

INITIAL FIRE SAFETY INSPECTION REPORT

Hamza Textiles Ltd.

RSC ID: 10777

Address: Noyapara, Kashimpur, Gazipur

Geographical Coordinates of factory building: 23.988613, 90.324150

Other Factories: Mymun Textiles Ltd. (Non RSC)

Color City Ltd. (Non RSC)

DB-tex Ltd. (Non RSC)



Inspected By: Md. Hasanuzzaman, Md. Anisuzzaman and Tanvir Jubayer Rahman

Date: 29-January-2025

General Factory Information:

Hamza Textiles Ltd.

Introduction:

The **Hamza Textiles Ltd.** complex was surveyed for fire safety on **29-January-2025** 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

SI No	Building Name & Description	Construction History	Remarks
1	Building-1: Dyeing production shed (Block-A) Single storied steel structure. Total Approx Area: 82,000 Sft.	Construction period: April-2004 to December 2005 Date of first Operation: January 2006 Building Approval: May 2006 (LGED)	Existing Construction
2	Building-2: Four storied building (Hamza-1) Constructed in three parts (Part-1, Part-2 & Part-3) Part-1: 4-Std Steel, Part-2: 4-Std RCC & Part-3: 2-std RCC. Total Approx Area: 37,500 Sft. Note: Building-1 & all part of building 2 are structurally separate but architecturally connected on ground floor, and all part of building-2 are architecturally connected on 1st floor, Part-1 & 2 are connected on 2nd and 3rd floor. This arrangement creates a single fire compartment on each floor level respectively.	Construction period: April-2004 to December 2005 (All three parts are constructed within same period) Date of first Operation: January 2006 Building Approval: May 2006 (LGED)	Existing Construction
3	Building-3: Washing Production Building With Shed Constructed in two parts (Part-1 & Part-2) Part-1: Single storied steel structure with mezzanine. Part-2: 2-Std steel structure. Total Approx Area: 51,000 Sft. Note: Ground floor of part-1 and part-2 are architecturally connected and creates single fire compartment.	Construction period (part-1) : April-2009 to December 2009 Construction period (part-2) : March-2022 to April 2024 Date of first Operation: January 2010 (Part-1) & May 2024 (part-2) Building Approval (part-1): February 2011 (LGED) Building Approval (part-2): October 2022	Part-1: Existing Construction Part-2: New construction.
4	Building-4: Boiler & Compressor Shed (Hamza-1) Constructed in two parts (Part-1 & Part-2) Part-1: Single storied steel structure. Part-2: 3-Std RCC structure. Total Approx Area: 3,950 Sft.	Construction period: April-2004 to December 2004 Date of first Operation: January 2005 Building Approval: June 2011 (LGED)	Existing Construction
5	Building-5: Generator & Power Control Building (Hamza-1) Single storied steel structure. Total Approx Area: 4,400 Sft.	Construction period: April-2004 to December 2004 Date of first Operation: January 2005 Building Approval: June 2011 (LGED)	Existing Construction
6	Building-6: HTL-2 Production Building Partial 2 storied steel structure with basement. Total Approx Area: 214,200 Sft.	Construction period: September-2019 to December 2021 Date of first Operation: January 2022 Building Approval: November 2019 (PWD)	Interim Construction

SI No	Building Name & Description	Construction History	Remarks
7	Building-7: HTL- 2 Utility Building Two storied composite structure with mezzanine & basement. Total Approx Area: 78,000 Sft.	Construction period: September-2019 to December 2021 Date of first Operation: January 2022 Building Approval: February 2020 (PWD)	Interim Construction
8	Building-8: WTP Building- 1 Single storied RCC structure with basement. Total Approx Area: 4,600 Sft.	Construction period: February 2016 to August 2016 Date of first Operation: March 2017 Building Approval: June 2011 (LGED)	Existing Construction
9	Building-9: ETP -1 Waste water retention tank	Construction period: January 2005 to December 2005 Date of first Operation: January 2006 Building Approval: June 2011 (LGED)	Existing Construction
10	Building-10: ETP Monitoring Building-1 Two storied RCC structure Total Approx Area: 4,700 Sft.	Construction period: January 2005 to December 2005 Date of first Operation: January 2006 Building Approval: June 2011 (LGED)	Existing Construction
11	Building-11: Acid Wash Shed Single storied Steel structure Total Approx Area: 4,500 Sft.	Construction period: February 2014 to September 2015 Date of first Operation: October 2015 Building Approval: June 2011 (LGED)	Interim Construction
12	Building-12: Fire Pump Room Single storied RCC structure with basement. Total Approx Area: 4,600 Sft.	Construction period: January 2017 to October 2017 Date of first Operation: November 2017 Building Approval: June 2011 (LGED)	Interim Construction
13	Building-13: EGB Shed-1 Single storied Steel structure (Elevated) Total Approx Area: 200 Sft.	Construction period: March 2016 to December 2016 Date of first Operation: January 2017 Building Approval: June 2011 (LGED)	Interim Construction

Factory Address: Noyapara, Kashimpur, Gazipur

Other RSC ID in the premises: N/A

General Factory Information:



Building-1: Dyeing production shed (Block-A)



Building-2: Four storied building (Hamza-1)



Building-3: Washing Production Building With Shed



Building-4: Boiler & Compressor Shed (Hamza-1)



Building-5: Generator & Power Control Building (Hamza-1)



