

INITIAL FIRE SAFETY INSPECTION REPORT

Crown Wears (Pvt.) Ltd. (Extension)

RSC ID: 26009

GPS Coordinates: 24.300637208774184, 90.3846440865066

Village: Jamirda, Seedstore, Habirbari, Bhaluka, Mymensingh

Other Factories: Crown Wears (Pvt.) Ltd. (ID: 10105)



Inspected By: Md. Ferdaus Jaman & Md. Kawsar Rubaiat

Date: 04-Mar-2025

Fire Safety Inspection Report

Crown Wears (Pvt.) Ltd. (Extension)

Introduction:

Crown Wears (Pvt.) Ltd. (Extension) complex was surveyed for fire safety on **04-Mar-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

There are total 11 structures covered under this RSC ID 26009. The buildings are as below:

SL No	Building Name	Building Construction Period	Approval Date & Authority	Occupied	Structure type	Construction Category
1	Building-5: G+M+5 Storied Steel Structure Total Area: 474,943 Sq. ft	1st Phase: Jan 2015- Jan 2018 [up to G+3] 2nd phase: Jul 2024- 4th & 5th floor under construction (partially occupied).	30-Jul-2018 Mymensingh PWD Division	May-2017	Steel	Interim
2	Building-6: G+1 Storied RCC Structure [Proposed G+5] Total Area: 7,620 Sq. ft (Occupied)	Dec 2023- Under Construction	30-Jul-2018 Mymensingh PWD Division	Nov-2024	RCC	New
3	Warehouse Shed -1: Single Storied Steel Structure Total Area: 6,007 Sq. ft	Jan 2015- Dec 2015	30-Jul-2018 Mymensingh PWD Division	Jan-2016	Steel	Interim
4	Warehouse Shed-2: Single Storied Steel Structure Total Area: 3,208 Sq. ft	Feb 2021 - Mar 2021	30-Jul-2018 Mymensingh PWD Division	May-2021	Steel	Interim

5	ETP Sludge Store: Single Storied RCC Structure Total Area: 506 Sq. ft	Feb 2020 - May 2020	30-Jul-2018 Mymensingh PWD Division	Jun-2020	RCC	Interim
6	Generator Shed-2: Single Storied Steel Structure Total Area: 3,564 Sq. ft	Feb 2017- Jun 2017	30-Jul-2018 Mymensingh PWD Division	Jul-2017	Steel	Interim
7	Fire Pump Room -2: B+G Storied RCC Structure Total Area: 1, 112 Sq. ft	May 2017- Oct 2017	30-Jul-2018 Mymensingh PWD Division	Nov-2017	RCC	Interim
8	Dining Shed: Single Storied Steel Masonry Structure Total Area: 1,227 Sq. ft	Mar 2017- Apr 2017	30-Jul-2018 Mymensingh PWD Division	May-2017	Steel	Interim
9	Boiler & Compressor Shed-2: Single Storied Steel Structure Total Area: 5,974 Sq. ft	Jul 2017- Oct 2017	30-Jul-2018 Mymensingh PWD Division	Nov-2017	Steel	Interim
10	Left Over Godown: Single Storied Steel Masonry Structure Total Area: 4,803 Sq. ft	Jan 2015- Mar 2015	30-Jul-2018 Mymensingh PWD Division	Apr-2015	Steel	Interim

11	Sub-Station Building-2: G+1 Storied RCC Structure Total Area: 1,201 Sq. ft	Feb 2016- Nov 2017	30-Jul-2018 Mymensingh PWD Division	Dec-2017	RCC	Interim
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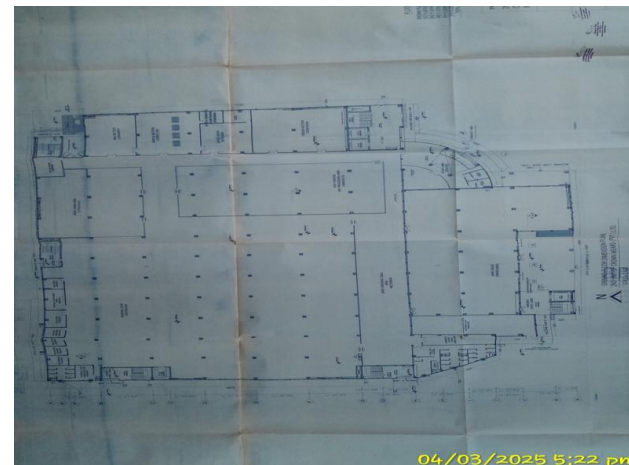
Factory Address: Jamirda, Seedstore, Habirbari, Bhaluka, Mymensingh.

General Building Information: Building-5: (G+M+5)-Storied Steel Structure

Number of Stories Below / Above Grade	0/5 (G+M+5) -4th & 5th floors are partially occupied
Highest Occupied Floor Level / Height	5th / 71 feet (Proposed Building height-83 feet)
High Rise (RSC Technical Guideline (Standard) 3.2.1)	Yes
Occupiable Roof (RSC Technical Guideline (Standard)- 3.2.2)	Yes
Occupiable Roof Provided with Adequate Parapets / Guards (RSC	Yes
Occupancy Classifications	Industrial [G2], Business [F], Storage [H2], Assembly [E3]
Floor Plans Available	Yes



Master Layout



Floor Plan

Date Of Construction	1st Phase: Jan 2015- Jan 2018 [up to G+4] 2nd phase: Jul 2024- 4th (Partial) & 5th (partial) floor under construction
Major Renovations / Additions	No
Comments	Interim Building
Other Tenants In Building	No
Floors Occupied By Factory	All

Occupant load by floor

Floor	Use	Occupant Load	Comments
Ground Floor	Washing Section, Fabric Ware house,	340	
Mezzanine (1 & 2)	Office Area	10	
1st Floor	Sewing, Finishing, CT PAT, Office	790	
2nd Floor	Sewing, Finishing, CT PAT, Office	895	
3rd Floor	Cutting, Storage, Dining, Sample, Office	168	
4th Floor	Idle Machine Store (Proposed Finished Goods)	0	
5th Floor	Idle Machine Store (Proposed Dining)	0	

Construction Features:

Non-Combustible Construction	Yes
Fire-Resistive Construction	No

Building Exposures: (Building-5)

North	24 feet away boundary wall
South	15 feet internal road, boiler & compressor shed
East	18 feet 6 inches away boundary wall, 15 feet away Warehouse Shed-1 from the boundary wall
West	16 feet away boundary wall

Building Exposures: (Building-6)

North	Approx 20 feet away Generator shed-2
South	Approx 10 feet away boundary wall
East	Approx 10 feet away dormitory
West	Approx 7 feet away boundary wall.

Building Exposures: (Warehouse shed-1)

North	15 feet away boundary wall & 18 feet 6 inches away building-5 from the boundary wall
South	15 feet internal road, building-3
East	Adjacent production building-1 with shared wall
West	15 feet away boundary wall & 18 feet 6 inches away building-5 from the boundary wall

Building Exposures: (Warehouse shed-2)

North	39 feet away production building-1
South	53 feet away boundary wall
East	10 feet 6 inches away substation building
West	Adjacent production building-2

Building Exposures: (Wastage shed-Left Over Godown)

North	Open area & adjacent dining shed
South	Boundary wall & adjacent open workshop area (outside boundary)
East	Adjacent finished goods store (inaccessible, outside factory premise)
West	10 feet away Chemical drum shed

Vertical Openings: (Building-5)

Stairs Enclosed in Fire-Rated Construction?	No
Unsealed Penetrations in Stairs	Yes
Unprotected Openings From Stairs	Yes
Shafts Enclosed in Fire-Rated Construction	No
Floors with Openings/Penetrations	Yes
Other Vertical Openings	Yes

Vertical Openings: (Building-6)

Stairs Enclosed in Fire-Rated Construction?	No
Unsealed Penetrations in Stairs	Yes
Unprotected Openings From Stairs	Yes
Shafts Enclosed in Fire-Rated Construction	No
Floors with Openings/Penetrations	Yes
Other Vertical Openings	No

Egress Features: (Building-5)

There are Six (06) nos. of exit stairs proposed to be serving the building with sufficient exit capacity based on occupant load from the top floor to the ground floor. 5th-floor exit stair is not yet accessible and 5th floor discharges through the nearest 4th-floor accessible stair. 4th floor Stair-1 (South-East) was blocked due to construction works during the inspection & only accessible stair from the 4th & 5th floors was Stair-3 (North) which doesn't meet the allowable common path of travel distance limit from the 4th & 5th floors. Only stair-1 (South-East) & Stair-3 (North) are accessible from 3rd floor. 5 Stairs (Except Stair-4 [North-West]) are accessible from the 1st & 2nd floors. Stair-6 (South-West), exit discharge path is blocked from the ground floor. All the stairs are remotely located. Handrails have not been yet installed on both sides of exit staircases. Emergency evacuation plans are not properly updated on all floors. Stair designation signs and occupant load signs are not positioned at the required locations on all floors in each exit stair. No smoking signs are posted as required. Monthly fire drills are conducted and recorded.

