

INITIAL FIRE SAFETY INSPECTION REPORT

Nafa Apparels Ltd. 2 (Extension)

RSC ID: 24853

GPS Coordinates: 23.912710, 90.183601

Village: Joyapura, Union: Shombag, Upazila: Dhamrai, District : Dhaka.

Other Factories: Nafa Apparels Ltd. 2 (ID: 12861)



Inspected By: Md. Ferdaus Jaman & Hasanat Alamgir

Date: 10-Sep-2024

Fire Safety Inspection Report

Nafa Apparels Ltd. 2 (Extension)

Introduction:

RSC ID : 24853

Nafa Apparels Ltd. 2 (Extension) complex was surveyed for fire safety on **10-Sep-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

There are total 2 structures covered under this RSC ID 24853. The buildings are as below:

SL No	Building Name	Building Construction Period	Approval Date & Authority	Occupied	Structure type	Construction Category
1	6 Storied New RCC Building-1 (Main Production Building)	May 2019 to Dec 2023	09 March-2023 (LGED) Note: 12-February-2023 (DIFE)	Jan-2024	RCC	Interim
2	Utility Building (Partially 2 storied (RCC + Steel))	1st phase: Jan 2018-Dec-2018 (2-storied EGB, Compressure & Substation); 2nd Phase: Jan 2021-Dec 2021 (Single storied, Generator); 3rd Phase: Jan-2024-Aug-2024 (Boiler)		Jan-2024	RCC + Steel	Interim

Factory Address: Village: Joypura, Union: Shombag, Upazila: Dhamrai, District : Dhaka.

Points of contact:

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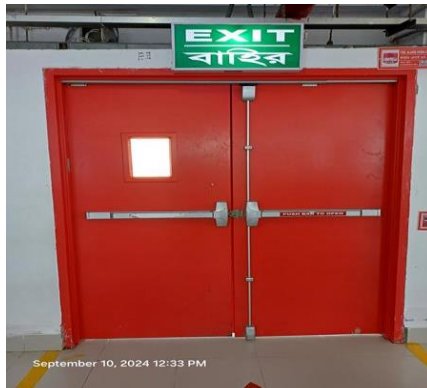


Findings & Recommendations :

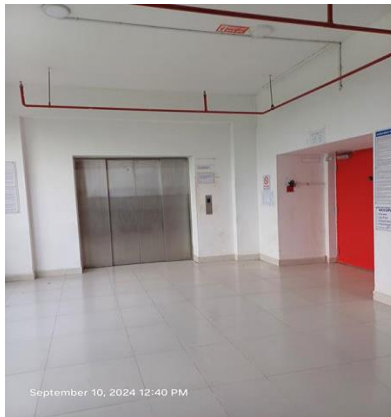
Table 1 summarizes the major fire safety issues identified during the inspection. Recommendations have been provided to address each issue. An implementation schedule shall be developed by the factory to remediate each of the findings. The specific timing of improvements, including any requested extensions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

Table-1:

SI No.	Category	Findings	Required Action	Remediation Time Frame
F-01	Fire Rated Construction	6-Storied New RCC Building-1: The factory has installed fire rated doors to separate the storerooms on 3rd, 4th and 5th floor. The datasheets & certificates of installed fire-rated doors will be verified during the next inspection.	The factory shall provide datasheets and certificates of installed fire rated doors and their accessories to verify during the next inspection. 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-02	Fire Rated Construction	6-Storied New RCC Building-1: Elevator shafts are directly open into the inside of the exit stair enclosure on all floors on stair-1 & 4. Location: 6-Storied New RCC Building-1. The factory has claimed that they have installed fire rated lift landing doors for the elevator shafts.	An exit stairway shall not be built around a lift shaft unless both of them are located in a smoke proof enclosure and made of a material with fire resistance rating required for the type of construction of smoke proof enclosure. So, ensure the lift shaft is 2-hr fire rated including opening protection with similar rating. As the factory has claimed that they have installed fire rated lift landing doors for the elevator shafts, so the factory shall provide data sheets, test reports, certificates and other required documents to verify the integrity of lift landing doors and it will be verified during the next inspection.	Within 3 months
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F-03	Fire Rated Construction	6-Storied New RCC Building-1: Unsealed penetrations were observed in between the production floor and electrical riser shaft on all floors. Unsealed penetrations and openings are located in the fire rated floor/ceiling assemblies due to electrical cable riser on basement to ground floor.	Seal all penetrations and openings in floor/ceiling assemblies by a listed through-penetration fire stop system tested in accordance with ASTM E814 or approved alternative standard to maintain minimum 3-hr. fire resistance rating. Installation shall be as per manufacturer published installation guideline and the certification authority's design criteria to ensure the required fire-rating. Or, Provide a minimum 2-hr fire rated shaft to separate the penetration from each floor if required.	Within 3 months
				