Building-6: HTL-2 Production Building



Building-7: HTL- 2 Utility Building



Building-8: WTP Building- 1



Building-9: ETP -1 & Building-10: ETP Monitoring Building-1



Building-11: Acid Wash Shed



Building-12: Fire Pump Room



Building-13: EGB Shed-1

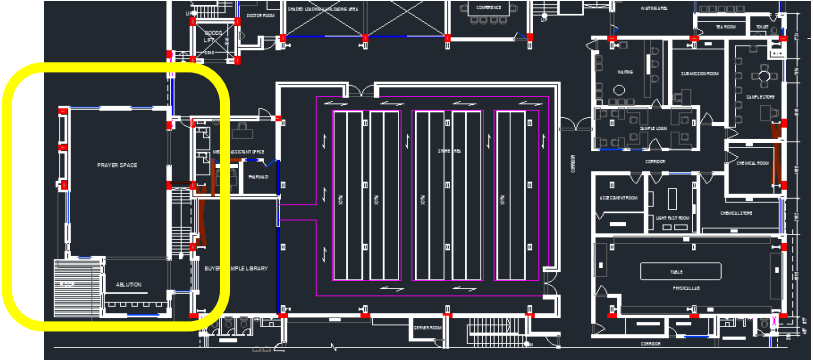
Findings & Recommendations :

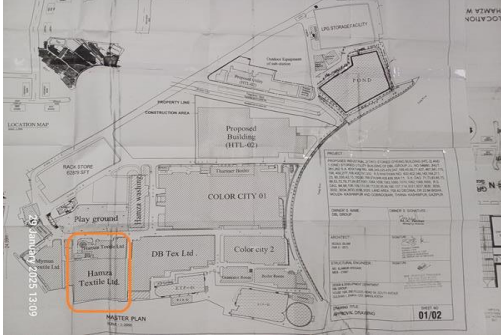
Table 1, 2, 3 & 4 summarizes the major fire safety issues identified during the inspection. Recommendations have been provided to address each issue. An implementation schedule shall be developed by the factory to remediate each of the findings. The specific timing of improvements, including any requested extensions due to design / installation constraints, shall be submitted to the RSC for approval.

Table-1: Finding & recommendation for Building-1 & 2: Dyeing production shed (Block-A) & Four storied building (Hamza-1)

Sl No.	Category	Findings	Required Action	Remediation Time Frame
F-1	Fire Rated Construction	The first and second floor of building-2 are not separated from the ground floor of building-1 and conjugative floors of building-2 are not separated from each other due to glass and non-rated facade wall. Location: South side of building-2.	Maintain the interior facade wall rating following BNBC 2006 Table 3.3.1.	Within 3 months
				

F-2	Fire rated construction.	Areas used for in-process storage of combustible materials are open to the surrounding occupancy. Location: Ground floor of building-1	Provide defined storage areas and limit the storage arrangement as follows: Maximum height of 2.45 m and maximum area of 23 m² and is separated by a minimum 3.0 m (10ft) from other storage areas and they do not exceed 10 percent of the building area of the story in which they occur. If sprinkler protected, Maximum height 12 ft (3.66 m) and maximum area of 1000 ft² (93 m²) and separated by a at least 25 ft (7.62 m) from other storage areas and does not constitute more than 10 percent of the building area or 4000 ft² (372 m²) of the sprinklered area, whichever is greater. or, Enclose the storage area from the surrounding occupancy with a minimum 1 hour fire rated construction.	Within 3 months
				

F-3	Fire Rated Construction	Prayer room (E4) is not separated from store area by fire rated construction. Location: First floor of building-2	Separate the assembly area (E4) from production & other occupancies by minimum 3-hr fire rated construction. Also provide at least two means of exits leading directly to the street or leading to a corridor or open space having access to exits in two independent and different direction. Or Relocate the prayer room in a safe location.	Within 3 months
				

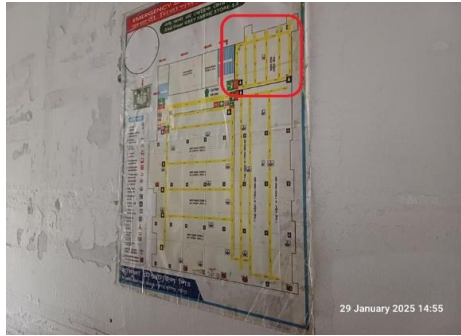
F-4	Fire Rated Construction	The structure (Building-1 & 2) did not have proper distance or separation from adjacent structures (at west, Mymun textile shed; at east DB Tex shed and acid wash shed; at south boundary) as per BNBC Part 3 Table 3.2.2	All existing buildings and structures shall be separated from other buildings in accordance with BNBC 2006 Part 3 Table 3.2.2 and BNBC 2006 Part 3 Section 2.4.1.3.	Within 3 months
  				
F-5	Means of egress	The exits in the storage area on 2nd floor and 3rd floor are not remotely located from each other (less than one-half maximum diagonal distance of pace) such that a single fire event could compromise both exits. Location: Building-2	Modify exit arrangement to meet RSC Technical Guidelines Standard V1.0 standard-6.6.6. Or, Provide additional exit(s) to meet RSC Technical Guidelines Standard V1.0 standard-6.6.6. Or, Provide sprinkler protection in accordance with NFPA13 to meet RSC Technical Guidelines Standard V1.0 standard-6.6.6.	Within 3 months