Floor	Occupant load	Nos of. Exit	Exit Capacity without Sprinkler System/ with Sprinkler System)
Ground Floor	340	7	2800/2800
Mezzanine (1 & 2)	10		
1st Floor	790	5 (proposed 6) [Stair-1 (S-E): 67"- (Landing); Stair-2 (N-E): 68"; Stair-3 (N): 54"; Stair-4 (N-W): 55"; Stair-5 (M-W): 55"; Stair-6 (S-W): 56"]	Current: 952/1524; Proposed: 1128/1806
2nd Floor	895	5 (proposed 6)	Current: 952/1524; Proposed: 1128/1806
3rd Floor	168	2 (proposed 6)	Current: 384/500; Proposed: 1128/1807

4th Floor	0	1 (proposed 6)	Current: 50 Proposed: 1128/1808
5th Floor	0	1 (proposed 6)	Current: 50 Proposed: 1128/1809

Egress Features: (Building-6)

There are two (02) nos. of exit stairs serving the building with sufficient exit capacity based on occupant load from the top floor to the ground floor (**Proposed 6-storied building**). Building is occupied up to the 1st floor and is currently under construction. Handrails have not been yet installed on both sides of exit staircases. North-West exit stair width is not as per standard (39 inches) and discharges internally through the ground floor. Emergency evacuation plans are not properly updated & posted on all floors. Stair designation signs and occupant load signs are not positioned at the required locations on all floors in each exit stair. No smoking signs are posted as required.

Floor	Occupant load	Nos of. Exit	Exit Capacity
Ground Floor	5	1	50
1st Floor	8	2 [Stair-1 (S-E): 73"; Stair-2 (N-W): 39"]	355

General: (Building-5)

Number of Exits Per Floor is Compliant (RSC Technical Guideline (Standard)- 6.6)	No	
Capacity of Exits Per Floor Is Compliant (RSC Technical Guideline (Standard)-6.5.3)	Yes	

Exits Remotely Located (RSC Technical Guideline (Standard)- 6.6.6)	Yes	
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General: (Building-6)

Number of Exits Per Floor is Compliant (RSC Technical Guideline	Yes	
Capacity of Exits Per Floor Is Compliant (RSC Technical Guideline	Yes	
Exits Remotely Located (RSC Technical Guideline (Standard)- 6.6.6)	Yes	

Exit Doors: (Building-5)

Egress Doors are Side Hinged (RSC Technical Guideline (Standard) 6.8.1)	Yes	
Egress Doors Swing Correctly (RSC Technical Guideline (Standard)- 6.8.1)	Yes	
Egress Doors Without Locking Hardware in Direction of Travel (RSC Technical Guideline (Standard)-6.8.2)	No	

Exit Doors: (Building-6)

Egress Doors are Side Hinged (RSC Technical Guideline (Standard) 6.8.1)	No	
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Egress Doors Swing Correctly (RSC Technical Guideline (Standard)- 6.8.1)	Yes	
Egress Doors Without Locking Hardware in Direction of Travel (RSC Technical Guideline (Standard)-6.8.2)	No	

Exit Stairs: (Building-5)

All Exit Stairs Discharge Directly to the Exterior (RSC Technical Guideline (Standard)- 6.17)	Yes	
Handrails Provided on Both Sides (RSC Technical Guideline (Standard)- 6.9.2.4)	No	
Exit Stairs Free of Storage and Obstructions (RSC Technical Guideline (Standard)- 6.3.8, 6.3.9)	Yes	
Electrical Panels Located Outside of Exit Stairs	Yes	
Exit Stairs Serving More than 5 Stories Provided with Re-Entry (RSC Technical Guideline (Standard) 6.8.3)	No	

Exit Stairs: (Building-6)

All Exit Stairs Discharge Directly to the Exterior (RSC Technical Guideline (Standard)- 6.17)	No	
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Handrails Provided on Both Sides (RSC Technical Guideline (Standard)-	Yes	
Exit Stairs Free of Storage and Obstructions (RSC Technical Guideline	No	
Electrical Panels Located Outside of Exit Stairs	Yes	
Exit Stairs Serving More than 5 Stories Provided with Re-Entry (RSC Technical Guideline (Standard) 6.8.3)	N/A, until G+5 construction is complete	

Exit Access & Arrangement: (Building-5)

Means of Egress Free of Storage & Obstructions (RSC Technical Guideline (Standard) 6.3.8, 6.3.9)	No	Stair-1
Means of Egress of Adequate Width (RSC Technical Guideline (Standard) 6.5)	No	Stair-3, 4, 5, 6
Travel Distances, CPT, DE's Within Limits (RSC Technical Guideline (Standard) 6.13)	No	1st, 2nd, 4th & 5th floors
Exit Access Corridors Provided with Proper Fire Protection / Separation (RSC Technical Guideline (Standard) 6.3.1.1)	N/A	
Daycare Within Limits (RSC Technical Guideline (Standard) 3.4.2.1.1)	N/A	Daycare not found in this building

Egress Court Provided With Adequate Fire Rated Separation (RSC Technical Guideline (Standard) 6.17.2)	Yes	
Utility / Storage Rooms Adequately Separated from Exit Enclosures (RSC Technical Guideline (Standard) 6.14.3)	Yes	

Exit Access & Arrangement: (Building-6)

Means of Egress Free of Storage & Obstructions (RSC Technical	No	Stair-1 (S-E)
Means of Egress of Adequate Width (RSC Technical Guideline	No	Stair-2 (N-W)
Travel Distances, CPT, DE's Within Limits (RSC Technical Guideline (Standard) 6.13)	Yes	
Exit Access Corridors Provided with Proper Fire Protection / Separation (RSC Technical Guideline (Standard) 6.3.1.1)	N/A	
Daycare Within Limits (RSC Technical Guideline (Standard) 3.4.2.1.1)	N/A	Daycare not found in this building
Egress Court Provided With Adequate Fire Rated Separation (RSC Technical Guideline (Standard) 6.17.2)	Yes	

Utility / Storage Rooms Adequately Separated from Exit Enclosures (RSC Technical Guideline (Standard) 6.14.3)	No	Vestibule required
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Emergency Planning : (Building-5 & 6)

Emergency Evacuation Plans Provided (RSC Technical Guideline (Standard) 13.3)	Yes	Not Updated
Fire Drills Conducted & Records Maintained (RSC Technical Guideline (Standard) 13.2)	Yes	
Smoking Prohibited (RSC Technical Guideline (Standard) 13.5)	Yes	



Note: Sprinkler has been considered on some life safety calculations & requirements. If the Sprinkler system isn't applied for verification, generalized requirement will be applicable.

Fire Protection Features:

Fire Alarm and Detection System

Current System Overview: The factory has installed an addressable fire alarm control panel (**Brand: Context Plus; Model: Z043040NS/X/CON**) on the ground floor of Building-5. The system supports various components, including smoke detectors, heat detectors, multi-criteria detectors, manual pull stations, and horn and strobe units.

