

INITIAL FIRE SAFETY INSPECTION REPORT

Fakir Fashion Ltd (Extension - 3)

RSC ID: 24847

Dohargaon, Baliapara, Rupgonj

Co-ordinate: 23.784221681053022, 90.58733495733188

**Other Factories: Fakir Fashion Ltd. [ID: 9486]; Fakir Fashion Ltd. (Extension) [ID: 12881];
Fakir Fashion Ltd. (Extension - 2) [ID: 23771].**



Inspected By: A N Faisal Ahmed & Md. Kawsar Rubaiat

Date: 05 February, 2024

Fire Safety Inspection Report

Fakir Fashion Ltd (Extension - 3)

Introduction:

Fakir Fashion Ltd (Extension - 3) complex was surveyed for fire safety on **05-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):

Factory Building name(s): The factory premises has several constructed & occupied structures which are covered on 4 (four) different RSC ID's. On RSC ID: 24847 , 9 (nine) structures has been covered . Description has given below:

1. Building 8: 3- Storied RCC New ETP Building. (Interim Building).

Approved by **LGED** on 31.12.2017

Construction duration: Aug 2016 to July 2017.

Occupied: Dec 2023

Total Floor area: 10,355 sqft (Approximately).

2. Building 10: Single-Storied RCC Sub-station Building. (Interim Building)

Approved by **LGED** on 31.12.2017

Construction duration: Nov 2017 to Mar 2018.

Occupied: June 2022

Total Floor area: 1,275 sqft (Approximately).

3. Building 12: Three-storied RCC Dining building with steel roof and partial basement. (Interim Building)

Approved by **LGED** on 11.07.2017

Construction duration: May 2019 to Oct 2019.

Occupied: Jan 2024

Total Floor area: 4,953 sqft (Approximately).

4. Building 16: Six-Storied RCC RMG-4 Building. (Interim Building)

Approved by **LGED** on 30.08.2017

Construction duration: Feb 2022 to Dec 2023.

Occupied: Jan 2024

Total Floor area: 1,30,036 sqft (Approximately)

5. **Shed 13: Lab Building** [Two-Storied RCC Building connected with a single storied steel shed). (Interim Building)]

Approved by **LGED** on 22.18.2017

Construction duration: Oct 2020 to Dec 2023 ; Occupied: May 2021

Building Height: 37 ft 6 inch

Total Floor area: 79,773 sqft (Approximately)

6. **Shed-16: Single-Storied Shed** (Interim Building)

Approved by **LGED** on 19.09.2017

Construction duration: Jun 2020 to Jan 2021 ; Occupied: Sept 2023

Building Height: 30 ft

Total Floor area: 18,463 sqft (Approximately)

7. **Shed-19: Single Storied Shed** (Interim Building)

Approved by **LGED** on 19.09.2017

Construction duration: May 2022 to May 2023 ; Occupied: June 2023

Building Height: 45 ft

Total Floor area: 1,20,061 sqft (Approximately).

8. **Shed-20: Single Storied Shed** (Interim Building)

Approved by **LGED** on 19.09.2017

Construction duration: Mar 2022 to Apr 2023.; Occupied: Oct 2023

Building Height: 34 ft

Total Floor area: 75,538 sqft (Approximately).

9. **Shed-21: Single Storied Shed with Mezzanine floor** (Interim Building)

Approved by **LGED** on 16.10.2017

Construction duration: Nov 2022 to July 2023 ; Occupied: Dec 2023

Building Height: 32 ft 3 inch

Total Floor area: 15,835 sqft (Approximately)

Factory Address: Dohargaon, Baliapara, Rupgonj

Findings & Recommendations :

Table 1 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 No.	Building	Total Finding	Finding Range	Remarks
Table 1	Building 8: 3- Storied RCC New ETP Building	11	F-1 to F-11	
Table 2	Building 10: Single-Storied RCC Sub-station Building	2	F-12 to F-13	
Table 3	Building 12: Three-storied RCC Dining building with steel roof and partial basement.	10	F-14 to F-23	
Table 4	Building 16: Six-Storied RCC RMG-4 Building	15	F-24 to F-38	
Table 5	Shed 13: Lab Building [Two-Storied RCC Building connected with a single storied steel shed]	11	F-39 to F-49	
Table 6	Shed-16: Single-Storied Shed	5	F-50 to F-54	
Table 7	Shed-19: Single Storied Shed	12	F-55 to F-66	
Table 8	Shed-20: Single Storied Shed	7	F-67 to F-73	
Table 9	Shed-21: Single Storied Shed with Mezzanine floor	3	F-74 to F-76	