 				
F-6	Means of Egress	Store room directly open into exit stair enclosure without proper fire separation. Location: 2nd and 3rd floor of Building-2	Openings from exit enclosure to storage shall be provided with a vestibule with fire rated construction and openings as per RSC Technical Guideline (Standard) V1-6.14.3. Provide a 2 hr. fire rated door on the exit stair side and a 1- hr. fire rated door on the storage side. The minimum width for vestibules shall not be less than 1.1m and length 1.8m as per BNBC, Part-4, Chapter-3, section 3.13.3. Ensure that the fire rating of the vestibule construction matches that of the exit stair enclosure	Within 3 months
 				

F-7	Means of egress	The exit stair enclosures are not separated from work areas and other spaces on each floor by fire-rated construction due to non-functional fire doors & unprotected opening within 10 feet of the enclosure at less than 180 degree. Location: Building-2	The exit stair enclosure shall be provided with a minimum 2- hr. fire resistance rating for buildings with 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. Provide a fire-resistive rated assembly between the exterior exit stairs and the building up to 10 ft beyond the end of the stair to achieve the required separation. The rated assembly shall be approved and/or designed by a qualified fire protection engineer. 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-8	Means of egress	Storage of combustible materials were found in egress path, stair enclosure & corridor on 1st, 2nd and 3rd floor. Location: Building-2	Remove all storage from exit stairs and egress paths.	Immediately
				
F-9	Means of egress	Electrical distribution board, cable raceway were found inside stair enclosure. Location: Building-2	Remove and re-locate all electrical panels and cable raceway from exit stair enclosures.	Within 3 months
				

F-10	Means of egress	The exit stairs discharges its occupants inside the building on the ground floor. Location: Stair-1(N-E) & stair-3(center) of Building-2	Provide 2-hr fire-rated exit passageway leading directly to the exterior or the designated area of refuge. Or, Provide additional required exit stair/s leading directly exterior, and A maximum of 50 percent of the number and capacity of the exit enclosures can discharge through areas on the level of exit discharge where all of the following are met: (1) Automatic sprinkler protection is provided throughout the level of exit discharge or portion of the level of discharge where separated from non-sprinklered portions of the floor by fire barriers with same fire resistance rating as the exit enclosure. (2) The interior discharge is not through a storage or hazardous occupancy. (3) The entire area of the level of exit discharge is separated from areas below by construction having a fire resistance rating not less than that required for the exit enclosure. (4) The way to the exterior shall be free and unobstructed and shall be readily visible and identifiable from the point of discharge of the interior exit.	Within 3 months
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F-11	Means of egress	A single means of exit has been provided at TTSL stores located on 2nd and 3rd floor where single exit is not permitted as per RSC technical guidelines (standard) section 6.6. Location: Building-2	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 RSC Technical Guideline (Standard)-6.6.2. Provide additional exits for TTSL stores located on 2nd and 3rd floor, areas shall be kept completely out of bounds for operational activity and remain unused until second exit is ensured.	Within 3 months
 				

F-12	Means of egress	The maximum travel distance exceeds the allowable limit as per standards (found more than 250feet). Location: Ground floor of the building -1	Reconfigure the egress arrangement or provide additional exits so that the travel distance shall not exceed 45 m. or, Provide a standpipe system in accordance with the RSC Technical Guidelines (Standard) along with the automatic fire detection system, and portable fire extinguishers and reconfigure the egress arrangement to meet the travel distance limitations for G2 (RMG factories) to 60 m (200 ft). or, Provide a complete automatic sprinkler system in accordance with the RSC Technical Guidelines (Standard) along with the automatic fire alarm system, and portable fire extinguishers to increase the travel distance limitations for G2 (RMG factories) to 122 m (400 ft).	Within 3 months
				

F-13	Means of egress	A portion of the egress court serving as exit discharge for the building-1 was covered by connecting canopy, and other portion was open to sky but measured width was found less than 10 feet, where unprotected openings within 10 ft height from adjacent building interior were available. Location: West side of Building-1	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.	Within 3 months
  				

F-14	Means of Egress	Minimum aisle width (36 inches) were not ensures at the south and east side on 2nd and 3rd floor. Location: Building-2	Provide minimum unobstructed aisle widths of 36-inches in all required locations.	Within 2 month
 				
F-15	Means of Egress	Building did not have occupant load signs at required locations. Location: Building-1 & 2	Post the occupant load for every assembly and production floor in a facility in a conspicuous space near the main exit or exit access doorway for the space.	Within 1 month
F-16	Means of Egress	Updated Fire evacuation map is not posted and updated at the entrance of all exit stair. Location: Building-1 & 2	Fire evacuation maps shall be posted at the entrance to each exit stair. Evacuation map shall reflect the actual floor condition.	Within 1 month
F-17	Means of Egress	Building did not have stair designation signs at required locations. Location: Building-1 & 2	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	Means of Egress	Directional signs are not provided where direction of the path of travel to an exit has changed. Location: Building-1 & 2	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-19	Means of Egress	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes. Location: Building-1 & 2	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-20	Means of Egress	Manual on-off switch is provided for exit signage and emergency lighting system throughout the building. Location: Building-1 & 2	Remove manual on/off switches from exit signage units to prevent them from being switched off.	Within 1 month

