

INITIAL FIRE SAFETY INSPECTION REPORT

Abir Fashions (Extension)

RSC ID: 24920

Plot #44, Road #02, Kutubail, Fatullah, Narayanganj.

Geographical Coordinates: 23.643549, 90.484577

Other Factories: Abir Fashions (9799)



Inspected By: Mohammad Anayet Hossain and Md. Najmul Huda

Date: 11-Feb-2024

Fire Safety Inspection Report

Abir Fashions (Extension)

Introduction:

Abir Fashions (Extension) complex was surveyed for fire safety on **11-Feb-2024** by The RSC Inspection Team. The purpose of the survey was to identify significant fire safety issues and to provide recommendations for remediation based on applicable standards specified by the RSC. The scope of this initial fire safety inspection was limited to the review and identification of major fire safety issues. The inspection did not include identification of minor deficiencies, which will be further addressed as part of follow-up inspections.

Limitations:

The information in this fire safety inspection report was obtained during a visit to the facility and during interviews with local factory management. It has not been possible to provide independent verification for all the information and data collected, and, therefore, The RSC cannot accept general responsibility for omissions or errors arising from inaccuracies in this report from the information obtained.

The findings and recommendations in this report are not intended to imply, guarantee, ensure or warrant compliance with any government regulations. Additionally, the results do not imply in any way that compliance with the findings or recommendations as stated in this report will eliminate all hazards, risks or exposures or that hazards, risks or exposures not referred to in this report do not exist. Compliance with the findings and recommendations stated in this report does not relieve the factory owner from obligation to comply with specific project requirements, industry standards, or the provisions of any local government regulations.

General Factory Information

Factory Building Name(s):

B#1	Production Building - 5	Type of construction: Composite (RCC+Steel) Year of construction March, 2016 to April, 2017 Construction period: Interim Building Building approval from: PWD Building approval date: Not found
B#2	Production Building - 6	Type of construction: Composite (RCC+Steel) Year of construction May, 2017 to August, 2019 Construction period: Interim Building Building approval from: PWD Building approval date: Not found
B#3	Utility Building	Type of construction: RCC Year of construction May, 2017 to July, 2020 Construction period: Interim Building Building approval from: PWD Building approval date: Not found
B#4	Production Building - 7	Type of construction: Composite (RCC+Steel) Year of construction May, 2012 to November, 2015 Construction period: Interim Building Building approval from: PWD Building approval date: Not found
B#5	Shed - 2	Type of construction: Steel Year of construction Jan-2019 to Mar-2019 Construction period: Interim Building Building approval from: PWD Building approval date: Not found

Factory Address: Plot #44, Road #02, Kutubail, Fatullah, Narayanganj.

Findings & Recommendations :

Table 1 - 3 summarize the fire safety non-compliant issues identified during the inspection. Recommendations have been provided to address each issue with specific remediation timeline. 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 Number	Total Findings	Building Name	Finding Range
1	32	Production Building - 5 and Production Building - 6	F1-F32
2	16	Production Building - 7	F33-F48
3	7	Utility Building	F49-F55

Table-1: Production Building - 5 and Production Building - 6, G+M+4, RCC Building.
(Buildings 5 and 6 are merged with each other).

SI No.	Category	Findings	Required Action	Remediation Time Frame
F-1	Fire Rated Construction	The exit stairs are not separated from work areas, other spaces on each floor by fire-rated construction. Locations: Production Building - 5 & 6	Provide minimum 2-hr fire rated construction for buildings 4 storied or more and 1-hr for up to 3 storied. Seal all unprotected openings to separate the exit stairs from work areas and other spaces on all floor levels by 90 minutes for 2 hr. construction and 60 minutes for 1-hr construction. Ensure that the fire rated doors are self-closing and positive latching and that they are provided with fire exit (panic) hardware where serving production floors. If fire rated 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 standard 6.8.3.1	Within 3 months
 				

F-2	Fire Rated Construction	Fire doors have been installed in the openings of required fire-rated assemblies such as exit stairs, storage rooms, and other occupancy separations. However, the fire doors were found with the following issues: 1. Doors were kept open by means of door wedges. 2. Doors were not provided with adequate/required hardware. 3. Doors were found with excessive clearance. 4. Doors were not provided with required positive latching. 5. Fire doors and frames were found with holes that could impact the fire protection rating. Locations: Production Building - 5 & 6	Provide minimum 2-hr fire rated separation exit enclosure. Install the fire door as per NFPA 80. 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. The clearance under the bottom of a fire door shall be a maximum of 19mm. From edges and top shall be limited to a maximum 4.8 mm. All measurement shall be taken from the "pull side" of the door. Any modification of fire doors beyond the job site preparation shall be approved by the door manufacturer.	Within 3 months
-----	-------------------------	---	---	-----------------