Additionally, during the inspection, Warehouse Shed-1 (Fabric Warehouse) & Warehouse Shed-2 (Finished Goods Shed-1) are under the same Fire Alarm & Detection System (**Panel: GST, 8 Loop Panel**), which has been previously reviewed by the RSC as per relevant codes & standards under RSC ID: 10105. T&C VI was conducted on (24 OCT-2025 & 12-Nov-2025), and the system was not approved. Therefore, no further design review is required. However, a full Testing & Commissioning process is required for the Warehouse shed-1.

Building-5, 6, ETP Sludge Store, Generator Shed-2, Fire Pump Room -2, Dining Shed, Boiler & Compressor Shed-2, Left Over Godown, Sub-Station Building-2:

Type of System	Addressable	
Fire Panel Location	Fire Alarm Control Panel Room, Ground floor, Building-5	
Type of Detector	Smoke, Heat and Multi-Detector	
Detection Per NFPA 72	Will be verified during functional test	
Visible Notification Per NFPA 72	Will be verified during functional test	
Audible Notification Per NFPA 72	Will be verified during functional test	
Functional Test Conducted	No	

ITM per NFPA 72		Will be verified during functional test
 		

Standpipe System

Current System Overview: Based on the height of the highest occupied floor level is more than 10 meters (21.64 meters). So, a standpipe system is required for Building-5: (G+M5)-Storied Steel Structure. Class I Standpipe system & sprinkler system are under installation. The factory has installed an automatic fire sprinkler system throughout the building in lieu of the detection system. So, an automatic fire sprinkler system is mandatory for this building. Standpipe system under installation in the Building- requires detailed review to confirm compliance with NFPA 14, 20, 22, & 24 or as per RSC Technical guidelines (Standard). Additionally, Warehouse shed-1 shares the same fire compartment with Production Building-1 (Occupied Height: 60 feet 6 inches), which has been previously reviewed by the RSC as per relevant codes & standards under RSC ID: 10105. T&C VI was conducted on **(24 OCT-2025 & 12-Nov-2025)**, and the system was approved. Therefore, no further design review or full Testing & Commissioning process is required for the Warehouse shed-1. Currently, standpipe system is not required in Building-6 as the occupied height is less than 10 meters.

Building-5:

Standpipe System Required	Yes

Type of System Installed	Class-I	
Hose Connection Locations	Inside the stair enclosure	
ITM Per NFPA 25	To be verified during functional test	
Comments	No	
		

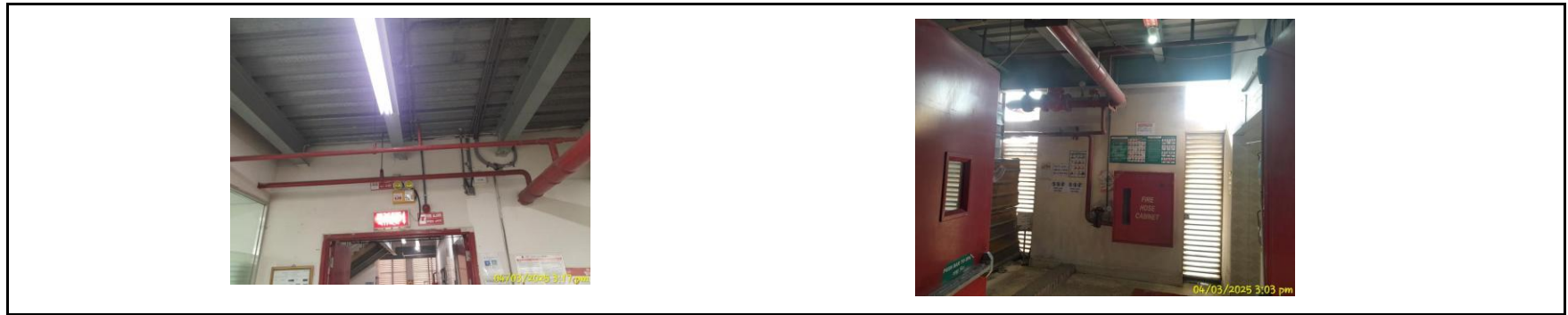
Sprinkler System

Current System Overview: Currently, the maximum height of the occupiable floor of Building:5, (G+M+5)-Storied Steel Structure, (71 feet) from the road level is less than 75 ft. However, an automatic fire sprinkler system has been found under installation throughout the building in lieu of the detection system. So, an automatic fire sprinkler system is mandatory for this building. Sprinkler system under installation requires detailed review to confirm compliance with NFPA 13, 14, 20, 22, & 24 or as per RSC Technical guidelines (Standard).

Building-5:

Sprinkler Protection Required	No (at present condition)	
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Type of System Installed	Water Based Automatic fire sprinkler system	
Location/Coverage	Will be verified during functional test	
ITM Per NFPA 25	Will be verified during functional test	
Comments	None	



Fire Water Supply

Current System Overview: The factory has a diesel engine-driven (**Pump: Mas Daf, Engine: Clarke**) fire pump installed in the Fire Pump Room-2. During the inspection, it was reported that an underground fire water tank of approximately 3,60,000 US gallons (Shared with the Washing Plant) was located under Building-5. Additionally, Warehouse shed-1 shares the same fire compartment with Production Building-1 (Occupied Height: 60 feet 6 inches), which has been previously reviewed by the RSC as per relevant codes & standards under RSC ID: 10105. A Final verification was conducted on (**24 OCT-2024 & 12-Nov-2024**) after T&CVI (21 March-2024 & 16 May-2024), and it was found that another Final Verification Inspection is required. Therefore, no further design review or full Testing & Commissioning process is required for the Warehouse shed-1.

Building-5:

Source, Location, & Capacity	Underground water reservoir, underground fire pump room at the basement floor of Fire Pump Room-2 & 3,60,000 US gallons (Shared with Washing Plant)	
Fire Pump Provided	Yes	
Fire Department Inlet & Outlet Connections Provided (RSC Technical Guideline (Standard). 5.5.4)	Yes	
Fire Pump Adequate (RSC Technical Guideline (Standard). 5.5.1)	To be verified during functional test	
Fire Pump Room Provided With Adequate Fire Rated Separation (NFPA 20)	Yes	
Fire Pump ITM Per NFPA 25	To be verified during functional test	
		

Portable Fire Extinguishers

Current System Overview: Portable fire extinguishers, consisting of a mix of CO2 and dry chemical were provided on occupied in operation area of the building. Inspection tags show recent and up-to-date inspections. Records of regular testing or maintenance of the portable fire extinguishers were not provided as per NFPA10.

Types Provided	Dry power, CO2
Adequate Number/Spacing	Yes
ITM Per NFPA 10	No



Manual Fire Fighting Equipment

Current System Overview: Firefighting equipment staged inside all the staircases on all floors. Types of manual firefighting equipment provided included: Lock Cutter, Fire Roof, Fire Bitter, Fire Hook, Fire Axe, Stretcher, Fire Blanket, Fire Gloves, Escape hoods, Gas mask and personal protection equipment.

Types Provided	Lock Cutter, Fire Bitter, Fire Hook, Fire Axe, Stretcher, Fire Blanket, Fire Gloves, Escape hoods, Gas mask and personal protection equipment.
Location of Equipment	Inside all the staircases on all floors



Other Features

Emergency Lighting & Exit Signs

Overview: Emergency lighting was found inadequate inside the floor area on several floor areas such as 1st, 2nd & 3rd floors, etc. Directional exit signs were provided on all floors, but they seem inadequate on the ground, 1st, 2nd & 3rd floors. Illuminated exit sign is found missing on the 3rd floor. Record of regular testing and maintenance of the emergency lighting system was not provided.

Exits and Exit Access Properly Marked with Exit Signage	No	
Emergency Power	Not adequate	
Adequate Emergency Lighting for Exits & Exit Access	No	
Adequate Inspection / Testing (RSC Technical Guideline (Standard). 10.12)	No	



Elevator

Overview: There are three (03) [02- South-East Stair-1; 01- South-West Stair-6] nos elevators directly open into the inside of the exit stair enclosure on all floors of Building-5. Lift provision was also found in Building-6, opening inside the stair enclosure (West) on the 1st floor & inside the floor area on the ground floor.

