

# INITIAL FIRE SAFETY INSPECTION REPORT

Concept Knitting.(Extension).

RSC ID: 24981

Address: Tilargati, Sataish Bazar, Tongi, Gazipur

Geographic Location: 23.90935, 90.37503

Other Factories: Concept Knitting [RSC ID: 9345]



Inspected By: Mohammad Anayet Hossain and Nainin Nowrose

Date: 15-Feb-2024

# Fire Safety Inspection Report

## Concept Knitting.(Extension)

### Introduction:

**Concept Knitting.(Extension)** was surveyed for fire safety on **15th February,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):** There are total 3 nos of structures in the factory compound under this RSC ID: 24981 where approval authority of all structures are Tongi Pouroshova. The buildings are as below:

S/N	Building Number	Building Name	Type of construction	Year of construction	Date of Occupy	Date of Approval	Construction Period	Per floor area in sqft
1	B-1	New Garments Building	RCC	Jun'2021-Jun'2023	Sep'2023	Aug'2011	New	71052.7879
2	B-2	Utility Building	RCC	Aug'2018-Mar'2020	Apr'2020	Aug'2011	Interim	11504.14
3	B-3	ETP	RCC	Jun'2021-Jun'2023	Sep'2023	Aug'2011	New	11200

**Factory Address:** Tilargati, Sataish Bazar, Tongi, Gazipur

## 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 approval.

**Table-1:**

SI No.	Category	Findings	Required Action	Remediation Time Frame
F-1	Fire Rated Construction	<p>The exit stair enclosures are not properly separated from work areas and other spaces on each floor by fire-rated construction.</p> <p><b>Location:</b> New Garments Building &amp; Utility Building.</p>	<p>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.</p> <p>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.</p> <p>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.</p>	Within 3 Months



F-2	Fire Rated Construction	<p>Storage rooms and basement area discharge directly into exit stair enclosure without vestibule.</p> <p><b>Location:</b> New Garments Building &amp; Utility Building.</p>	<p>Openings from exit enclosure to storage and basement 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
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F-3	Fire Rated Construction	<p>Areas used for combustible storage open to the factory are not separated by fire rated construction.</p> <p><b>Location:</b> New Garments Building &amp; Utility Building.</p>	<p>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.</p> <p>Where separate storage rooms are not feasible, provide defined storage areas and limit the storage arrangement as follows:</p> <ul style="list-style-type: none"> <li>- Maximum height of 2.45m (8ft.) , maximum area of 23m<sup>2</sup> (250 ft<sup>2</sup>) and 3m (10ft.) clear distance from adjacent another unenclosed combustible storage.</li> <li>-If the building/floor is sprinkler protected: maximum height of 3.66m (12ft.) and maximum area of 93m<sup>2</sup> (1000 ft<sup>2</sup>) and 3m (10ft.) clear distance from adjacent another unenclosed combustible storage.</li> </ul>	Within 3 Months
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F-4	Fire Rated Construction	<p>Unsealed penetrations and openings are located in the fire-rated floor/ceiling assemblies due to pvc toilet pipe &amp; BBT riser.</p> <p><b>Location:</b> New Garments Building.</p>	<p>Seal all penetrations and openings in floor/ceiling assemblies to maintain the fire separation at least by 3-hr. The used sealer shall be 3rd party certified and installation shall be as per manufacturer's guideline. (Type-1 Construction).</p> <p>or,</p> <p>Provide a minimum 2-hr fire rated shaft to separate the utility risers from each floor if required. (Type-1 Construction).</p>	Within 3 months
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F-5	Fire Rated Construction	<p>Dining area (I-3, capacity-1500) was not separated by fire rated construction with adjacent sample (G-2) section.  <b>Location:</b> New Garments Building.</p>	<p>The dining area (I3) is not permitted with moderate hazard occupancies (G2) following table 3.2.1 of BNBC-2020. Required number of exits for entire dining arrangement shall lead directly to safe discharge path without passing through another occupancies.</p>	Within 3 months



F-6	Fire Rated Construction	<p>The exit discharge path was not fire separated with production floor. The egress court was not properly fire rated. The egress court has unprotected openings within 10 ft height were available with garments building.</p>	<p>An egress court serving as a portion of the exit discharge shall be open to the sky or provided with a fire resistance rated enclosure the same as the exit enclosure. Egress courts less than 3050 mm (10 ft) in width (as measured from the building and the adjacent property line) shall be provided with walls having a 1-hr fire resistance rated construction for a distance of 3050 mm (10 ft) above the floor of the court.</p>	Within 3 months
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F-7	Fire Rated Construction	<p>Unsealed penetrations and openings are located in exit stair enclosures.</p> <p><b>Location:</b> New Garments Building.</p>	<p>Seal all penetrations and openings in exit stair enclosure walls to maintain the fire separation.</p>	<p>Within 3 months</p>
<div style="display: flex; justify-content: space-around;">   </div>				
F-8	Fire Rated Construction	<p>Childcare (C1) &amp; medical (D2) was not separated from dining (I3) &amp; production (G2) section.</p> <p><b>Location:</b> New Garments Building.</p>	<p>Separated the childcare &amp; medical from surrounding occupancies following table 3.2.1 of BNBC-2020.</p>	<p>Within 3 months</p>



