

INITIAL FIRE SAFETY INSPECTION REPORT

Factory Name: Ahsan Composite Ltd. (Extension)

RSC ID: 24605

Factory Address: Ward No.8, Chandra Pollibidyut Road, Kaliakoir.

24.04315N, 90.26015E

Other Factories: Ahsan Composite Ltd. (ID: 9810)



Inspected By: Shahina Imam & Mahbub Alam

Date: 30 November, 2023

Fire Safety Inspection Report

Introduction:

"**Ahsan Composite Ltd. (Extension)**" complex was surveyed for fire safety on **30 Nov 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. 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 03 structures in the factory premises:

Building-1: 3-Storeyed Steel Structure Production building (Building No-07)

Building-2: 5-Storeyed RCC Dyes Chemical Store Building (Building-11),

Building-3: Single Story Steel Structure Dining Shed (Temporary).

Factory Address: Ward No.8, Chandra Pollibidyut Road, Kaliakoir.

Points of contact: Md. Farhad Khan

Director

Contact Number: +8801678006722

Email: farhad@ahsangroup.com

Md. Abdul Razzak

Technical Director

Contact Number: +8801678006712

Email: razzak@ahsangroup.com



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
F-1	Fire Rated Construction	The structural elements of Main Production Building-7 & Dining Building (Temporary) are constructed by steel which is non-rated and were found in exposed condition without any fire protection.	The Building shall be type-1 or type-2 construction in accordance with the RSC Technical Guidelines (Standard) 3.5.2.1 and BNBC Part-2, Table-3.2.4. Provide required fire rating on the structural elements by following Section 4.4 and Table 4.4.1 of the RSC Technical Guidelines (Standard) or Table 3.3.1 and Table 4.1.1 from BNBC Part 4. Consult a qualified fire protection engineer to design the rated construction barriers in between two floors and in structural members.	Within 6 months



F-2	Fire Rated Construction	Areas used for combustible storages open to the factory are not separated by fire rated construction on 1st floor of Building-7.	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 barrier construction. Where separate storage rooms are not feasible, 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 not exceed 10 percent of the building area of the story in which they occur.	Within 3 months
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F-3	Fire Rated Construction	The exit stair enclosures are not separated from floor areas and other spaces on each floor by fire-rated construction at Building-7 & Building-11.	The exit stair enclosure shall be provided with a minimum of 2-hr. fire resistance rating for buildings 4 or more 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 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



F-4	Fire-Rated Construction	The Exit discharge path is less than 10ft wide and is not separated from the building interior. Location: Building-11.	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 separation. Alternatively, provide a second remote discharge path to the public way (only include this if feasible).	Within 3 months
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F-5	Fire Rated Construction	Unsealed penetrations and openings are located in the fire rated floor/ceiling assemblies every floor of the building. Location: Ground floor to roof of Building-7.	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). or, Provide a minimum 2-hr fire rated shaft to separate the utility risers from each floor if required. (Type-1 Construction).	Within 3 months
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F-6	Fire Rated Construction	unprotected openings are observed between Building-7 & Building -6 due to covered by roof shed.	Seal all penetrations and openings in floor to floor (full thickness of the wall) assemblies by fire rated materials to maintain the fire resistance rating. Or remove the roof shed.	Within 3 months
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F-7	Fire Rated Construction	Storage rooms discharges directly into exit stair enclosures at ground floor of Building-7 & Building-11.	Openings from exit enclosure to storage room spaces shall be provided with a vestibule with fire rated construction and openings. Provide a 2 hr. fire rated door on the exit stair side and a 1- hr. fire rated door on the 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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F-8	Fire Rated Construction	In Dyes Chemical Storage Building (Building-11) factory has occupied with other occupancies like Cutting Fabric keeping Area, Maintenance Store etc. without maintaining proper fire rated constructed as per BNBC 2006 Table 3.2.1	Separate the mixed occupancies as per BNBC 2006, Table 3.2.1	Within 3 months
 				
F-9	Fire Rated Construction	Building-7 is connected to Building-6 without adequate fire separations.	Separate the buildings by minimum 2-hr fire-rated construction. Provide 1.5 hr. fire rated door and seal all penetrations and openings between the exterior connecting bridge and the building up to 10 ft. beyond the end of the stair by 2 hr. fire rated construction.	Within 3 months



