

INITIAL FIRE SAFETY INSPECTION REPORT

Park Bangladesh Company Ltd.

RSC ID: 24694

Plot 94 95 Sector 3, Kamaphuli EPZ, North Patenga, Bangladesh

Other Factories: None.



Inspected By: Md. Musa & Md. Hasibur Rahman Abir

Date: 13-09-2023

Fire Safety Inspection Report

Introduction:

Park Bangladesh Company Ltd. complex was surveyed for fire safety on **13-09-2023** 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):

There is total 10 buildings in the factory premises. Four are main building and 6 are ancillary buildings.

The main buildings are as:

1. Building no 1 (Main Building)
2. Building no 2 (Ancillary 1)
3. Building no 3-A (Ancillary 2)
4. Building no 3-B (Ancillary 3)
5. Building no -4 (Ancillary 4)

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Area Table:

Building no 1 (Main Building)

Floor	Floor Area (m ²)	Remarks
GF	2697.25	
Mezannine	664.44	
1st	2697.25	
2nd	2697.25	
3rd	2697.25	
4th	2697.25	
5th	2697.25	
6th	1634.81 & 1062.44	

Building no 2 (Ancillary 1)

Floor	Floor Area (m ²)	Remarks
GF	126.81	Substation, Generator Room, Compressor Room & Machine Oil Keeping Area

Building no 3-A (Ancillary 3)

Floor	Floor Area (m ²)	Remarks
GF	20.81	Boiler Room

Building no 3-B (Ancillary 3)

Floor	Floor Area (m ²)	Remarks
GF	48.12	Fire Pump Room

Building no -4 (Ancillary 4)

Floor	Floor Area (m ²)	Remarks
GF	18.58	Main Security Post & Fire Command Room

Findings & Recommendations :

Table 1 summarizes the major fire safety issues identified **(1. Main Production Building, Building no 1; 2. Building no 2 (Ancillary 1); 3. Building no 3-A (Ancillary 2); 4. Building no 3-B (Ancillary 3); 5. Building no -4 (Ancillary 4))** 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	Top floor of Building 1 (Main Building) is made of steel and found exposed without any fire protection which is defined as non-rated construction and a violation of BNBC 2006.	Construction must be of type 1 (See BNBC 2006 Part 3 Table 3.2.4, page 10356 and Part 3, Table 3.1.9, page 10319). Provide/ensure required fire rating on the structural elements by following Section 4.4 and Table 4.4.1 of the RSC Technical Guideline (standard) V1 or Table 3.3.1 and Table 4.1.1 from BNBC 2006. Consult a qualified fire protection engineer to design the rated construction barriers.	Within 6 months
 				

F-02	Fire Rated Construction	Penetrations through floor/ceiling assemblies are found unsealed.	Seal all penetrations and openings in floor/ceiling assemblies by a listed through-penetration fire stop system tested in accordance with ASTM E814 or approved alternative standard to maintain minimum 3-hr. fire resistance rating. Installation shall be as per manufacturer published installation guideline and the certification authority guideline to ensure the fire-rating. or, Provide a minimum 2-hr fire rated shaft to separate the utility risers from each floor if required.	Within 3 months
 				

F-03	Fire Rated Construction	The building is primarily designated for G2 occupancy, mainly used for production. However, the top floor is utilized for dining with a capacity exceeding 300 people, resulting in an E3 classification. According to BNBC 2006, mixed occupancy between G2 and E3 is not permitted.	To classify the occupancy as E4, it's necessary to limit the occupant load of the dining to 300 or below. Limit the occupant capacity of the dining room to below 300 or remove the dining from the building.	Within 3 months
 				

F-04	Fire Rated Construction	Areas used for in-process storage of combustible materials are open to the surrounding occupancy. Location: 1st floor and 3rd floor.	Provide defined storage areas and limit the storage arrangement as follows: Maximum height of 2.45 m and maximum area of 23 m² and is separated by a minimum 3.0 m (10ft) from other storage areas and they do not exceed 10 percent of the building area of the story in which they occur. or, If sprinkler protected, Maximum height 12 ft (3.66 m) and maximum area of 1000 ft² (93 m²) and separated by a at least 25 ft (7.62 m) and does not constitute more than 10 percent of the building area or 4000 ft² (372 m²) of the sprinklered area, whichever is greater. or, Enclose the storage area from the surrounding occupancy with a minimum 1 hour construction.	Within 3 months
 				