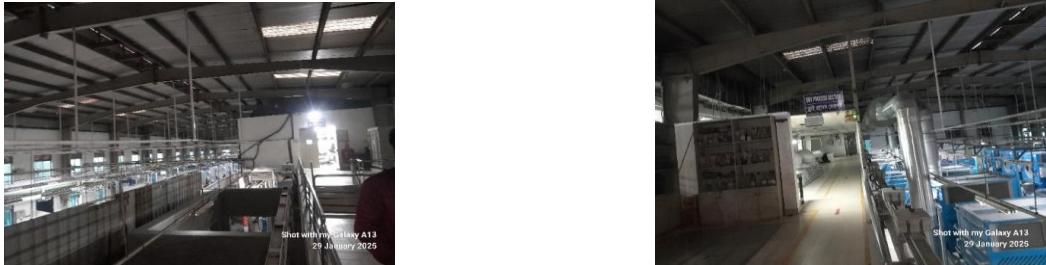


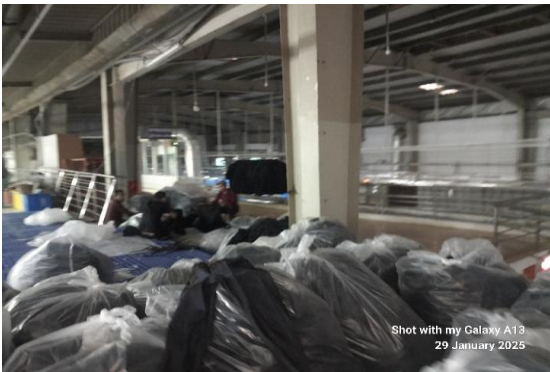
F-21	Fire Alarm & Detection System (FADS)	An addressable fire alarm and detection system found installed in the building, which requires detailed review to confirm compliance with NFPA 72 and RSC Technical Guidelines (Standard). Location: Building-1 & 2	Submit the proposed fire alarm system & detection system design to RSC for initial review. Once the design is reviewed, install the fire detection and alarm system throughout the buildings in accordance with review comment, RSC Technical Guidelines (Standard) and NFPA 72. After installation the factory shall conduct internal testing and commissioning and then contact the RSC for witness of final acceptance testing. Also inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with Table-14.3.1 of NFPA 72.	Design Review within 2 months and installation/modification within 4 months.
				

F-22	Fire Suppression System (SUPS)- Standpipe System	The building (building-2) has an occupied floor greater than 10 meter (33 feet) and building-1 creates single fire compartment with building-2, where required standpipe system found under installation. Standpipe system installation requires detail review and functional test to confirm compliance with relevant standards. Location: Building-1 & 2	Submit the standpipe system drawing to RSC for review. Once reviewed, install or modify the standpipe system throughout the building in accordance with RSC Technical Guideline (Standard) and NFPA 14, 20,22 and 24. After installation the owner shall contact the RSC for witness of conducting the final acceptance testing of the standpipe system.	Design Review within 2 months and installation/modification within 4 months.
 				
F-23	Inspection Testing and Maintenance of Fire Alarm and Detection System (ITM)	Inspection, testing and maintenance for the fire detection and alarm system was not in accordance with standard. (For Building-1 & 2)	Inspect, test and maintain the fire alarm system and keep written records on-site, in accordance with Table-14.3.1 of NFPA 72.	Within 1 month (after installation completed).
F-24	ITM Standpipe	Inspection, testing and maintenance of the standpipe system is not in accordance with NFPA 25. (For Building-1 & 2)	Inspect, test and maintain the standpipe system and keep written records on-site, in accordance with NFPA 25.	Within 1 month (after installation completed).

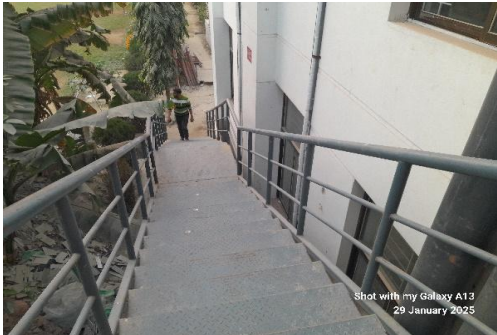
F-25	ITM of fire pump	Inspection, testing, and maintenance for the fire pump is not in accordance with NFPA 25 or as per RSC standard. (For Building-1 & 2)	Inspect, test and maintain the fire pump, and keep written records on-site, in accordance with NFPA 25 or as per RSC standard.	Within 1 month (after installation completed).
F-26	ITM Emergency Lighting	Inspection, testing and maintenance for the emergency lighting system was not in accordance with The RSC Technical Guidelines (Standard). (For Building-1 & 2)	Inspect, test and maintain the emergency lighting system in the accordance with The RSC standard. Keep written records on-site.	Within 1 Month
F-27	ITM extinguisher	Inspection, testing and maintenance of portable fire extinguishers is not in accordance with NFPA 10. (For Building-1 & 2)	Inspect, test and maintain the portable fire extinguishers and keep written records onsite, in accordance with NFPA 10.	Within 1 Month

Table-2: Finding & recommendation for Building-3

Sl No.	Category	Findings	Required Action	Remediation Time Frame
F-28	Fire Rated Construction	1st floor is not fire rated separated from the ground floor due to the unprotected opening. Location: Building-3(Washing Production Building With Shed (Part-1&2-two storied steel building)	Provide the required fire rated separation between the ground floor and the first floor according to table 3.3.1 (a) of BNBC 2020.	Within 3 months
				
F-29	Fire rated construction	Chemical store is not separated from production area by fire rated construction. Location: Ground floor of the building-3	Separate the chemical storage room from production area as per Table 3.2.1 of BNBC-2020 [Fire Resistance Rating Requirements for Separating Walls and Floor/Ceiling Assemblies between Mixed Occupancies (hours)]. Keep 16-points MSDS of all chemicals in the storage area.	Within 3 months
				

