

INITIAL FIRE SAFETY INSPECTION REPORT

Factory Name: Soultex Fashion Ltd

RSC ID: 25686

Factory Address: TOYEBPUR, ZIRABO, ASHULIA, SAVAR.

GPS:23.918726, 90.323595

Other Factories: None



Inspected By: Md. Kamrul Hasan

Date: 05 May 2024

Fire Safety Inspection Report

Introduction:

Soultex Fashion Ltd complex was surveyed for fire safety on **05 May 2024** by The RSC 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 RSC. 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.

Limitations

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 RSC 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.

General Factory Information

Factory Building name(s):

SL No	Building Name (Number of Stories)	Building Construction Period / Occupied	Structure type / Area
1	Main Building (RC Building (G+4) + Main Shed (G+1))	RC Building (G+4): (June 2019-June 2020 Upto Second floor) (March 2021-Dec 2021 Upto fourth floor) (March 2024-March 2024 Roof Floor Shed) / July 2020 Main Shed (G+1): 20.02.2017 to 30.06.2017 / 01.07.2017	RCC / 1593 sft. Per floor 'Steel / 12001 sft. Per floor
2	Sub-station Building (G)	20.02.2017 to 30.06.2017 / 01.07.2017	RCC / 602 sft.
3	Boiler Shed (G)	30.09.2018 to 20.10.2018 / 01.11.2018	Steel / 301 sft.
4	Winding Shed (G)	20.02.2017 to 30.06.2017 / 01.07.2017	Steel / 860 sft.

Factory Address:

TOYEBPUR, ZIRABO, ASHULIA, SAVAR.

Findings & Recommendations :

Table 1 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 RSC for review.

Table-1:

SI No.	Category	Findings	Required Action	Remediation Time Frame
1	Fire Rated Construction	The exit stairs are not separated from work areas and other spaces on each floor by fire rated construction. Main Building (RC Building (G+4) + Main Shed (G+1))	Provide minimum 2-hr fire rated construction for buildings 4 storied or more and 1-hr for upto 3 storied. Seal all unprotected openings to separate the exit stairs from work areas and other spaces on all floor levels by 90 minutes for 2 hr construction and 60 minutes for 1-hr construction. Ensure that the fire rated doors are self-closing and positive latching and that they are provided with fire exit (panic) hardware where serving production floors and provide vestibules to avoid direct discharge from storage to exit stair enclosure. If fire rated doors are required to be held open for functional reasons, provide automatic closing devices tied to the fire alarm system.	Within 3 months