F-05	Fire Rated Construction	The exit stairs lack separation from work areas and other spaces due to unprotected openings and penetrations. Additionally, on the ground floor, office arrangements (reception) are situated within the stair enclosure, and there are openings from exit enclosures to storage areas without vestibules.	Stair shall be enclosed with a minimum 2-hr fire-rated construction. Seal all unprotected openings and provide minimum 1.5-hr fire rated doors to separate the exit stairs from work areas and other building spaces on all floor levels. Ensure that the fire doors are self-closing, positive latching and that they are provided with fire exit (panic) hardware where serving production floors. Openings from exit enclosure to storage areas shall be provided with a vestibule with fire rated construction and openings. Ensure that the fire rating of the vestibule construction matches that of the exit stair enclosure. If fire doors are required to be held open for functional reasons, provide automatic-closing devices tied to the fire alarm system.	Within 3 months
 				

F-06	Fire Rated Construction	Elevator shafts are directly open into the inside of stair (exit enclosure).	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.	Within 3 months
				

F-07	Means of Egress	Abrupt changes in the elevation of walking surfaces were observed, not meeting the RSC Technical Guidelines (Standard) ¹ V1.0 Section 6.3.4.	Abrupt changes in elevation of walking surfaces shall not exceed ¼ in. unless provided with a beveled slope of 1 in 2 that do not exceed ½ in. Changes greater than ½ in. shall meet the requirements for RSC Technical Guidelines (Standard) ¹ V1.0 Section 6.3.5.	Within 1 month
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F-08	Fire Rated Construction	Handrails are provided on both sides of each exit staircase but do not meet the RSC Technical Guidelines (Standard) ¹ V1.0 Section 6.12.1, with heights measuring less than 865 mm (34 in.).	Handrails shall have a minimum height of 865 mm (34 in.) and a maximum height of 965 mm (38 in.) as measured from the leading edge of the tread.	Within 1 month
 				

F-09	Means of Egress	Exit doors serving 50 or more occupants does not swing in the direction of egress travel. Location: Roof top	Modify the egress door to swing in the direction of egress travel.	Within 1 month
				
F-10	Means of Egress	Building did not have stair designation signs at required locations.	Provide stair designation sign at 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	Egress Lighting	Directional signs are not provided where direction of the path of travel to an exit has changed. Location: 4th and 5th Floor.	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 2 months

F-12	Egress Lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes. Location: 4th and 5th Floor.	Test the emergency lighting system on each floor and provide additional emergency fixtures to provide adequate illumination along the means of egress. Provide a minimum illumination of 10 lux at the floor level within exit stairs and exit discharge paths and minimum 2.5 lux along exit access aisles.	Within 1 month
				
F-13	Fire Alarm & Detection System (FADS)	Fire alarm and detection system installation is complete and requires a detailed review to confirm compliance with NFPA 72 and 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 building 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.	Design within 2 month and modification/ installation with 4 months



F-14	Fire Suppression System (SUPS)	The highest occupied floor of the building no-1 (Main Building) is more than 75 ft. above grade where sprinkler system along with class I standpipe is mandatory, and the factory has installed sprinkler system with class I standpipe and requires a detailed review to confirm compliance with NFPA 13, 14, 20 and 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 building in accordance with review comment, RSC Technical Guidelines (Standard) and NFPA 13, 14, 20. After installation the owner shall conduct internal testing and commissioning and then contact the RSC for witness of final acceptance testing.	Design within 2 months and modification/ installation with 4 months
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F-15	Inspection, Testing and Maintenance (ITM) of FADS.	Inspection, testing and maintenance for the fire detection and alarm system was not in accordance with standard.	Inspect, test and maintain the fire alarm system and keep written records on-site, in accordance with Table-14.3.1 of NFPA 72.	Within 1 Month (after installation)
F-16	Inspection, Testing and Maintenance (ITM) of standpipe system	Inspection, testing, and maintenance for the Standpipe system is not in accordance with NFPA 25.	Inspect, test and maintain the standpipe system in accordance with NFPA 25 and keep written records on-site.	Within 1 Month (after installation)
F-17	Inspection, Testing and Maintenance (ITM) of fire pump system	Inspection, testing, and maintenance for the fire pump is not in accordance with NFPA 25.	Inspect, test and maintain the fire pump in accordance with NFPA 25 and keep written records on-site.	Within 1 Month (after installation)
F-18	Inspection, Testing and Maintenance (ITM) of fire pump system	Inspection, testing, and maintenance for the sprinkler is not in accordance with NFPA 25.	Inspect, test and maintain the fire pump in accordance with NFPA 25 and keep written records on-site.	Within 1 Month (after installation)