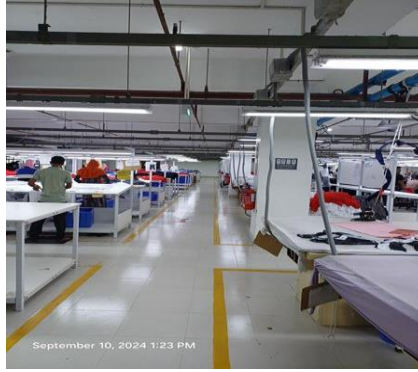
F-04	Fire Rated Construction	6-Storied New RCC Building-1: Unsealed penetrations are observed between the storage rooms and production areas on the 3rd and 4th floor.	Separate or seal the unprotected openings and penetrations of the storage rooms by a minimum 1-hr fire rated construction.	Within 3 months
 				
F-05	Fire Rated Construction	6-Storied New RCC Building-1: Unprotected openings of the exterior wall on two consecutive floors are observed more than the allowable limit on all floors as per the requirements of article 3.1.7 (part-3) of BNBC 2006.	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-06	Fire Rated Construction	6-Storied New RCC Building-1: Areas used for in-process storage of combustible materials are open to the surrounding occupancy. Location: At knitting section on the 1st floor.	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
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F-07	Fire Rated Construction	6-Storied New RCC Building-1: The dining and prayer room have a seating capacity 312 (E3 occupancy) is located along with production floor (G2 Occupancy) and storage room (H2 Occupancy). Assembly occupancy E3 is not permitted with the G2 Occupancy as per table 3.2.1 of BNBC-2006. Moreover, two direct exit was not provided from the assembly occupancy (dining and prayer facility). Location: On 4th floor.	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 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 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.	Within 3 months
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F-08

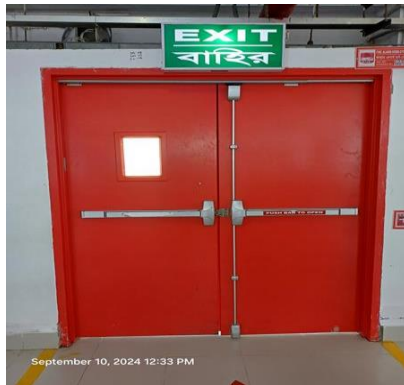
Means of Egress

6-Storied New RCC Building-1:
The factory has installed fire rated doors for exit stair separation on all floors for all stairs. The datasheets & certificates of installed fire-rated doors will be verified during the next inspection.

The factory shall provide datasheets and certificates of installed fire rated doors and their accessories to verify during the next inspection.