2	Fire Rated Construction	Storage area discharges directly into exit stair enclosure. Main Building (RC Building (G+4) + Main Shed (G+1))	Openings from exit enclosure to storage room spaces shall be provided with a vestibule with fire rated construction and openings. Provide a 1.5 hr. fire rated door on the exit stair side and a 1-hr. fire rated door on the Store room side. Ensure that the fire rating of the vestibule construction matches that of the exit stair enclosure.	Within 3 months
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3	Fire Rated Construction	The boiler rooms are not separated by fire rated construction. Ground floor of the Main Building, Boiler Shed	Any room or space housing boilers or other heat producing equipment shall be separated from other occupancies by a minimum 1 hour construction or by a minimum spatial separation of 3 m (10 ft) where located exterior to the building.	Within 3 months
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4	Fire Rated Construction	The generator room is not separated by fire rated construction due to openings, non-rated doors, and penetrations. Location: In front of Sub-station Building	Generator sets shall be separated from all other occupancy areas by a minimum 2 hour construction or by a minimum spatial separation of 3 m (10 ft) where located exterior to the building. Exhaust shall be in accordance with NFPA 37. All exhaust systems shall discharge to the exterior of the building in a safe location.	Within 3 months
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5	Fire Rated Construction	The compressor room is not separated by fire rated construction due to openings, non-rated doors, and penetrations. Sub-station Building	Compressor room shall be separated from other occupancies by a minimum 1 hour construction or by a minimum spatial separation of 3 m (10 ft) where located exterior to the building.	Within 3 months
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6	Fire Rated Construction	The transformer room is not separated by fire rated construction due to openings, non-rated doors, and penetrations. Sub-station Building	Separate the substation room by a minimum 2-hr fire-rated construction. Seal and/or protect all openings to maintain the required fire separations. When located to the exterior of a building 3m (10 ft.) spatial distance shall be maintained around the substation.	Within 3 months
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7	Fire Rated Construction	Liquefied or compressed gas cylinder (1 no's) were located besides winding shed.	LPG/CNG cylinders are permitted to be stored in a separate dedicated building on the factory premises within its boundaries if the building meets the following conditions: 1. The storage building must be at least 3 meters away from any other building and boundaries. 2. The exterior walls of the building must have a fire resistance rating of 3 hours using noncombustible construction. 3. Doors and other openings in the exterior walls must be protected with suitable closing devices having a fire protection rating of 3 hours. 4. The building is to be used for no other purpose than the storage of LPG/CNG cylinders. 5. The building must be mechanically ventilated to control the accumulation of flammable vapors. 6. The installations must be approved and accepted by the requirements of the AHJ, Gas supply company regulations, manufacturers/supplier's instructions/guidance, CIOB and all other applicable agencies, codes and standards.	Within 3 months
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8	Fire Rated Construction	Unsealed penetrations and openings are located in the fire-rated floor/ceiling assemblies due to Sanitary Line from the ground floor to 1st floor. Main Building (RC Building (G+4) + Main Shed (G+1))	Provide a minimum 2-hr fire rated shaft to separate the utility risers from each floor level or seal all penetrations and openings in floors/ceiling assemblies by 3-hr fire rated listed/certified materials. The installation of such fire rated materials shall be following certified design.	Within 3 months
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9	Fire Rated Construction	Electrical DB board, cable were located in the west exit stair enclosure, and cables & electrical appliance (printing machine) were located in the east exit stair enclosure. Main Building (RC Building (G+4) + Main Shed (G+1))	Remove and re-locate all electrical distribution board (DB) and electrical appliance from the exit stair enclosures. Penetrations into and through an exit enclosure shall be prohibited with the exception of required exit doors, sprinkler piping, standpipes, electrical raceway for fire alarm equipment, and electrical conduit serving the exit enclosure.	Within 1 month
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10	Fire Rated Construction	The main structural elements of the main building shed portions (G+1), and roof of the top floor of RC portions (G+4) are constructed by steel which is non-rated and were found in exposed condition without any fire protection. (Interim Structure). Main Building (RC Building (G+4) + Main Shed (G+1)) & Winding Shed	The building is interim steel structure which shall be type-I construction. So, provide require rating in the structural elements of the buildings. Consult with a qualified fire protection engineer. Follow BNBC 2006-Table 3.2.4, 3.1.9 and 3.3.1 as reference.	Design Review within 2 month and installation within 4 months (If require).
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11	Fire Rated Construction	Unprotected penetrations and openings were found in the exit stair enclosure walls. Main Building (RC Building (G+4) + Main Shed (G+1))	Seal all penetrations and openings in exit stair enclosure walls to maintain the required fire separation.	Within 3 months
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12	Fire Rated Construction	Diesel fuel storage was located besides the generator area. Location: In front of Sub-station Building besides generator	A license must be obtained in accordance with the Petroleum Act for all storage of Class II petroleum greater than 1000 L (264 gal) individually and 2000 L (528 gal) aggregate. Or, Separate the diesel fuel storage with 2- hr. fire rated construction.	Within 6 months
