

INITIAL FIRE SAFETY INSPECTION REPORT

Zalo Knitting Limited

RSC ID: 26394

Address: Tea Garden Road, Mouchak, Kaliakoir, Gazipur.1751, Bangladesh.

Geographical Coordinates of factory building: 24.029963,90.298562

Other Factories: None



Inspected By: Al-Shahriar Shovon and Tanvir Jubayer Rahman

Date: 29-July-2025

General Factory Information:

Zalo Knitting Limited

Introduction:

The **Zalo Knitting Limited** complex was surveyed for fire safety on **29-July-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: Old Production Building 2 storied RCC building (G+1) and a prayer room shed on the roof. A portion of the building extended vertically up to 4 stories along with building-2. Total Area: Approximately 14,100 Sft.	Construction period: January 2005 to November 2006. Note: A portion of building-1 along with one stair was vertically extended with building 2 on the period of January 2014 to November 2016. Date of first Operation: January 2007 Building Approval: 16-January-2018 (From Upazila Parishad, As-built approval)	Interim Construction (Due to vertical extension and merger with building-2)
2	Building-2: New Production Building 4 storied RCC building (G+3) and dining shed on the roof. Total Approx Area: 48,000 Sft.	Construction period: January 2014 to November 2016 Date of first Operation: January 2017 Building Approval: 16-January-2018 (From Upazila Parishad, As-built approval)	Interim Construction
3	Building-3: Utility Building 2 storied RCC building with mezzanine on ground floor (G+M+1), and partial shed on the roof. Note: The mezzanine floor area (970 sft) covers approximately 50% of the ground floor area (2000 sft), which classifies it as a separate floor. (G+2) Total Approx Area: 5,000 Sft.	Construction period: April 2015 to June 2016 Date of first Operation: January 2017. Building Approval: 16-January-2018 (From Upazila Parishad, As-built approval)	Interim Construction
4	Shed-1: Bonded warehouse Single storied Steel Structure Total Approx Area: 5,000 Sft.	Construction period: January 2014 to June 2016 Date of first Operation: January 2017 Building Approval: 16-January-2018 (From Upazila Parishad, As-built approval)	Interim Construction
5	Shed-2: Yarn Store Single storied Steel Structure Total Approx Area: 3,200 Sft.	Construction period: January 2015 to June 2016 Date of first Operation: January 2017 Building Approval: 16-January-2018 (From Upazila Parishad, As-built approval)	Interim Construction
6	Shed-3: Jhut store Single storied non-engineered Shed Total Approx Area: 1,050 Sft.	Construction period: February 2016 to March 2016 Date of first Operation: January 2017 Building Approval: 16-January-2018 (From Upazila Parishad, As-built approval)	Interim Construction

SI No	Building Name & Description	Construction History	Remarks
7	Shed-4: Fuel Room Single storied masonry structure Total Approx Area: 100 Sft.	Construction period: February 2016 to March 2016 Date of first Operation: January 2017 Building Approval: 16-January-2018 (From Upazila Parishad, As-built approval)	Interim Construction
8	Shed-5: Security Shed Single storied masonry structure Total Approx Area: 2,500 Sft.	Construction period: March 2017 to December 2017 Date of first Operation: January 2018 Building Approval: 16-January-2018 (From Upazila Parishad, As-built approval)	Interim Construction
9	Shed-6: Fire Pump room Single storied masonry structure Total Approx Area: 150 Sft.	Construction period: January 2016 to June 2016 Date of first Operation: January 2017 Building Approval: 16-January-2018 (From Upazila Parishad, As-built approval)	Interim Construction
10	Shed-7: RMS Room Single storied masonry structure Total Approx Area: 110 Sft.	Construction period: January 2005 to February 2005 Date of first Operation: January 2007 Building Approval: 16-January-2018 (From Upazila Parishad, As-built approval)	Interim Construction

Note: A small portion of Building-1 along with stair-2 is vertically extended up to 4 stories during the construction period of Building-2. Building-1 and building 2 are structurally separate but floors of both buildings are architecturally connected on ground floor and 1st floor. On 2nd and 3rd floor, extended portion of building-1 and floors of building-2 are architecturally connected. This arrangement creates a single fire compartment on respective floors. In the rest of the report, Building-1 and Building-2 will collectively be referred to as the “Main Production Building.”

Factory Address: Tea Garden Road, Mouchak, Kaliakoir, Gazipur.1751, Bangladesh.

Other RSC ID in the premises: None.

