

INITIAL FIRE SAFETY INSPECTION REPORT

Kenpark Bangladesh (Pvt) Ltd. (Extension)

RSC ID: 24856

Plot # 31-42, Sector# 8, Chittagong EPZ, Chittagong.

GPS Coordinates: 22.27917337560198, 91.77419619036887

Other Factories (in the premises): Kenpark Bangladesh (Pvt) Ltd. (ID: 11043)



Inspected By: Md. Golam Kibria and Md. Hasibur Rahman Abir

Date: 13-December-2023

Fire Safety Inspection Report

Introduction:

Kenpark Bangladesh (Pvt) Ltd. (Extension) complex was surveyed for fire safety on **13-Dec-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

There are twenty-seven (24) structures under this ID among which two (2) is main production building and twenty-two (22) ancillaries structures. The name of the structures are

1. Main Factory Building;
2. Canteen Building
3. 3D Building
4. Canteen Building
5. CMS Shed
6. Boiler (6 ton)
7. Rain protection shed
8. Transformer room
9. RWTP Shed-1
10. RWTP Shed-2
11. Garbage Recepticle and Idle machine shed
12. Prayer & Locker Building
13. Compressor room over sump
14. Diesel Tank room
15. Male Toilet Block
16. Drivers Waiting Room
17. Chemical issue room
18. WP QC area shed
19. Fire Pump room
20. Overhead pump room
21. ETP Pump room
22. Maintenance Workshop shed
23. WP Maintenance Workshop shed
24. Loading / Unloading shed of WP

Main production buildings

(1) Main Factory Building

The structure is a single storied steel shed with mezzanine. The structure was constructed between January 2001 and September 2001. The structure has been occupied since September 2001. The design approved by BEPZA dated 29-05-2008. The area of the building is approximately 11369 square meters.

(2) 3D Building

The structure is a three storied R.C.C building. The structure was constructed between November 2005 and June 2006. The structure has been occupied since July 2006. The design approved by BEPZA dated 29-05-2008.

Ancillaries Buildings

- (1) Canteen Building (single story pre-fab shed building) (Construction Start: January 2001 Construction End: September 2001, Occupied: September 2001)
- (2) Security room (Single story R.C.C Building) (Construction Start: January - 2001 and Construction End: April-2001, Occupied: April-2001)
- (3) CMS Shed (single story pre-fab shed) (Construction Start: June -2001 and Construction End: July -2001, Occupied: September 2001)
- (4) Boiler (6 ton) (Construction Start: July 2010 and Construction End: October 2010, Occupied: November 2010)
- (5) Rain protection shed (Single story pre-fab shed building) (Construction Start: June 2006 and Construction End: September 2006, Occupied: September 2006)
- (6) Transformer room - 01 (Construction Start: November 2005 and Construction End: December 2005, Occupied: December 2005)
- (7) RWTP Shed - 1 (Single story pre-fab shed building)(Construction Start: November 2005 and Construction End: December 2005, Occupied: December 2005)
- (8) RWTP Shed - 2 (Single story pre-fab shed building) (Construction Start: January 2011 and Construction End: December 2011, Occupied: December 2011)
- (9) Garbage Receptacle & Idle machine shed (Single story pre-fab shed) (Construction Start: November 05 and Construction End: December 2005, Occupied: December 2005)
- (10) Prayer & Locker Building (Two storied R.C.C Building) (Construction Start: June 2006 and Construction End: September 2006, Occupied: September 2006)
- (11) Compressor room - 01 (Single story R.C.C Building) (Construction Start: October 2005 and Construction End: November 2005, Occupied: December 2005)
- (12) Diesel Tank Shed (Single story pre-fab shed building) (Construction Start: January 2005 and Construction End: March 2005, Occupied: June 2005)
- (13) Male Toilet Block (Single story R.C.C building) (Construction Start: June 2011 and Construction End: August 2011, Occupied: September 2011)
- (14) Drivers Waiting room (Single story R.C.C Building) (Construction Start: July 2006 and Construction End: July 2006, Occupied: July 2006)
- (15) Chemical Issue Room (Construction Start: June 2006 and Construction End: August 2006, Occupied: September 2006)
- (16) WP QC Area shed (Single story pre-fab shed) (Construction Start: June 2010 and Construction End: July 2010, Occupied: August 2010)
- (17) Fire Pump Room (Single story pre-fab shed building) (Construction Start: June 2018 and Construction End: September 2018 Occupied: October 2018)
- (18) Overhead Pump room (single story R.C.C Building) (Construction Start: October 2005 and Construction End: November 2005 Occupied: January 2006)
- (19) ETP Pump room (single story R.C.C Building) (Construction Start: October 2011 and Construction End: November 2011 Occupied: December 2011)
- (20) Maintenance Workshop shed (Single story pre-fab shed) (Construction Start: October 2018 and Construction End: November 2018 Occupied: November 2018)
- (21) WP Maintenance Workshop shed (Single story pre-fab shed) (Construction Start: June 2019 and Construction End: June 2019 Occupied: July 2019)
- (22) Loading & Unloading shed of WP ((Single story pre-fab shed) (Construction Start: January 2015 and Construction End: February 2015 Occupied: February 2015)