Elevator Opens Into Exit Enclosure	Yes	
Elevator Shaft/Doors Fire-Rated	Not verified	
Automatic Recall	To be verified during functional test	

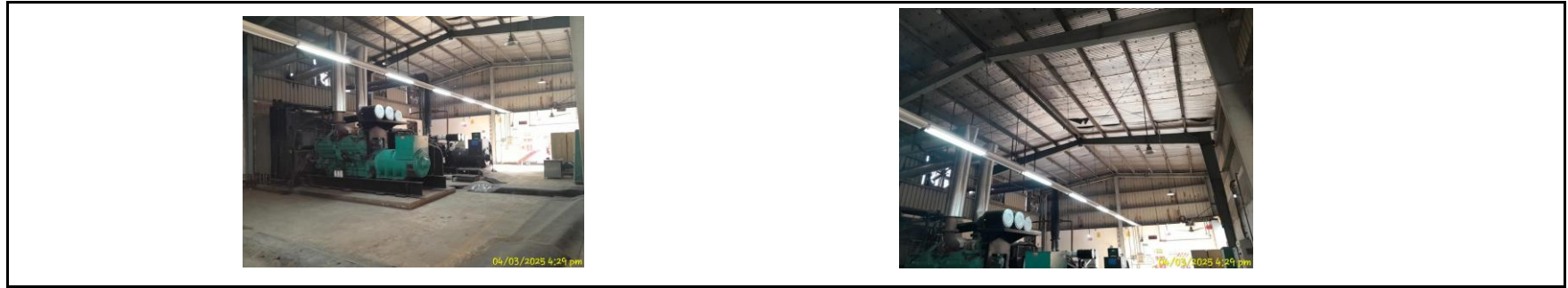
 	 
Building-5	Building-6

Generator

Overview: There are two (02) generators (01-2000 KVA;01-1250 KVA-Diesel) located in the generator shed-2

Location(s)	Generator Shed-2	
Fire Rated Separation	Yes	

Generator Area Free of Additional Fuels	Yes	



Boiler & Furnace Equipment

Overview: There are two (02) nos. (5 tons & 2 tons- Gas & Dual Fuel) Boilers serve the buildings which are located in the Boiler & Compressor Shed-2.

Location(s)	Boiler & Compressor Shed-2	
Fire Rated Separation (RSC Technical Guideline (Standard) 3.4.2.1.2)	Yes	



Compressor

Overview: There are three nos. (160 KW, 110 KW, 75 KW) Screw-type compressors that serve the buildings and located in the Boiler & Compressor Shed-2.

Location(s)	Boiler & Compressor Shed-2	
Fire Rated Separation (RSC Technical Guideline (Standard) 3.4.2.1.2)	Yes	
		

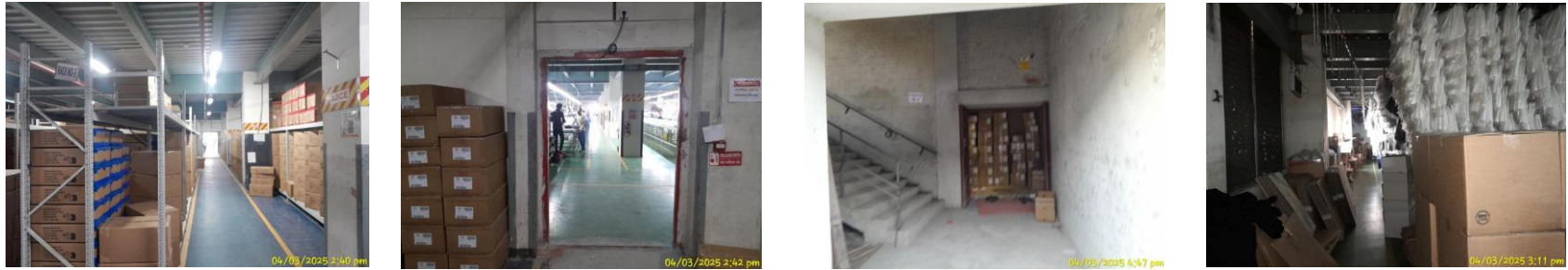
Transformer

Overview: There are two (02) nos. (11/440 V, 2500 KVA) transformers that serve the buildings and located in the Sub-Station Building-2.

Location(s)	Sub-Station Building-2	
Fire Rated Separation ((RSC Technical Guideline (Standard) 3.4.2.1.4)	No	
 04/03/2025 4:27 pm  04/03/2025 4:26 pm		

Storage Areas:

Overview: Dedicated storage occupancies/ storage rooms were found on several floors such as Ground, 2nd, and 3rd in Building-5 & both floors in Building-6. Building-6 storage areas open directly into both stair enclosures. In-process storage exceeded the allowable limit in Building-5 & storage areas were not properly separated from the surrounding occupancies.

Fire Rated Separation (RSC Technical Guideline (Standard) 3.4.2.1.5)	No	
Open to Factory Floors?	Yes	
Open to Exit Discharge?	Yes	Vestibule required (Bld-6)
		

Additional Information:



Building-6



Left Over Godown



Warehouse Shed-1



Warehouse Shed-2

Findings & Recommendations :

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

Table-1: Building-5				
SI No.	Category	Findings	Required Action	Remediation Time Frame
F-01	Means of Egress	Exit stairs are not separated from work areas & other spaces on each floor by fire-rated construction due to unprotected openings, penetrations, non-rated structures & fire doors forcefully open with external objects. Location(s): All floors, Building-5.	Separate the exit stairs from work areas and other building spaces on all floor levels by minimum 2- hr. fire-rated construction. Provide a minimum 1.5- hr. fire-rated doors and seal all unprotected openings and penetrations to maintain the fire separation. Ensure that all fire doors are self-closing and positive latching, and are provided with fire exit (panic) hardware where serving production floors or assembly occupancies. If fire doors are required to be held open for functional reasons, provide automatic closing devices tied to the fire alarm system. Once fire doors are installed, every door in a stair enclosure serving more than 5 stories shall be provided with re-entry unless it meets RSC Technical Guidelines (standard) 6.8.3.1.	Within 3 months



F-02	Means of Egress	Exit enclosure-5 (Mid-West) & 6 (South-West) were not separated from penetrations due to duct pipe, washing steam line, etc. IPS/UPS, Circuit breakers were located in the exit enclosure-6. Location(s): Building-5.	Penetrations into and through an exit enclosure shall be prohibited with the exception of required exit doors, sprinkler piping, standpipes, electrical raceway for fire alarm equipment, and electrical conduit serving the exit enclosure as per RSC Technical Guidelines (Standard) 6.14.4. Remove/relocate any electrical raceway, MDB, etc. from the exit enclosures.	Within 3 months
				

F-03	Fire Rated Construction	Rooms used for storage of combustible materials are not separated from the surrounding occupancies due to non-rated openings, penetrations, non-functional fire-rate doors, etc. Location(s): Ground, 2nd, and 3rd floors, Building-5.	Rooms used for storage of combustible materials shall be separated from the surrounding occupancy with a minimum 1 hour construction.	Within 3 months
				

F-04	Fire Rated Construction	Elevator shafts are directly open into the inside of the exit stair enclosure on all floors on stair-1 (South-East) & 6 (South-West). Location(s): Building-5.	Ensure a minimum 1.5-hr fire rating for the doors of elevator shafts; otherwise, close the shaft area with 2-hr fire-rated construction barrier and a 1.5-hr fire-rated opening protective as per RSC Technical Guidelines Standard 6.14.3. Factory is recommended to follow the RSC published "SUPPLEMENTARY PAPER ON REMEDIATION GUIDANCE ELEVATOR OR LIFT SHAFT OPENING IN EXIT ENCLOSURES" for different solutions.	Within 3 months
				