Points of contact:

1. Name: Kamal Ch Saha

Designation: General Manager

Contact No: +8801711-523942

Email: kamalsaha@dhaka.net

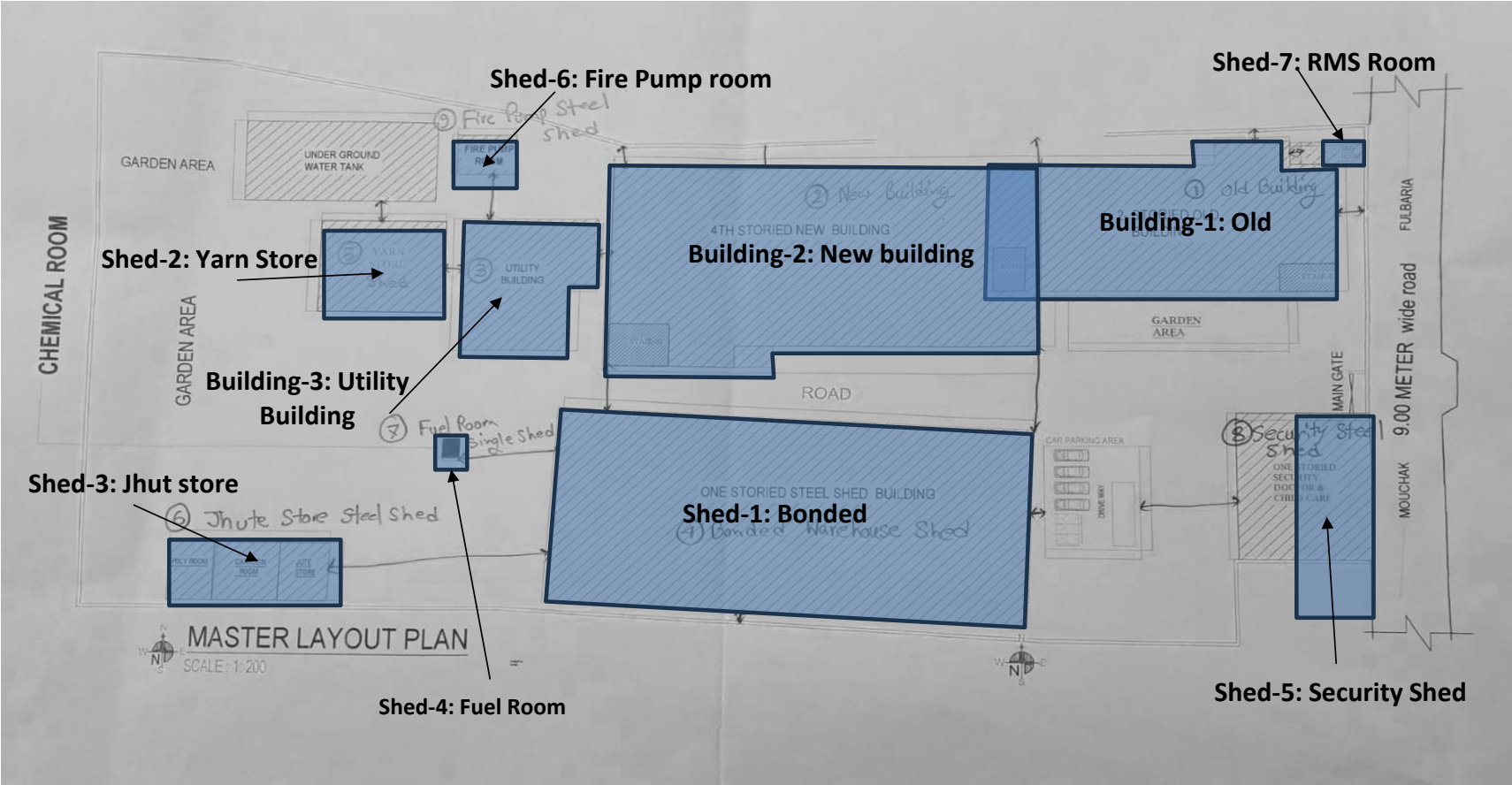
2. Name: Anisur Rahman

Designation: Manager-HR, Adnin & Compliance

Contact No: +8801712-447604

Email: compliance@zaloknitting.com

General Factory Information:





Building-1: Old Production Building



Roof top prayer room (Buildig-1)



Building-2: New Production Building



Roof top Dining & prayer area (Buildig-2)



Building-3: Utility Building



Shed-1: Bonded warehouse



Shed-2: Yarn Store



Shed-3: Jhut store



Shed-4: Fuel Room



Shed-5: Security Shed



Shed-6: Fire Pump room



Shed-7: RMS Room

Findings & Recommendations :