F-30	Fire rated construction	Areas used for in-process storage of combustible materials are open to the surrounding occupancy. Location: First floor of the building-3	Provide defined storage areas and limit the storage arrangement as follows: Maximum height of 2.45 m and maximum area of 23 m² and is separated by a minimum 3.0 m (10ft) from other storage areas and they do not exceed 10 percent of the building area of the story in which they occur. If sprinkler protected, Maximum height 12 ft (3.66 m) and maximum area of 1000 ft² (93 m²) and separated by a at least 25 ft (7.62 m) from other storage areas and does not constitute more than 10 percent of the building area or 4000 ft² (372 m²) of the sprinklered area, whichever is greater. or, Enclose the storage area from the surrounding occupancy with a minimum 1 hour fire rated construction.	Within 3 months
 				

F-31	Means of egress	The exit stair enclosures are not separated from work areas and other spaces on each floor by fire-rated construction due to unprotected opening. Location: Building-3.	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. Provide 1 hr. fire rated door and seal all penetrations and openings by 1 hr. fire rated construction barrier 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. Provide a fire-resistive rated assembly between the exterior exit stairs and the building up to 10 ft beyond the end of the stair to achieve the required separation. The rated assembly shall be approved and/or designed by a qualified fire protection engineer. 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-32	Means of egress	Width of exit stairs are less than 1.5 m (60 in.) Location: Both stairs of Building-3	Stairs shall have a minimum width of 1.5 m (60 in.) for all industrial occupancies and 2.0 m (79 in.) for all assembly occupancies.	Within 3 months
 				
F-33	Means of egress	The exterior exit stair is not separated from the building Location: South side exit stair of the building-3	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.	Within 3 months
				

F-34	Means of egress	Exit stairs do not discharge directly to the outside . Location: Building-3.	Modify stair to discharge directly outside. Or, Provide 2-hr fire-rated exit passageway leading directly outside (vestibules to separate any storage areas).	Within 3 months
 				
F-35	Means of Egress	Building did not have occupant load signs at required locations. Location: Building-3.	Post the occupant load for every assembly and production floor in a facility in a conspicuous space near the main exit or exit access doorway for the space.	Within 1 month
F-36	Means of Egress	Updated Fire evacuation map is not posted and updated at the entrance of all exit stair. Location: Building-3.	Fire evacuation maps shall be posted at the entrance to each exit stair. Evacuation map shall reflect the actual floor condition.	Within 1 month
F-37	Means of Egress	Building did not have stair designation signs at required locations. Location: Building-3.	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

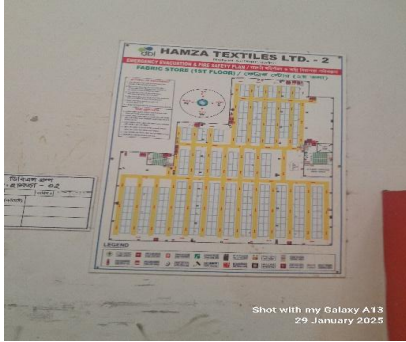
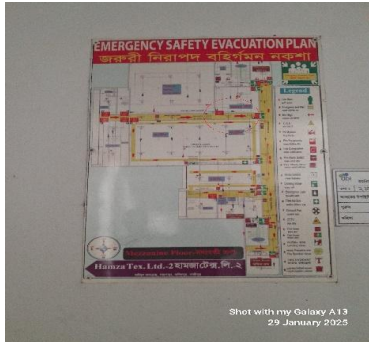
F-38	Means of Egress	Directional signs are not provided where direction of the path of travel to an exit has changed. Location: Building-3.	Illuminated directional signs shall be provided where there is a change in the direction for the path of travel and the direction to an exit is not obvious.	Within 1 month
F-39	Means of Egress	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes. Location: Building-3.	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-40	Fire Alarm & Detection System (FADS)	Fire alarm and detection system installation complete which requires detailed review to confirm compliance with NFPA 72 and RSC Technical Guidelines (Standard). Location: Building-3.	Submit proposed the fire alarm system & detection system design to RSC for initial review. Once the design is reviewed, install the fire detection and alarm system throughout the buildings in accordance with review comment, RSC Technical Guidelines (Standard) and NFPA 72. After installation the factory shall conduct internal testing and commissioning and then contact the RSC for witness of final acceptance testing. Also inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with Table-14.3.1 of NFPA 72.	Design Review within 2 months and installation/modification within 4 months..
 				

F-41	Inspection Testing and Maintenance of Fire Alarm and Detection System (ITM)	Inspection, testing and maintenance for the fire detection and alarm system was not in accordance with standard. (For Building-3)	Inspect, test and maintain the fire alarm system and keep written records on-site, in accordance with Table-14.3.1 of NFPA 72.	Within 1 month (after installation completed).
F-42	ITM Emergency Lighting	Inspection, testing and maintenance for the emergency lighting system was not in accordance with The RSC Technical Guidelines (Standard). (For Building-3)	Inspect, test and maintain the emergency lighting system in the accordance with The RSC standard. Keep written records on-site.	Within 1 Month
F-43	ITM extinguisher	Inspection, testing and maintenance of portable fire extinguishers is not in accordance with NFPA 10. (For Building-3)	Inspect, test and maintain the portable fire extinguishers and keep written records onsite, in accordance with NFPA 10.	Within 1 month

Table-3: Finding & recommendation for Building-6(HTL-2 production)