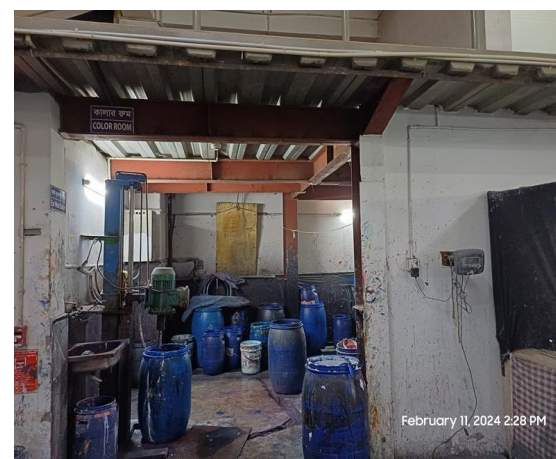
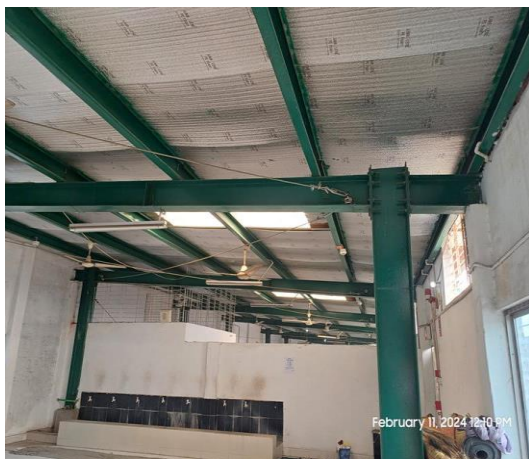
F-3	Fire Rated Construction	Penetrations through floor/ceiling assemblies are found unsealed by the electrical cables. Locations: Production Building - 5 & 6	Seal all penetrations and openings in floor/ceiling (full thickness of the floor/ceiling) assemblies by fire rated materials to maintain the fire resistance rating. Provide a minimum 3-hr fire rated shaft to separate the utility risers from each floor if required.	Within 3 months
-----	-------------------------	--	---	-----------------



F-4	Fire Rated Construction	Storage room discharges directly into exit stair enclosure. Locations: Production Building - 5 & 6	Openings from exit enclosure to storage room, 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 side. Ensure that the fire rating of the vestibule construction matches that of the exit stair enclosure.	Within 3 months
-----	-------------------------	---	---	-----------------



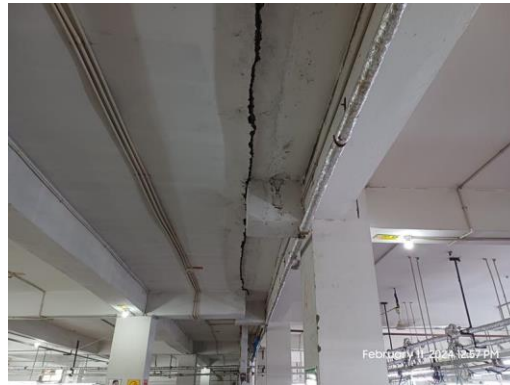
F-5	Fire Rated Construction	The main structural elements of the buildings are constructed by steel which is non-rated and were found in exposed condition without any fire protection. Locations: Roof-top dining and ground floor mezzanine are located in Production Building 5 and 6; Shed-2.	Interim building shall be type-1 or type-2 construction as per Table 3.2.4 of BNBC-2006. Provide required fire rating on the structural elements by following Section 4.4 and Table 4.4.1 of the RSC Technical Guidelines Standard or Table 3.3.1 and Table 4.1.1 from BNBC Part 4. Consult a qualified fire protection engineer to design the rated construction barriers in between two floors and in structural members.	Within 6 months
-----	-------------------------	---	---	-----------------



F-6	Fire Rated Construction	Elevator shafts are directly open into the inside of floor. Locations: Production Building - 5 & 6	An exit stairway shall not be built around a lift shaft unless both of them are located in a smoke proof enclosure and made of a material with fire resistance rating required for the type of construction of smoke proof enclosure. Modify the elevator shaft as per The RSC Technical Guideline (Standard) V1-6.14.3. Rearrange the facility to provide separate enclosure for lifts. If not possible anyway provide a minimum 2-hr fire- rated elevator shaft with listed fire rated lift landing door to separate from each floor level.	Within 3 months
-----	-------------------------	---	---	-----------------