Zalo Knitting Limited

Table 1 (for main production Building) & Table-2 (for Building-3 and Shed-1, 2, 3, 4, 5, 6 & 7) 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 similar types of findings throughout the premises. 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: Main Production Building

Sl No.	Category	Findings	Required Action	Remediation Time Frame
F-1	Fire Rated Construction	Rooms used for storage of combustible materials are not separated from the surrounding occupancy/areas Location: 3rd floor of Main production building. Non-compliance reason: Non rated glass partition and opening from office and sample section.	Rooms used for storage of combustible materials shall be separated from the surrounding occupancy with a minimum 1 hour construction in accordance with section 3.4.2.1.5 of RSC Technical Guideline (Standard).	Within 3 months
 				

F-2	Fire rated construction.	Areas used for in-process storage of combustible materials are open to the surrounding occupancy. Location: Cutting section on the Ground floor (west part) of main production building.	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
  				

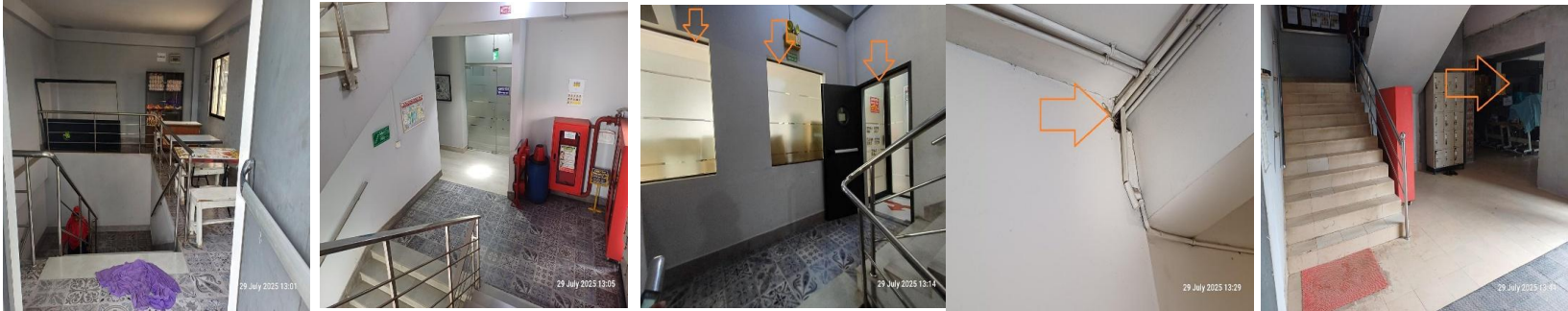
F-3	Fire Rated Construction	Storages were found underneath the cutting tables. Location: Ground floor, cutting section, Main Production Building	Storage underneath the cutting tables shall be kept clear of combustibles at all time, except as provided for miscellaneous storage in accordance with 3.4.2.1.6 or , Where an automatic sprinkler system is installed sprinklers are required to be installed beneath cutting tables greater than 4 ft in width that are used for storage of combustibles.	Within 3 months
 				
F-4	Fire Rated Construction	Sample section (occupancy- G2) was not separated from the office section (occupancy-F1). Location: 3rd floor of Main production building. Non-compliance reason: More than 10 percent of the office area, Non rated glass partition and opening	Separate the Office section from the production area by a minimum 3-hr fire rated construction with 3-hr fire rated opening protective assemblies following BNBC 2006, Tables 3.2.2. Seal/protect all penetrations to maintain the fire separation. Or, limit the sample section area below 10 percent of the office area, as an accessories occupancy of the office section	Within 3 months
 				

F-5	Fire Rated Construction	Penetrations through floor/ceiling assemblies are found unsealed. Location: Main production Building, All floors, at the west side of the building Non-compliance reason: BBT riser & PVC Plumbing pipe	Seal all penetrations and openings in floor/ceiling assemblies by a listed through-penetration fire stop system tested in accordance with ASTM E814 or approved alternative standard to maintain minimum 3-hr. fire resistance rating. Installation shall be as per manufacturer published installation guideline and the certification authority guideline to ensure the fire-rating in accordance with section 4.7 of RSC Technical Guideline (Standard) Or, Provide a minimum 2-hr fire rated shaft to separate the penetration from each floor if required.	Within 3 months
-----	-------------------------	--	--	-----------------



