

FIRE SAFETY INSPECTION REPORT

Factory Name: Trust Knitwear industries Ltd.

ACCORD ID: 10769

ADDRESS: Bhabanipur, Gazipur Sadar, Gazipur

Other Factories: None



Inspected By: Md Rafat Arefin

Date: 21st April, 2019

Fire Safety Inspection Report

Factory Name: Trust Knitwear industries Ltd.

Summary

Trust Knitwear industries Ltd. was surveyed for fire safety on 21/04/2019 by The Accord Inspection Team. The purpose of the survey was to identify significant fire safety issues and to provide recommendations for remediation based on applicable standards specified by the Accord. The scope of this initial fire safety inspection was limited to the review and identification of major fire safety issues. The inspection did not include identification of minor deficiencies, which will be further addressed as part of follow-up inspections.

The information in this fire safety inspection report was obtained during a visit to the facility and during interviews with local factory management. It has not been possible to provide independent verification for all the information and data collected, and, therefore, The Accord cannot accept general responsibility for omissions or errors arising from inaccuracies in this report from the information obtained.

The findings and recommendations in this report are not intended to imply, guarantee, ensure or warrant compliance with any government regulations. Additionally, the results do not imply in any way that compliance with the findings or recommendations as stated in this report will eliminate all hazards, risks or exposures or that hazards, risks or exposures not referred to in this report do not exist. Compliance with the findings and recommendations stated in this report does not relieve the factory owner from obligation to comply with specific project requirements, industry standards, or the provisions of any local government regulations.



Findings & Recommendations :

The following "Table" summarizes the major fire safety issues identified during the inspection.



Recommendations have been provided to address each issue. An implementation schedule shall be developed by the factory to remediate each of the findings. The specific timing of improvements, including any requested extensions due to design / installation constraints, shall be submitted to the Accord for approval.

SI No.	Category	Findings	Required Action	Remediation Time Frame
1	Fire Rated Construction	Dying Shed: The single storey production building is steel portal frame type and all structural members are resting on steel columns and rafters which are not fire resistive type.	Construction of new non-high-rise factories containing G and/or H2 occupancies (factories) shall be Type 1 or Type 2 construction as required in BNBC Part 2 Table 3.2.4.	Within 3 months




SI No.	Category	Findings	Required Action	Remediation Time Frame
2	Fire Rated Construction	<p style="text-align: center;">Dying Shed:</p> <p>Chemical storage area is not separated by fire-rated construction having non rated door and unsealed penetrations and openings. (Location- Ground Floor of RCC part)</p>	<p>Separate the chemical storage room by 2-hr fire rated construction. Seal all penetrations and protect the openings to maintain the required fire separations. Keep 16-points MSDS of all chemicals in the storage area.</p>	<p style="text-align: center;">Within 3 months</p>



SI No.	Category	Findings	Required Action	Remediation Time Frame
				
3	Fire Rated Construction	<p>Dying Shed: Areas used for in-process storage of combustible materials are open to the surrounding occupancy</p>	<p>Provide defined storage areas and limit the storage arrangement as follows:- Maximum height of 2.4m and maximum area of 23m². Separate areas of unenclosed combustible storage by a minimum clear distance of 3m. Or Enclose the storage area from the surrounding occupancy with a minimum 1 hour construction.</p>	Within 3 months





SI No.	Category	Findings	Required Action	Remediation Time Frame
				
4	Egress	<p>Dying Shed: Sliding type doors have been provided along means of egress in the production building.</p>	<p>Replace all collapsible/sliding/shutter type doors & gates by the side-hinged swinging type doors.</p> <p>If locks are required for security reasons, utilize special door locking features complying with NFPA 101.</p>	<p>Within 1 month</p>



SI No.	Category	Findings	Required Action	Remediation Time Frame
				



SI No.	Category	Findings	Required Action	Remediation Time Frame
5	Egress	<p>Dying Shed: Doors along means of egress are provided with non compliant locking system.</p>	<ol style="list-style-type: none"> 1. Remove all non compliant locking features from egress doors. 2. If locks are required for security reasons, utilize special door locking features complying with NFPA 101. 3. Doors may be locked where the latch and lock are disengaged with one motion where the occupant load does not exceed 49 persons. 4. Doors may be provided with locking hardware from the ingress side provided that a panic bar is installed on any door with an occupant load exceeding 49 persons. 	Immediate
				