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13	Fire Rated Construction	East and west exit stair discharge the occupant inside the building on the ground floor level. Main Building (RC Building (G+4) + Main Shed (G+1))	A maximum of 50 percent of the number and capacity of the exit enclosures can discharge through areas on the level of exit discharge where all of the following are met: (1) Automatic sprinkler protection is provided throughout the level of exit discharge or portion of the level of discharge where separated from non sprinklered portions of the floor by fire barriers with the same fire resistance rating as the exit enclosure. (2) The interior discharge is not through a storage or hazardous occupancy. (3) The entire area of the level of exit discharge is separated from areas below by construction having a fire resistance rating not less than that required for the exit enclosure. (4) The way to the exterior shall be free and unobstructed and shall be readily visible and identifiable from the point of discharge of the interior exit. or, provide exit passageway which shall terminate at an exit discharge with a same fire resistance rating as the exit enclosure.	Within 3 months
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14	Fire Rated Construction	The south-west exit discharge path on the ground floor level is less than 10 ft wide and is not seperated from the building interior due to non rated openings & penetrations. Main Building (RC Building (G+4) + Main Shed (G+1))	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 seperation. Alternatively, provide a second remote discharge path to the public way.	Within 3 months
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15	Fire Rated Construction	In-process store areas are not maintained as per standard and open to the factory on the ground, first & second floor. Main Building (RC Building (G+4) + Main Shed (G+1))	Provide defined storage areas and limit the storage arrangement as follows: - Maximum height of 2.45m (8ft.), maximum area of 23m² (250 ft²) and 3m (10ft.) clear distance from adjacent another unenclosed combustible storage. - If the building/floor is sprinkler protected: maximum height of 3.66m (12ft.) and maximum area of 93m² (1000 ft²). -In process storage shall be limited to 10 percent of the building area of the story in which they occur.	Within 2 months
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16	Fire Rated Construction	Rooms used for combustible storage are not separated by fire rated construction on the ground, first, third and fourth floor. Main Building (RC Building (G+4) + Main Shed (G+1))	Separate the dedicated storage rooms by minimum 1-hr fire-rated construction. Provide 0.75 hr. fire rated door and seal all penetrations and openings by 1 hr. fire rated fire rated barrier construction.	Within 3 months
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17	Means of egress	Occupiable roofs provided with parapets or guards which is not as per standard. Location: On the top floor at the partial roof area of the Main Building (RC Building (G+4) + Main Shed (G+1))	All occupiable roofs shall be provided with parapets or guards with a minimum height of 1067mm (42 in.).	Within 1 month
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18	Means of egress	Handrails are not provided in the exit stair. Main Building (RC Building (G+4) + Main Shed (G+1))	Provide handrails on both side of the stairs which have a minimum height of 865 mm (34 in.) and a maximum height of 965 mm (38 in.) as measured from the leading edge of the tread. Guards are required to be according to RSC Technical Guidelines 6.12.2 (a sphere of 200 mm (8 in.) in diameter cannot pass through any opening up to a height of 865 mm (34 in.).	Within 1 month
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19	Means of egress	Evacuation map were not provided at all required locations. Main Building (RC Building (G+4) + Main Shed (G+1))	Fire evacuation maps shall be posted at the entrance to each exit stair.	Within 1 month
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20	Means of egress	Door width found less than 1 meter at exits. Main Building (RC Building (G+4) + Main Shed (G+1))	Doors in a means of egress shall have a minimum width of 1 m (39 in.).	Within 3 months
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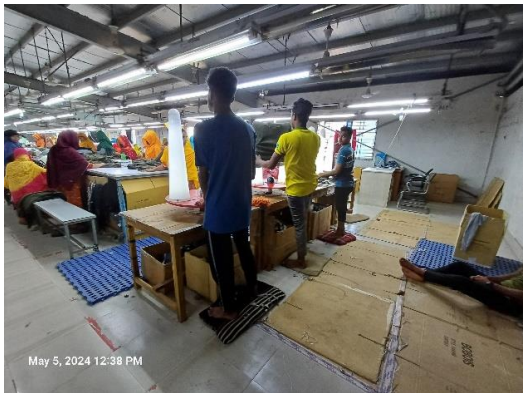
21	Means of egress	West stair width found 48 in. and east stair width found 44 in. Main Building (RC Building (G+4) + Main Shed (G+1))	Stairs shall have a minimum width of 1.5 m (60 in.) for all industrial occupancies.	Within 3 months
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22	Means of egress	Uneven path of travel and blockage were observed at discharge path of stair of the main RC building, and at discharge path of Winding Shed.	Remove unnecessary items and level exit path to the public way.	Within 2 weeks
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23	Means of egress	Aisles are not provided in most of the area and not properly marked. All Building	Provide minimum aisle widths of 36-inches and mark properly.	Within 1 month
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24	Means of Egress	Sliding doors are provided at building exits. All Building	Replace all sliding doors along the means of egress with side-hinged, swinging egress doors.	Within 1 month
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25	Means of egress	Storage was located in the egress path & inside stair enclosure thus egress path found obstructed. All Building	Keep egress paths and stairs clear of storage.	Immediate
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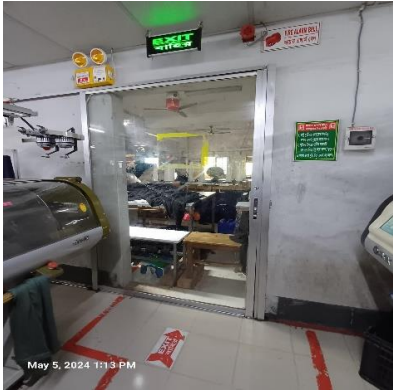
26	Means of egress	Egress doors and gates with locking features were provided at building exits, exit stairs, along egress routes and exit discharge. All Building	Remove locking features from all egress doors and gates. If locks are required for security reasons, utilize special door locking features complying with NFPA 101 and RSC standard 6.8.2.	Immediate
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27	Means of egress	Main Building (RC Building (G+4) portions) have single exit at second to top floor level. Main Building (RC Building (G+4) + Main Shed (G+1))	The number of means of egress from any floor, story or portion thereof shall not be less than 2 except where a single exit is permitted by RSC guidelines 6.6.2, a single means of egress is permitted by RSC guidelines 6.6.5 or where a greater number is required by RSC guidelines 6.6.3.	Within 1 month
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28	Means of egress	Egress door at exits serving 50 or more occupants does not swing in the direction of egress travel. Main Building (RC Building (G+4) + Main Shed (G+1))	Modify swing direction of egress doors to the direction of egress travel. Doors serving an occupant load of more than 50 shall swing in the direction (out-ward) of egress travel .	Within 2 months
 				