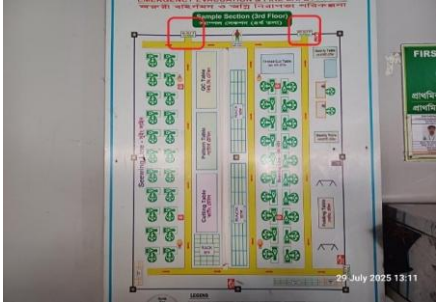
F-6	Fire Rated Construction	The required fire separation distance for Main Production Building does not comply with the requirements of BNBC 2006.	The exterior walls shall have a fire resistance and opening protection as specified in BNBC 2006, Tables 3.2.2 and Part 3 Section 2.4.1.3.	Within 6 months
  				
F-7	Fire Rated Construction	Unprotected openings in the exterior wall in two consecutive floors lying within 1.5 m and vertical spread of fire is not restricted. Location: Main Production Building, East side	Provide flame barriers as similar as sunshades or cornices or projected wall at least 750 mm from the external face of the exterior wall. The flame barrier shall have a fire resistance rating of not less than three-fourths hour. Follow BNBC 2006 Part III chapter 3 clause 3.1.7.2	Within 6 months
 				

F-8	Fire Rated Construction	The main production building is an interim RCC construction, but there is a non-rated steel shed on the 3rd floor roof top of the west part of the building used as dining and prayer area and another non-rated steel shed on the 1st floor roof top of the east part of the building used as prayer room. The main structural element of the roof top sheds is constructed by steel which is non-rated and was found in exposed condition without any fire protection. Location: Dining shed on 3rd floor roof and Prayer room on 1st floor roof of the Main production Building.	The construction type of the roof top sheds is unprotected steel construction. As per RSC Technical Guideline and BNBC 2006, The Fire rating of the structure requires to be confirmed as per BNBC 2006. 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 required fire rating. Submit the design philosophy along with the required documents to RSC for review the required construction type. Once the design philosophy is reviewed, provide fire ratings of structural members.	Within 6 months
 				

F-9	Means of Egress	The exit stair enclosures are not separated from work areas and other spaces on each floor by fire-rated construction. Location: Main production Building, all floors.	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 fire rated barrier construction 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 in accordance with section 6.3.1.2 of RSC Technical Guidelines (Standard)¹ V1.0. 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. Keep proper datasheet & certifications for installed fire doors & accessories on-site for verification. The clearance under the bottom of a door shall be a maximum of 3/4 in. (19 mm).	Within 3 months
				

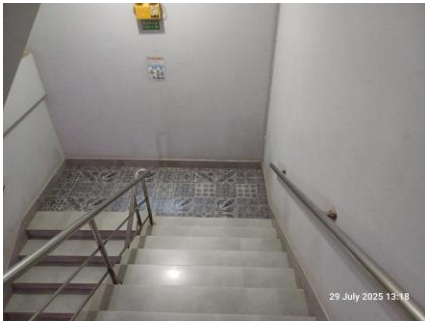
F-10	Means of egress	Storage areas discharges directly into the exit stair enclosure without inclusion of vestibule. Location: Stair-2 enclosure on 3rd floor, Stair-2 and Stair-3 enclosure on ground floor of Main production building.	Openings from exit enclosure to Storage areas/ basements/ transformer rooms/ generator rooms/ boiler rooms and similar normally unoccupied spaces shall be provided with a vestibule with fire rated construction and openings in accordance with section 6.14.3 of RSC Technical Guidelines (Standard)¹ V1.0. Provide a min 1-hr fire rated door on the exit stair side and a 1.5 hr. fire rated door on the Store, generator, sub-station room side . Ensure that the fire rating of the vestibule construction matches that of the exit stair enclosure as per RSC Technical Guidelines (Standard)¹ V1.0. section 6.14.3. The minimum width for vestibules shall not be less than 1.1m and length 1.8m.	Within 3 months
------	-----------------	---	---	-----------------

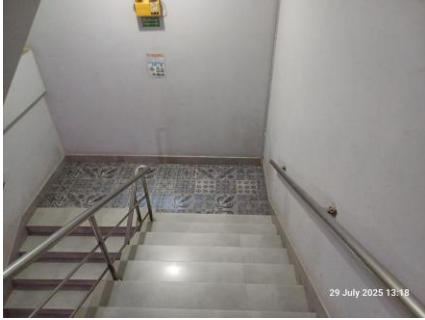


F-11	Means of egress	A single means of exit has been provided for the Prayer area located on the 1st floor roof, at the east part of the building. Location: Main production Building.	The number of means of egress from any floor, story or portion thereof shall not be less than 2 except where a single exit is permitted by RSC Technical Guideline (Standard), section 6.6.2. Provide additional exit and ensure that the exit doors or means of egress openings are located a distance apart as per RSC Technical Guideline (Standard) section of 6.6.6	Within 3 months
 				