SI No.	Category	Findings	Required Action	Remediation Time Frame
6	Egress	<p>Dying Shed: Egress door serving 50 or more occupants but does not swing in the direction of egress travel. Location: Pocket gate of Mid-East exit.</p>	Modify swing direction of egress doors to the direction of egress travel.	Within 3 months
7	Egress	<p>Dying Shed: Fire evacuation maps is not posted at the entrance of all exit stair. (Location: South-east exit and Mid-west exit)</p>	Fire evacuation maps shall be posted at the entrance to each exit stair.	Within 3 months




SI No.	Category	Findings	Required Action	Remediation Time Frame
8	Egress	<p style="text-align: center;">Dying Shed:</p> <p>Changes in level exceeding 535 mm (21 in.) in elevation along the means of egress.</p>	Stairs shall be provided in compliance with BNBC Part 3 Section 1.12.5.	Within 1 month


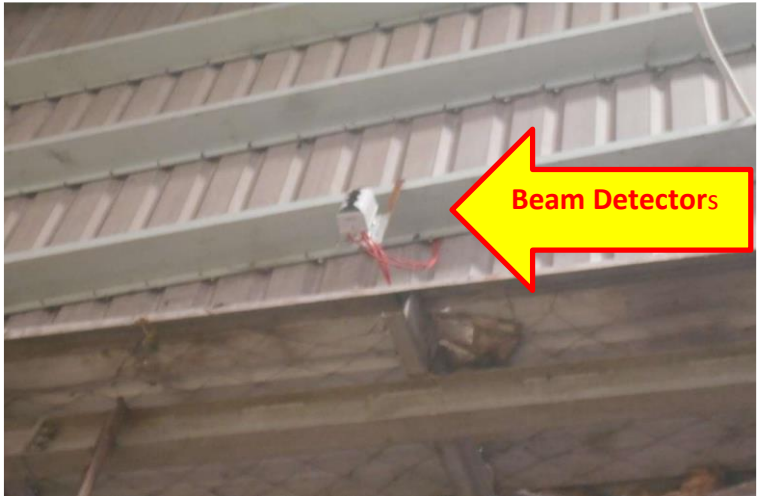


SI No.	Category	Findings	Required Action	Remediation Time Frame
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9	Edge protection	<p style="text-align: center;">Dying Shed: Parapets or guards are not provide in occupiable roof as per ACCORD standard. Location: RCC Mezzanine part.</p>	Provide parapets or guards with a minimum height of 1067mm (42 inch.).	Within 3 months



SI No.	Category	Findings	Required Action	Remediation Time Frame
				
10	No smoking Sign	<p>Dying Shed: No smoking signs were not provided.</p>	Provide No smoking sign.	Within 3 months



SI No.	Category	Findings	Required Action	Remediation Time Frame
11	Fire Protection	<p style="text-align: center;">Dying Shed:</p> <p>The Fire alarm system installation has been on-going. But no drawings has been reviewed by AHJ.</p>	<p>Submit the drawing to AHJ for review. Provide a listed addressable fire alarm system in accordance with NFPA 72.</p>	<p style="text-align: center;">Within 6 months</p>
				





SI No.	Category	Findings	Required Action	Remediation Time Frame
12	Fire Protection	<p>Dying Shed: Inspection, testing, and maintenance for the fire alarm system is not in accordance with NFPA 72 or as per Accord standard.</p>	<p>Inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72 or as per Accord standard.</p>	<p>Within 3 months</p>
13	Fire Protection	<p>Dying Shed: The building is equipped with single-station smoke alarms. Smoke alarm activation sounds only a local alarm and does not provide automatic fire alarm notification of occupants.</p>	<p>Remove single-station smoke alarms. Provide automatic smoke detection throughout the building, tied into the fire alarm system, in accordance with NFPA 72.</p>	<p>Within 6 months</p>



SI No.	Category	Findings	Required Action	Remediation Time Frame
14	Fire Protection	<p>Dying Shed: Inspection, testing, and maintenance for the fire extinguishers is not in accordance with NFPA 10 or as per Accord standard.</p>	<p>Inspect, test and maintain the fire extinguishers, and keep written records on-site, in accordance with NFPA 10 or as per Accord standard.</p>	<p>Within 3 months</p>
15	Egress Lighting	<p>Dying Shed: Manual on-off switch is provided for [emergency lighting / exit signage] units. Location: Battery Back-up emergency light.</p>	<p>Remove manual on/off switches from emergency lighting / exit signage units to prevent them from being switched off.</p>	<p>Within 3 months</p>




