

INITIAL FIRE SAFETY INSPECTION REPORT

Powertex Fashions Limited (Extension)

RSC ID: 24574

Dr. Panjabali-Dr. Assaduzzaman Industrial Park, Kathora, National University, Gazipur

23.94857, 90.36476

Other Factories: Powertex Fashions Limited (Relocation) (ID-23541)



Inspected By: Nirmal Chandra Sinha & Md. Musa

Date: 21 August 2023

Summary Report

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Powertex Fashions Limited (Extension) complex was surveyed for fire safety on **21-Aug-2023** 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.

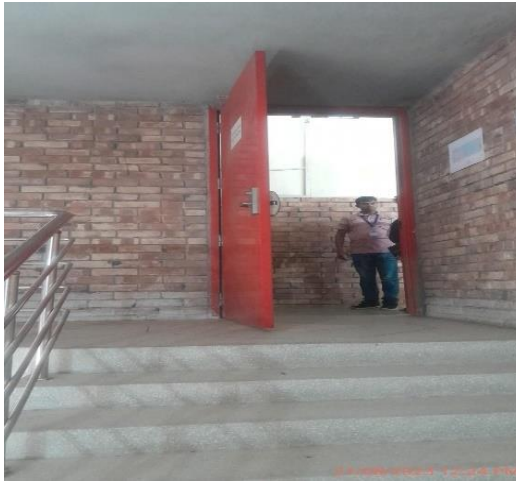
Limitations

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.

Table 1- summarizes the fire safety non-compliant issues identified during the inspection. Recommendations have been provided to address each issue with specific remediation timeline. 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 approval.

Table-1: Findings & Recommendations (Building 2,3 and Boiler Shed)				
S/N	Category	Findings	Required Action	Remediation Time Frame
1	Fire Rated Construction	The exit stairs are not separated from work areas, other spaces on each floor by fire-rated construction. Installed fire doors were open by the external objects. Location - Building-2 & 3	The exit stair enclosure shall be provided with a minimum 1-hr fire resistance rating for buildings with 3 or fewer stories and a minimum of 2-hr. fire resistance rating for buildings 4 or more stories. Provide 0.75 hr. fire rated door and seal all penetrations and openings by 1 hr. fire rated fire rated barrier construction for building with 3 or fewer stories. Provide 1.5 hr. fire rated door and seal all penetrations and openings by 2 hr. fire rated fire rated barrier construction for building with 4 or more stories. Provide a fire-resistive rated assembly between the exterior exit stairs and the building up to 10 ft. beyond the end of the stair to achieve the required separation. The rated assembly shall be approved and/or designed by a qualified fire protection engineer. Ensure that the fire doors are self-closing and positive latching and that they are provided with fire exit (panic) hardware where serving production floors. If fire 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	Rooms used for combustible storage are not separated by fire rated construction due to penetration and opening. Location : Building-2	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
 				
3	Means of Egress	Exit stair door is swing directly on the stair landing in the direction of egress travel. Location : Building-2	Modify the egress door to swing in the direction of egress travel in a way that it does not swing over stair landing and does not reduce the exit width/interrupt the egress path.	Within 3 Months



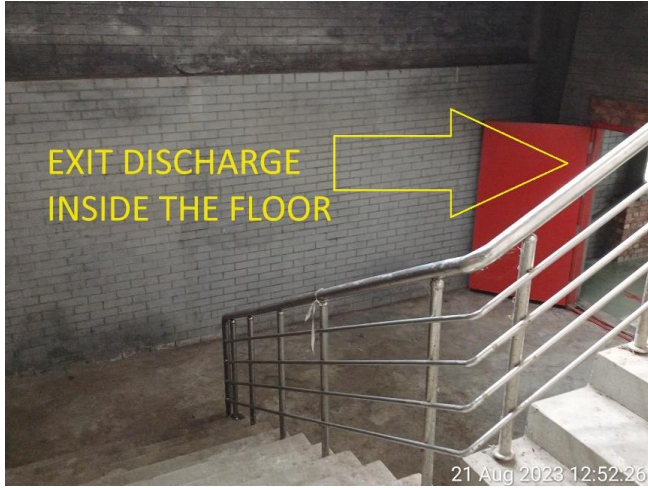
4	Fire Rated Construction	Areas used for combustible storage open to the factory are not properly defined and/or not within limits. Location : Building-2	Provide defined storage areas and limit the storage arrangement as follows: Maximum height of 2.45m (8 ft) and maximum area of 23 m² (250 ft²). If sprinkler protected: maximum height of 3.66m (12 ft) and maximum area of 93m² (1000 ft²). Separate the areas of unenclosed combustible storage by a minimum clear distance of 3 m (10 ft). Areas shall limit within 10% of entire floor area.	Within 2 months
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5	Fire Rated Construction	Storage/ storage rooms from ground floor discharges directly into the exit enclosures. Location : Building-2	Openings from exit enclosure to storage room, generator, basements, transformer boiler and similar normally unoccupied spaces shall be provided with a vestibule with fire rated construction and openings as per RSC Technical Guidelines (Standard) 6.14.3. Provide a 1.5 hr. fire rated door on the exit stair side and a 1-hr. fire rated door on the storeroom/storage side. Ensure that the fire rating of the vestibule construction matches that of the exit stair enclosure.	Within 3 Months
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6	Means of Egress	The egress path along means of egress has interrupted by obstruction of fire door. Location: Building-2	Means of egress shall be maintained continuously free and clear of all obstructions/storage. Or Keep egress paths and stairs clear of storage.	Immediately
 				