F-12	Means of egress	The sample section located on the 3rd floor of the main production building with an occupant load more than 50, is provided with two exits. But the exits are not remotely located from each other such that a single fire event could compromise both exits. Location: 3rd floor of Main production building.	Provide additional exit or reconfigure the exit arrangement to ensure that the exit doors or means of egress openings are located a distance apart as per RSC Technical Guideline (Standard) section of 6.6.6.	Within 3 months
 				

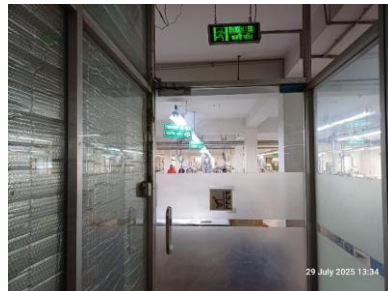
F-13	Means of egress	Width of aisles is less than 0.9m (36-in.). Location: South side of the sample section on the 3rd floor of Main production building.	Aisles shall be provided with a minimum unobstructed clear-width of 0.9 m (36 in.) in accordance with section 6.5.1 of RSC Technical Guidelines (Standard)¹ V1.0.	Within 3 months
 				
F-14	Means of egress	Egress door serving 50 or more occupants but does not swing in the direction of egress travel. Location: Dining shed on 3rd floor roof and Prayer room on 1st floor roof of the Main production Building.	Modify swing direction of egress doors to the direction of egress travel. Doors serving an occupant load of more than 50 shall swing in the direction (out-ward) of egress travel in accordance with section 6.8.1 of RSC Technical Guidelines (Standard)¹ V1.0.	Within 1 month
  				

F-15	Means of egress	Sliding type doors have provided along egress routes. Location: Office area on the 3rd floor of Main production building.	Replace all collapsible/sliding/shutter type doors & gates by the side-hinged swinging type doors in accordance with section 6.8.1 of RSC Technical Guidelines (Standard)¹ V1.0. All doors in a means of egress shall be of the side-hinged swinging type. Roll-down and sliding gates and shutters shall not be allowed. Doors serving an occupant load of more than 50 shall swing in the direction of egress travel.	Within 1 month
 				
F-16	Means of egress	Doors are swing out over stair landing. Location: Stair-2 of Main production building on 2nd and 3rd floor.	Modify the egress door, door shall not swing out over exit stair landing.	Within 3 months
  				

F-17	Means of Egress	Doors in a means of egress was found less than 1 m (39 in.). Available Door Width: 30 inches Location: Stair-2 of Main production building on 3rd floor.	Doors in a means of egress shall have a minimum width of 1 m (39 in.) for interim construction as per RSC Technical Guideline (Standard) section of 6.5.6	Within 3 months
 				
F-18	Means of Egress	Stair clear width was found less than 60 inches. Location: Stair-2 and Stair-3 of Main production building. Available Stair Width: Stair-2, 42 inches and Stair-3, 47 inches.	Stairs shall have a minimum clear width of 60 inches for all industrial occupancies as per RSC Technical Guideline (Standard) section of 6.5.6	Within 3 months
 				

F-19	Means of Egress	Height of the handrail provided for emergency stair was found less than the standard requirement. Location: Stair-2 and Stair-3 of Main production building. Available Handrail Height: 30 inches	As per RSC Technical Guidelines (Standard V.1.0), 6.12.1.1, New and interim handrails shall have a minimum height of 865 mm (34 in.) and a maximum height of 965 mm (38 in.) as measured from the leading edge of the tread.	Within 3 months
 				
F-20	Means of Egress	Electrical panel and appliances were located in the exit stair enclosure. Location: Beneth Stair-1 and Stair-2 of Main production Building.	Remove and re-locate all Electrical panel and appliances from exit stair enclosures. Or, Provide fire separation with stair enclosure in accordance with section 6.3.1 of RSC Technical Guidelines (Standard)¹ V1.0.	Within 3 months
 				

F-21	Means of Egress	Electrical cable and other utility lines passing through the exit enclosure. Location: On the ground floor of Stair-2 of Main production Building.	No other penetration into and through the exit enclosure except for fire alarm equipment electrical raceway, required exit doors, sprinkler piping, standpipes, and electrical conduit serving the exit enclosure is permitted in accordance with section 6.14.4 of RSC Technical Guidelines (Standard)¹ V1.0. So, relocate the electrical wires/raceways and other utility lines to somewhere else avoiding the exit enclosure, and seal the created unprotected openings with a minimum of 1.5 hours listed/certified fire-rated materials. Installation shall be as per manufacturer published installation guideline and the certification authority guideline to ensure the fire-rating. Or seal the penetration by 2-hr masonry construction.	Within 3 months
 				