SI No.	Category	Findings	Required Action	Remediation Time Frame
				
16	Egress Lighting	<p>Dying Shed: Directional signs are not provided where direction of the path of travel to an exit has changed.</p>	<p>Illuminated directional signs shall be provided where there is a change in the direction for the path of travel and the direction to an exit is not obvious.</p>	Within 3 months



SI No.	Category	Findings	Required Action	Remediation Time Frame
17	Egress Lighting	<p>Dying Shed: Inspection, testing, and maintenance for the exit sign and emergency lighting system was not in accordance with The ACCORD standard.</p>	<p>Inspect, test and maintain the exit sign and emergency lighting system in the accordance with The ACCORD standard. Keep written records on-site.</p>	<p>Within 3 months</p>
18	Egress Lighting	<p>Dying Shed: Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes. Location: Throughout the building</p>	<p>Provide emergency lights at all the Location where there is any kind of occupancies.</p>	<p>Within 3 months</p>



SI No.	Category	Findings	Required Action	Remediation Time Frame
19	Egress Lighting	<p>Dying Shed: Emergency lights not illuminated during testing (burned out, broken, etc.).</p>	<p>Regularly inspect all emergency lighting system as per Accord standard and replace/install lights as needed to illuminate signs.</p>	<p>Within 3 months</p>
				



SI No.	Category	Findings	Required Action	Remediation Time Frame
20	Egress Lighting	<p align="center">Dying Shed:</p> Exit signs are not provided with any backup power. Location: Office area RCC mezzanine part.	Lighted exit signs shall be provided with either battery backup or uninterruptable power supply systems and shall be continuously illuminated.	Within 3 months



SI No.	Category	Findings	Required Action	Remediation Time Frame
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21	Egress Lighting	<p>Dying Shed: Exit sign has been provided at the entrance of Chemical store.</p>	Remove exit sign from the location. Exit sign shall be placed at entrance to an exit.	Within 3 months
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SI No.	Category	Findings	Required Action	Remediation Time Frame
				



SI No.	Category	Findings	Required Action	Remediation Time Frame
22	Fire Rated Construction	<p style="text-align: center;">Green Building:</p> <p>The exit stairs are not separated from adjacent areas on each floor by fire-rated construction.</p>	<p>Stair shall be enclosed with a minimum 2-hr fire-rated construction. Seal all unprotected openings and provide minimum 1.5-hr fire rated doors to separate the exit stairs from work areas and other building spaces on all floor levels. Ensure that the fire doors are self-closing, positive latching and that they are provided with fire exit (panic) hardware where serving production floors.</p> <p>If fire doors are required to be held open for functional reasons, provide automatic-closing devices tied to the fire alarm system.</p>	Within 3 months
				




SI No.	Category	Findings	Required Action	Remediation Time Frame
23	Fire Rated Construction	<p align="center">Green Building:</p> <p>Areas used for in-process storage of combustible materials are open to the surrounding occupancy</p>	<p>Provide defined storage areas and limit the storage arrangement as follows:- Maximum height of 2.4m and maximum area of 23m². Separate areas of unenclosed combustible storage by a minimum clear distance of 3m. Or Enclose the storage area from the surrounding occupancy with a minimum 1 hour construction.</p>	<p align="center">Within 3 months</p>



SI No.	Category	Findings	Required Action	Remediation Time Frame
24	Fire Rated Construction	<p>Green Building:</p> <p>Rooms used for storage of combustible materials are not separated from the surrounding production and office areas.</p>	<p>Rooms used for storage of combustible materials shall be separated from the surrounding occupancy with a minimum 1 hour construction.</p>	<p>Within 3 months</p>




SI No.	Category	Findings	Required Action	Remediation Time Frame
25	Fire Rated Construction	<p>Green Building: Penetrations through floor/ceiling assemblies are found unsealed. (Location: Electrical Riser)</p>	<p>Seal all penetrations and openings in floor/ceiling (full thickness of the floor/ceiling) assemblies by fire rated materials to maintain the fire resistance rating. Provide a minimum 2-hr fire rated shaft to separate the utility risers from each floor if required.</p>	Within 3 months
				