Table-1: Building 8: 3- Storied RCC New ETP Building

SI No.	Category	Findings	Required Action	Remediation Time
F1	Fire Rated Construction	The exit stair enclosures are not separated from work areas and other spaces on each floor by fire-rated construction (Exit enclosure-1) & Sanitary pipes (Exit enclosure-2). Location: Building-8	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
				

F2	Fire Rated Construction	Penetrations through floor/ceiling assemblies are found unsealed. Location(s): Building-8, GF	Provide a minimum 2-hr fire-rated shaft to separate the utility risers from each floor level or seal all penetrations and openings in floors/ceiling assemblies by 3-hr fire-rated listed/certified materials. The installation of such fire-rated materials shall be following certified design.	Within 3 months
 				

F3	Fire Rated Construction	The exterior exit discharge of the building is not separated from the exterior openings of the building. Location: Stair-2, Building-8	Exterior exits shall be separated by minimum 1-hr fire-rated construction and The rating of the exterior wall shall extend 3.05 m (10 ft.) beyond the ends of the exit structure.	Within 3 Months
 				

F4	Means of Egress	Both stair width was less than 60 inches (Stair-1: 37 inches, Stair-2: 53 inches) Location: Building -8	In new and interim construction stairs shall have a minimum width of 1.5 m (60 in.) for all industrial occupancies. RSC Technical Guidelines (Standard)- 6.5.6.2	Within 3 months
 				

F5	Means of Egress	Provided handrail was less than 34 inches (32 inches available) & the gap between intermediate rails was more than 8 inches (200 mm). Location: Stair-1 & 2, Building-8.	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. RSC Technical Guidelines (Standard)- 6.12.1 Open guards shall have intermediate rails or pattern such that a sphere 200 mm (8 in.) in diameter cannot pass through any opening up to a height of 865 mm (34 in.) RSC Technical Guidelines (Standard)- 6.12.2.	Within 3 months
 				

F6	Means of Egress	Parapet height was less than 42 inches . Location: Building-8	All occupiable roofs shall be provided with parapets or guards with a minimum height of 1067 mm (42 in.) as per RSC Technical Guidelines (Standard)-6.12.2.4	Within 3 month
 				

F7	Emergency 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. Location: Building-8	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 3 month
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F8	Means of Egress	Posted fire evacuation maps are not updated. Location: Building-8	Fire evacuation maps shall be posted at the entrance to each exit stair and shall be updated regularly when required.	Within 1 month
F9	Means of Egress	Sliding doors are provided at the building exit stair discharge. Location: Building-8	Replace all gates and doors along the means of egress with side-hinged, swinging egress doors in accordance with RSC Technical Guidelines (Standard)- 6.8.1.	Within 1 month
 				

F10	Fire Alarm & Detection system	Automatic fire alarm and detection system is being installed which requires detailed review to confirm compliance with NFPA 72 and The RSC Technical Guidelines (Standard). Location: Building-8	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/modification within 4 months
F11	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). Location: Building-8	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)

Table-2: Building 10: Single-Storied RCC Sub-station Building

SI No.	Category	Findings	Required Action	Remediation Time Frame
F12	Fire Alarm & Detection system	Automatic fire alarm and detection system is being installed which requires detailed review to confirm compliance with NFPA 72 and The RSC Technical Guidelines (Standard). Location: Building-10	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/modification within 4 months
F13	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). Location: Building-10	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)

Table-3 : Building 12: Three-storied RCC Dining building with steel roof and partial basement.