F-9	Means of Egress	<p>The exit stairs-6 do not discharge directly to the outside.  <b>Location:</b> New Garments Building.</p>	<p>Provide 2-hr fire-rated exit passageway leading directly outside (vestibules to separate any storage areas). Or, Provide sprinkler protection for discharge floor in accordance with NFPA 13 and RSC standard 6.17.3.</p>	Within 3 Months
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F-10	Means of Egress	<p>Egress path found obstructed and uneven on exit discharge position.</p> <p><b>Locations:</b> New Garments Building &amp; Utility Building.</p>	<p>Remove unnecessary items and level exit path to the public way.</p>	<p>Within 1 Month</p>



F-11	Means of Egress	Single exit provided from compressor room located at 1st floor of Utility building.	Provide additional means of egress in accordance with RSC standard 6.3 .	Within 1 Month
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F-13	Means of Egress	<p>Inadequate aisle marking is provided.  <b>Location:</b> New Garments Building.</p>	<p>Provide minimum aisle widths of 36-inch. All the aisles shall be marked properly and free from any kind of obstruction.</p>	<p>Within 1 Month</p>
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F-14	Means of Egress	Intermediate handrail was not provided where the stair width exceeds 2.2 m (87 in). <b>Location:</b> Stair-5 of New Garments Building.	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. Follow RSC Technical Guideline - 6.9.2.4 and RSC-6.12.1.2:	Within 1 Month
F-15	Means of Egress	Building did not have stair, floor designation signs and occupant load signs at required locations.	Provide stair, floor designation signs and occupant load signs at required locations.	Within 1 Month
F-16	Means of Egress	Common path of egress travel exceeds 23 meter (75ft) at 1st floor of Utility Building.	Reconfigure the egress arrangement to reduce the maximum common path of travel to not more than 23 meter(75ft) in accordance with RSC standard 6.13.2 .	Within 1 Month

F-17	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.	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
				
F-18	Emergency Lighting	Exit signage & directional exit sign was not provided along a path of egress.	Provide 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 exit signs shall be provided with either battery backup or uninterruptable power supply systems and shall be continuously illuminated.	Within 1 month



F-19	Emergency Lighting	Exit signs were placed in areas that were not exits.	Remove exit signs (double sided) from noted areas to avoid confusion from actual exits.	Within 1 month
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F-20	Inspection Testing and Maintenance of Emergency lighting	Inspection, testing, and maintenance for the emergency lighting system was not in accordance with RSC technical guidelines (standard).	Inspect, test and maintain the emergency lighting system in accordance with RSC technical guidelines (standard). Keep written records on-site.	Within 1 month
F-21	Fire Alarm & Detection System (FADS)	The fire alarm and detection system installation requires detailed review to confirm compliance with NFPA 72 and RSC standard.	Submit as-built drawings, testing records, equipment certification and other relevant documentation to the RSC for review and approval/acceptance test.	Design Review within 2 months and installation/modification within 4 months.



F-22	ITM of Fire Alarm and 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. (After Installation)	Within 1 month after installation.
F-23	Fire Suppression System (SUPS)	Sprinkler system is mandatory for the building based on height. The system installed for the New Garments Building along with standpipe system. However, both the system requires detailed review to confirm compliance with NFPA 13, 14, 20, 22, 24 and RSC Technical Guidelines (Standard).	Submit as-built drawings, testing records, equipment certification and other relevant documentation to the RSC for review. Once reviewed, install or modify the sprinkler, standpipe system and pump throughout the building in accordance with RSC standard and NFPA 13, 14 and 20. The factory management shall contact RSC to conduct the final acceptance testing after the installation, testing & commissioning.	Design Review within 2 months and installation/modification within 4 months.



F-24	ITM of Sprinkler	<p>Inspection, testing and maintenance for the sprinkler system was not in accordance with standard.</p>	<p>Inspect, test and maintain the sprinkler system in accordance with of NFPA 25 and keep written records on-site.</p>	<p>Within 1 Month after installation.</p>
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F-25	ITM of Fire 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.
F-26	ITM of Fire Pump	Inspection, testing, and maintenance for the fire pump is not in accordance with NFPA 25 or as per RSC standard.	Inspect, test and maintain the fire pump, and keep written records on-site, in accordance with NFPA 25 or as per RSC standard.	Within 1 Month after installation.

F-27	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 standards.	Within 1 Month
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