

# INITIAL FIRE SAFETY INSPECTION REPORT

**Chaity Composite Ltd.- Annex building**

**RSC ID: 24170**

**Address: Chotto Shilmondi, Tripurdi, Sonargaon (23.649769, 90.584889)**

**Other Factories: Chaity Composite Ltd (Premises)**



**Inspected By: A N Faisal Ahmed & Md. Anisuzzaman**

**Date: 15-Mar-2021**

# Fire Safety Inspection Report

## Chaity Composite Ltd.- Annex building

### Introduction:

**Chaity Composite Ltd.- Annex building.** complex was surveyed for fire safety on **15/03/2021** 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.

## General Factory Information

Factory Building name(s): 1. Annex building

Factory Address: Chotto Shilmondi, Tripurdi, Sonargaon

### Points of contact:

1. Name: Md. Mijanur Rahman

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## 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:(Findings & Recommendations)**

SI No.	Category	Findings	Required Action	Remediation Time Frame
F-1	Fire Rated Construction	Exit Enclosures are not properly fire separated from other occupancy on each floor by fire rated construction due to unprotected opening & penetration.	<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.</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



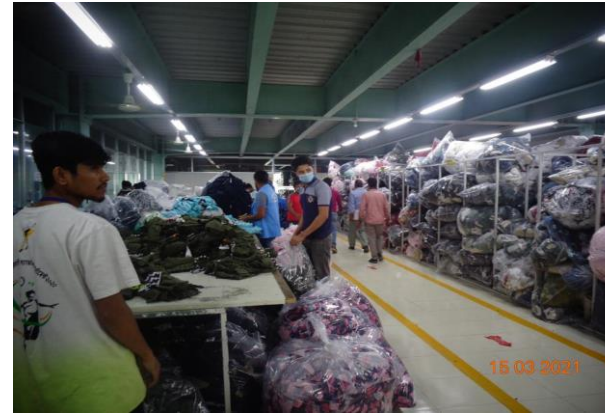
F-2	Fire Rated Construction	Elevator shafts are directly open into the inside of stair-1(Garments building) & Stair-1(share Store building)	For new construction, elevators shall not open into an exit enclosure as per ACCORD Standard-6.14.3. So, separate the stair enclosure from elevator shaft .	Within 3 months
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F-3	Fire Rated Construction	Building expansion joint( Store building & Garments Building with Annex Building ) are not sealed by fire rated sealant/material located at each floor/ceiling level.	Seal the building expansion joint opening by full thickness of the floor/ceiling ( min for 3 hr.) by listed fire rated sealant/material to maintain required floor to floor separation.	Within 3 months
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F-4	Fire Rated Construction	<p>The building is a new structure &amp; The main structural element of the building is constructed by steel which is non-rated and were found in exposed condition without any fire protection.</p>	<p>Construction of new high-rise factories containing G and/or H2 occupancies (factories) shall be Type 1 construction as required in BNBC Part 3 Table 3.2.4. Provide/ensure required fire rating on the structural elements by following Section 4.4 and Table 4.4.1 of the Accord Standard or Table 3.3.1 and Table 4.1.1 from BNBC. Consult a qualified fire protection engineer to design the rated construction barriers in between floors and in structural members.</p>	Within 6 months
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F-5	Fire Rated Construction	Exterior wall are not properly fire separated by fire rated construction due to unprotected opening within 10 feet between Annex building & Garments building each level all floor .Location west side & north side of annex building.	Exterior wall shall be separated by minimum 2-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.	Within 3 months
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F-6	Fire Rated Construction	Room used for combustible storage on the Ground, first, 2nd, 3rd, 4th & 5th floor are not properly fire separated from the surrounding occupancy/area by fire rated construction. Location: Each level all floor of Annex building.	Provide dedicated storage rooms separated by minimum 1 hr. fire rated construction.	Within 3 months
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F-7	Fire Rated Construction	Areas used for in-process storage of combustible materials are open to the surrounding occupancy which are not separated by fire rated construction at Ground ,1st,2nd,3rd,4th & 5th floor floor of Annex building.	Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction. Or, Where separate storage rooms are not feasible, Provide defined storage areas and limit the storage arrangement as follows:- 1. General Condition: Maximum height of 2.4m and maximum area of 23m <sup>2</sup> . Separate areas of unenclosed combustible storage by a minimum clear distance of 3m. 2. If sprinkler protected: maximum height of 3.66m and maximum area of 93m <sup>2</sup> . Separate areas of unenclosed combustible storage by a minimum clear distance of 3m.	Within 3 months
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F-8	Fire Rated Construction	Exit discharge path(passageway) of the stairs are not properly fire separated by fire rated construction due to unprotected opening & penetration. Location: Stair 05 of Garments Building ( Between Annex & garments building. ) and Stair 01 of store building.	<ol style="list-style-type: none"> <li>1. Modify stair to discharge directly outside.</li> <li>Or</li> <li>2. Provide 2-hr fire-rated exit passageway leading directly outside (vestibules to separate any storage areas).</li> <li>Or</li> <li>3. Provide sprinkler protection for discharge floor in accordance with NFPA 13.</li> </ol>	Within 3 months
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F-9	Fire Rated Construction	The fire pump room was not properly separated from compressor room by fire rated construction due to unprotected opening. Location: Shed-02	Provide fire pump room with 2 hr. rated fire separation by fire rated construction. Seal all unprotected opening & penetrations..	Within 3 months
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F-10	Fire Rated Construction	Gray fabric inspection area are directly discharge inside of the Gray fabric storage of Store building at first floor without proper fire rated corridor or fire separation.	<p>1. Modify gray fabric inspection area discharge to directly outside.</p> <p>Or</p> <p>2. Provide 2-hr fire-rated exit access corridors leading directly outside (vestibules to separate any storage areas).</p> <p>The clearance under the bottom of a fire door shall be a maximum of 19mm.</p> <p>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
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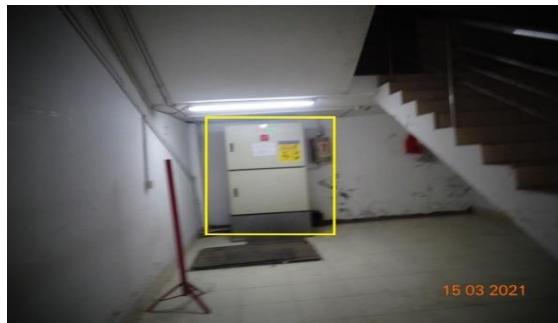