F-05	Fire Rated Construction	Unsealed penetrations and openings are located in the fire-rated floor/ceiling assemblies due to steam lines, plumbing pipes in toilet area (GF) etc. Electrical cable riser /bus bar riser shafts are separated by fire-rated doors. Documents & fire doors installation are required to be verified. Location(s): All floors, Building-5.	Seal all penetrations and openings in floor/ceiling assemblies by third-party certified fire rated materials to maintain minimum 3-hr fire resistance rating. Or, Provide a minimum 2-hr fire-rated shaft to separate the utility risers from each floor if required.	Within 3 months
				

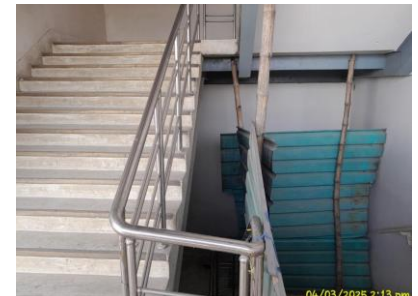
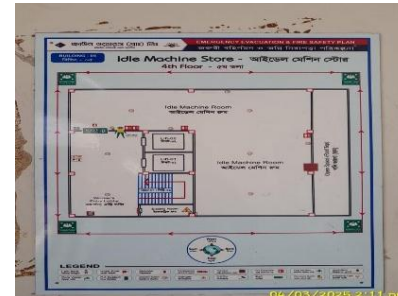
F-06	Fire Rated Construction	Unprotected openings of the exterior wall on two consecutive floors are observed to be more than the allowable limit on all floors as per the requirements of article 3.1.7 (part-3) of BNBC 2006. Location(s): 1st, 2nd & 3rd floors, Building-5.	Permitted unprotected openings in the exterior wall in two consecutive floors lying within 1.5 m laterally or vertically shall be separated with 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.	Within 6 months
				

F-07	Fire Rated Construction	Areas used for in-process storage of combustible materials are open to the surrounding occupancy. Location(s): 1st, 2nd & 3rd floors, Building-5.	Provide defined storage areas and limit the storage arrangement as follows: - 1. General Condition: Maximum height of 2.4m and maximum area of 23m². Separate areas of unenclosed combustible storage by a minimum clear distance of 3m. - or, 2. If sprinkler protected: maximum height of 3.66m and maximum area of 93m². Separate areas of unenclosed combustible storage by a minimum clear distance of 3m. - or 3. Enclose the storage area from the surrounding occupancy with a minimum 1-hour construction.	Within 3 months
				

F-08	Fire Rated Construction	The dining and prayer room has a seating capacity of approx 700 (E3 occupancy) and is located along with the production floor (G2 Occupancy) and storage areas (H2 Occupancy). Assembly occupancy E3 is not permitted with the G2 Occupancy as per table 3.2.1 of BNBC-2006. Moreover, at least three required direct exits were not provided from the assembly occupancy (dining and prayer facility). Location(s): 3rd floor, Building-5.	The dining and prayer area shall be fire separated from storage occupancy by minimum 3 hr. rated construction with minimum 3-hr opening protection. Seal and/or protect all openings to maintain the required fire separations. Either remove the assembly area from the mentioned floor to a safe location or reduce the dining and prayer room capacity to less than 300 (E4) and shall be separated from G2 Occupancy by minimum 3 hr. rated construction with minimum 3-hr opening protection. Seal and/or protect all openings to maintain the required fire separations. Provide three means of exits leading directly to the street or leading to a corridor or open space having access to exits in independent and different directions for Capacity E3 (700 persons). Or, reduce the dining and prayer room capacity to less than 300 (E4) and 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 directions. BNBC 2006, Part 4, 3.21.3	Within 3 months
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F-09	Means of Egress	A single exit has been provided from the Idle machine store, which exceeds the allowable travel distance limit, as only stair 3 (North-East) is accessible out of the six available stairs from the mentioned areas. Location(s): 4th & 5th floor, Building-5.	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 Guidelines (Standard) 6.6.2.	Within 3 months
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F-10	Means of Egress	Doors along the means of egress are provided with a non-compliant locking system. Location(s): 4th & 5th floor, Building-5.	Remove locking features from all egress doors and gates. If locks are required for security reasons, utilize special door locking features complying with NFPA 101 and RSC Technical Guidelines (Standard) 6.8.2.	Immediate
 				

F-11	Means of Egress	Storage was located in the exit stair & egress paths. Location(s): Ground- Stair-6 (South-West), 4th & 5th floor-Stair-1 (South-East), 3rd floor-Dining area; Building-5.	Remove all storage from exit stairs and egress paths.	Immediate
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F-12	Means of Egress	The building did not have stair designation signs at all required locations. Location(s): Building-5.	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-13	Means of Egress	The building did not have occupant load signs at all required locations. Location(s): Building-5.	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-14	Means of Egress	Updated evacuation map was found missing at the required locations on all floors. Location(s): Building-5.	Provide updated evacuation plans at required locations. Fire evacuation maps shall be posted at the entrance to each exit stair.	Within 1 month

F-15	Means of Egress	Guardrails or handrails are not provided on both sides for the exit ramp on the ground floor, south side, as per RSC Technical Guidelines (Standard) 6.12. Gaps between the parapet guards are not as per RSC Technical Guidelines (Standard) 6.12.2 on the rooftop. Location(s): Building-5.	Exit Ramps shall be provided with handrails on both sides of the ramp. 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. Guards shall be provided at all open sides of means of egress that exceed 760 mm (30 in.) above the floor or finished ground below. New and interim guards shall have a minimum height of 1067 mm (42 in.). Open guards shall have intermediate rails or patterns such that a sphere 200 mm (8 in.) in diameter cannot pass through any opening up to a height of 865 mm (34 in.)	Within 1 month
				

F-16	Means of Egress	The directional signs are not provided where there is a change in direction and where the continuation of the egress path is not obvious. Location(s): GF, 1st, 2nd & 3rd floors, Building-5.	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-17	Means of Egress	Exit signs are missing & several are not illuminated. Location(s): 3rd floor (Finishing section), 4th floor (Idle machine area), etc. Building-5.	Illuminated 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. Illuminated exit signs shall be provided with either battery backup or uninterruptable power supply systems and shall be continuously illuminated.	Within 1 month
 				

F-18	Means of Egress	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes. Location(s): 1st, 2nd & 3rd floors, Building-5.	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 a minimum of 2.5 lux along exit access aisles.	Within 1 month
 04/03/2025 2:48 pm  04/03/2025 3:11 pm  04/03/2025 2:49 pm				

F-19	Means of Egress	Aisles have not been marked properly, and the aisles' width is less than 36 inches. Location(s): GF (fabric store), 1st floor (packing section), 2nd floor (packing section), 3rd floor (finished goods store), 4th floor (idle machine area), Building-5.	Aisles mark shall be provided at required places with a minimum unobstructed clear-width of 0.9 m (36 in.).	Within 1 month
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F-20	Means of Egress	The common path of egress travel exceeds 30 meters (100 ft). Location(s): 1st floor (packing section), 2nd floor (packing section & CT-PAT area), Building-5.	The common path of egress travel shall not exceed 23 m (75 ft). Where the building is provided with a complete automatic sprinkler system, the common path of egress travel shall not exceed 30 m (100 ft). The common path of egress travel for Group H (storage) occupancies with not more than 30 occupants shall not exceed 30 m (100 ft). The common path of egress travel for Group J (high hazard) occupancies shall not exceed 8 m (25 ft) as per RSC Technical Guidelines (Standard): 6.13.2	Within 1 month
 				

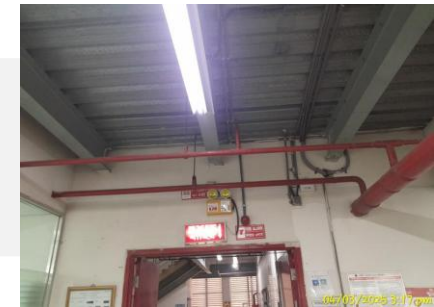
F-21	Mean of Egress	Uneven path of travel and blockage in exit discharge path due to construction purposes. Location(s): West exit discharge path, Building-5.	Remove unnecessary items and level exit path to the public way. Means of egress shall be maintained continuously free and clear of all obstructions	Within 3 months
 				