F-22	Means of Egress	Parapet height of the occupied roofs was found to be less than 42 inches. Location: Both East & West part of Main production building.	Provide parapets or guards with a minimum height of 1067mm (42 inch.) in accordance with RSC Technical Guidelines (Standard)¹ V1.0 Section 6.12.	Within 3 months
 				

F-23	Means of Egress	Directional signs are not provided where direction of the path of travel to an exit has changed. Location: Typical for Main production Building.	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 in accordance with RSC Technical Guidelines (Standard)¹ V1.0 Section 6.11.3.	Within 1 month
 				
F-24	Means of Egress	Some lighted exit signs were two-sided, so that they indicated an exit where there were none. Location: Typical for Main production Building.	Ensure that lighted exit signs are only visible from the side that directs people toward an exit path.	Within 1 month
 				

F-25	Means of Egress	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes. Location: All floors of Main production Building.	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-26	Means of Egress	Fire evacuation maps is not posted at the entrance of all exit stair. Location: All floors of Main production Building.	Fire evacuation maps shall be posted at the entrance to each exit stair in accordance with RSC Technical Guidelines (Standard)¹ V1.0 Section 13.3.	Within 1 month
F-27	Means of Egress	Building does not have occupant load signs at required locations on all floors. Location: All floors of Main production Building.	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 in accordance with RSC Technical Guidelines (Standard)¹ V1.0 Section 6.4.4.	Within 1 month
F-28	Means of Egress	Building does not have stair/floor level designation signs at required locations on all floors. Location: All floors of Main production Building.	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 in accordance with RSC Technical Guidelines (Standard)¹ V1.0 Section 6.9.3.	Within 1 month

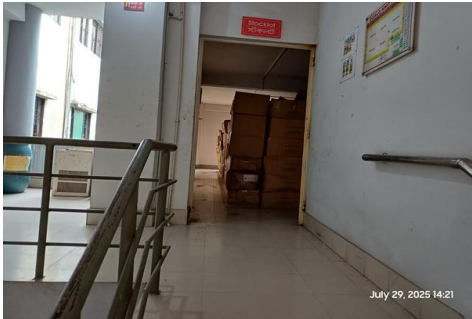
F-29	Fire Alarm & Detection System (FADS)	An addressable fire alarm and detection system found installed in the building, which requires detailed review to confirm compliance with NFPA 72 and RSC Technical Guidelines (Standard). Location: Typical for Main production Building.	Submit the proposed fire 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-30	Fire Suppression System (SUPS)- Standpipe System	The building (west part/Building-2) has an occupied floor greater than 10 meter (33 feet) and building-1 (east Part) creates single fire compartment with building-2, where the required standpipe system is not installed in accordance with the RSC Technical Guidelines (Standard)¹ V1.0. Location: Typical for Main production Building.	A standpipe system shall be installed in buildings with the highest occupiable floor 10 m (33 ft.) above grade or more to meet section 5.4.2 of RSC Technical Guideline (Standard). If the building is protected throughout by an approved automatic sprinkler system a class I system shall be permitted.) Installation of the Standpipe system shall be in accordance with RSC Technical Guidelines (Standard)¹ V1.0. section 5.4 and NFPA 14. 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 Guidelines (Standard)¹ V1.0. 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-31	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 Main production Building)	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-32	ITM Standpipe	Inspection, testing and maintenance of the standpipe system is not in accordance with NFPA 25. (For Main production Building)	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-33	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 Main production Building)	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-34	ITM Emergency Lighting	Inspection, testing and maintenance for the emergency lighting system was not in accordance with The RSC Technical Guidelines (Standard). (For Main production Building)	Inspect, test and maintain the emergency lighting system in the accordance with The RSC standard. Keep written records on-site.	Within 1 Month
F-35	ITM extinguisher	Inspection, testing and maintenance of portable fire extinguishers is not in accordance with NFPA 10. (For Main production Building)	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 and Shed-1, 2, 3, 4, 5, 6 & 7.