SI No.	Category	Findings	Required Action	Remediation Time Frame
F14	Fire Rated Construction	The main structural elements of the roof (2nd floor) are constructed of steel which is non-rated and was found in exposed condition without any fire protection. Location: 2nd floor, Building-12	The building shall be type-I or II construction as per RSC Technical Guidelines (Standard) 3.5.2. Provide require rating in the structural elements of the building. Consult with a qualified fire protection engineer. Submit the proposed drawing/design to RSC for review. Once reviewed, install passive fire protection as per reviewed design.	Design Review within 2 months and installation within 4 months
 				

F15	Fire Rated Construction	The exit stair enclosures are not separated from work areas and other spaces on each floor due to non-functional fire-rated doors. Location: 1st & 2nd floor, Building-12	Provide minimum 1-hr fire-rated construction for 1 for buildings up to 3 storied. Seal all unprotected openings to separate the exit stairs from work areas and other spaces on all floor levels by 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
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F16	Means of Egress	The exits in the work area on the 1st floors are not remotely located from each other such that a single fire event could compromise both exits. Location: Building-12	Modify exit arrangement to provide remote exits as per RSC Technical Guidelines (Standard)-6.6.6. Alternatively, provide sprinkler protection throughout the floors accordance with NFPA 13.	Within 3 months
 				

F17	Fire Rated Construction	A connection duct (Horizontal shaft) was found connecting the Building-12 & Building-6 without opening protection. Location: Building-12	Provide opening protection to provide minimum 1-hr fire separation between two connected buildings. Or, Remove the duct from the location.	Within 3 months
				

F18	Emergency Lighting	Exit signage was not provided along a path of egress. Location: All floors, Building-12	Provide exit signs above all building exits to the exterior, all doors to the exit stairs and along all paths of travel where a change of direction 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
 				

F19	Means of Egress	Guards are not provided floor on periphery of the floor. Location: 2nd floor, Building-12	Guards shall provide as per RSC Technical Guidelines (Standard) 6.12.2 to prevent falling hazard. Minimum guard height shall be 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
				
F20	Means of Egress	Floor evacuation plans weren't found updated based on site condition. Location: Building-12	Provide updated evacuation plans & it shall posted at the entrance to each exit stair.	Within 1 month

F21	Emergency Lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along the egress routes.	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 3 months
				

F22	Fire Alarm & Detection system	Automatic fire alarm and detection system is being installed which requires detailed review to confirm compliance with NFPA 72 and The RSC Technical Guidelines (Standard). Location: Building-10	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/modification within 4 months
F23	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). Location: Building-10	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)

Table-4 : Building 16: Six-Storied RCC RMG-4 Building.

SI No.	Category	Findings	Required Action	Remediation Time
F24	Fire Rated Construction	Elevator shafts are directly open into exit enclosure which is a violation of RSC Technical Guidelines (Standard)-6.14.3. Location: Building-16.	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. (As per 6.14.3 of RSC Technical Guidelines (Standard) V1.0) Ensure the lift shaft is enclosed by a minimum 2-hour fire rated wall with minimum 1.5-hr fire rated opening protection. Recommended to follow "SUPPLEMENTARY PAPER ON REMEDIATION GUIDANCE ELEVATOR OR LIFT SHAFT OPENING IN EXIT ENCLOSURES" for remediation.	Within 3 months
 				

F25	Fire Rated Construction	The exit stair enclosures 1 & 2 are not separated from the lift machine rooms and penetrations were also observed. Fire door was found kept open by external source. Location: Building-16	Provide minimum 2-hr fire-rated construction for buildings 4 storied or more. 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. 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
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F26	Fire Rated Construction	Penetrations through floor/ceiling assemblies are found unsealed due to Plumbing pipes and BBT Location: Building-16	Provide a minimum 2-hr fire-rated shaft to separate the utility risers from each floor level or seal all penetrations and openings in floors/ceiling assemblies by 3-hr fire-rated listed/certified materials. The installation of such fire-rated materials shall be following certified design.	Within 3 months
 				

F27	Fire Rated Construction	A corridor was found connecting shed-13 (Knitting & Yearn Store) & Building-16 without fire separation. Location: Building-16	Provide minimum 1-hr fire rated corridor to separate the building. The building exterior walls within 3050mm (10 ft) horizontally up to height of corridor shall have a fire resistance rating of not less than 1 hr on same side of wall where fire separation has been provided.	Within 3 months
				

