

# INITIAL FIRE SAFETY INSPECTION REPORT

**Karooni Fashions Ltd.**

**RSC ID: 24232**

**ADDRESS: Ratanpur, Shafipur, Kaliakoir, Gazipur**

Geographical Coordinates of factory building: 24.04081007754418, 90.27706688057212

**Other Factories: Karooni knit composite ltd(In the premises)**



**Inspected By: Mohammad Anayet Hossain & Md. Anisuzzaman**

**Date: 05-October-2021**

# Fire Safety Inspection Report

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## **Introduction:**

**Karooni Fashions Ltd.;** complex was surveyed for fire safety on **05/10/2021** 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.

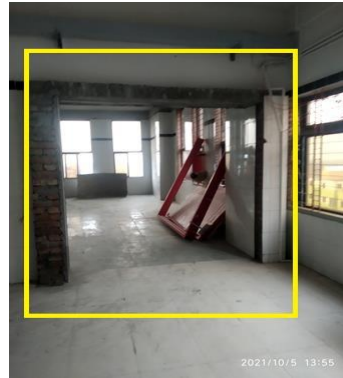
## Findings & Recommendations :

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**

SI No.	Category	Findings	Required Action	Remediation Time Frame
F-1	Fire Rated Construction	<p>Exit Enclosures are not properly fire separated from other occupancy on each floor by fire rated construction due to unprotected opening &amp; penetration.</p> <p>Location: KFL building.</p>	<p>Provide minimum 2-hr fire rated separation exit enclosure. Provide minimum 1.5-hr fire rated doors and seal all unprotected openings and penetration to separate the exit stairs from work areas and other building spaces on all floor levels. 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. Provide vestibules to separate the storage areas. 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



F-2	Fire Rated Construction	<p>Elevator shafts are directly open into the exit Enclosure.</p> <p>Location: KFL building.</p>	<p>For new construction, elevators shall not open into an exit enclosure as per ACCORD-6.14.3. So, separate the stair enclosure from elevator shaft although the building.</p>	Within 3 months
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F-3	Fire Rated Construction	Room used for combustible storage are not properly fire separated by fire rated construction at several floor at various of KFL building.	Provide dedicated storage rooms separated by minimum 1 hr. fire rated construction. Seal all unprotected openings and penetration.	Within 3 months
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F-4	Fire rated construction	<p>Areas used for in-process storage of combustible materials are open to the surrounding occupancy.  Location: Several floor of KFL building.</p>	<p>Provide defined storage areas and limit the storage arrangement as follows:  Maximum height of 2.45 m and maximum area of 23 m<sup>2</sup> and is separated by a minimum 3.0 m (10ft) from other storage areas and they do not exceed 10 percent of the building area of the story in which they occur. If sprinkler protected, Maximum height 12 ft (3.66 m) and maximum area of 1000 ft<sup>2</sup> (93 m<sup>2</sup>) and separated by a at least 25 ft (7.62 m) from other storage areas and does not constitute more than 10 percent of the building area or 4000 ft<sup>2</sup> (372 m<sup>2</sup>) of the sprinklered area, whichever is greater.  or,  Enclose the storage area from the surrounding occupancy with a minimum 1 hour construction.</p>	Within 3 months
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F-5	Fire rated construction.	<p>Storage room discharges directly into exit stair enclosure. Location: Basement &amp; 7th floor.</p>	<p>Openings from exit enclosure to storage 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 storage room side. Ensure that the fire rating of the vestibule construction matches that of the exit stair enclosure.</p>	Within 3 months
<div style="display: flex; justify-content: space-around;">   </div>				
F-6	Fire Rated Construction	<p>Penetrations through fire rated floor/ceiling assemblies are not properly sealed all floor of levels. Location: Electrical /Steam riser all floor of KFL Building.</p>	<p>Seal all penetrations and openings in floor/ceiling (full thickness of the floor/ceiling) assemblies by minimum 3-hr fire-rated materials to maintain the required 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