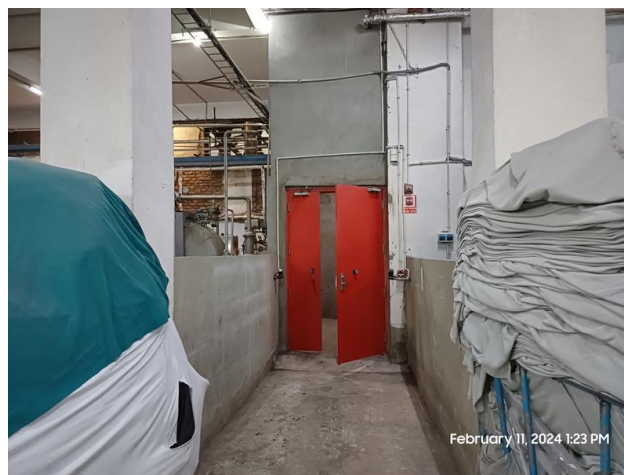


F-7	Fire Rated Construction	Two buildings (Building 5 and Building 6) have construction or seismic joints / expansion joints, located at each floor or ceiling level which is not fire rated separation. Locations: Production Building - 5 & 6	Seal all construction, seismic joint, or expansion penetrations and openings with at least 2-hour fire-rated materials, following ASTM/UL standards and certification.	Within 3 months
-----	-------------------------	--	--	-----------------

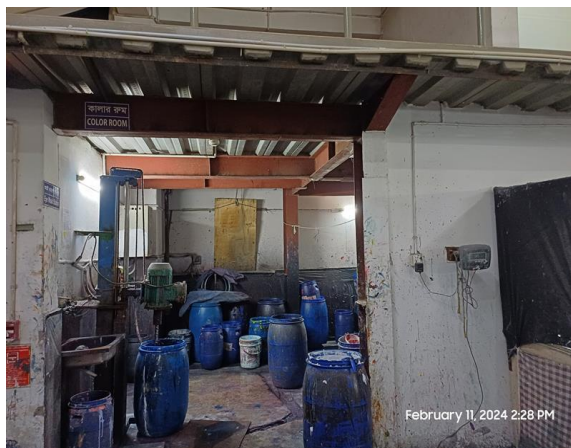


F-8	Fire Rated Construction	The Production Building - 5 & 6 is not separated from Production Building-7 due to unprotected openings. Locations: Production Building - 5 & 6	Provide fire separation as per BNBC part 3, Chapter 2 and table 3.2.2	Within 3 months
 				

F-9	Fire Rated Construction	Exit stair is discharge the occupants inside the building at the ground floor level. Locations: Production Building - 5 & 6	1. Modify stair to discharge directly outside. Or 2. Provide 2-hr fire-rated exit passageway leading directly outside (vestibules to separate any storage areas). Or 3. Provide sprinkler protection for discharge floor in accordance with NFPA 13.	Within 3 months
-----	-------------------------	--	---	-----------------



F-10	Fire Rated Construction	The chemical storage area is not separated by fire-rated construction due to unsealed penetrations and openings. Locations: Mezzanine floor of Production Building - 5 & 6	Separate the chemical storage room by 4-hr fire rated construction. Seal all penetrations and protect the openings to maintain the required fire separations. Keep 16-points MSDS of all chemicals in the storage area. Ensure that the building/room houses chemical is Type-1 construction. As per BNBC, chemical storage room shall be Type-1 construction (Table-3.2.4 of BNBC-2006). Follow section-2.13 and Table 3.2.1 of BNBC-2006 for the guideline.	
------	-------------------------	---	---	--



F-11	Fire Rated Construction	The exit discharge path (Egress Court and Passageway) was not separated from the building interior due to some unprotected openings. Locations: Production Building - 5 & 6	Seal all penetrations and openings to the interior of the building along the discharge path, up to a height of 10 ft. with minimum 2-hr fire rated materials.	Within 3 months
------	-------------------------	--	---	-----------------



F-12	Fire Rated Construction	Areas used for in-process storage of combustible materials are open to the surrounding occupancy. Combustible materials has kept under cutting table which is non compliant. Locations: Production Building - 5 & 6	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. 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-13	Means of Egress	Maximum travel distance for one exit at ground floor of #Building 5 & 6, 7 and Utility Building is exceeded the allowable limits.	Provide portable fire extinguishers, automatic fire alarm system and standpipe system to have the maximum travel distance limit up to 60 m in accordance with RSC Standard (6.13.1.1_RSC Technical Guidelines Standard V1.0). Or, Provide portable fire extinguishers, automatic fire alarm system and sprinkler system to have the maximum travel distance limit up to 122 m in accordance with RSC Standard (6.13.1.2_RSC Technical Guidelines Standard V1.0).	Within 3 months
F-14	Means of Egress	Outward swinging type doors are not provided at the building exits, exit stairs, along egress routes and exit discharge. Locations: Roof top of Production Building - 5 & 6	Modify the egress door to swing in the direction of egress travel.	Within 1 month
 				

F-15	Means of Egress	Storage was located in exit stair. Locations: Production Building - 5 & 6	Remove storage from the exit stairs and egress path	Immediately
------	-----------------	--	---	-------------