SI No.	Category	Findings	Required Action	Remediation Time Frame
26	Fire Rated Construction	<p>Green Building: Unsealed penetrations and openings are located in exit stair enclosures. Additionally electrical panel has been installed inside the exit enclosure, partially penetrating the separation wall and thus reducing the rating of the exit stair enclosure.</p>	Seal all penetrations and openings in the wall of exit enclosure walls (full thickness of the wall) by fire rated materials to maintain the fire resistance rating.	Within 3 months



SI No.	Category	Findings	Required Action	Remediation Time Frame
27	Fire Rated Construction	<p>Green Building: The exit discharge path [Serving South-West] is less than 10 ft wide and is not separated from the building interior and RMS room.</p>	<p>Seal all penetrations and openings to the interior of the building along the discharge path, up to a height of 10 ft. to provide a minimum 1-hr fire separation.</p> <p>Alternatively, provide a second remote discharge path to the public way</p>	Within 3 months
				



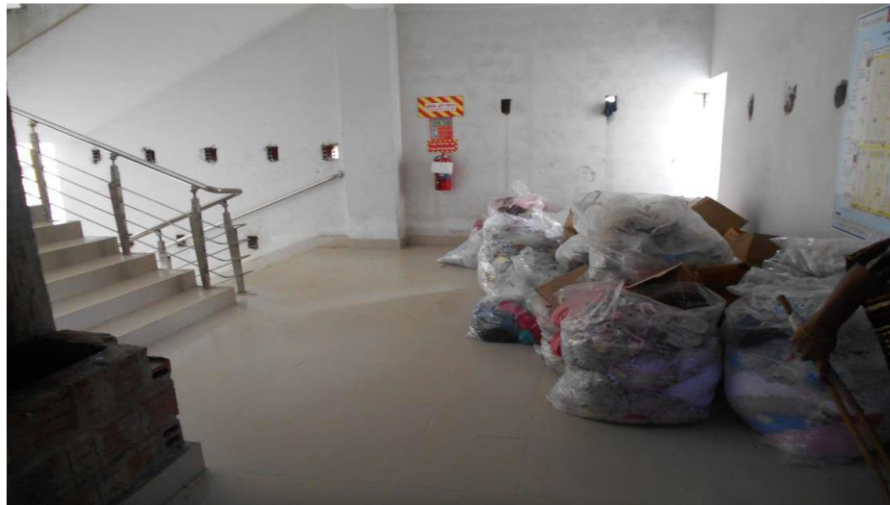
SI No.	Category	Findings	Required Action	Remediation Time Frame
28	Egress	<p>Green Building: Fire evacuation maps is not posted at the entrance of all exit stair. (Location: Ground Floor)</p>	Fire evacuation maps shall be posted at the entrance to each exit stair.	Within 3 months
29	Egress	<p>Green Building: Occupant load sign and stair designation is not posted at the exit stair at all level</p>	Occupant load sign and stair designation shall be posted at the entrance to exit stair at all level.	Within 3 months



SI No.	Category	Findings	Required Action	Remediation Time Frame
30	Egress	<p>Green Building: Handrails are not provided in the exit stair.</p>	<p>Provide handrails on both side of exit stair having a minimum height 34 in.</p>	<p>Within 3 months</p>





SI No.	Category	Findings	Required Action	Remediation Time Frame
31	Egress	<p align="center">Green Building: Storage was located in the exit stair.</p>	Remove all storage from exit stairs.	Immediate



SI No.	Category	Findings	Required Action	Remediation Time Frame
32	Egress	<p align="center">Green Building:</p> <p>During the inspection egress aisles were obstructed by combustible storages and available clear width were found less than 36 inch.</p>	Provide aisles free from obstructions and with minimum clear widths of 36-inch.	Immediate



SI No.	Category	Findings	Required Action	Remediation Time Frame
33	Edge protection	<p>Green Building: Parapets or guards are not provide in occupiable roof as per ACCORD standard.</p>	Provide parapets or guards with a minimum height of 1067mm (42 inch.).	Within 3 months
				



SI No.	Category	Findings	Required Action	Remediation Time Frame
34	No smoking Sign	Green Building: No smoking signs were not provided.	Provide No smoking sign.	Within 3 months
35	Fire Protection	Green Building: The Fire alarm system installation has been on-going. But no drawings has been reviewed by AHJ.	Submit the drawing to AHJ for review. Provide a listed addressable fire alarm system in accordance with NFPA 72.	Within 6 months



