

INITIAL FIRE SAFETY INSPECTION REPORT

Factory Name: Ananta Huaxiang Ltd. (Extension)

RSC ID: 24616

ADDRESS: Plot # 176-177, 222-223, H1, H2, H3, H4 Adamjee EPZ

Other Factories: Ananta Huaxiang Ltd -9470



Inspected By: Mohammad Anayet Hossain and Md. Jahidul Kabir

Date: 13-September-2023

Fire Safety Inspection Report

Factory Name: Ananta Huaxiang Ltd. (Extension)

Introduction:

RSC ID: 24616

Ananta Huaxiang Ltd. (Extension) complex was surveyed for fire safety on 13 September 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):

- 1. Building-C**
- 2. H-1 Shed**

Factory Address: Plot # 176-177, 222-223, H1, H2, H3, H4 Adamjee EPZ

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	Dinning & Prayer room (Assembly Occupancy) is provided on the roof of Building-C (Industrial Occupancy) which is not permitted according to BNBC 2020, Part III Chapter 2 Table 3.2.1	In new construction Assembly occupancy (I) is not allowed with industrial occupancy (G2). Relocate the dining to or from this building to meet the requirement as per BNBC 2020, part III chapter 2 table 3.2.1.	Within 3 Months



F-2	Fire Rated Construction	Proper certification was not provided for fire rated doors installed in the factory.	Submit proper certifications for installed fire doors during inspection for approval. If not available , or certification is not approved , install new, properly certified fire rated doors in accordance with RSC guideline.	Within 1 Month
F-3	Fire Rated Construction	Rooms/areas on Basement used for combustible storage are not separated by a minimum 1-hr fire-rated construction where storage area exceeding 10% of the floor area. Location: Building-C, Ground floor.	Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction	Within 3 months