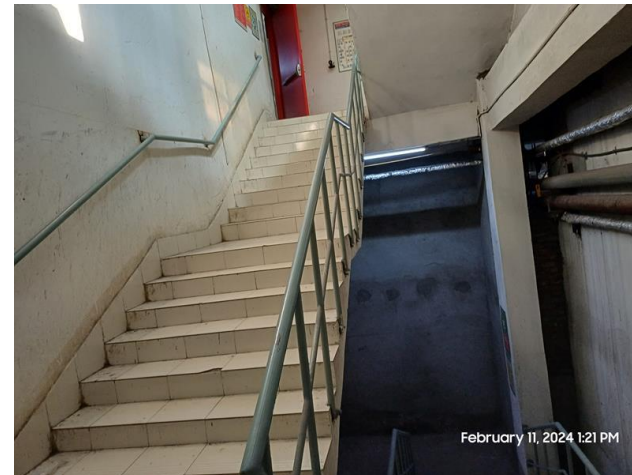
F-16	Means of Egress	Egress gates on the all floor with locking features are provided at all exits & exit discharge. Locations: Production Building - 5 & 6	Remove locking features from all egress gates. If locks are required for security reasons, utilize special door locking features complying with RSC standard 6.8.2.	Immediately
------	-----------------	---	--	-------------



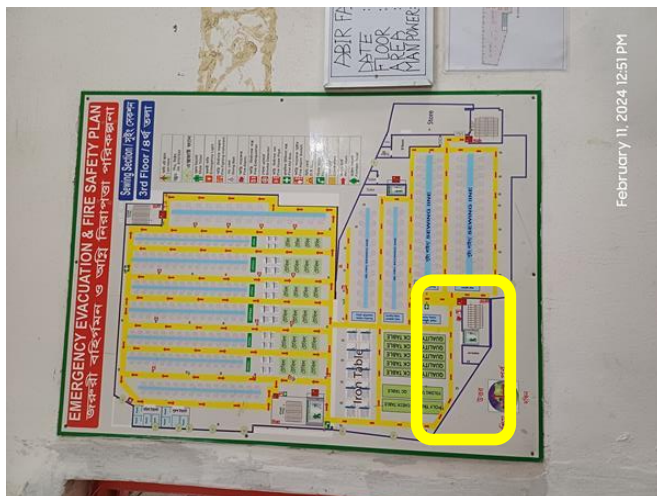
F-17	Means of Egress	There is an uneven path of travel and obstruction in the exit access. Locations: Production Building - 5 & 6	Remove unnecessary items and level exit path to the public way for improved accessibility and safety.	Within 3 months
------	-----------------	---	---	-----------------



F-18	Means of Egress	Width of exit stair is less than 1.5 m (60 in.). Locations: Production Building - 5 & 6	Provide minimum clear and unobstructed exit stair widths of 1.5 m(60 in.) in accordance with RSC standard 6.5.6.2.1	Within 3 months
------	-----------------	--	--	-----------------



F-19	Means of Egress	Handrails are not provided on both sides of both exit stairs. Locations: Production Building - 5 & 6	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.). Rail guards shall be such patterned so that a sphere 200mm (8 in.) in diameter cannot pass through any opening up to a height of 865mm (34in.).	Within 3 months
 				
F-20	Means of Egress	Common path of egress travel exceeds the permitted limit at several floor. Locations: Production Building - 5 & 6	Reconfigure the egress arrangement to reduce the maximum common path of travel to not more than 23m (75ft) or 30 m (100 ft) when complete sprinkler protection is provided. [6.13.2- RSC Technical Guidelines Standard V1.0]	Within 3 months



F-21	Means of Egress	Dead-end corridor/aisles exceed the allowable limit. Locations: Mezzanine floors of Production Building - 5 & 6	Reconfigure the egress arrangement to reduce the maximum dead-end distance to not more than 15 m (50 ft) in accordance with RSC standard 6.13.3.	Within 3 months
F-22	Means of Egress	Building did not have occupant load signs at required locations. Locations: Production Building - 5 & 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-23	Means of Egress	Aisles marking has not been provided on the floor properly. Locations: Production Building - 5 & 6	Provide minimum aisle widths of 36-in.	Within 3 months
 				