Sl No.	Category	Findings	Required Action	Remediation Time Frame
F-44	Fire Rated Construction	Building-6(HTL-2 production) height is more than 11Meter (17.4M as per provided drawings) are constructed by steel which is non-rated structure and were found in exposed condition without any fire protection. Location: Building-6(HTL-2 production).	The "Ministry of Housing and Public Works" has issued a resolution based on the recommendations from the House Building Research Institute (HBRI) and the Public Works Department (PWD) to assess structural fire protection requirements of steel buildings (unprotected non-combustible construction type) according to BNBC 2020. The construction type shall confirm to be in accordance with BNBC 2020 Part-3, Table 3.1.7. Ensure fire resistive rated construction following Table 3.3.1 (a) Part 3 Section-3, Table 3.2.2 and Table 3.2.3 Part 3 Section 2 and Table 4.1.1 from BNBC 2020 Part 4 Section 1. Provide design philosophy to determine the construction type as per BNBC 2020. If any construction rating requires, Consult a qualified fire protection engineer to achieve the require fire rating.	Within 6 months
 				

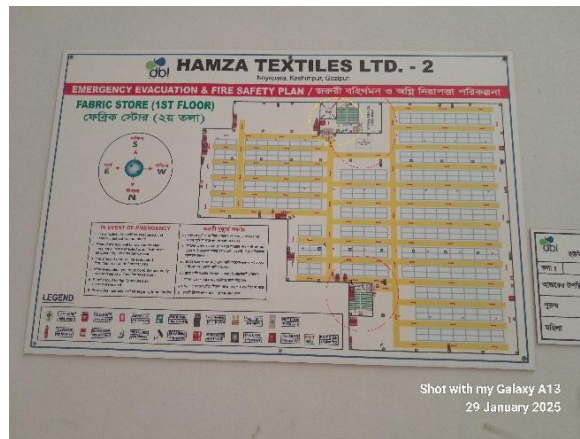
F-45	Fire Rated Construction	Dedicated store room is not separated by fire rated construction due to unprotected opening & penetration. Location: Basement floor & warehouse store room at ground floor of the building-6(HTL-2 production)	Separate the dedicated store room from the surrounding occupancy with a minimum 1 hour fire rated construction.	Within 3 months
				
F-46	Fire rated construction.	Elevator shafts are open directly into exit enclosure without proper fire separation. Location: Building-6(HTL-2, Production)	Modify the elevator shaft as per RSC Technical Guideline (Standard) V1-6.14.3. 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. So, ensure the lift shaft is 2-hr fire rated including opening protection with similar rating. Factory is recommended to follow RSC published "SUPPLEMENTARY PAPER ON REMEDIATION GUIDANCE ELEVATOR OR LIFT SHAFT OPENING IN EXIT ENCLOSURES" for different solutions.	Within 3 months

 				
F-47	Fire Rated Construction	Dining area(E4) is not separated from store area by fire rated construction. Location: Mezzanine floor of the building-6(HTL-2)	Limit the dinning capacity within 300 and Separate the dining area from production & other occupancies(present temporary storage) by minimum 3-hr fire rated construction. Provide rated exit passageways leading directly to the exit stairs of the same resistance rating.	Within 3 months
  				

F-48	Fire Rated Construction	First floor fabric store is not separated from ground floor production area due to non-rated construction materials. Location: Building-6(HTL-2 production)	Provide the required fire rated separation between the ground floor and the first floor according to table 3.3.1 (a),Table-3.2.2, Table-3.2.3 & table 3.1.7 BNBC 2020.	Within 3 months
 				
F-49	Fire rated construction	Chemical store(H₂O₂) is not separated from production area by fire rated construction. Location: Ground floor of building-6(HTL-2 production)	Separate the chemical storage room from production area as per Table 3.2.1 of BNBC-2006 [Fire Resistance Rating Requirements for Separating Walls and Floor/Ceiling Assemblies between Mixed Occupancies (hours)]. Keep 16-points MSDS of all chemicals in the storage area.	Within 3 months
 				

F-50	Fire rated construction	Areas used for in-process storage of combustible materials are open to the surrounding occupancy. Location: Ground floor of building-6(HTL-2)	Provide defined storage areas and limit the storage arrangement as follows: Maximum height of 2.45 m and maximum area of 23 m² and is separated by a minimum 3.0 m (10ft) from other storage areas and they do not exceed 10 percent of the building area of the story in which they occur. If sprinkler protected, Maximum height 12 ft (3.66 m) and maximum area of 1000 ft² (93 m²) and separated by a at least 25 ft (7.62 m) from other storage areas and does not constitute more than 10 percent of the building area or 4000 ft² (372 m²) of the sprinklered area, whichever is greater. or, Enclose the storage area from the surrounding occupancy with a minimum 1 hour fire rated construction.	Within 3 months
 				

F-51	Means of Egress	Store room directly open into exit stair enclosure without proper fire separation. Location: Basement floor & first floor of the building-6 (HTL-2 production)	Openings from exit enclosure to storage shall be provided with a vestibule with fire rated construction and openings as per RSC Technical Guideline (Standard) V1-6.14.3. Provide a 2 hr. fire rated door on the exit stair side and a 1- hr. fire rated door on the storage side. The minimum width for vestibules shall not be less than 1.1m and length 1.8m as per BNBC, Part-4, Chapter-3, section 3.13.3. Ensure that the fire rating of the vestibule construction matches that of the exit stair enclosure	Within 3 months
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F-52	Means of egress	Travel distance is more than as per standards (found more than 500feet). Location: Ground floor of the building-6(HTL-2 Production)	Provide additional means of egress. OR Reduce the travel distance within limit as per RSC Technical Guideline Standard V1-6.13	Within 3 months
F-53	Means of egress	Exit is not remotely located at warehouse store room at ground floor. Location: Building-6(HTL-2 Production)	Modify exit arrangement to meet RSC Technical guideline standard V1-6.6.6. or Provide additional exit(s) to meet RSC Technical guideline standard V1-6.6.6.	Within 3 months