F-7	Fire rated construction.	Unsealed penetrations and openings are located in exit stair enclosures. Location: Both exit stair.	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
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F-8	Fire Rated Construction	<p>The Dining area are not separated by fire rated construction with the adjacent other occupancies(finished goods &amp; accessories store )</p> <p>Location: 7th floor of KFL building.</p>	<p>Separate the dining area from production &amp; other occupancies(finished goods &amp; accessories store ) by minimum 3-hr fire rated construction. Provide rated exit passageways leading directly to the exit stairs of the same resistance rating.</p>	Within 3 months
<div style="display: flex; justify-content: space-around; align-items: center;">   </div>				
F-9	Fire Rated Construction	<p>Storage were observed underneath the cutting tables.</p> <p>Location: N-S-E side of production building.</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>	Within 2 months



F-10	Means of Egress	Sliding type doors have provided along means of egress at several floor of KFL building.	<p>Replace all collapsible/sliding/shutter type doors &amp; 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>	Within 1 month
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F-11	Means of Egress	The egress path along the means of egress has been interrupted by obstruction/storage and aisles are not marked at several floor of KFL building.	Means of egress shall be maintained continuously free and clear of all obstructions/storage. Or Aisles shall be provided with a minimum unobstructed clear- with of 0.9m (36 in).	within 1 month
				
F-12	Means of Egress	The exit stair path are obstructed by construction materials.	Means of egress shall be maintained continuously free and clear of all obstructions.	Within 1 month



F-13	Means of Egress	Parapets or guards are provided in occupied roof which is less than 1067mm (42 inch) & create falling edge hazards due to construction purpose.	Provide parapets or guards with a minimum height of 1067mm (42 inch.).	Within 3 months
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F-14	Means of Egress	Building did not have stair designation signs & exit designation signs at required locations.	Provide stair designation sign & exit designation sign at each floor entrance from the stair to the floor in English and Bengali. Signs shall indicate the name of the stair and the floor level. Signs shall be posted adjacent to the door.	Within 1 month
F-15	Means of Egress	Building did not have occupant load signs at required locations.	Post the occupant load for every assembly and production floor in a facility in a conspicuous space near the main exit or exit access doorway for the space.	Within 1 month
F-16	Means of Egress	Fire evacuation maps is not posted at the entrance of all exit stair.	Fire evacuation maps shall be posted at the entrance to each exit stair.	Within 1 month
F-17	Egress Lightning	Exit sign not provided at required location at exit. Location: Several location of KFL building.	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.	Within 3 months



F-18	Egress lighting	Directional signs are not provided where direction of the path of travel to an exit has changed.	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 1 month
F-19	Egress lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes.	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
F-20	Egress lighting(ITM)	Inspection, testing, and maintenance for the exit sign and emergency lighting system was not in accordance with The ACCORD standard.	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

F-21	Fire Alarm & Detection System (FADS)	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.	Remove single-station smoke alarms. Provide automatic smoke detection throughout the building, tied into the fire alarm system, in accordance with NFPA 72.	Design within 2 months, Installation within 4 months.
F-22	Fire Alarm & Detection System (FADS)	Installation of addressable fire alarm & detection system is ongoing. The Required Fire Alarm system is not installed in accordance with the ACCORD standard and NFPA 72.	<p>Design &amp; Installation of Fire Alarm system shall be in accordance with ACCORD standard and NFPA 72. Submit design, documents and calculations to RSC for review prior installation/modification.</p> <p>After installation the owner shall contact the RSC for witness of conducting the final acceptance testing of the fire detection &amp; alarm system installation.</p> <p>Also inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72.</p>	Design within 2 months, Installation within 4 months.
F-23	Fire Protection System(Standpipe)	Installation of standpipe system is ongoing. The Required Standpipe System is not in accordance with the ACCORD standard and NFPA 14, 20, 22 and 24.	<p>Submit the standpipe system drawing to RSC for review. Once reviewed, install or modify the standpipe system throughout the building in accordance with Accord standard and NFPA 14, 20, 22 and 24.</p> <p>After installation the owner shall contact the RSC for witness of conducting the final acceptance testing of the fire protection System(Standpipe) installation.</p>	Design within 2 months, Installation within 4 months.

