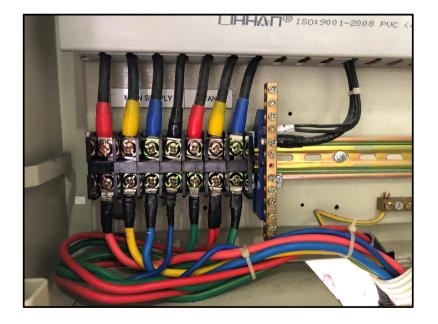






Description	LABS Standard
All lighting and small power circuit and point wiring to be provided with circuit identification labels at DBs, switches, sockets, etc. Cable sockets/ferrules should be used for cable with the cross-sectional area from 6mm2 and above	10.15.3







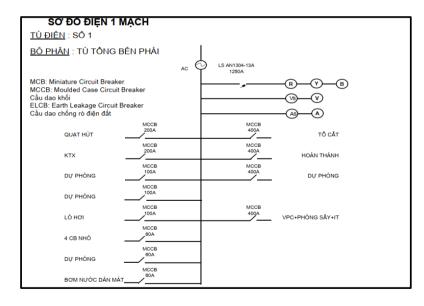


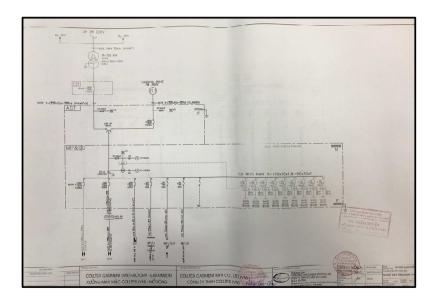


ELECTRICAL SAFETY PRACTICES

Drawings

Description	LABS Standard
Updated as built single line diagram & drawings of the installation to be available. These drawings to include information on all equipment ratings (e.g. motors, cables, switchgear, etc.), short circuit levels, protections provided and equipment layouts etc. Updated Single Line Diagram drawing to be displayed in Electrical room.	10.22







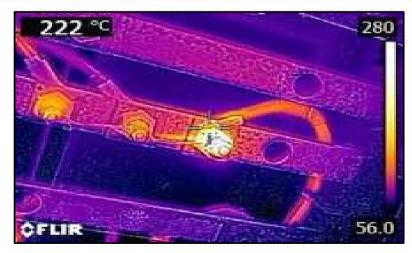




ELECTRICAL SAFETY PRACTICES

Thermographic Scanning

Description	LABS Standard
Millivolt drop across terminal connections in panels to be measured (should be within 10mV). Alternately, thermographic survey can be carried out in live condition with due safety precaution (adequate work instructions & PPEs to be available for conducting thermographic survey). The scope should cover all electrical joints which cannot be shut down for maintenance. Thermographic inspection of electrical equipment to be provided on a tri-annual basis.	10.38.2.2









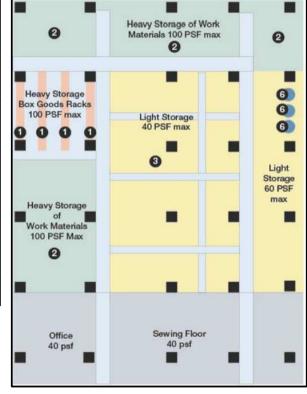


STRUCTURAL SAFETY PRACTICES Vertical Structural System

Description	LABS Standard	
Appoint Structural Engineer to produce safe load plans for all mezzanine/ second	0 0 0 0 and 0 10	
floors, giving consideration to floor capacity and column capacity.	8.8, 8.9 and 8.10 capacity.	

No	Туре	Item	Max PSF Load	Description
1	HS	Box Goods Rack	120	W36" x H72", Max 6 boxes high, 15kg/box
2	HS	Denim Rolls Storage	150	13" dia, 72" long, 150kg/roll, 6 high max
3	LS	Bundled Box Storage	40	Max 48" high, 24" aisle each bay
4	Light	Office	40	W36" x H72", Max 6 boxes high, 15kg/box
5	Light	Sewing Tables	40	Typical sewing tables
6	Special	Water Tanks	N/A	4000 lbs, 60" dia, 84" tall, 5000 gal

Notes: Floor x Load Plan





STRUCTURAL SAFETY PRACTICES Vertical Structural System

Description	LABS Standard
Appoint Structural Engineer to produce safe load plans for all mezzanine/ second floors, giving consideration to floor capacity and column capacity.	8.8, 8.9 and 8.10











STRUCTURAL SAFETY PRACTICES Lateral Structural System

Description	LABS Standard
Installing the missing or sagging column/roof bracings in the Pre-engineered buildings	8.18











STRUCTURAL SAFETY PRACTICES Lateral Structural System

Description	LABS Standard
Installing the missing or sagging column/roof bracings in the Pre-engineered buildings.	8.18











STRUCTURAL SAFETY PRACTICES Visible Distress

Description	LABS Standard
Appoint Structural Engineer to study the cracks and propose the remedial	8.5
measures	