7	Fire Rated Construction	Exit stair(s) is discharge the occupants inside the building. Location: Building-2, Ground floor	Modify stair to discharge directly outside. Or Provide 2-hr fire-rated exit passageway leading directly outside (vestibules to separate any storage areas). Or Provide automatic sprinkler protection in accordance with NFPA 13 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 to meet RSC 6.17.3.	Within 3 Months

				
8	Means of Egress	Sliding type doors have provided along means of egress [Storage, building exits, exit discharge]. Location: Building-2	Replace all collapsible/sliding/shutter type doors & gates by the side-hinged swinging type doors. If locks are required for security reasons, utilize special door locking features complying with NFPA 101.	Within 1 Month
 				
9	Fire Rated Construction	Unsealed utility pipe and riser penetration is located in the fire-rated floor/ceiling assemblies. Location : Building-2	Penetrations of fire resistive rated assemblies shall be protected with listed through penetration fire stop system, Tested in Accordance with ASTM E814 and RSC standard 4.7.	Within 2 Months



10	Means of egress	Uneven path of travel and blockage in exit access. Location: Building-2	remove unnecessary items and level exit path to the public way.	Within 2 Months
11	Means of Egress	Parapets or guards are not provide in occupiable roof and as per RSC standard. Location: Building-2&3	All occupiable roofs shall be provided with parapets or guards with a minimum height of 1067 mm (42 in.) and asper RSC standard.	Within 3 Months



12	Means of Egress	Directional signs are not provided where direction of the path of travel to an exit has changed. Location: Building-2&3	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.	Within 3 Months
13	Means of Egress	Doors along means of egress are provided with non compliant locking system. Location: Building-2	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.	Immediately

				
14	Fire Rated Construction	The Interim constructed building has been found steel-composite type and the steel columns and girders has been found in exposed condition without any fire protection. Location : Building-2	The Interim constructed building shall be type-1 or type-2. Chemical store also shall be type-1 construction. Provide required fire rating on the structural elements by following Table-3.2.4, 3.1.9 & Table 4.4.1 of the RSC Technical Guidelines (StandardV1.0) or Table 3.3.1 of BNBC-2006. Consult a qualified fire protection engineer to design the rated construction barriers in between two floors and in structural members. TGN 7 requirements may apply if the building is fully sprinklered not limiting the size of fire compartments less than 2000 m² and unprotected slab-beam assembly demonstrates a 0.5-hour fire rating. All columns are required to be protected with 1-hour fire rating. Or, Provide 1.5 hours fire rating to floor slab and beams & 2 hours fire rating to vertical columns assuming minimum front access requirement has been met as per BNBC 2006 Part 3 Table 3.1.9, where sprinkler system is not provided throughout the building.	Within 6 Months



15	Means of Egress	Handrails were not provided on both sides of the stairs Location: Building-3	Provide handrails on both sides of the exit stair. Intermediate handrails shall be provided when the stair width exceeds 2.2 m (87 in.). New handrails shall 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.	Within 1 Month
 				

16	Means of Egress	Aisle are not properly marked. Location: Building-3	Aisles shall be properly marked and provided with a minimum unobstructed clear- width of 0.9m (36 in).	Within 1 Month
17	Means of Egress	Storage was located in exit stair. Location: Building-2	Remove storage from the exit stairs and egress path.	Immediately
 				

18	Means of Egress	Building did not have stair designation signs and occupant load signs at required locations on all floor. Location: Building-3	Provide stair designation signs and occupant load signs at required locations.	Within 1 Month
19	Egress Lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes and some area not provided emergency light. Location: Building-1	Test the emergency lighting system on each floor and provide additional emergency fixtures to provide adequate illumination along the means of egress. Provide a minimum illumination of 10 lux at the floor level within exit stairs and exit discharge paths and minimum 2.5 lux along exit access aisles.	Within 3 Months

20	Means of Egress	Fire evacuation map is not posted at the entrance of all exit stair. Location: Building-3.	the entrance of all exit stair fire evacuation maps shall be posted at the entrance to each exit stair.	Within 1 Month
21	Egress Lighting	Exit sign not provided at exit. Location: Building-3	Illuminated 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.	Within 1 month
22	Fire Alarm & Detection system	The existing fire alarm & detection system is not installed properly. Still few areas are out of detection system.	Submit the proposed design/drawing of fire alarm & detection system to Accord for review.	Design Review within 2 months and modification within 4 months (if required).
 				

23	Egress 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 3 months
24	Fire 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 onsite, in accordance with NFPA 10.	Within 3 months
25	Fire Alarm & Detection system	Inspection, testing, and maintenance for the fire alarm system is not in accordance with NFPA 72.	Inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72.	Within 1 month (after installation completed).