Factory Address: Plot # 31-42, Sector# 8, Chittagong EPZ, Chittagong.

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:

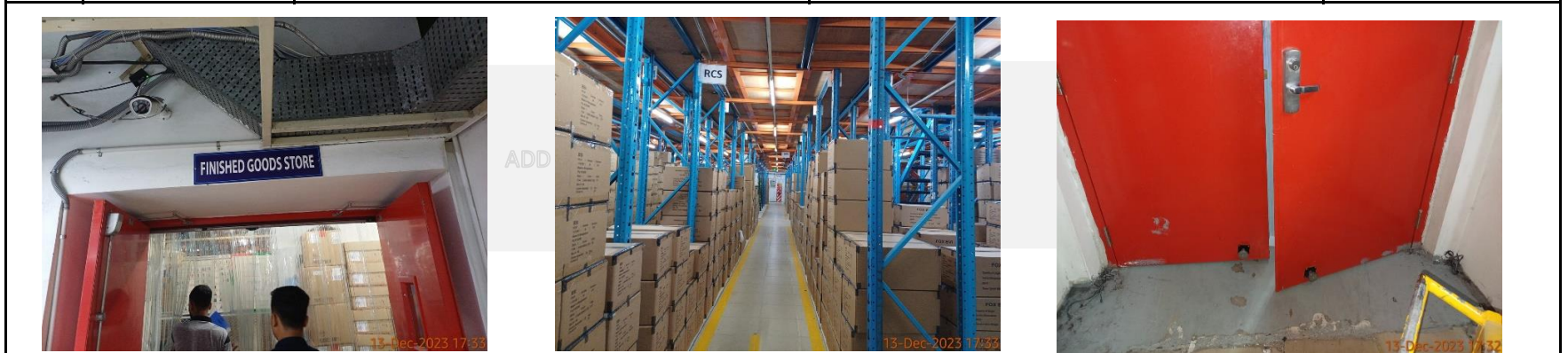
SI No.	Category	Findings	Required Action	Remediation Time Frame
F-01	Fire Rated Construction	The exit stairs are not separated from other spaces on each floor by fire-rated construction. Location: 3D building, and prayer & locker building.	Stair shall be enclosed with a minimum 1-hr fire-rated construction. Seal all unprotected openings and provide minimum 1-hr fire rated doors to separate the exit stairs from work areas and other building spaces on all floor levels. Penetrations into and through an exit enclosure shall be prohibited with the exception of required exit doors, sprinkler piping, standpipes, electrical raceway for fire alarm equipment, and electrical conduit serving the exit enclosure. Ensure that the fire doors are self-closing, 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.	Within 3 months