F28	Fire Rated Construction	Areas used for combustible storage open to the factory are not separated by fire-rated construction on GF & 1st floor. Location: Building-16	Separate the dedicated storage rooms by minimum 1-hr fire-rated construction. Provide 0.75 hr. fire rated door and seal all penetrations and openings by 1 hr. fire rated fire rated barrier construction. Where separate storage rooms are not feasible, provide defined storage areas and limit the storage arrangement as follows: - Maximum height of 2.45m (8ft.) , maximum area of 23m² (250 ft²) and 3m (10ft.) clear distance from adjacent another unenclosed combustible storage. - If the building/floor is sprinkler protected: maximum height of 3.66m (12ft.) and maximum area of 93m² (1000 ft²). - -In process storage shall be limited to 10 percent of the building area of the story in which they occur.	Within 3 months
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F29	Means of Egress	Building did not have stair designation, occupant load sign & evacuation plans at the required locations on 4th & 5th floors. Location: Building-16	Provide stair designation, occupant load sign & evacuation plans at required locations.	Within 1 month
F30	Means of Egress	Directional Exit signage was not provided along the path of egress where there was a change in the direction for the path of travel and the direction to an exit is not obvious on the 4th & 5th floors. Location: Building-16	Provide directional exit signs above all building exits to the exterior, all doors to the exit stairs and along all paths of travel where a change of direction is not obvious. Lighted directional signs shall be provided with either battery backup or uninterruptable power supply systems and shall be continuously illuminated.	Within 3 month
 				

F31	Means of Egress	Aisle marking was not provided on the 2nd & 3rd floor (packing section). Location: Building-16	Provide minimum aisle widths of 36-in. Aisles mark shall be clearly visible.	Within 1 month
				
F32	Means of Egress	Handrails are not provided on both sides of the exit stairs. Location: Building-16	RSC-6.12.1.2: New & 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. Intermediate rails or patterns shall be in a such way, 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

				
F33	Emergency Lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along the egress routes. Location: Building-16	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



F34	Fire Alarm & Detection system	Automatic fire alarm and detection system is being installed which requires detailed review to confirm compliance with NFPA 72 and The RSC Technical Guidelines (Standard). Location: Building-16	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/modification within 4 months
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F35	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). Location: Building-16	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)
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F36	Fire Protection System (Standpipe)	A Standpipe system was found to be installed in the factory, which is required to be reviewed and verified. Location: Building-16.	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 14,20,22 and 24. 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
F37	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). Location: Building-16.	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/modification)



F38	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). Location: Building-16.	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/ modification)
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Table-5 : Shed 13: Lab Building [Two-Storied RCC Building connected with a single storied steel shed]

SI No.	Category	Findings	Required Action	Remediation Time Frame
F39	Fire Rated Construction	The main structural element of the buildings are constructed by steel which is non-rated. Steel members were found in exposed condition without any fire protection. Location: Shed-13	The building shall be type-I or II construction as per RSC Technical Guidelines (Standard) 3.5.2. Provide required rating in the structural elements of the building. Consult with a qualified fire protection engineer. Submit the proposed drawing/design to RSC for review. Once reviewed, install passive fire protection as per reviewed design.	Design Review within 2 months and installation within 4 months

F40	Fire Rated Construction	Areas used for combustible storage are not separated by fire-rated construction on the ground floor from the production area. Location: Shed-13	Separate the dedicated storage rooms by minimum 1-hr fire-rated construction. Provide 0.75 hr. fire rated door and seal all penetrations and openings by 1 hr. fire rated fire rated barrier construction. Where separate storage rooms are not feasible, provide defined storage areas and limit the storage arrangement as follows: - Maximum height of 2.45m (8ft.) , maximum area of 23m2 (250 ft2) and 3m (10ft.) clear distance from adjacent another unenclosed combustible storage. - If the building/floor is sprinkler protected: maximum height of 3.66m (12ft.) and maximum area of 93m2 (1000 ft2).	Within 3 months
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F41	Fire Rated Construction	Mezzanine floor lab area is not separated from the ground floor. Location: Shed-13	Separate the lab from the ground floor production area by 2-hr fire-rated construction.	Within 3 months
 				

F42	Means of Egress	Travel distance of egress exceeds the allowable limit (approx. 210 ft) from the knitting area. Location: Shed-13.	Reconfigure the egress arrangement so that the travel distance does not exceed 45 m (BNBC 2006 Part 4 Section 3.15.1). Travel distance shall be increased to 60 m (200 ft) where a complete automatic fire detection system portable fire extinguishers & standpipe system is provided and 122 m (400 ft) where a complete automatic sprinkler system is provided. Or, Provide required additional exits.	Within 3 months
				