29	Means of egress	Changes in level found exceeding 535 mm (21 in.) at exit. Main Building (RC Building (G+4) + Main Shed (G+1))	Walking surfaces shall be mostly level as per 6.3.5 of The RSC Technical Guidelines (Standard).	Within 2 months
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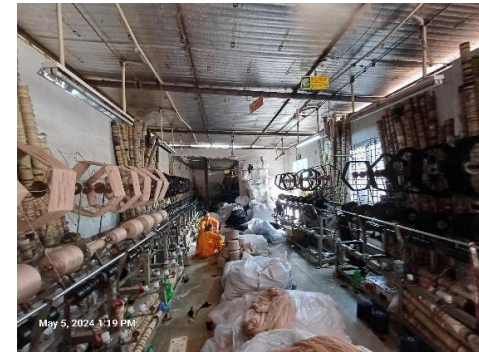
30	Means of egress	Travel distance exceeds limit on the ground floor (around 55 meter). Main Building (RC Building (G+4) + Main Shed (G+1))	Travel distance to reach an exit shall not exceed the values listed in BNBC 2006 Part 4 Section 3.15.1.	Within 1 month
 				

31	Means of egress	Headroom for the store room in the east stair found not maintain as per standard. Main Building (RC Building (G+4) + Main Shed (G+1))	All means of egress shall have a minimum ceiling height of 2.3 m (7 ft 6 in.) with projections from the ceiling not less than 2.03 m (6 ft 8 in.). The minimum ceiling height shall be maintained for at least 2/3 of the space or room as long as the remaining area shall be not less than 2.03 m (6 ft 8 in.). Headroom on stairs shall not be less than 2.03 m (6 ft 8 in.).	Within 2 months
				