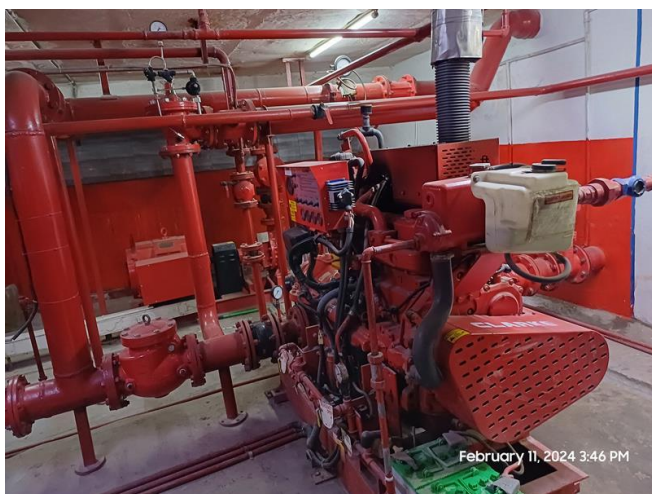
F-24	Egress Lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes and at exit stairs on all floors. Locations: Production Building - 5 & 6	Test the emergency lighting system on each floor and provide additional emergency 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-25	Egress Lighting	Exit sign and Directional Sign are not provided at and towards exit at several floors. Locations: Production Building - 5 & 6	Lighted exit signs shall be placed at entrance to an exit. Additional exit signs shall be placed throughout the facility anywhere the continuation of the egress is not obvious. Lighted exit signs shall be provided with either battery backup or uninterruptable power supply systems and shall be continuously illuminated.	Within 1 month

F-26	Fire Alarm & Detection system	Automatic fire alarm and detection system installation has been found complete which requires detailed review to confirm compliance with NFPA 72 and The RSC Technical Guidelines (Standard). Locations: Production Building - 5 & 6; Production Building - 7; Utility Building; Shed - 2.	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, Accord/ 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/modification within 4 months
------	-------------------------------	---	---	--



F-27	Fire Alarm & Detection system (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). Locations: Production Building - 5 & 6; 7; Production Building - 7; Utility Building.	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 (Standpipe)	The height of the highest occupied floor is more than 33 ft and the factory has installed a class III standpipe system which is required to be reviewed and verified. Locations: Production Building - 5 & 6; 7; Production Building - 7; Utility Building.	Submit as-built drawings, testing records, equipment certification and other relevant documentation to the RSC for review and approval. Modification (if required) shall have to be done as per the reviewed design and NFPA- 14. Upon approval & modification (if required) the factory shall inform RSC to conduct final testing and commissioning verification of the system for final acceptance.	Design Review within 2 months and installation/modification within 4 months
------	------------------------------------	---	---	--

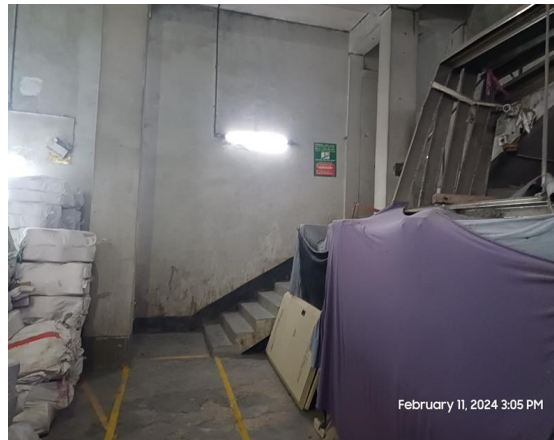


F-29	Fire Protection System(ITM of fire pump)	Inspection, testing, and maintenance for the fire pump is not in accordance with NFPA 20, 25 and RSC Technical Guideline (Standard). Locations: Production Building - 5 & 6; 7; Production Building - 7; Utility Building.	Inspect, test and maintain the fire pump in accordance with NFPA 20, 25 and RSC Technical Guideline (Standard) and keep written records on-site.	Within 1 Month (after installation)
F-30	Fire Protection System(ITM of Standpipe)	Inspection, testing, and maintenance for the Standpipe system is not in accordance with NFPA 14, 25 and RSC Technical Guideline (Standard). Locations: Production Building - 5 & 6; 7; Production Building - 7; Utility Building.	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-31	ITM of Egress Lighting	Inspection, testing, and maintenance for the emergency lighting system were not in accordance with The RSC Technical Guidelines (Standard). Locations: Production Building - 5 & 6; 7; Production Building - 7; Utility Building.	Inspect, test and maintain the emergency lighting system in the accordance with The RSC Technical Guidelines (Standard) and keep written records on-site.	Within 3 months

F-32	ITM of Fire Extinguishers	Inspection, testing and maintenance of portable fire extinguishers is not in accordance with NFPA 10. Locations: Production Building - 5 & 6; 7; Production Building - 7; Utility Building.	Inspect, test and maintain the portable fire extinguishers and keep written records onsite, in accordance with NFPA 10 and The RSC Technical Guidelines (Standard).	Within 3 months
------	---------------------------	---	--	-----------------

Table-2: Production Building - 7, G+M+4, Composite (RCC+Steel) Building.