F-22	Mean of Egress	Stair width was found to be less than 1.5m (60 inches). Location: Stair-3 (North) - 54 inches, Stair-4 (North-West) - 55 inches, Stair-5 (Mid-West) - 55 inches, Stair-6 (South-West) - 56 inches. Building-5.	Stairs shall have a minimum clear width of 1.5 m (60 in.) for all industrial occupancies	Within 3 months
  				

F-23	Mean of Egress	Handrails are not provided on both sides of the exit stairs- 3 (North) & 4 (North-West) on all floors. Location(s): Building-5.	Provide handrails on both sides of the exit stair. New 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. Intermediate handrails shall be provided when the stair width exceeds 2.2 m (87 in).	Within 2 months
 				
F-24	Mean of Egress	Exit stairs serve more than 5 stories and do not have required reentry provisions at required locations. Location(s): Building-5.	Every door in a stair enclosure serving more than 5 stories shall be provided with re-entry unless it meets RSC Technical Guidelines (Standard) 6.8.3.1.	Within 2 months
F-25	Inspection, Testing & Maintenance (Fire)	Inspection, testing, and maintenance for the emergency lighting system were not in accordance with The RSC Technical Guidelines (Standard). Location(s): Building-5.	Inspect, test and maintain the emergency lighting system in the accordance with The RSC Technical Guidelines (Standard) and keep written records on-site.	Within 1 month

F-26	Fire Alarm & Detection System (FADS)	Automatic fire alarm and detection system installation is under installation, which requires a detailed review to confirm compliance with NFPA 72 and The RSC Technical Guidelines (Standard). Location(s): Building-5.	Submit the fire alarm system design to RSC for review. Once the design is reviewed, install and modify the fire detection and alarm system throughout the buildings in accordance with review comment, RSC Technical Guidelines (Standard) and NFPA 72. After installation the owner 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 within 4 months
 04/03/2025 4:57 pm		 04/03/2025 2:10 pm		 04/03/2025 2:51 pm

F-27	Inspection, Testing & Maintenance (ITM of FADS)	Inspection, testing, and maintenance for the fire alarm system is not in accordance with NFPA 72 and The RSC Technical Guidelines (Standard). Location(s): Building-5.	Inspect, test and maintain the fire alarm system and keep written records on-site, in accordance with NFPA 72 and The RSC Technical Guidelines (Standard) and keep written records on-site.	Within 1 month (after installation)
F-28	Fire Protection System (Sprinkler System)	The existing building has an occupied floor height (71 feet) greater than 10 meters (33 feet), and a fire sprinkler system is under installation throughout the building in place of the detection system. So, an automatic fire sprinkler system is mandatory for this building. Location(s): Building-5.	Submit the sprinkler system drawing to RSC for review. Once the design is reviewed, install/ modify the sprinkler system throughout the building in accordance with review comments, RSC Technical Guidelines, and NFPA 13, 14, 20, 22, & 24. After installation, the owner shall conduct internal testing and commissioning and then contact the RSC for witness of final acceptance testing.	Design Review within 2 months and installation within 4 months.



F-29	Fire Protection System(Standpipe System)	Standpipe system under installation requires detailed review to confirm compliance with NFPA 14, 20, 22, & 24 or as per RSC Technical guidelines (Standard). Location(s): Building-5.	Submit the standpipe system drawing to RSC for review. Once the design is reviewed, install/ modify the standpipe system throughout the building in accordance with review comment, RSC Technical Guidelines and NFPA 14, 20, 22 and 24. After installation the owner shall conduct internal testing and commissioning and then contact the RSC for witness of final acceptance testing.	Design Review within 2 months and installation within 4 months.
				

F-30	Fire Protection System(Fire Pump)	Fire pump installation requires a detailed review to confirm compliance with NFPA 20 and RSC standards. Location(s): Building-5.	Submit the standpipe system drawing to RSC for review. Once reviewed, install or modify the standpipe system throughout the building in accordance with RSC standard and NFPA 14 and 20. After installation, the owner shall conduct internal testing and commissioning and then contact the RSC for witness of final acceptance testing.	Design Review within 2 months and installation within 4 months.
 				
F-31	Inspection, Testing & Maintenance (ITM of Fire Pump)	Inspection, testing, and maintenance for the fire pump is not in accordance with NFPA 20, 25 and RSC Technical Guideline (Standard). Location(s): Building-5.	Inspect, test and maintain the fire pump in accordance with NFPA 20, 25 and RSC Technical Guideline (Standard) and keep written records on-site.	Within 1 month (after installation)

F-32	Inspection, Testing & Maintenance (ITM of Fire Standpipe)	Inspection, testing, and maintenance for the Standpipe system is not in accordance with NFPA 14, 25 and RSC Technical Guideline (Standard). Location(s): Building-5.	Inspect, test and maintain the standpipe system in accordance with NFPA 14, 25 and RSC Technical Guideline (Standard) and keep written records on-site.	Within 1 month (after installation)
F-33	Inspection, Testing & Maintenance (ITM of Sprinkler)	Inspection, testing, and maintenance for the Sprinkler system is not in accordance with NFPA 13, 25 and RSC Technical Guideline (Standard). Location(s): Building-5.	Inspect, test and maintain the Sprinkler system in accordance with NFPA 13, 25 and RSC Technical Guideline (Standard) and keep written records on-site.	Within 1 month (after installation)
F-34	Inspection, Testing & Maintenance (ITM of Fire Extinguisher)	Inspection, testing and maintenance of portable fire extinguishers is not in accordance with NFPA 10. Location(s): Building-5.	Inspect, test and maintain the portable fire extinguishers and keep written records onsite, in accordance with NFPA 10 and RSC Technical Guidelines (Standard).	Within 1 month

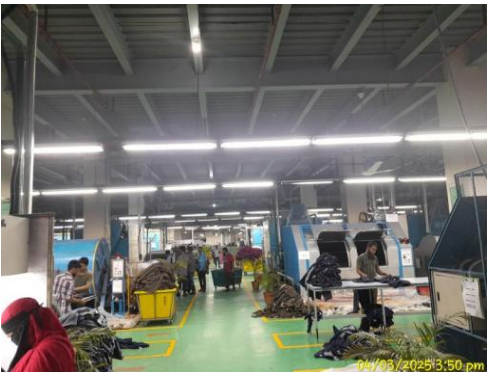
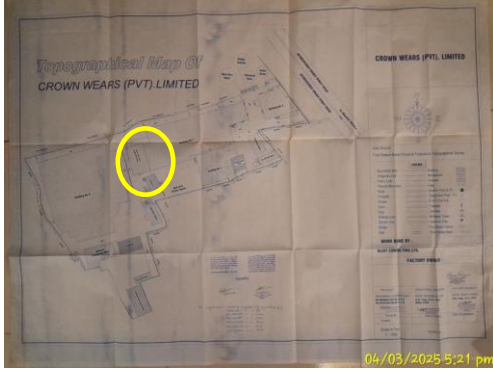
F-35	Fire Rated Construction	The main structural elements of the Production Building-5 are constructed of steel elements, which are non-rated and were found in exposed condition without any fire protection. As per RSC Technical Guideline and BNBC 2006, The Fire rating of the structure requires to be confirmed as per BNBC 2006. Location(s): Production Building-5.	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
				

Table-2: Warehouse Shed-1, Warehouse Shed-2, Dining Shed, Utility, Wastage Shed (Left Over Godown)

F-36	Fire Rated Construction	The main structural elements of the Warehouse Shed-1 are constructed of steel elements, which are non-rated and were found in exposed condition without any fire protection. 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 require fire rating.	Within 6 months
				