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-09	Means of Egress	6-Storied New RCC Building-1: The factory building is more than 5-storied (6-storied) and provisions of re-entry on required floors were not provided/posted on the exit stairs as per the RSC Technical Guidelines (Standard).	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 The RSC Technical Guidelines (Standard) 6.8.3.1	Within 3 months
				
F-10	Means of Egress	6-Storied New RCC Building-1: Building did not have stair designation signs at required locations of stair-2 & 3 on all floors.	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-11	Means of Egress	6-Storied New RCC Building-1: Building did not have occupant load signs at required locations of stair-2 & 3 on all floors.	The occupant load shall be posted 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

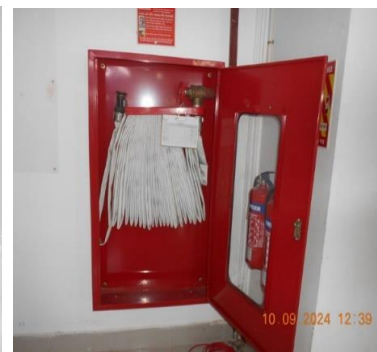
F-12	Means of Egress	6-Storied New RCC Building-1: The directional signs are not provided where there is a change in direction and where the continuation of the egress path is not obvious. Location: On ground and 3rd floor.	Install illuminated directional signs shall be provided where there is a change in the direction for the path of travel and the direction to an exit is not obvious.	Within 1 month
 				
F-13	Means of Egress	6-Storied New RCC Building-1: Several exit signs and directional signs are not illuminated on 3rd and 5th floor.	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-14	Inspection, Testing & Maintenance (Fire)	6-Storied New RCC Building-1 & Utility Building: Inspection, testing, and maintenance for the emergency lighting system were not in accordance with The RSC Technical Guidelines (Standard).	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-15	Fire Alarm & Detection System (FADS)	6-Storied New RCC Building-1 & Utility Building: Automatic fire alarm and detection system installation complete which requires detailed review to confirm compliance with NFPA 72 and The RSC Technical Guidelines (Standard).	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-16	Inspection, Testing & Maintenance (Fire)	Inspection, testing and maintenance for the fire alarm system is not in accordance with NFPA 72 and and The RSC Technical Guidelines (Standard).	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-17	Fire Suppression System (SUPS)	6-Storeyed New RCC Building-1: The existing building has an occupied floor height (68 feet 4 inch) greater than 10 meters (33 feet) and the factory has installed an automatic fire sprinkler system throughout the building in lieu of the detection system. So, automatic fire sprinkler system is mandatory for this building.	Submit the Fire Pump, Standpipe and Automatic Sprinkler System drawing NFPA 13, 14, 20, 22 and 24 to RSC for review. Once reviewed, install or modify the Automatic Sprinkler System throughout the building in accordance with RSC Technical Guideline (Standard) and NFPA 13, 14, 20, 22 and 24. After installation, the owner shall contact the RSC for witness of conducting the final acceptance testing of the SUPS (Sprinkler) system.	Design Review within 2 months and installation within 4 months.



F-18	Inspection, Testing & Maintenance (Fire)	Inspection, testing, and maintenance for the fire pump is not in accordance with NFPA 20, 25 and RSC Technical Guideline (Standard).	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-19	Inspection, Testing & Maintenance (Fire)	Inspection, testing, and maintenance for the Standpipe system is not in accordance with NFPA 14, 25 and RSC Technical Guideline (Standard).	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-20	Inspection, Testing & Maintenance (Fire)	Inspection, testing, and maintenance for the Sprinkler system is not in accordance with NFPA 13, 25 and RSC Technical Guideline (Standard).	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-21	Inspection, Testing & Maintenance (Fire)	6-Storied New RCC Building-1 & Utility Building: Inspection, testing and maintenance of portable fire extinguishers is not in accordance with NFPA 10.	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-22	Fire Rated Construction	Utility Building: Exterior exit stair of EGB boiler is not separated from the storage shed due to unprotected openings on ground floor.	Exterior exit stairs shall be separated from the building interior by minimum 2-hr fire rated construction for buildings 4 storied or more and 1-hr for up to 3 storied. The rating of the exterior wall shall extend 3.05 m (10 ft) beyond the ends of the stair structure.	Within 1 month