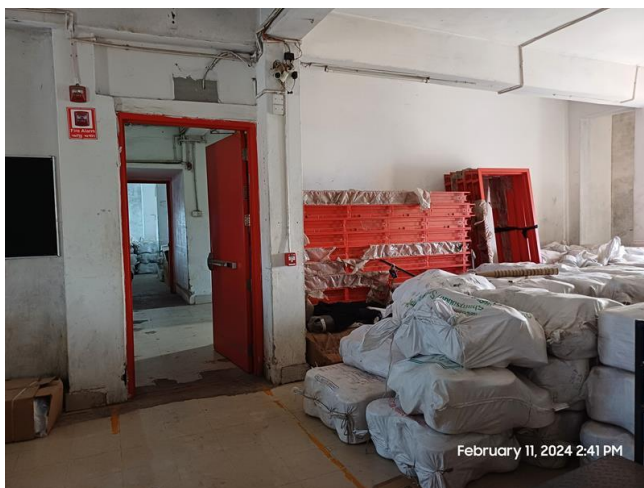
SI No.	Category	Findings	Required Action	Remediation Time Frame
F-33	Fire Rated Construction	The exit stairs are not separated from work areas, other spaces on each floor by fire-rated construction. Locations: Production Building - 7	Provide minimum 2-hr fire rated construction for buildings 4 storied or more and 1-hr for up to 3 storied. Seal all unprotected openings to separate the exit stairs from work areas and other spaces on all floor levels by 90 minutes for 2 hr. construction and 60 minutes for 1-hr construction. Ensure that the fire rated doors are self-closing and positive latching and that they are provided with fire exit (panic) hardware where serving production floors. If fire rated doors are required to be held open for functional reasons, provide automatic closing devices tied to the fire alarm system.	Within 3 months



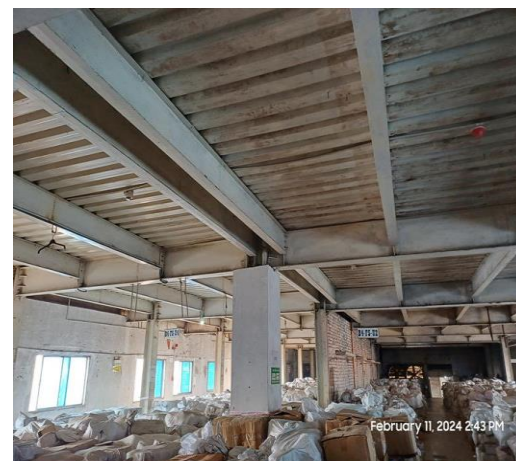
F-34	Fire Rated Construction	Exit stair is discharge the occupants inside the building at the ground floor level. Locations: Production Building - 7	1. Modify stair to discharge directly outside. Or 2. Provide 2-hr fire-rated exit passageway leading directly outside (vestibules to separate any storage areas). Or 3. Provide sprinkler protection for discharge floor in accordance with NFPA 13.	Within 3 months
------	-------------------------	--	---	-----------------



F-35	Fire Rated Construction	Storage room discharges directly into exit stair enclosure. Locations: Production Building - 7	Openings from exit enclosure to storage room, 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 side. Ensure that the fire rating of the vestibule construction matches that of the exit stair enclosure.	Within 3 months
------	-------------------------	---	---	-----------------



F-36	Fire Rated Construction	The main structural elements of the buildings are constructed by steel which is non-rated and were found in exposed condition without any fire protection. Locations: Production Building - 7	Interim building shall be type-1 or type-2 construction as per Table 3.2.4 of BNBC-2006. Provide required fire rating on the structural elements by following Section 4.4 and Table 4.4.1 of the RSC Technical Guidelines Standard or Table 3.3.1 and Table 4.1.1 from BNBC Part 4. Consult a qualified fire protection engineer to design the rated construction barriers in between two floors and in structural members.	Within 6 months
------	-------------------------	--	--	-----------------



F-37	Fire Rated Construction	Elevator shafts are directly open into the inside of exit enclosure and floor. Locations: Production Building - 7	An exit stairway shall not be built around a lift shaft unless both of them are located in a smoke proof enclosure and made of a material with fire resistance rating required for the type of construction of smoke proof enclosure. Modify the elevator shaft as per The RSC Technical Guideline (Standard) V1-6.14.3. Rearrange the facility to provide separate enclosure for lifts. If not possible anyway provide a minimum 2-hr fire-rated elevator shaft with listed fire rated lift landing door to separate from each floor level.	Within 3 months
------	-------------------------	--	--	-----------------



F-38	Means of Egress	Width of exit stair is less than 1.5 m (60 in.). Locations: Production Building - 7	Provide minimum clear and unobstructed exit stair widths of 1.5 m(60 in.) in accordance with RSC standard 6.5.6.2.1	Within 3 months
 				
F-39	Means of Egress	In the 6-story RCC production building (Building-7, South portion), having only one exit stair, which is not permitted. Locations: Production Building - 7	Two exits and stairs should be provided for the building, spanning from the top floor to the ground floor, to ensure adequate means of egress.	Within 3 months