F43	Means of Egress	Exit discharge from the north exit is unusable & abrupt changes of elevation in the walking surface have been found. Location-Shed-13	Provide an even level walking surface in exit discharge in accordance with RSC Technical Guidelines (Standard)-6.3.4.	Within 1 month
				

F44	Means of Egress	Building did not have stair designation, floor designation signs, occupant load sign & evacuation plans at the required locations on all floors. Location: Shed-13	Provide stair designation, floor designation, occupant load sign & evacuation plans at required locations.	Within 1 month
F45	Means of Egress	Handrails are not provided on both sides of the exit stairs on the mezzanine floor. Location: Shed-13	RSC-6.12.1.2: New & 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. Intermediate rails or pattern shall be in a such way, 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
 				

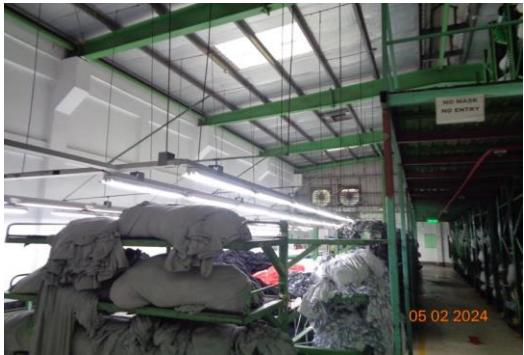
F46	Means of Egress	Parapet height was found less than 42" (available 39"). Location: Shed-13	Provide parapets with a minimum height of 1067mm (42 inch.). Parapets that are constructed on rated exterior construction shall be of the same rating as the exterior wall rating in accordance with BNBC.	Within 3 months
				

F47	Fire Rated Construction	The west exterior exit discharge of the building is not separated from the exterior openings of the building. Location: Shed-13	Exterior exits shall be protected by minimum 1-hr fire-rated construction and The rating of the exterior wall shall extend 3.05 m (10 ft.) beyond the ends of the exit structure.	Within 3 Months
				

F48	Fire Alarm & Detection system	Automatic fire alarm and detection system is being installed which requires detailed review to confirm compliance with NFPA 72 and The RSC Technical Guidelines (Standard). Location: Shed-13	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/modification within 4 months
F49	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). Location: Shed-13	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)

Table-6: Shed-16: Single-Storied Shed

SI No.	Category	Findings	Required Action	Remediation Time Frame
F50	Means of Egress	The gap between intermediate rails was more than 8 inches (200 mm). Location: Shed-16.	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.) RSC Technical Guidelines (Standard)- 6.12.2.	Within 1 month
 				

F51	Fire Rated Construction & Means of Egress	The deck/catwalk portion above the ground floor fails to meet the RSC building standard and BNBC 2006 requirements for floor-to-floor separation, stair separation, and related criteria. Location: Shed-16 (storage Area)	The total area of mezzanine floors in a building area shall not exceed one-third of the plinth area of the building area. Hence, the floor requires to be separated from the ground floor. 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.). The floor must adhere to the RSC building standards and BNBC 2006 regulations regarding fire separation and egress features.	Within 6 months
 				

F52	Fire Rated Construction	The main structural element of the buildings are constructed by steel which is non-rated. Steel members were found in exposed condition without any fire protection. Location: Shed-16	The building shall be type-I or II construction as per RSC Technical Guidelines (Standard) 3.5.2. Provide required rating in the structural elements of the building. Consult with a qualified fire protection engineer. Submit the proposed drawing/design to RSC for review. Once reviewed, install passive fire protection as per reviewed design.	Design Review within 2 months and installation within 4 months
				

F53	Fire Alarm & Detection system	Automatic fire alarm and detection system is being installed which requires detailed review to confirm compliance with NFPA 72 and The RSC Technical Guidelines (Standard). Location: Shed-16	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/modification within 4 months
F54	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). Location: Shed-16	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)

Table- 7: Shed-19: Single Storied Shed

SI No.	Category	Findings	Required Action	Remediation Time Frame
F55	Fire Rated Construction	The compressor room is not separated from the production area by fire-rated construction due to openings. Location: Shed-19	Separate the compressor rooms by a minimum 1-hr fire-rated construction for non-high rise. Seal and/or protect all openings to maintain the required fire separations. Or relocate the compressor room to the exterior of a building with a spatial distance of 3m (10 ft.). Ensure proper ventilation for the compressor room.	Within 3 months