F-4	Fire-Rated Construction	Areas used for combustible storage open to the factory are not properly defined and/or not within limits. Location: Building-C, Ground floor & First floor.	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 (10ft). Areas shall limit within 10% of entire floor area.	Within 3 Months
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F-5	Fire-Rated Construction	The exit discharge path [serving S-W exit discharge] is less than 10 ft wide and is not separated from the building interior. Location: Building-C	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-6	Fire Rated Construction	Elevator shafts are directly open into the exit stair for stair-4. Location: Building-C	In new and interim construction, an exit stairway shall not be built around a lift shaft unless both of them are located in a smoke proof enclosure and made of a material with fire resistance rating required for the type of construction of smoke proof enclosure as per RSC-6.14.3. So, separate the stair enclosure from elevator shaft throughout the building. There is a variety of opening protective types i.e., fire rated lift landing doors, fire doors, fire rated curtain combination for both heat & smoke control with integration with fire alarm control panel.	Within 3 Months
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F-7	Fire Rated Construction	The elevator discharges inside the production floor. [Unsealed penetrations & openings] Location: Building-C (Ground floor)	Provide a minimum 2-hr fire rated construction to separate the elevator shaft from each floor level. Seal all penetrations and openings in floors/ceiling assemblies to maintain the fire separation. There is a variety of opening protective types i.e., fire rated lift landing doors, fire doors, fire rated curtain combination for both heat & smoke control with integration with fire alarm control panel.	Within 3 Month
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F-8	Fire Rated Construction	Exterior exit stairs are not properly separated from the building and stair exit discharge. Location: Building-C	Exterior exit stairs shall be separated by minimum 1-hr fire-rated construction and The rating of the exterior wall shall extend 3.05 m (10 ft.) beyond the ends of the stair structure. Provide minimum 0.75-hr fire rated doors to separate the exit stairs from work areas and other building spaces on all floor levels. Ensure that the fire doors are self-closing, 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 Month
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F-9	Fire Rated Construction	The raised walkways between Building B and H1-Shed are not separated by fire-rated construction.	Provide 2-hr fire rated construction or provide 1.5-hr fire rated door.	Within 1 Month
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F-10	Fire Rated Construction	The multi-storied racking system storage floor in the H1- Shed is prefabricated steel- type and all the steel panels are resting on the steel columns and girders which is in exposed condition without any fire protection. Also the mezzanine floor area exceeds the allowable limit and it shall count as a floor and floor to floor separation is required. It has been also observed that the ground floor to first and second floor (claimed mezzanine) are not separated from each other. Ground floor exit is from ground level and 1st and 2nd floor exit is also through ground floor level. Factory Claimed Mezzanine floor which is occupying more than 33.33% of the building plinth area (measure full plinth area) are not properly separated from the ground floor thus the 1st floor finished goods area appears more vulnerable regarding fire safety as well as property/material safety	Mezzanine floor shall not exceed 33.33% of the building plinth area as per BNBC-2006, clause 1.12.6.1. Separate each floors by fire rated construction as per BNBC, Part-3, chapter-3 and Table 3.3.1. 2-hr fire rated separation is required from claimed mezzanine floor (actually first floor and second floor) to ground floor other surroundings as well as separation is needed at required number of exit stairs. Provide required fire rating on the structural elements by following Section 4.4 and Table 4.4.1 of the RSC 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 the floors and in structural members. Or, reduce the 1st and 2nd floor area (claimed mezzanine) below 33.33% of the building plinth area.	Within 3 Month
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F-11	Means of Egress	Sliding doors are provided at means of egress. Location: H-1 Shed	Sliding doors along the means of egress with side-hinged, swinging egress doors. If locks are required for security reasons, utilize specialized door locking features complying with NFPA101.	Within 1 Month
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F-12	Means of Egress	Width of aisle is less than 0.9m (36-in.) or not marked properly at 1st floor (Linking section). Location: Building-C, Between Line 6 & 7	Aisles shall be provided with a minimum unobstructed clear- with of 0.9m (36 in). Rearrange the floor layout if required.	Within 1 Month
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F-13	Means of Egress	Uneven path of travel and blockage in exit access. Locations: S-W Exit discharge of Building-C North Exit discharge of H-1 Shed	Remove unnecessary items and level exit path to the public way.	Within 1 Month
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F-14	Means of Egress	Storage was located in the exit stairs and aisles. Location: Building-C	Remove all storage from the exit stairs and aisles. Keep egress paths and stairs clear of storage	Immediate
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F-15	Means of Egress	Parapets or guards are not provided in occupiable roof. Location: GAS generator building.	Provide parapets or guards with a minimum height of 1067mm (42 inch.).	Within 1 Month
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F-16	Means of Egress	Building did not have occupant load signs at the required locations.	Provide stair designation signs and occupant load signs at the required locations.	Within 1 Month
F-17	Mean of Egress	Building did not have stair designation signs at required locations.	Provide stair 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-18	Egress Lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes. Location: Building-C & H1- Shed.	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 1 Month
F-19	Egress Lighting	Illuminated directional signs are not provided where direction of the path of travel to an exit has changed. Location: Building-C & H1- Shed.	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-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. Location: Building-C	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 within 4 months.



F-22	Fire Alarm & Detection System (FADS)	The fire alarm and detection system installation requires detailed review to confirm compliance with NFPA 72 and RSC standard. Location: H1- Shed	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 within 4 months.
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F-23	Inspection Testing and Maintenance of Fire Alarm and Detection System (ITM)	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-24	Inspection Testing and Maintenance of Portable 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 1 Month
F-25	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-26	Fire Rated Construction	The main structural element of the H1-Shed (Interim construction) is constructed by steel which is non-rated and were found in exposed condition without any fire protection	The building shall be type-I or II construction. So, provide required rating in the structural elements of the building. Consult with a qualified fire protection engineer. Follow BNBC 2006-Table 3.3.1, 3.2.4 & 3.1.9.	Within 6 months

F-27	Fire Rated Construction	The main structural element of the Building-C (New construction) is constructed by steel which is non-rated and were found in exposed condition without any fire protection	The building shall be type-I or II construction. So, provide require rating in the structural elements of the building. Consult with a qualified fire protection engineer. BNBC 2020, Part 3, Table 3.1.7.	Within 6 months
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