F-10	Means of Egress	Aisles marks have not been provided properly throughout the egress path of both Building-7 & Building-11.	Provide minimum aisle widths of 36 inch with proper marking & update on evacuation map.	Within 1 month
				

F-11	Mean of Egress	Sliding doors are provided at all floors exit stair and along egress routes of Building-11.	Replace all collapsible and sliding doors along the means of egress with side-hinged, swinging egress doors. If locks are required for security reasons, utilize special door locking features complying with NFPA 101.	Within 1 month
				
F-12	Means of Egress	Travel distance exceeds 60 meter (200 ft) in Building-7 which is a violation of RSC Technical Guideline standard 6.13.1.1	Reconfigure the egress arrangement to reduce the maximum travel distance for G2 (RMG factories) not exceed 60 m (200 ft) as per RSC Technical Guideline standard 6.13.1.1	Within 3 months
F-13	Means of Egress	The exits are not remotely located from each other such that a single fire event could compromise both exits.	Modify exit arrangement or Provide additional exit(s)	Within 3 months

F-14	Means of Egress	Uneven walking surface were found from exit discharge of all Stair-2 Ground Floor of Building-7 and are not protected from slip or tripling hazard.	Provide an even level walking surface in exit discharge in accordance with 6.3.4 of RSC Technical Guidelines (Standard_V1.0).	Within 1 month
 				
F-15	Means of Egress	Building did not have Fire evacuation map, occupant load sign, stair & floor designation at the required locations.	Provide Fire evacuation map, occupant load sign, stair & floor designation at the required locations.	Within 1 months

F-16	Egress Lighting	Emergency light was not provided along the path of egress. Location: All floors of the building.	Provide Emergency lights above all building egress path throughout the building. Emergency lights shall be provided with either battery backup or uninterruptable power supply systems and shall be continuously illuminated. Emergency light's 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-17	Egress Lighting	Directional Exit signage was not provided along the path of egress. Location: All floors of the building.	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 exit signs shall be provided with either battery backup or uninterruptable power supply systems and shall be continuously illuminated.	Within 1 month
F-18	Egress Lighting (ITM)	Inspection, testing and maintenance for the emergency lighting system was not in accordance with The RSC standard.	Inspect, test and maintain the emergency lighting system in the accordance with NFPA/RSC. Keep written records on-site.	Within 1 month
F-19	Fire Alarm & Detection System (FADS)	Fire alarm and detection system installation is underway which requires detailed review to confirm compliance with NFPA 72 and RSC Technical Guidelines (Standard).	Submit the proposed design of Addressable fire alarm system to Accord in accordance with NFPA 72. Installation shall be as per the reviewed design with a listed Addressable Fire Alarm System.	Design within 2 Month and installation within 4 months



F-20	Fire Alarm & Detection System (FADS)	Inspection, testing, and maintenance for the fire detection system is not found in accordance with NFPA 72.	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-21	Fire Protection System (Standpipe System)	The Building-11 (Dyes Chemical Store) has an occupied floor greater than 10 meter (33 feet) and is not provided with standpipe protection. Fire Protection system installation requires detailed review to confirm compliance with NFPA 14, 20, 22,24 and RSC standards.	Design & Installation Fire Protection system shall be in accordance with RSC standard. Submit as-built drawings, testing records, equipment certification and other relevant documentation to the RSC for review and approval.	Design within 2 months, Install within 4 months

F-22	Fire Protection System (ITM of Standpipe)	Inspection, testing and maintenance of the standpipe system is not found in accordance with NFPA 25.	Inspect, test and maintain the standpipe system and keep written records on-site, in accordance with NFPA 25.	Within 1 Month after installation.
F-23	Inspection, testing, and maintenance of the Fire Pump (ITM).	Inspection, testing and maintenance of the fire pump system is not in accordance with NFPA 25.	Inspect, test and maintain the fire pump system and keep written records on-site, in accordance with NFPA 25.	Within 1 Month after installation.
F-24	Fire Protection System	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-25	Fire Protection System	Inspection, testing and maintenance of portable fire extinguishers is not found in accordance with NFPA 10.	Inspect, test and maintain the portable fire extinguishers and keep written records onsite, in accordance with NFPA 10.	Within 1 month.