F56	Fire Rated Construction	The exterior exit discharge of the building is not separated from the exterior openings of the building. Location: South exit, Shed-19	Exterior exit stairs shall be separated by minimum 1-hr fire-rated construction and The rating of the exterior wall shall extend 3.05 m (10 ft.) beyond the ends of the exit structure.	Within 3 Months
 				

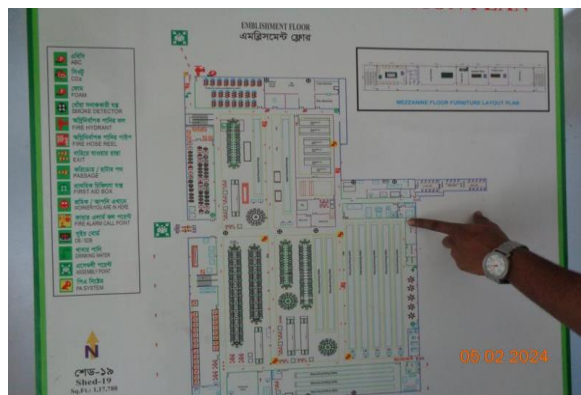
F57	Means of Egress	Exit discharge path from east exit is unusable & abrupt changes of elevation in the walking surface have been found. Location: Shed-19	Provide an even level walking surface in exit discharge in accordance with RSC Technical Guidelines (Standard)- 6.3.4.	Within 1 month
 				

F58	Means of Egress	Handrails are not provided on both sides of the ramp. . Location: South Exit ramp, Shed-19	RSC-6.12.1.2: New & interim handrails shall have a minimum height of 865 mm (34 in.) and a maximum height of 965 mm (38 in.). Intermediate rails or pattern shall be in a such way, 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
 				

F59	Means of Egress	Aisle marking was not provided in the printing section. Location: Shed-19	Provide minimum aisle widths of 36-in. Aisles mark shall be clearly visible.	Within 1 month
 				
F60	Fire Rated Construction	The main structural element of the buildings are constructed by steel which is non-rated. Steel members were found in exposed condition without any fire protection. Location: Shed-19	The building shall be type-I or II construction as per RSC Technical Guidelines (Standard) 3.5.2. Provide required rating in the structural elements of the building. Consult with a qualified fire protection engineer. Submit the proposed drawing/design to RSC for review. Once reviewed, install passive fire protection as per reviewed design.	Design Review within 2 months and installation within 4 months

F61	Means of Egress	Travel distance is not within the allowable limit (75 ft), for single exit in the proposed printing section (available 120 ft) Location: Shed-19	Provide additional exit or, keep the travel distance within the limit in accordance with RSC Technical Guidelines (Standard)-6.6	Within 3 months
				

F62	Means of Egress	Travel distance of egress exceeds the allowable limit; approx. 185 ft from east to mid-west exit & approx. 250 ft from the acid-wash section to North-East exit Location: Shed-19.	Reconfigure the egress arrangement so that the travel distance does not exceed 45 m (BNBC 2006 Part 4 Section 3.15.1). Travel distance shall be increased to 60 m (200 ft) where a complete automatic fire detection system portable fire extinguishers & standpipe system is provided and 122 m (400 ft) where a complete automatic sprinkler system is provided. Or, Provide required additional exits.	Within 3 months
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F63	Means of Egress	Common path of travel exceeds the allowable limit (approx. 220 ft) from acid-wash section. Location: Shed-19.	The common path of egress travel shall not exceed 23 m (75 ft), where the building is not provided with a complete automatic sprinkler system as per RSC Technical Guidelines (Standard)-6.13.2.	Within 3 months
 				