SI No.	Category	Findings	Required Action	Remediation Time Frame
36	Fire Protection	<p>Green Building: Inspection, testing, and maintenance for the fire alarm system is not in accordance with NFPA 72 or as per Accord standard.</p>	<p>Inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72 or as per Accord standard.</p>	<p>Within 3 months</p>
37	Fire Protection	<p>Green Building: The building is equipped with single-station smoke alarms. Smoke alarm activation sounds only a local alarm and does not provide automatic fire alarm notification of occupants.</p>	<p>Remove single-station smoke alarms. Provide automatic smoke detection throughout the building, tied into the fire alarm system, in accordance with NFPA 72.</p>	<p>Within 6 months</p>





SI No.	Category	Findings	Required Action	Remediation Time Frame
38	Fire Protection	<p style="text-align: center;">Green Building:</p> <p>Sprinkler system installation is on-going, However it is not required as per the height of highest occupiable floor. The building has an occupied floor greater than 10 meter (33 feet) and its not provided with standpipe system as per NFPA 14 & 20.</p>	<p>Submit drawing to Accord for review. Provide standpipe and hose system as per NFPA 14 & 20.</p>	<p style="text-align: center;">Within 3 months</p>



SI No.	Category	Findings	Required Action	Remediation Time Frame
39	Egress Lighting	<p style="text-align: center;">Green Building:</p> <p>Manual on-off switch is provided for [emergency lighting / exit signage] units. Location: Battery Back-up emergency light.</p>	<p>Remove manual on/off switches from emergency lighting / exit signage units to prevent them from being switched off.</p>	<p style="text-align: center;">Within 3 months</p>



SI No.	Category	Findings	Required Action	Remediation Time Frame
				
40	Egress Lighting	<p>Green Building: Directional signs are not provided where direction of the path of travel to an exit has changed.</p>	<p>Illuminated directional signs shall be provided where there is a change in the direction for the path of travel and the direction to an exit is not obvious.</p>	Within 3 months



SI No.	Category	Findings	Required Action	Remediation Time Frame
41	Egress Lighting	<p>Green Building: Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes. Location: Throughout the building</p>	Provide emergency lights at all the Location where there is any kind of occupancies.	Within 3 months
42	Egress Lighting	<p>Green Building: Inspection, testing, and maintenance for the exit sign and emergency lighting system was not in accordance with The ACCORD standard.</p>	Inspect, test and maintain the exit sign and emergency lighting system in the accordance with The ACCORD standard. Keep written records on-site.	Within 3 months




SI No.	Category	Findings	Required Action	Remediation Time Frame
43	Egress Lighting	<p align="center">Green Building:</p> Exit sign not provided at exit. (All exit throughout the ground floor)	<p>Lighted exit signs shall be placed at entrance to an exit. Additional exit signs shall be placed throughout the facility anywhere the continuation of the egress is not obvious. Lighted exit signs shall be provided with either battery backup or uninterruptable power supply systems and shall be continuously illuminated.</p>	<p align="center">Within 3 months</p>



SI No.	Category	Findings	Required Action	Remediation Time Frame
44	Others	<p>Green Building: Storage were observed underneath the cutting tables.</p>	<p>Storage underneath the cutting tables shall be kept clear of combustibles at all time, except as provided for miscellaneous storage in accordance with Accord building standard section 3.4.2.1.6 or where automatic sprinkler protection is installed. Where an automatic sprinkler system is installed sprinklers are required to be installed beneath cutting tables greater than 4 ft in width that are used for storage of combustibles.</p>	<p>Within 3 months</p>



SI No.	Category	Findings	Required Action	Remediation Time Frame
<p style="text-align: center;">ADD PHOTO</p>				



SI No.	Category	Findings	Required Action	Remediation Time Frame
45	Fire Rated Construction	<p style="text-align: center;">Utility Building:</p> <p>Boiler room is not properly separated by fire rated construction with compressors in the utility building.</p>	<p>Boilers or other heat producing equipment shall be separated from other occupancies by a minimum 2-hr fire rated construction (wall, floor, slab etc). Seal all penetrations and openings (door, window etc.) should be protected by 1.50-hr (90 min) fire rated materials to maintain the fire separation if required. All exhaust systems shall discharge to the exterior of the building in a safe location.</p>	Within 3 months



SI No.	Category	Findings	Required Action	Remediation Time Frame
				