F-02	Fire Rated Construction	Chemical room is found at 2nd floor of 3D building which is not separated by fire rated construction and opening protective. Location: 3D building	Chemical storage room shall be separated from other occupancies by a minimum 4-hr fire rated construction (wall, floor, slab etc.) and no openings and penetrations shall be permitted at fire rated wall, floor, slab etc. with other occupancies.	Within 6 months
				

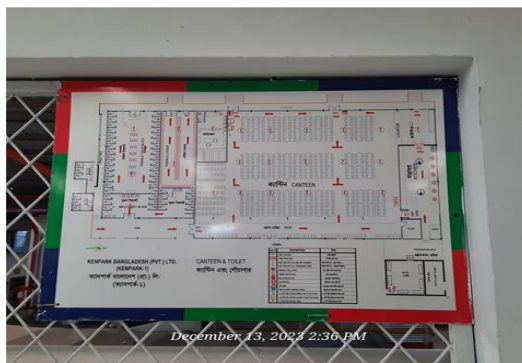
F-03	Fire Rated Construction	Storage at main production building is not separated by fire rated construction and opening protective during the inspection. Location: Main production building	Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction.	Within 3 months
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F-04	Fire Rated Construction	Exit corridor serving main production building (East side exits), canteen building (both exit discharges from stairs), prayer and locker building and 3D building are not fire separated.	1. Separate the corridor by a minimum 1-hr fire rated construction. Or 2. Provide automatic sprinkler system throughout the stories as per NFPA 13.	Within 3 months
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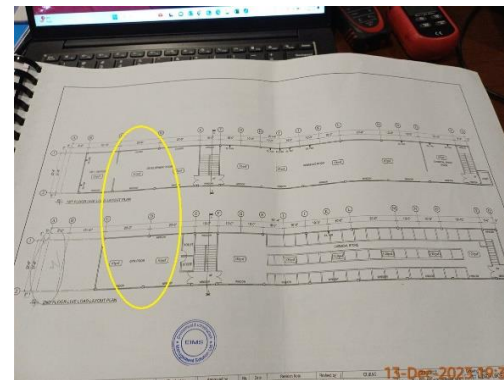
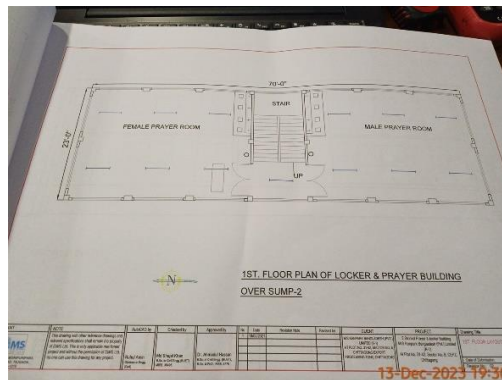
F-05	Fire Rated Construction & Means of Egress	The deck portion (at mezzanine floors) above ground floor fails to meet the RSC building standard and BNBC 2006 requirements for floor-to-floor separation, stair separation, and related criteria. Location: Main production building (storage area).	The total area of mezzanine floors in a building shall not exceed one-third the plinth area of the building. 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
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F-06	Means of Egress	The exits are not remotely located from each other such that a single fire event could compromise both exits at canteen building. Location: Canteen building.	Provide additional exit and ensure that the exit doors or means of egress openings are located a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the building or area to be served measured in a straight line between exits or egress openings.	Within 3 months
 				

F-07	Means of Egress	The maximum travel distance exceeds 45 m at main production building. Location: Main production building	Exits shall be arranged in such a manner that the travel distance from any point in the area served shall not exceed 45 meter (148 ft.). Or Travel distance limitations for G2 (RMG factories) shall be increased to 60 m (200 ft) where a complete automatic fire detection system, portable fire extinguishers, and standpipe system are provided in accordance with the RSC Technical Guidelines (Standard)	Within 3 months
 				