F-54	Means of egress	The exit stair enclosures are not separated from work areas and other spaces on each floor by fire-rated construction due to non-functional fire doors & unprotected opening. Location: Building6-(HTL-2, Production)	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. Provide 1 hr. fire rated door and seal all penetrations and openings by 1 hr. fire rated construction barrier 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. Provide a fire-resistive rated assembly between the exterior exit stairs and the building up to 10 ft beyond the end of the stair to achieve the required separation. The rated assembly shall be approved and/or designed by a qualified fire protection engineer. 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-55	Means of egress	Width of exit stairs(39inch) are less than 1.5 m (60 in.) Location: Second exit of the building-7(HTL-2 Utility)	Stairs shall have a minimum width of 1.5 m (60 in.) for all industrial occupancies.	Within 3 months
				
F-56	Means of egress	Uneven path of travel and blockage in exit access due to construction purpose. Location: West & North side exit stair discharge of the building-7(HTL-2)	Remove unnecessary items and level exit path to the public way.	Within 2 months
				

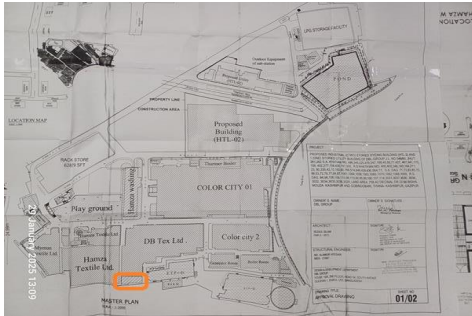
F-57	Means of egress	Exit stairs do not discharge directly to the outside due to civil construction work ongoing Location: S-E side exit stair discharge of the building-6(HTL-2 production)	Modify stair to discharge directly outside. Or, Provide 2-hr fire-rated exit passageway leading directly outside (vestibules to separate any storage areas).	Within 3 months
				
F-58	Means of Egress	Building did not have occupant load signs at required locations Location: Building6-(HTL-2, Production)	Post the occupant load for every assembly and production floor in a facility in a conspicuous space near the main exit or exit access doorway for the space.	Within 1 month
F-59	Means of Egress	Updated Fire evacuation map is not posted and updated at the entrance of all exit stair. Location: Building6-(HTL-2, Production)	Fire evacuation maps shall be posted at the entrance to each exit stair. Evacuation map shall reflect the actual floor condition.	Within 1 month

F-60	Means of Egress	Building did not have stair designation signs at required locations. Location: Building6-(HTL-2, Production)	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-61	Means of Egress	Directional signs are not provided where direction of the path of travel to an exit has changed. Location: Building6-(HTL-2, Production)	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-62	Means of Egress	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes. Location: Building6-(HTL-2, Production)	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-63	Fire Alarm & Detection System (FADS)	Fire alarm and detection system installation complete which requires detailed review to confirm compliance with NFPA 72 and RSC Technical Guidelines (Standard). Location: Building6-(HTL-2, Production)	Submit proposed the fire alarm system & detection system design to RSC for initial review. Once the design is reviewed, install the fire detection and alarm system throughout the buildings in accordance with review comment, RSC Technical Guidelines (Standard) and NFPA 72. After installation the factory shall conduct internal testing and commissioning and then contact the RSC for witness of final acceptance testing. Also inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with Table-14.3.1 of NFPA 72.	Design Review within 2 months and installation/modification within 4 months..
 				
F-64	Inspection Testing and Maintenance of Fire Alarm and Detection System (ITM)	Inspection, testing and maintenance for the fire detection and alarm system was not in accordance with standard. (For Building-6)	Inspect, test and maintain the fire alarm system and keep written records on-site, in accordance with Table-14.3.1 of NFPA 72.	Within 1 month (after installation completed).

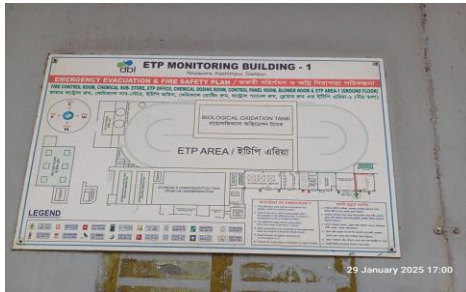
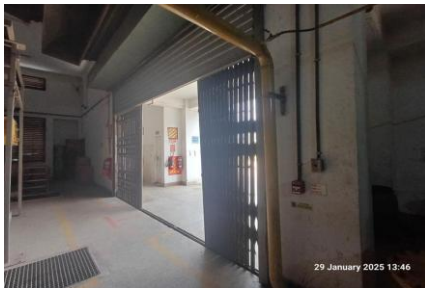
F-65	ITM Emergency Lighting	Inspection, testing and maintenance for the emergency lighting system was not in accordance with The RSC Technical Guidelines (Standard). (For Building-6)	Inspect, test and maintain the emergency lighting system in the accordance with The RSC standard. Keep written records on-site.	Within 1 Month
F-66	ITM extinguisher	Inspection, testing and maintenance of portable fire extinguishers is not in accordance with NFPA 10. (For Building-6)	Inspect, test and maintain the portable fire extinguishers and keep written records onsite, in accordance with NFPA 10.	Within 1 month