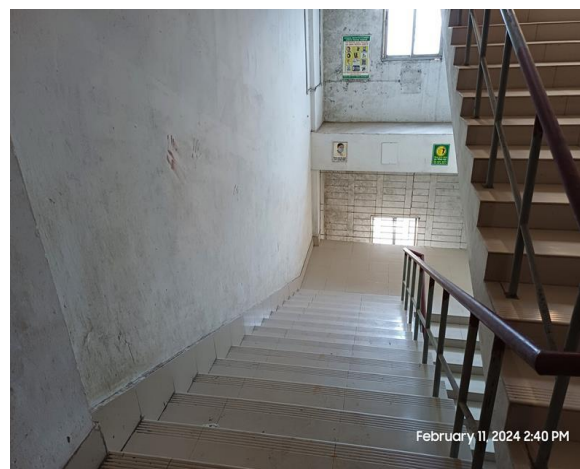
F-40	Means of Egress	Common path of egress travel exceeds 23m (75ft) at several floor. Locations: Production Building - 7	Reconfigure the egress arrangement to reduce the maximum common path of travel to not more than 23m (75ft) or 30 m (100 ft) when complete sprinkler protection is provided.	Within 3 months
F-41	Means of Egress	Occupiable roof is not provided with an adequate parapet / guard rail. Locations: Production Building - 7	All occupiable roofs shall be provided with parapets or guards with a minimum height of 1067 mm (42 in.)	Within 2 months

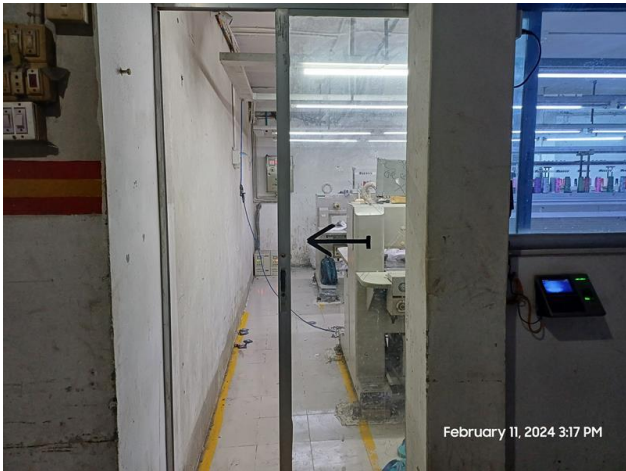


F-42	Means of Egress	Headroom measured less than the 80 inch. Locations: Production Building - 7	All means of egress shall have a minimum ceiling height of 2.3 m (7 ft 6 in.) with projections from the ceiling not less than 2.03 m (6 ft 8 in.). The minimum ceiling height shall be maintained for at least 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.).	Within 3 months
------	-----------------	--	---	-----------------



F-43	Means of Egress	Handrails are not provided on both sides of both exit stairs. Locations: Production Building - 7	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.). Rail guards shall be such patterned so that a sphere 200mm (8 in.) in diameter cannot pass through any opening up to a height of 865mm (34in.).	Within 3 months
------	-----------------	---	---	-----------------

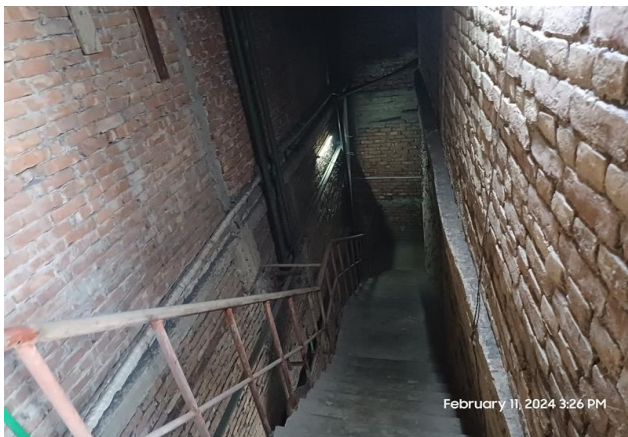


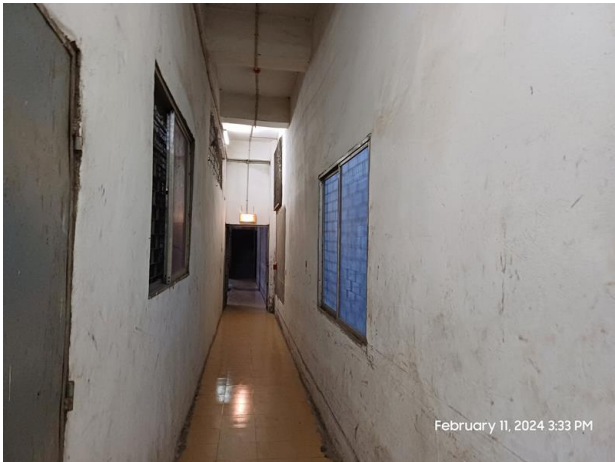
F-44	Means of Egress	Collapsible and sliding doors are provided at building exits, exit stair and along egress routes. Locations: Production Building - 7	Replace all collapsible and sliding doors along the means of egress with side-hinged, swinging egress doors. If locks are required for security reasons, utilize special door locking features complying with NFPA 101	Within 1 month
				