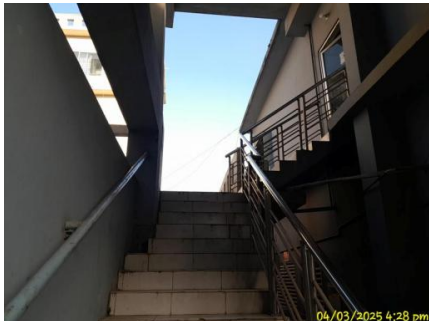
F-37	Fire Protection System(Fire Pump)	Fire pump installation requires a verification inspection to confirm compliance with NFPA 14, 20, and RSC Technical Guidelines (Standard). Location: Warehouse Shed-1.	Factory floors are merged with the existing ID: 10105 under the same fire compartment. The Standpipe System & Fire Pump design has been previously reviewed by the RSC as per relevant codes & standards under RSC ID: 10105 A Final Verification Inspection is required for the entire building, including both the old and new IDs. The factory must submit the design and relevant documents after completing the remediation work. Based on the completion status, the RSC will schedule a Final Verification Inspection for both IDs together to verify any outstanding issues, and the same completion status will be applied for this issue after the inspection.	Within 1 month
F-38	Fire Alarm & Detection System (FADS)	Fire Alarm & Detection System requires a verification inspection to confirm compliance with NFPA 72 and RSC Technical Guidelines (Standard). Location: Warehouse Shed-1.	Factory floors are merged with the existing ID: 10105 under the same fire compartment. The Fire Alarm & Detection System design has been previously reviewed by the RSC as per relevant codes & standards under RSC ID: 10105 A Testing & Commissioning Inspection is required for the entire building, including both the old and new IDs. The factory must submit the design and relevant documents after completing the remediation work. Based on the completion status, the RSC will schedule a Testing & Commissioning Inspection for both IDs together to verify any outstanding issues, and the same completion status will be applied for this issue after the inspection.	Within 2 months

F-39	Fire Rated Construction	The required fire separation distance from Warehouse Shed-1 to Building-03 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-40	Fire Rated Construction	The main structural elements of the Warehouse Shed-2 are constructed of steel elements, which are non-rated and were found in exposed condition without any fire protection. 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 require fire rating.	Within 6 months
				

F-41	Means of Egress	Doors along the means of egress are provided with a non-compliant locking system. Location(s): Warehouse Shed-2	Remove locking features from all egress doors and gates. If locks are required for security reasons, utilize special door locking features complying with NFPA 101 and RSC Technical Guidelines (Standard) 6.8.2.	Immediate
				
F-42	Fire Alarm & Detection System (FADS)	Fire Alarm & Detection System requires a verification inspection to confirm compliance with NFPA 72 and RSC Technical Guidelines (Standard). Location(s): Warehouse Shed-2	Factory floors are merged with the existing ID: 10105 under the same fire compartment. The Fire Alarm & Detection System design has been previously reviewed by the RSC as per relevant codes & standards under RSC ID: 10105 A Testing & Commissioning Inspection is required for the entire building, including both the old and new IDs. The factory must submit the design and relevant documents after completing the remediation work. Based on the completion status, the RSC will schedule a Testing & Commissioning Inspection for both IDs together to verify any outstanding issues, and the same completion status will be applied for this issue after the inspection.	Within 2 months

F-43	Means of Egress	Exit stairs are not separated from work areas & other spaces on each floor by fire-rated construction due to unprotected openings, penetrations, non-rated structures & fire doors forcefully open with external objects. Location(s): All floors, Substation Building-2.	Separate the exit stairs from work areas and other building spaces on all floor levels by a minimum 1-hr fire-rated construction. Provide a minimum 0.75-hr fire-rated door and seal all unprotected openings and penetrations to maintain the fire separation. Ensure that all fire doors are self-closing and positive latching, and are provided with fire exit (panic) hardware where serving production floors or assembly occupancies. If fire doors are required to be held open for functional reasons, provide automatic closing devices tied to the fire alarm system. Once fire doors are installed, every door in a stair enclosure serving more than 5 stories shall be provided with re-entry unless it meets RSC Technical Guidelines (standard) 6.8.3.1.	Within 3 months
 04/03/2025 4:27 pm		 04/03/2025 4:28 pm		

F-44	Mean of Egress	Stair width was found to be less than 1.5m (60 inches), available 40 inches. Location: Substation Building-2.	Stairs shall have a minimum clear width of 1.5 m (60 in.) for all industrial occupancies	Within 3 months
 				

F-45	Fire Rated Construction	Diesel fuel storage (approx. 9500 L) was located beside the generator room. Location: Generator Shed-2.	Provide minimum 2-hr fire rated construction for the diesel storage room. Additionally a license must be obtained in accordance with the Petroleum Act for all storage of Class II petroleum greater than 1000 L (264 gal) individually and 2000 L (528 gal) aggregate and storing criteria shall be followed as per the license provided by the Department of Explosives Bangladesh.	Within 3 months
 				

F-46	Fire Rated Construction	Liquefied or compressed gas cylinders were located within the factory premises. Locations: Dining shed.	LPG/CNG cylinders are permitted to be stored in a separate dedicated building on the factory premises within its boundaries if the building meets the following conditions. 1. The storage building must be at least 3 meters away from any other building and boundaries. 2. The exterior walls of the building must have a fire resistance rating of 3 hours using noncombustible construction. 3. Doors and other openings in the exterior walls must be protected with suitable closing devices having a fire protection rating of 3 hours. 4. The building is to be used for no other purpose than the storage of LPG/CNG cylinders. 5. The building must be mechanically ventilated to control the accumulation of flammable vapors. 6. The installations must be approved and accepted by the requirements of the AHJ, Gas supply company regulations, manufacturers/supplier's instructions/guidance, CIOB and all other applicable agencies, codes and standards.	Within 3 months
				

F-47	Fire Rated Construction	Diesel fuel storage was located inside the compressor & boiler room more than the allowable limit (approx. 10000 litres). Location: Compressor & Boiler Shed.	Remove all diesel fuel storage from the generator room and relocate to the exterior such that the diesel fuel storage is at least 10 ft from required egress paths. If located along egress paths or in a utility building, separate the diesel fuel storage with 2- hr. fire rated construction. Provide minimum 2-hr fire rated construction for the diesel storage room. Additionally a license must be obtained in accordance with the Petroleum Act for all storage of Class II petroleum greater than 1000 L (264 gal) individually and 2000 L (528 gal) aggregate and storing criteria shall be followed as per the license provided by the Department of Explosives Bangladesh.	Within 3 months
				

F-48	Mean of Egress	Sliding-type doors have been provided along the means of egress. Location: Wastage Shed (Left Over Godown).	Replace all collapsible/sliding/shutter type doors & gates by the side-hinged swinging type doors. If locks are required for security reasons, utilize special door locking features complying with NFPA 101.	Within 1 month
				
F-49	Means of Egress	Doors along the means of egress are provided with a non-compliant locking system. Location: Wastage Shed (Left Over Godown).	Remove locking features from all egress doors and gates. If locks are required for security reasons, utilize special door locking features complying with NFPA 101 and RSC Technical Guidelines (Standard) 6.8.2.	Immediate
				

F-50	Fire Alarm & Detection System (FADS)	Automatic fire alarm and detection system is under installation, which requires a detailed review to confirm compliance with NFPA 72 and the RSC Technical Guidelines (Standard). Location: Location: Substation-2, Generator shed-2, Dining Shed-2, Compressor & Boiler Shed, Wastage Shed (Left Over Godown).	Submit the fire alarm system design to RSC for review. Once the design is reviewed, install and modify the fire detection and alarm system throughout the buildings in accordance with review comment, RSC Technical Guidelines (Standard) and NFPA 72. After installation the owner 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 within 4 months
F-51	Inspection, Testing & Maintenance (ITM of FADS)	Inspection, testing, and maintenance for the fire alarm system are not in accordance with NFPA 72 and The RSC Technical Guidelines (Standard). Location: Location: Substation-2, Generator shed-2, Dining Shed-2, Compressor & Boiler Shed, Wastage Shed (Left Over Godown).	Inspect, test and maintain the fire alarm system and keep written records on-site, in accordance with NFPA 72 and The RSC Technical Guidelines (Standard) and keep written records on-site.	Within 1 month (after installation)
F-52	Inspection, Testing & Maintenance (ITM of Fire Extinguisher)	Inspection, testing, and maintenance of portable fire extinguishers is not in accordance with NFPA 10. Location(s):Location: Location: Substation-2, Generator shed-2, Dining Shed-2, Compressor & Boiler Shed, Wastage Shed (Left Over Godown).	Inspect, test and maintain the portable fire extinguishers and keep written records onsite, in accordance with NFPA 10 and RSC Technical Guidelines (Standard).	Within 1 month