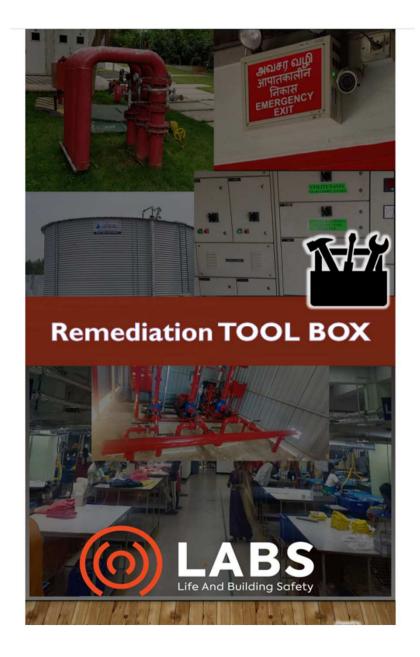




LABS TOOL BOX

LABS team has developed Tool box for factories teams to make them understand about remediation of Issues that are identified by inspection firm. Factory team can refer this module while remediating in their premises.

https://labsinitiative.com/wp-content/uploads/2023/02/LABS-Tool-Box.pdf









Slide 62

AH6 SMS slide is missing. As per agenda there should be a slide or two here
Ankith Hegde, 21-03-2023

AH7 Should include some templates of formates prepared by graduated factories as examples
Ankith Hegde, 21-03-2023

LABS GRADUATION CRITERIA

Key requirements for factory graduation:

- 1. All issues have been remediated as per LABS Standard guideline and confirmed with the CAP Closure report by the Inspection Firm (IF)
- 2. Basic Safety Training, Advanced Safety Training Level-1 and Advanced Safety Training Level-2 have been completed
- OHS Committee has been established and the LABS mandated trainings are further being conducted with a process established to cover 100 % workers and record participation rates
- 4. Dedicated safety manager is available in the factory
- 5. No infrastructural changes made to the building after the CAP Closure visit
- 6. No more than 30% increase of workers within the factory after the CAP Closure visit
- 7. Factory supports that the Helpline is operating and functioning well
- 8. Demonstrated capacities to maintain Structural, Fire and Electrical Safety

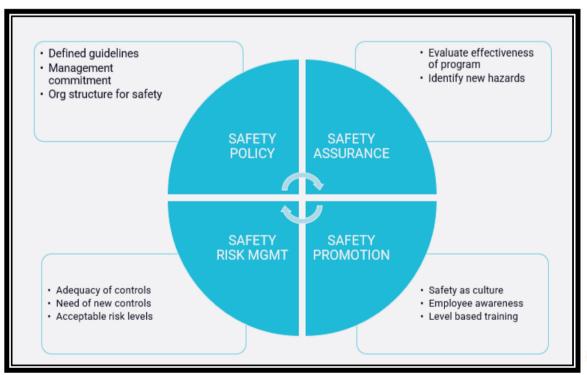


Safety Management system

Safety Management System refers to a systematic approach to managing safety by organizational goals, policy, structure, planning, accountability, and safe standard operating procedures. Alternately, a safety management system can be defined as an explicit element of the corporate management responsibility which sets out the company's safety policy and defines how it intends to manage safety as an integral part of the overall business operations.

Component of SMS

- 1. Safety Policy
- 2. Safety Assurance
- 3. Safety Promotion
- 4. Safety Risk management

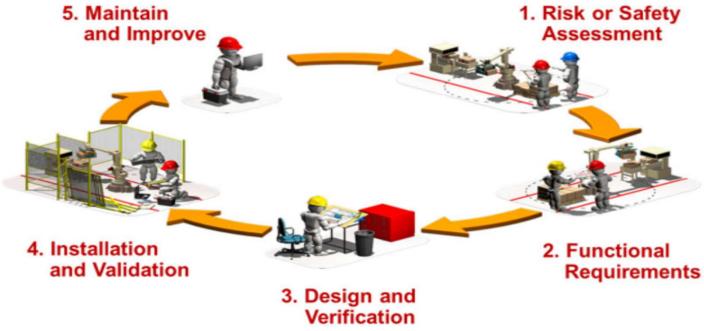




IMPLEMENTING SMS

- Setting up Policies & Protocols
- Leadership commitment & implementation team
- Allocate timelines and responsibilities
- Monitoring mechanism
- Continuous improvement.





Key parameters of Safety Management System to be ensured in a factory for managing safety are as per below:

- Safety procedures and instructions should be displayed at workplaces
- > Workers comply with safety procedures and instructions relevant to their work and/or about which they have been trained or notified.
- Ensure workers know what to do if an emergency occurs at their place of work.
- Identify safety hazards and manage/control risks arising from work and factory routines and planned operations, activities and services.
- > Report all incidents, accidents and near misses, including thorough investigation, follow-up and communication of lessons learned.
- Factory management have overall operational responsibility for safety at factory location.
- Establish and maintain an appropriate safety work management system for the factory and their teams, including the appointment of committees, managers, competent experts and a system for gathering employees, channels for employees to raise their concerns/inputs.
- > Regularly review and comply with all applicable local and LABS Safety Standards, including relevant organizational safety policies.
- Fire & Life Safety Management Guidelines and be maintained in good condition and records (including schedules and history sheets) kept.



LABS Helpline

LABS is introducing a mobile based chat platform along with helpline number where workers can reach out to LABS immediately and can report any safety related risk of their respective factories.

Kindly visit **labs-Chat.com** from the mobile browser and register your concern or scan QR code from LABS updated danglers and register your concern through LABS Chat













Q & A

For further queries, contact : –

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