

INITIAL FIRE SAFETY INSPECTION REPORT

ECHOKNITS LTD (Extension)

RSC ID: 24842

ADDRESS: A-99/1; Bokterpur; Kaliakoir; Gazipur

Geographical Coordinates: 24.057504478, 90.230237766

Other Factories: ECHOKNITS LTD (previously Shomahar Sweaters Ltd) - RSC ID: 10349



Inspected By: A N Faisal Ahmed

Date: 27 December, 2023

Fire Safety Inspection Report

Factory Name: ECHOKNITS LTD (Extension)

Introduction:

ECHOKNITS LTD (Extension) complex was surveyed for fire safety on **27 December, 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 the 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

1. **Building - 4, General Store:** Single Storey RCC Building.

Construction duration: January 2016 to May 2016 **(Interim)**

Occupied: June 2016

Total Floor area: 210 sqm (Approximately)

2. **Building - 5, ETP:** Two Storied RCC Building

Construction duration: June 2017 to December 2018 **(Interim)**

Occupied: January, 2019

Total Floor area: 120 sqm (Approximately)

3. **Building - 6, Maintenance Building:** Two Storied RCC Building

Construction duration: August 2017 to July 2018 **(Interim)**

Occupied: September, 2018

Total Floor area: 130 sqm (Approximately)

4. **Shed - 12, Empty Carton Store:** Single Storied steel shed **(New)**

Construction duration: July' 21 to Sep'21 ; Occupied: October'2021

Building Height : 18 ft.

Total Floor area: 500 sqm (Approximately)

5. **Shed - 13, Warehouse:** Single Storied steel shed **(New)**

Construction duration: April'2023 to Dec'2023 ; Occupied: December'23

Building Height : 40'-11" (As per BNBC 2020 ; GL to FGL: 24")

Total Floor area: 2800 sqm (Approximately)

Factory Address: A-99/1; Bokterpur; Kaliakoir; Gazipur

Findings & Recommendations :

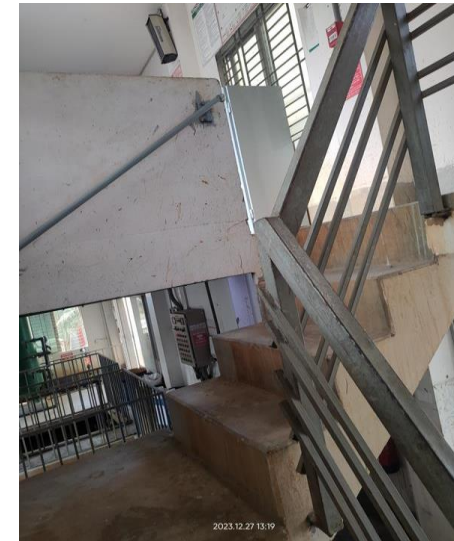
Table 1 summarizes the major fire safety issues identified during the inspection. Recommendations have been provided to address each issue. An implementation schedule shall be developed by the factory to remediate each of the findings. The specific timing of improvements, including any requested extensions 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	The shed-13 is a new building which height is more than 11m. Main structural element of the building is constructed by steel which is non-rated and were found in exposed condition without any fire protection.	The building is a new steel structure which shall meet fire rating requirement imposed on BNBC-2020. Provide require fire rating in the structural elements of the building as per BNBC 2020 Part 3 Table 3.1.7 & Table 3.3.1 (a). Consult with a qualified fire protection engineer. Submit the proposed drawing/design to RSC for review. Once reviewed, install passive fire protection as per reviewed design.	Within 6 months



F-2	Fire Rated Construction	The exit stairs are not separated from work areas by fire rated construction due to unprotected opening . Location: Building-5 & 6	Provide minimum 1-hr rated fire wall and 1-hr fire rated doors for buildings that are less than 4 stories. Seal all unprotected openings 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. If fire doors are required to be held open for functional reasons, provide automatic closing devices tied to the fire alarm system. Installation of fire door shall meet manufacturer guidelines & NFPA.	Within 3 Months
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F-3	Fire rated Construction	Office area is not separated from store occupancy at Building-04 & From ETP machineries at Building-05	Separate the Office area by a minimum 1-hr fire-rated construction from other occupancy. Seal and/or protected all openings to maintain the required fire separations.	Within 3 months
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F-4	Fire Alarm & Detection System (FADS)	Fire alarm and detection system installation is underway on shed-13 & FADS has been found installed on other structures. FADS system requires detailed review to confirm compliance with NFPA 72 and RSC Technical Guidelines (Standard). Location: All Building	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 building 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.	Design Review within 1 months and installation within 4 months.
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F-5	Fire Alarm & Detection System (FADS)	Inspection, testing, and maintenance for the fire detection system is not in accordance with NFPA 72. Location: All Building	Inspect, test and maintain the fire detection system, and keep written records on-site, in accordance with NFPA 72.	Within 1 Month after installation.
F-6	Means of Egress	Occupant load sign, Emergency evacuation map, floor & stair designation sign were found missing at the required locations on all floors. Location: All Building	Provide Occupant load sign, Emergency evacuation map, floor & stair designation sign at required locations. Fire evacuation maps shall be posted at the entrance to each exit stair.	Within 1 month

F-7	Means of Egress	Stair width was found less than 1.5m (60 inches). Location: Building 05 & 06	Stairs shall have a minimum width of 1.5 m (60 in.) for all industrial occupancies.	Within 3 months
F-8	Mean of Egress	Secondary exit does not provided on Shed-12 where travel distance were found 122 ft with a single exit. Location: Shed-12	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 6.6.2. Provide a secondary exit with maintaining 6.6.6 or follow 6.6.2 (RSC Technical Guidelines).	Within 3 Months
F-9	Egress Lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes. Location: All Buildings	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 Month

F-10	Means of Egress	Aisles mark were found missing on several locations throughout the building. Location: Shed-12 & 13.	Provide minimum aisle widths of 36-in. Aisles mark shall be clearly visible.	Within 1 Month
 				
F-11	Human Element Program	The required no smoking signs are not present in the factory. Location: All Buildings	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-12	Means of Egress	Walking surface were not found level & usable from exit discharge from building to public way and are not protected from slip or tripling hazard and usable for all environmental condition. Location: Shed-12 & 13.	Provide an level walking surface in exit discharge in accordance with 6.3.4 of RSC Technical Guidelines (Standard).	Within 3 Months
 				
F-13	Means of Egress	Exit signage was not provided along a path of egress. Location: All Buildings	Provide illuminated 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.	Within 1 Month



F-14	Fire Protection System	Fire extinguisher doesn't provided on Shed-13 .	Portable fire extinguishers shall be installed throughout the facilities in accordance with BNBC 2020 and NFPA 10. Extinguishers shall be placed in accordance with 5.6 of RSC Technical Guidelines.	Within 3 Months
F-15	Fire Protection System	Inspection, testing and maintenance of portable fire extinguishers is not in accordance with NFPA 10. Location: All Buildings	Inspect, test and maintain the portable fire extinguishers and keep written records onsite, in accordance with NFPA 10.	Within 3 Months

F-16	Egress Lighting	Inspection, testing and maintenance for the emergency lighting system was not in accordance with The RSC standard. Location: All Buildings	Inspect, test and maintain the emergency lighting system in the accordance with The RSC standard. Keep written records on-site.	Within 3 Month
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