F-53	Inspection, Testing & Maintenance (Fire)	Inspection, testing, and maintenance for the emergency lighting system were not in accordance with The RSC Technical Guidelines (Standard). Location(s): Location(s):Location: Location: Substation-2, Generator shed-2, Dining Shed-2, Compressor & Boiler Shed, Wastage Shed (Left Over Godown).	Inspect, test and maintain the emergency lighting system in the accordance with The RSC Technical Guidelines (Standard) and keep written records on-site.	Within 1 month
F-54	Fire Rated Construction	The main structural elements of the Wastage Shed (Left Over Godwon) are constructed of steel elements, which are non-rated and were found in exposed condition without any fire protection. 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 require fire rating.	Within 6 months

F-55	Fire Rated Construction	The required fire separation distance from the Wastage Shed (Left Over Godown) to the adjacent chemical shed 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-56	Means of Egress	Occupant load sign & updated evacuation map were found missing at the required locations. Location: Substation-2, Generator shed-2, Dining Shed-2, Compressor & Boiler Shed, Wastage Shed (Left Over Godown).	Provide occupant load sign & evacuation plans at required locations. Fire evacuation maps shall be posted at the entrance to each exit stair.	Within 1 month

Table-3: Building-6

F-57	Means of Egress	Doors along the means of egress are provided with a non-compliant locking system. Location: Building-6.	Remove locking features from all egress doors and gates. If locks are required for security reasons, utilize special door locking features complying with NFPA 101 and RSC Technical Guidelines (Standard) 6.8.2.	Immediate
				

F-58	Means of Egress	Storage was located in the exit stair & egress paths. Location(s): South-East Stair, Building-6	Remove all storage from exit stairs and egress paths.	Immediate
 				

F-59	Means of Egress	Exit stairs are not separated from work areas & other spaces on each floor by fire-rated construction due to unprotected openings, penetrations, non-rated structures & fire doors forcefully open with external objects. Location(s): All floors, Building-6.	Separate the exit stairs from work areas and other building spaces on all floor levels by a minimum 2-hr for 4 or more stories, 1-hr for 3 or fewer stories, fire-rated construction. Provide minimum 0.75-hr rated doors for buildings with 3 or fewer stories and 1.5-hr fire-rated doors for buildings that are 4 or more stories. Seal all unprotected openings to separate the exit stairs from work areas and other building spaces on all floor levels. 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. Once fire doors are installed, every door in a stair enclosure serving more than 5 stories shall be provided with re-entry unless it meets. Once fire doors are installed, every door in a stair enclosure serving more than 5 stories shall be provided with re-entry unless it meets RSC Technical Guidelines (standard) 6.8.3.1.	Within 3 months
 				

F-60	Means of Egress	Storage room/areas discharge directly into both exit stair enclosures. Location: All floors, Both Stairs, Building-6	Openings from exit enclosure to storage room, generator and transformer spaces shall be provided with a vestibule with fire rated construction and openings. Provide a 1.5 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 Guildelines (standard) 6.14.3 The minimum width for vestibules shall not be less than 1.1m and length 1.8m.	Within 3 months
				

F-61	Mean of Egress	Stair width was found to be less than 1.5m (60 inches), available 39 inches. Location: North-West Stair, Building-6.	Stairs shall have a minimum clear width of 1.5 m (60 in.) for all industrial occupancies	Within 3 months
				
F-62	Means of Egress	The building did not have stair designation signs at all required locations. Location(s): Building-6.	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-63	Means of Egress	The building did not have occupant load signs at all required locations. Location(s): Building-6.	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-64	Means of Egress	Updated evacuation map was found missing at the required locations on all floors. Location(s): Building-6.	Provide updated evacuation plans at required locations. Fire evacuation maps shall be posted at the entrance to each exit stair.	Within 1 month
F-65	Means of Egress	Aisles have not been marked properly, and the aisles' width is less than 36 inches. Location(s): All floors, Building-6.	Aisles mark shall be provided at required places with a minimum unobstructed clear-width of 0.9 m (36 in.).	Within 1 month
				

F-66	Means of Egress	The North-West exit stair discharges the occupants inside the building on the ground floor. Location: Building-6.	Modify the stairs to discharge directly outside. Alternately, provide 2-hr fire-rated exit passageway leading directly outside (vestibules to separate any storage areas).	Within 3 months
				

F-67	Means of Egress	The directional signs are not provided where there is a change in direction and where the continuation of the egress path is not obvious. Location(s): All floors, Building-6.	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-68	Means of Egress	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes. Location(s): All floors, Building-6.	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 a minimum of 2.5 lux along exit access aisles.	Within 1 month

F-69	Means of Egress	Guardrails or handrails are not provided on both sides for the exit ramp on the ground floor, North side, as per RSC Technical Guidelines (Standard) 6.12. Location(s): Production Building-6.	Exit Ramps shall be provided with handrails on both sides of the ramp. 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. Guards shall be provided at all open sides of means of egress that exceed 760 mm (30 in.) above the floor or finished ground below. New and interim guards shall have a minimum height of 1067 mm (42 in.). Open guards shall have intermediate rails or patterns such that a sphere 200 mm (8 in.) in diameter cannot pass through any opening up to a height of 865 mm (34 in.)	Within 1 month
				

F-70	Fire Rated Construction	Elevator shafts are directly open into the inside of the exit stair enclosure on all floors of the North-West Stair. Location(s): Building-6.	Ensure a minimum 1.5-hr fire rating for the doors of elevator shafts; otherwise, close the shaft area with 2-hr fire-rated construction barrier and a 1.5-hr fire-rated opening protective as per RSC Technical Guidelines Standard 6.14.3. Factory is recommended to follow the RSC published "SUPPLEMENTARY PAPER ON REMEDIATION GUIDANCE ELEVATOR OR LIFT SHAFT OPENING IN EXIT ENCLOSURES" for different solutions.	Within 3 months
 				

F-71	Inspection, Testing & Maintenance (Fire)	Inspection, testing, and maintenance for the emergency lighting system were not in accordance with The RSC Technical Guidelines (Standard). Location(s): Building-6.	Inspect, test and maintain the emergency lighting system in the accordance with The RSC Technical Guidelines (Standard) and keep written records on-site.	Within 1 month
F-72	Fire Alarm & Detection System (FADS)	Automatic fire alarm and detection system is under installation, which requires a detailed review to confirm compliance with NFPA 72 and the RSC Technical Guidelines (Standard). Location(s): Building-6.	Submit the fire alarm system design to RSC for review. Once the design is reviewed, install and modify the fire detection and alarm system throughout the buildings in accordance with review comment, RSC Technical Guidelines (Standard) and NFPA 72. After installation the owner 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 within 4 months
F-73	Inspection, Testing & Maintenance (ITM of FADS)	Inspection, testing, and maintenance for the fire alarm system is not in accordance with NFPA 72 and The RSC Technical Guidelines (Standard). Location(s): Building-6.	Inspect, test and maintain the fire alarm system and keep written records on-site, in accordance with NFPA 72 and The RSC Technical Guidelines (Standard) and keep written records on-site.	Within 1 month (after installation)
F-74	Inspection, Testing & Maintenance (ITM of Fire Extinguisher)	Inspection, testing, and maintenance of portable fire extinguishers is not in accordance with NFPA 10. Location(s): Building-6.	Inspect, test and maintain the portable fire extinguishers and keep written records onsite, in accordance with NFPA 10 and RSC Technical Guidelines (Standard).	Within 1 month