Table-4: Finding & recommendation for Building-4, 5, 7, 8, 9, 10, 11, 12 & 13

Sl No.	Category	Findings	Required Action	Remediation Time Frame
F-67	Fire Rated Construction	The structure is an interim construction with a peak height 18 feet, and did not have proper distance or separation from adjacent structures (at west building-1, 12 feet apart; at north DB Tex shed, 5.5 feet apart ; at south boundary, 3.5 feet apart) as per BNBC Part 3 Table 3.2.2 Location: Building-11(Acid Wash Shed)	All interim buildings and structures shall be separated from other buildings/ structures in accordance with BNBC 2006 Part 3 Table 3.2.2 and BNBC 2006 Part 3 Section 2.4.1.3.	Within 4 months
  				

F-68	Means of Egress	The exterior exit stair is not separated from the interior of adjacent buildings. Location: Building-13 (EGB Shed-1)	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.	Within 3 months
 				

F-69	Means of Egress	A single means of exit has been provided for the three storied building. Location: Building-4	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 RSC Technical Guideline (Standard)-6.6.2. A single means of egress is permitted by RSC Technical Guideline (Standard)-6.6.5 or where a greater number is required by RSC Technical Guideline (Standard)-6.6.3. For Basement/ Ground floor: Maintain maximum 50 occupants having a travel distance of 23m (75 ft) or provide additional exit. For First Floor: Maintain maximum 30 occupants having a travel distance of 23m (75 ft) for occupancy F,G & H only or, Provide additional exit. For 2nd floor, floors shall be kept completely out of bounds for operational activity and remain unused until second exit is ensured.	Within 3 months
 				

F-70	Means of Egress	A single means of egress is provided on the 1st floor (used for office and storage purpose) of building-10 and travel distance found more than 100 feet.	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 RSC Technical Guideline (Standard)-6.6.2. For First Floor: Maintain maximum 30 occupants having a travel distance of 23m (75 ft) for occupancy F,G & H only. Or Provide additional exit.	Within 3 months
 				
F-71	Means of Egress	Collapsible gates and roll up doors are provided at building exits and exit discharge. Location: Building-5	Replace all gates and doors along the means of egress with side-hinged, swinging egress doors in accordance with RSC standard 6.8.1.	Within 1 month
 				

F-72	Means of Egress	Building did not have occupant load signs at required locations. Location: Building-4, 5, 7, 8, 9, 10, 11, 12 & 13	Post the occupant load for every assembly and production floor in a facility in a conspicuous space near the main exit or exit access doorway for the space.	Within 1 month
F-73	Means of Egress	Updated Fire evacuation map is not posted and updated at the entrance of all exit stair. Location: Building-4, 5, 7, 8, 9, 10, 11, 12 & 13	Fire evacuation maps shall be posted at the entrance to each exit. Evacuation map shall reflect the actual floor condition.	Within 1 month
F-74	Means of Egress	Directional signs are not provided where direction of the path of travel to an exit has changed. Location: Building-4, 5, 7, 8, 9, 10, 11, 12 & 13	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-75	Means of Egress	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes. Location: Building-4, 5, 7, 8, 9, 10, 11, 12 & 13	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-76	Means of Egress	Manual on-off switch is provided for exit signage and emergency lighting system throughout the building. Location: Building-4, 5, 7, 8, 9, 10, 11, 12 & 13	Remove manual on/off switches from exit signage units to prevent them from being switched off.	Within 1 month
				
F-77	Fire Alarm & Detection System (FADS)	An addressable fire alarm and detection system found installed in the building, which requires detailed review to confirm compliance with NFPA 72 and RSC Technical Guidelines (Standard). Location: Building-4, 5, 7, 8, 9, 10, 11, 12 & 13	Submit the proposed fire alarm system & detection system design to RSC for initial review. Once the design is reviewed, install the fire detection and alarm system throughout the buildings in accordance with review comment, RSC Technical Guidelines (Standard) and NFPA 72. After installation the factory shall conduct internal testing and commissioning and then contact the RSC for witness of final acceptance testing. Also inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with Table-14.3.1 of NFPA 72.	Design Review within 2 months and installation/modification within 4 months.

				
F-78	Inspection Testing and Maintenance of Fire Alarm and Detection System (ITM)	Inspection, testing and maintenance for the fire detection and alarm system was not in accordance with standard. (For Building-4, 5, 7, 8, 9, 10, 11, 12 & 13)	Inspect, test and maintain the fire alarm system and keep written records on-site, in accordance with Table-14.3.1 of NFPA 72.	Within 1 month (after installation completed).
F-79	ITM Emergency Lighting	Inspection, testing and maintenance for the emergency lighting system was not in accordance with The RSC Technical Guidelines (Standard). (For Building-4, 5, 7, 8, 9, 10, 11, 12 & 13)	Inspect, test and maintain the emergency lighting system in the accordance with The RSC standard. Keep written records on-site.	Within 1 Month
F-80	ITM extinguisher	Inspection, testing and maintenance of portable fire extinguishers is not in accordance with NFPA 10. (For Building-4, 5, 7, 8, 9, 10, 11, 12 & 13)	Inspect, test and maintain the portable fire extinguishers and keep written records onsite, in accordance with NFPA 10.	Within 1 Month