F-24	Fire Protection System(Sprinkler)	Installation of sprinkler system is ongoing. The Required sprinkler System is not in accordance with the ACCORD standard and NFPA 13, 20, 22 and 24.	Submit the sprinkler system drawing to RSC for review. Once reviewed, install or modify the standpipe system throughout the building in accordance with Accord standard and NFPA 13, 20, 22 and 24. After installation the owner shall contact the RSC for witness of conducting the final acceptance testing of the fire protection System(Sprinkler) installation.	Design within 2 months, Install within 6 months.
F-25	Fire Protection System(ITM of Standpipe)	Inspection, testing, and maintenance for the Standpipe system is not in accordance with NFPA 14, 25 or as per Accord standard.	Inspect, test and maintain the Standpipe system, and keep written records on-site, in accordance with NFPA 14, 25 or as per Accord standard.	Within 1 month after installation.
F-26	Fire Protection System(ITM of Sprinkler)	Inspection, testing, and maintenance for the Standpipe system is not in accordance with NFPA 13, 25 or as per Accord standard.	Inspect, test and maintain the Standpipe system, and keep written records on-site, in accordance with NFPA 13, 25 or as per Accord standard.	Within 1 month after installation.

F-27	Fire Protection System(ITM of Fire Pump)	Inspection, testing, and maintenance for the fire pump is not in accordance with NFPA 20, 25 or as per Accord standard.	Inspect, test and maintain the fire pump, and keep written records on-site, in accordance with NFPA 20, 25 or as per Accord standard.	Within 1 month after installation.
F-28	Fire Detection System (ITM of FADS)	Inspection, testing, and maintenance for the fire alarm system is not in accordance with NFPA 72 or as per Accord standard.	Inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72 or as per Accord standard.	Within 1 month after installation.
F-29	Fire Protection System(Extinguisher)	Portable fire extinguishers are not install at 5th, 6th & 7th floor as per standard of KFL building.	Portable fire extinguishers shall be installed throughout building in accordance with BNBC Part 4 Section 4.10 and NFPA 10 and maximum travel distance to the nearest until shall not exceed 30m.	Within 3 months
F-30	Fire Protection System(ITM of Extinguisher)	Inspection, testing, and maintenance of the extinguisher system is not in accordance with NFPA 10 or as per Accord standard.	Inspect, test and maintain the extinguisher system, and keep written records on-site, in accordance with NFPA 10 or as per Accord standard.	Within 3 months

F-31	Smoking sign	The required no smoking signs are not present in the factory.	Smoking is prohibited in any garment factory building or separate storage building. Signs shall be posted in Bengali and English at all building entrances. If the factory creates a designated smoking area outside the building, information of these areas will be posted on the signs.	Within 1 month
F-32	Housekeeping policy	No housekeeping policy has been established.	Establish written corporate and plant policies on housekeeping to ensure scheduled cleaning for floor, wall, ceiling, supply and return air ventilation systems. Promptly reschedule skipped cleanings. Provide a documented line of authority for authorizing a cleaning delay and rescheduling. As a general rule the maximum tolerable deposit thickness for loose fluffy lint is 13 mm(½in.)over a maximum of 46.5m <sup>2</sup> (500ft <sup>2</sup> ). Limit dense deposits to 6 mm(¼in.) and oil saturated deposits to 3.2 mm (⅛in.).	Within 2 months
F-33	Fire Rated Construction	The fire pump room was not properly separated from other occupancy by fire rated construction.	Provide fire pump room with 2 hr. rated fire separation by fire rated construction. Seal all unprotected opening & penetrations.. Or, Physically separate the pump room from the protected building by a minimum of 50 ft. (15.3 m) in accordance with NFPA 20.	Within 3 months



F-34	Hot-work permit	No hot-work permit program has been established.	Hot work permit system program shall be enacted for all RMG facilities in accordance with NFPA 51B.	Within 2 months
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