F-08	Means of Egress	Building did not have stair designation signs properly at required locations at 3D building. Location: 3D building	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 2 months
F-09	Means of Egress	Occupant load signs are not provided in main production building, canteen building, 3D building, Prayer and Locker building at required locations.	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 2 months
F-10	Means of Egress	Fire evacuation maps is not posted at the entrance of all exit stairs at canteen building, 3D building, prayer and locker building, each exits of main production building and others sheds.	Fire evacuation maps shall be posted at the entrance to each exit stair and each exits.	Within 2 months

F-11	Means of Egress	A single means of exit has been provided at prayer and locker building which is not compliant as the assembly area is located first floor of the building. Also a single means of exit has been found at development area (south part) on 2nd floor in 3D building which is not as per standard. Location: 3D building and prayer and locker building.	Provide additional exit. Note: The number of means of egress from any floor, story or portion thereof shall not be less than 2 except where a single exit is permitted by RSC building standard, section 6.6.2. For Occupancy E, a single exit is permitted only on the basement and ground floor, having a maximum of 50 occupants and a travel distance of up to 23 m (75 ft).	Within 3 months
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F-12	Means of egress	The stairs serving the 3D building have a width less than the required minimum of 0.9 meter (36 inches). Location: 3D building.	Stairs shall have a minimum width of 0.9 m (36 in.)	Within 6 months
 				

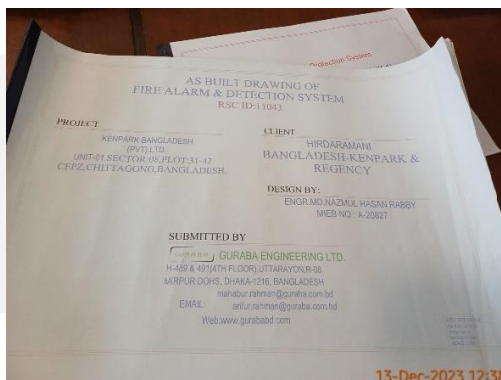
F-13	Means of Egress	Egress door serving 50 or more occupants but does not swing in the direction of egress travel at canteen building. Location: Canteen building.	Modify swing direction of egress doors to the direction of egress travel. Doors serving an occupant load of more than 50 shall swing in the direction (out-ward) of egress travel .	Within 3 months
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F-14	Means of Egress	Handrails are not provided on both sides of each exit stairs on all floors. Having handrails on one side of said staircase, may pose as a falling hazard during evacuation.	Provide handrails on both sides of the exit stair. New handrails shall have a minimum height of 865 mm (34 in.) and a maximum height of 965 mm (38 in.) as measured from the leading edge of the tread. Intermediate handrails shall be provided when the stair width exceeds 2.2 m (87 in.).	Within 3 months
 				

F-15	Egress Lighting	Few exit signage are not illuminated during inspection and few exit signs are found with less illumination. Directional signs are not provided where direction of the path of travel to an exit has changed.	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 3 months
				

F-16	Egress Lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes.	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 3 months
F-17	Egress Lighting	Manual on-off switch is provided for emergency lighting at 3D building.	Remove manual on/off switches from emergency lighting / exit signage units to prevent them from being switched off.	Within 3 months
 				

F-18	Inspection, Testing and Maintenance (ITM) of Emergency light and Exit Sign	Inspection, testing, and maintenance for the exit sign and emergency lighting system was not in accordance with the RSC standard.	Inspect, test and maintain the exit sign and emergency lighting system in the accordance with the RSC standard. Keep written records on-site.	Within 3 months
F-19	Inspection, Testing and Maintenance (ITM) of fire extinguishers	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 on- site, in accordance with NFPA 10 and RSC standards.	Within 3 months

F-20	Fire Alarm & Detection System (FADS)	Fire alarm and detection system installation complete which requires detailed review to confirm compliance with NFPA 72 and RSC Technical Guidelines (Standard).	Submit the fire alarm and detection 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-21	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)