F-11	Fire Rated Construction	Unprotected vertical shaft connecting multiple floor were noted for the Annex Building.	<p>Separate the shaft/duct from the other occupancy by minimum 2-hr fire-rated construction .</p> <p>or</p> <p>Provide a minimum 2-hr fire-rated shaft to separate the duct from each floor if required.</p>	Within 3 months
				
F-12	Means of Egress	Stair designation is not posted at the exit stair at all level. Location : Annex Building.	Stair designation shall be posted at the entrance to exit stair at all level.	Within 1 month

F-13	Means of Egress	The egress path along the means of egress has been interrupted by obstruction/storage each floor all level. Location: All floor of Annex 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).	Immediately
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F-14	Means of Egress	Electrical panel boards (DB) & air conditioner are located on the inside of Exit stair-1(share to store building stair) each level all floor.	Remove electrical panel boards & air conditioner from exit stairs.	Within 1 month
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F-15	Means of Egress	The common path of egress travel was founded more than 23m located at first floor of Annex building.	Reconfigure the egress arrangement to reduce the maximum common path of travel to not more than 23m or 30m when complete sprinkler protection is provided	Within 3 months
<div style="display: flex; justify-content: space-around;">   </div>				
F-16	Means of Egress	A single means of exit has been provided at 6th floor .	Provide additional required remotely located exit stair from 6th Floor.	Within 3 months




F-17	Means of Egress	Storage was located inside in exit stair-5(share garment building)	Remove storage from the exit stairs and egress path	Immediately
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F-18	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 months
F-19	Means of Egress	Occupant load sign is not posted at the exit stair at all level	Occupant load sign shall be posted at the entrance to exit stair at all level.	Within 1 months
F-20	Egress lighting	Exit sign not provided at exit.	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 1 months
F-21	Egress lighting	Emergency lights not illuminated during testing (burned out, broken, etc.).	Regularly inspect all emergency lighting system as per Accord standard and replace/install lights as needed to illuminate signs.	Within 1 months



F-22	Egress lighting	Directional signs are not provided where direction of the path of travel to an exit has changed each floor all level.	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-23	Egress lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes located at each level all floor of Annex building.	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 3months

F-24	Egress lighting	Manual on-off switch is provided for emergency lighting backup source IPS	Remove manual on/off switches from emergency lighting / exit signage units to prevent them from being switched off.	Within 1 month
				
F-25	Egress lighting	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 3months

F-26	Fire Protection System	Fire alarm system installation requires detailed review to confirm compliance with NFPA 72 and ACCORD standards.	Submit design to RSC for review and modify installation if required. Installation of Fire Alarm system should be in accordance with ACCORD standard and NFPA 72.	Design within 2 months, Install within 4 months (If modification required)
				
F-27	Fire Protection System	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 3months

F-28	Fire Protection System	The building is equipped with single-station smoke alarms.	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, Install within 4 months (If modification required)
				
F-29	Fire Protection System	The Standpipe System requires detailed review to confirm compliance with NFPA 14 and ACCORD standards. Fire Pump NFPA-20.	Submit design to RSC for review and modify installation if required. Installation of Standpipe system should be in accordance with ACCORD standard and NFPA 14, 20, 22 and 24.	Design within 2 months, Install within 4 months (If modification required)



F-30	Fire Protection System	The Annex building with an occupiable floor greater than 23 m (75 ft) above the finished grade is not protected with an approved automatic sprinkler system.	Provide an automatic sprinkler protection throughout the building in accordance with ACCORD standard and NFPA 13, 20, 22 and 24.	Design within 2 months, Install within 4 months (If modification required)
F-31	Fire Protection System	Inspection, testing, and maintenance for the Standpipe system is not in accordance with NFPA 25 or as per Accord standard.	Inspect, test and maintain the Standpipe system, and keep written records on-site, in accordance with NFPA 25 or as per Accord standard.	Within 3months

F-32	Fire Protection System	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 3months
F-33	Means of Egress	Exit capacity is not adequate for the occupant load on the 2nd & 3rd floor (whole floor). The 2nd & 3rd floor has 1505 & 1547 occupants respectively and the exit capacity is 1407.	Reduce occupant load to not more than available exit capacity for the entire floor. (Immediately) Or, Provide additional exit/s to meet the exit capacity of each building separately.	Immediately
F-34	Means of Egress	Garments building stair-5 are used for annex building emergency evacuation which consider as new construction and Inadequate stair width.	In new construction and for newly constructed stairs, stairs shall have a min. width of 1.50 m (60 in.) for all industrial occupancies according to Accord Standard 6.5.6.2.1	Within 3 months