F-45	Means of Egress	Fire evacuation maps is posted inside the stair enclosure. Locations: Production Building - 7	Fire evacuation maps shall be posted at the entrance to each exit stair.	Within 1 month

F-46	Means of Egress	The egress aisles are partially or fully blocked by process goods. Locations: Production Building - 7	Remove all storages from the egress aisles immediately. The factory must keep clear of obstructions from egress aisles & stairs.	Immediately
 				

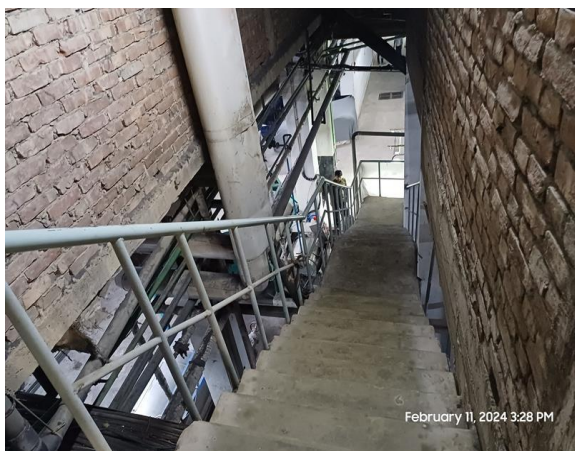
F-47	Egress Lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes and at exit stairs on all floors. Locations: Production Building - 7	Test the emergency lighting system on each floor and provide additional emergency 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-48	Egress Lighting	Exit sign and Directional Sign are not provided at and towards exit at several floors. Locations: Production Building - 7	Lighted exit signs shall be placed at entrance to an exit. Additional exit signs shall be placed throughout the facility anywhere the continuation of the egress is not obvious. Lighted exit signs shall be provided with either battery backup or uninterruptable power supply systems and shall be continuously illuminated.	Within 1 month

Table-3: Utility Building

SI No.	Category	Findings	Required Action	Remediation Time Frame
F-49	Fire Rated Construction	The exit stairs are not separated from work areas, other spaces on each floor by fire-rated construction. Locations: Utility Building	Provide minimum 2-hr fire rated construction for buildings 4 storied or more and 1-hr for up to 3 storied. Seal all unprotected openings to separate the exit stairs from work areas and other spaces on all floor levels by 90 minutes for 2 hr. construction and 60 minutes for 1-hr construction. Ensure that the fire rated doors are self-closing and positive latching and that they are provided with fire exit (panic) hardware where serving production floors. If fire rated doors are required to be held open for functional reasons, provide automatic closing devices tied to the fire alarm system.	Within 3 months
 				

F-50	Fire Rated Construction	The utility building is not separated from Production Building 5 and 6 due to unprotected openings. Locations: Utility Building	Seal the unprotected openings of Production Building 5 and 6 with similar rating as available.	Within 3 months
 				

F-51	Fire Rated Construction	Exit stair is discharge the occupants inside the building at the ground floor level. Locations: Production Building - 7	1. Modify stair to discharge directly outside. Or 2. Provide 2-hr fire-rated exit passageway leading directly outside (vestibules to separate any storage areas). Or 3. Provide sprinkler protection for discharge floor in accordance with NFPA 13.	Within 3 months
------	-------------------------	--	---	-----------------



F-52	Fire Rated Construction	The Boiler and Compressor room are not separated by fire-rated construction ((openings, non-rated doors, penetrations). Locations: Utility Building	Separate the boiler room by a minimum 2-hr fire rated construction (for high rise building)/ 1-hr fire rated construction (for low rise building). Seal and/or protected all openings to maintain fire separations. Separate the air compressor room by a minimum 2-hr fire rated construction. Seal and/or protected all openings to maintain fire separations	Within 3 months
F-53	Means of Egress	In the 3-story RCC utility building, having only one exit stair, which is not permitted. Locations: Utility Building	Two exits and stairs should be provided for the building, to ensure adequate means of egress.	Within 3 months
F-54	Means of Egress	Width of exit stair is less than 1.5 m (60 in.). Locations: Utility Building	Provide minimum clear and unobstructed exit stair widths of 1.5 m(60 in.) in accordance with RSC standard 6.5.6.2.1	Within 3 months



F-55	Means of Egress	Occupiable roof is not provided with an adequate parapet / guard rail. Locations: Utility Building	All occupiable roofs shall be provided with parapets or guards with a minimum height of 1067 mm (42 in.)	Within 2 months
------	-----------------	---	--	-----------------