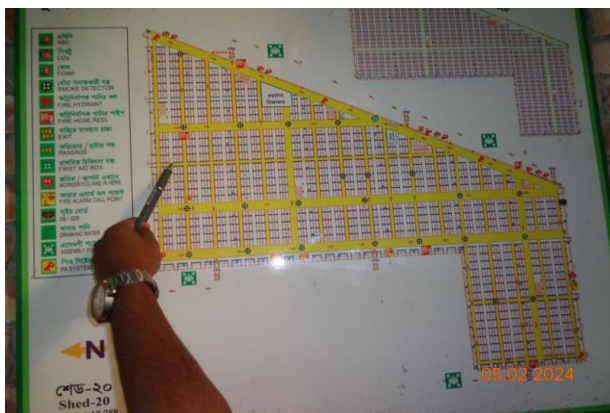
F64	Emergency Lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along the egress routes. Location: Shed-19.	Test the emergency lighting system on each floor and provide additional emergency fixtures to supply adequate illumination 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
				

F65	Fire Alarm & Detection system	Automatic fire alarm and detection system is being installed which requires detailed review to confirm compliance with NFPA 72 and The RSC Technical Guidelines (Standard). Location: Shed-19.	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/modification within 4 months
F66	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). Location: Shed-19.	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)

Table-8 : Shed-20: Single Storied Shed

SI No.	Category	Findings	Required Action	Remediation Time Frame
F67	Fire Rated Construction & Means of Egress	The deck/catwalk portion above the ground floor fails to meet the RSC building standard and BNBC 2006 requirements for floor-to-floor separation, stair separation, and related criteria. Location: Shed 20	The total area of mezzanine floors in a building shall not exceed one-third of the plinth area of the building. Hence, the floor requires to be separated from the ground floor. 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.). The floor must adhere to the RSC building standards and BNBC 2006 regulations regarding fire separation and egress features.	Within 6 months
 				

F68	Means of Egress	Travel distance of egress exceeds the allowable limit; approx. 185 ft from North-East exit to North-West Location: Shed-20.	Reconfigure the egress arrangement so that the travel distance does not exceed 45 m (BNBC 2006 Part 4 Section 3.15.1). Travel distance shall be increased to 60 m (200 ft) where a complete automatic fire detection system portable fire extinguishers & standpipe system is provided and 122 m (400 ft) where a complete automatic sprinkler system is provided. Or, Provide required additional exits to maintain the required travel distance.	Within 3 months
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F69	Means of Egress	Exit discharge path from west exits are unusable & abrupt changes of elevation in the walking surface have been found. Location: Shed-20	Provide an even level walking surface in exit discharge in accordance with 6.3.4 of RSC Technical Guidelines (Standard).	Within 1 month
				

F70	Fire Rated Construction	The west exterior exit discharge of the building is not separated from the exterior openings of the building. Location: Shed-20	Exterior exits shall be protected by minimum 1-hr fire-rated construction and The rating of the exterior wall shall extend 3.05 m (10 ft.) beyond the ends of the exit structure.	Within 3 Months
 				

F71	Fire Rated Construction	The main structural element of the buildings are constructed by steel which is non-rated. Steel members were found in exposed condition without any fire protection. Location: Shed-20	The building shall be type-I or II construction as per RSC Technical Guidelines (Standard) 3.5.2. Provide required rating in the structural elements of the building. Consult with a qualified fire protection engineer. Submit the proposed drawing/design to RSC for review. Once reviewed, install passive fire protection as per reviewed design.	Design Review within 2 months and installation within 4 months
F72	Fire Alarm & Detection system	Automatic fire alarm and detection system is being installed which requires detailed review to confirm compliance with NFPA 72 and The RSC Technical Guidelines (Standard). Location: Shed-20	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/modification within 4 months

F73	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). Location: Shed-20	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)
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Table-9: Shed-21: Single Storied Shed with Mezzanine floor

SI No.	Category	Findings	Required Action	Remediation Time Frame
F74	Fire Rated Construction	The main structural element of the buildings are constructed by steel which is non-rated. Steel members were found in exposed condition without any fire protection. Location: Shed-21	The building shall be type-I or II construction as per RSC Technical Guidelines (Standard) 3.5.2. Provide required rating in the structural elements of the building. Consult with a qualified fire protection engineer. Submit the proposed drawing/design to RSC for review. Once reviewed, install passive fire protection as per reviewed design.	Design Review within 2 months and installation within 4 months

F75	Fire Alarm & Detection system	Automatic fire alarm and detection system is being installed which requires detailed review to confirm compliance with NFPA 72 and The RSC Technical Guidelines (Standard). Location: Shed-21	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/modification within 4 months
F76	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). Location: Shed -21	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)