32	Means of egress	Building did not have stair designation signs, floor designation signs and occupant load signs at required locations on all floors. All Building	Provide stair designation signs, floor designation signs and occupant load signs at required locations.	Within 2 weeks
 				

33	Emergency Lighting	Exit signage were not provided along few of the path of egress. All Building	Provide exit signs above all building exits to the exterior, all doors to the exit stairs.	Within 1 month
				

34	Emergency Lighting	Directional sign not provided at all required locations. Main Building (RC Building (G+4) + Main Shed (G+1))	Provide directional exit signs above all building exits to the exterior, all doors to the exit stairs and along all paths of travel where a change of direction is not obvious. Lighted directional signs shall be provided with either battery backup or uninterruptable power supply systems and shall be continuously illuminated.	Within 1 month
				
35	Emergency Lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes and at exit stairs on all floors. (All Buildings)	Test the emergency lighting system on each floor and provide additional emergency fixtures to supply adequate illumination along the means of egress. Provide a minimum illumination of 10 lux at the floor level within exit stairs and along exit discharge paths and a minimum 2.5 lux along exit access aisles.	Within 1 month



36	ITM Emergency Lighting	Inspection, testing, and maintenance for the emergency lighting system was not in accordance with The RSC Technical Guidelines (Standard).	Inspect, test and maintain the emergency lighting system in accordance with The RSC Technical Guidelines (Standard). Keep written records on-site.	Within 1 month
37	Fire Alarm & Detection system	The fire alarm system is antiquated, not a listed system and does not provide alarm and notification features consistent with acceptable standards. (All Buildings)	Submit the fire alarm system design to RSC for review. Once the design is reviewed, install and modify the fire detection and alarm system throughout the buildings in accordance with review comment, RSC Technical Guidelines (Standard) and NFPA 72. After installation the owner shall conduct internal testing and commissioning and then contact the RSC for witness of final acceptance testing. Also inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with Table-14.3.1 of NFPA 72.	Design Review within 2 months and installation/modification within 4 months



38	Fire Protection System (Standpipe)	The building has highest occupiable floor level more than 33 ft. which requires standpipe system. Main Building (RC Building (G+4) + Main Shed (G+1))	Submit the standpipe system drawing to RSC for review. Once the design is reviewed, install and modify the standpipe system throughout the building in accordance with review comment, RSC Standard and NFPA 14, 20, 22 and 24. After installation the owner shall conduct internal testing and commissioning and then contact the RSC for witness of final acceptance testing.	Design Review within 2 month and installation within 4 months (If require).
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39	ITM of Fire Alarm System	Inspection, testing, and maintenance for the fire alarm system is not in accordance with NFPA 72 or as per RSC standard.	Inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72 (Table-14.3.1) or as per RSC standard.	Within 1 Month after installation.
40	ITM of Standpipe System	Inspection, testing and maintenance for the standpipe system was not in accordance with standard.	Inspect, test and maintain the standpipe system in accordance with of NFPA 25 and keep written records on-site.	Within 1 Month after installation.

41	ITM of Pump System	Inspection, testing, and maintenance for the Fire pump & water system is not in accordance with NFPA 25 or as per RSC standard.	Inspect, test and maintain the fire pump & water system and keep written records on-site, in accordance with NFPA 25 or as per RSC standard.	Within 1 Month after installation.
42	Extinguisher	Portable fire extinguisher are not installed at all required locations. All Building	Portable fire extinguishers shall be installed throughout all new, interim, and existing facilities in accordance with BNBC 2020 and NFPA 10. Extinguishers shall be placed so that maximum travel distance to the nearest unit shall not exceed 30 m (100 ft).	Within 1 month
43	ITM extinguisher	Inspection, testing and maintenance of portable fire extinguishers is not in accordance with NFPA 10.	Inspect, test and maintain the portable fire extinguishers and keep written records on- site, in accordance with NFPA 10 and RSC Technical Guidelines.	Within 1 month