Sl No.	Category	Findings	Required Action	Remediation Time Frame
F-36	Fire Rated Construction	The required fire separation distance for Shed-01 does not comply with the requirements of BNBC. Location: Shed-1: Bonded warehouse	The “Ministry of Housing and Public Works” has issued a resolution based on the recommendations from House Building Research Institute (HBRI) and Public Works Department (PWD) to assess structural fire protection requirements of steel buildings (unprotected non-combustible construction type) according to BNBC 2020. The exterior walls shall have a fire resistance and opening protection as specified in BNBC 2020 Part 3 Table 3.2.2 & 3.2.3 and BNBC 2020 Part 3 Section 2.4.1.3.	Within 6 months
				

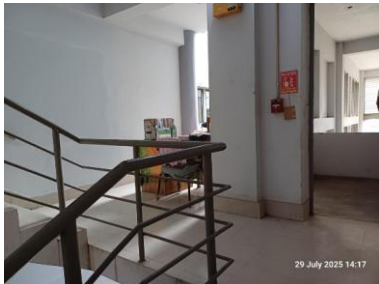
F-37	Fire Rated Construction	The required fire separation distance for Shed-02 does not comply with the requirements of BNBC. Location: Shed-2: Yarn Store	The “Ministry of Housing and Public Works” has issued a resolution based on the recommendations from House Building Research Institute (HBRI) and Public Works Department (PWD) to assess structural fire protection requirements of steel buildings (unprotected non-combustible construction type) according to BNBC 2020. The exterior walls shall have a fire resistance and opening protection as specified in BNBC 2020 Part 3 Table 3.2.2 & 3.2.3 and BNBC 2020 Part 3 Section 2.4.1.3.	Within 6 months
 				
F-38	Fire Rated Construction	Combustible construction material (timber/wood) has been used to construct the shed. Location: Shed-3: Jhut store	Remove all of the combustible construction materials and provide noncombustible construction materials for the shed.	Within 3 months
 				

F-39	Means of Egress	The exit stair enclosures are not separated from work areas and other spaces on each floor by fire-rated construction. Location: Building-3: Utility Building	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 fire rated barrier construction 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 in accordance with section 6.3.1.2 of RSC Technical Guidelines (Standard)¹ V1.0. 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. Keep proper datasheet & certifications for installed fire doors & accessories on-site for verification. The clearance under the bottom of a door shall be a maximum of 3/4 in. (19 mm).	Within 3 months
 				

F-40	Fire Rated Construction	Rooms used for storage of combustible materials (yarn store shed) are not separated from the utility building due to unprotected openings. Location: Shed-2: Yarn Store	Rooms used for storage of combustible materials shall be separated from the surrounding occupancy with a minimum 1 hour construction in accordance with section 3.4.2.1.5 of RSC Technical Guideline (Standard).	Within 3 months
 				
F-41	Means of Egress	Stair clear width was found less than 60 in. (found= 46 in.). Location: Exit Stair-1: Utility Building.	Stairs shall have a minimum clear width of 60 in. for all industrial occupancies as per RSC Technical Guideline (Standard) section of 6.5.6	Within 3 months
				

F-42	Means of Egress	Parapets or guards have been provided in occupiable roof of utility building but the height was less than 42 inches (found= 38 inches). Location: Building-3: Utility Building	Provide parapets or guards with a minimum height of 1067mm (42 inch.) in accordance with RSC Technical Guidelines (Standard)¹ V1.0 Section 6.12.	Within 3 Months
				
F-43	Means of Egress	A single means of exit has been provided for the three storied utility building. Location: Building-3: Utility Building	The number of means of egress from any floor, story or portion thereof shall not be less than 2 as per RSC Technical Guideline (Standard), section 6.6.1. Provide additional exit and ensure that the exit doors or means of egress openings are located a distance apart as per RSC Technical Guideline (Standard) section of 6.6.6	Within 3 months
 				

F-44	Means of Egress	A single means of exit has been provided for the bonded warehouse shed and yarn store shed where the travel distance found more than 100 feet. Location: Bonded warehouse shed and Yarn store shed	The number of means of egress from any floor, story or portion thereof shall not be less than 2 as per RSC Technical Guideline (Standard), section 6.6.1. Provide additional exit and ensure that the exit doors or means of egress openings are located a distance apart as per RSC Technical Guideline (Standard) section of 6.6.6	Within 3 months
 				
F-45	Means of Egress	Doors in a means of egress was found less than 1 m (39 in.). Location: Bonded warehouse shed (Found 32 in.) and yarn store shed (Found 34 in.)	Doors in a means of egress shall have a minimum width of 1 m (39 in.) as per RSC Technical Guideline (Standard) section of 6.5.6	Within 3 months
 				

F-46	Means of Egress	Headroom measured less than the 80 inches. Location: Bonded warehouse shed (Found 63 in.) and yarn store shed (Found 76 in.)	All means of egress shall have a minimum ceiling height of 2.3 m (7 ft 6 in.) with projections from the ceiling not less than 2.03 m (6 ft 8 in.). The minimum ceiling height shall be maintained for at least 2/3 of the space or room as long as the remaining area shall be not less than 2.03 m (6 ft 8 in.). Headroom on stairs shall not be less than 2.03 m (6 ft 8 in.) as per RSC Technical Guideline (Standard) section of 6.3.3.	Within 3 Months
 				
F-47	Means of Egress	Storage areas, transformer room, generator room, boiler room discharges directly into the exit stair enclosure. Location: Utility building.	Openings from exit enclosure to Storage areas/ basements/ transformer rooms/ generator rooms/ boiler rooms and similar normally unoccupied spaces shall be provided with a vestibule with fire rated construction and openings in accordance with section 6.14.3 of RSC Technical Guidelines (Standard)¹ V1.0. Provide a min 1-hr fire rated door on the exit stair side and a 1-hr fire rated door on the Store, generator, sub-station room side . Ensure that the fire rating of the vestibule construction matches that of the exit stair enclosure as per RSC Technical Guidelines (Standard)¹ V1.0. section 6.14.3. The minimum width for vestibules shall not be less than 1.1m and length 1.8m.	Within 3 Months
  				

F-48	Means of Egress	Building does not have occupant load signs at all required locations. Location: Building-3: Utility Building and All Sheds	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 in accordance with RSC Technical Guidelines (Standard)¹ V1.0 Section 6.4.4 .	Within 1 month
F-49	Means of Egress	Building does not have stair/floor level designation signs at required locations on all floors. Location: Building-3: Utility Building	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 in accordance with RSC Technical Guidelines (Standard)¹ V1.0 Section 6.9.3.	Within 1 month
F-50	Means of Egress	Updated Fire evacuation maps are not posted at the entrance of all exit stair/exits. Location: Building-3: Utility Building and All Sheds	Fire evacuation maps shall be posted at the entrance to each exit stair in accordance with RSC Technical Guidelines (Standard)¹ V1.0 Section 13.3. Evacuation map shall reflect the actual floor condition.	Within 1 month
F-51	Means of Egress	Exit signage/directional signage not illuminated during testing (burned out, broken, etc.). Location: Building-3: Utility Building and All Sheds	Regularly inspect all exit signage/directional signage as per RSC Technical Guidelines (Standard)¹ V1.0. and replace/install lights as needed to illuminate signs.	Within 1 month
F-52	Means of Egress	Directional signs are not provided where direction of the path of travel to an exit has changed. Location: Building-3: Utility Building and All Sheds	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 in accordance with RSC Technical Guidelines (Standard)¹ V1.0 Section 6.11.3.	Within 1 month

F-53	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: Utility Building and All Sheds	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. Illumination on means of egress shall meet in accordance with RSC Technical Guidelines (Standard)¹ V1.0 Section 10.12.2.	Within 1 month
F-54	Inspection, Testing & Maintenance (Fire)	Inspection, testing, and maintenance for the exit sign and emergency lighting system was not in accordance with the RSC Technical Guidelines (Standard)¹ V1.0. (For Building-3: Utility Building and All Sheds)	Inspect, test and maintain the exit sign and emergency lighting system in the accordance with the RSC Technical Guidelines (Standard)¹ V1.0. Keep written records on-site.	Within 1 month
F-55	Fire Alarm & Detection System (FADS)	An addressable fire alarm and detection system found installed in the inspected areas, which requires detailed review to confirm compliance with NFPA 72 and RSC Technical Guidelines (Standard). Location: Building-3: Utility Building and All Sheds	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-56	Inspection, Testing & Maintenance (Fire)	Inspection, testing and maintenance for the fire alarm system is not in accordance with NFPA 72. (For Building-3: Utility Building and All Sheds)	Inspect, test and maintain the fire alarm system and keep written records on-site, in accordance with NFPA 72 and RSC Technical Guidelines (Standard) ¹ V1.0.	Within 1 month (after installation completed).
F-57	Inspection, Testing & Maintenance (Fire)	Inspection, testing and maintenance of portable fire extinguishers is not in accordance with NFPA 10. (For Building-3: Utility Building and All Sheds)	Inspect, test and maintain the portable fire extinguishers and keep written records on- site, in accordance with NFPA 10 and RSC Technical Guidelines (Standard) ¹ V1.0.	Within 1 Month
F-58	Inspection, Testing & Maintenance (Fire)	Fire drills are not conducted according to section 13.2 of RSC Technical Guidelines (Standard) ¹ V1.0.	Fire drills shall be conducted according to section 13.2 of RSC Technical Guidelines (Standard) ¹ V1.0. Fire drills shall be conducted on a monthly basis as outlined in BNBC 2020 Part 4 Appendix A.	Within 1 Month