

# INITIAL FIRE SAFETY INSPECTION REPORT

**Big Boss Corporation Limited (Extension)**

**RSC ID: 24577**

**ADDRESS: Holding #30 Sharabo, Kasimpur, Gazipur, Bangladesh.**

**Other Factories: Big Boss Corporation Limited-22979, Big boss washing-24217 & Aptech Caswier Lts-23833 (In this premise)**



**Inspected By: Md. Ferdaus Jaman & Md. Anisuzzaman**

**Date: 25th September 2023**

# Fire Safety Inspection Report

## Big Boss Corporation Limited (Extension)

### Introduction:

Big Boss Corporation Limited (Extension) complex was surveyed for fire safety on 25/09/2023 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 are nine structure under this ID-24577 which are below

1. 4-Storeyed RCC ETP building with mezzanine floor (Construction started: March -2018 to July-2019 and Occupied Sept 2019, Period: Interim)
2. Two storied dinning & canteen shed, steel structure (Construction started: January 2018 to July-2018 and Occupied Aug 2018, Period: Interim)
3. Single story boiler shed, steel structure (Construction started: January 2018 to July-2018 and Occupied July 2018, Period: Interim)
4. Single storied chemical store-1 (RCC column & wall, beam & ceiling Steel) (Construction started: November 2016-March 2017 and July 2017, Period: Interim)
5. Single story substation room, RCC (Construction started: June 2018 to to December -18 and December 2018, Period: Interim)
6. Single storied chemical store-2, RCC (Construction: Feb 2019 to June 2019, Occupied: July 2019, Period: Interim)
7. Single storied chemical store-3, Steel structure (Construction: Aug-2020 to Oct-2020, Occupied: Nov-2020, Period: Interim)
8. Kitchen & workshop building RCC and steel (Construction: Jan 2018 to July 2018 & Occupied: July 2018, Period: Interim)
9. RMS room (Construction: April 2020 to June 2020 & Occupied: Aug 2020, Period: Interim)

Design Approved by : RAJUK/ 18/04/2019

Construction period: Interim

Highest Occupied floor level/Building height: 15.7M/ 19.35M

Area: Total building area : 3998 sqm

**Factory Address: Holding #30 Sharabo, Kasimpur, Gazipur, Bangladesh.**

## Findings & Recommendations :

Table 1- summarizes 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 approval

**Table-1: Finding & recommendations for all building**

| SI No. | Category                | Findings                                                                                                                 | Required Action                                                                                                                                                                                                                                                                                                                                | Remediation Time Frame |
|--------|-------------------------|--------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| F-1    | Fire Rated Construction | Rooms used for storage of combustible materials are not separated from the surrounding<br><br>Location: 1st to 3th floor | Openings from exit enclosure to storage room, shall be provided with a vestibule with fire rated construction and openings.<br><br>Provide a 1.5 hr. fire rated door on the exit stair side and a 1-hr. fire rated door on the store side. Ensure that the fire rating of the vestibule construction matches that of the exit stair enclosure. | Within 3 months        |

|                                                                                    |                         |                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                      |                 |
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|  |                         |                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                      |                 |
| F-2                                                                                | Fire rated Construction | <p>Unsealed penetrations and openings are located in the fire-rated floor/ceiling assemblies.</p> <p><b>Location: Electrical riser</b></p> | <p>Seal all penetrations and openings in floor/ceiling assemblies to maintain the fire separation at least by 3-hr. The used sealer shall be 3rd party certified and installation shall be as per manufacturer's datasheet.</p> <p>Or</p> <p>Provide a minimum 2-hr fire rated shaft to separate the utility risers from each floor if required.</p> | Within 3 months |



|     |                         |                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                 |
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| F-3 | Fire Rated Construction | <p>The exit stairs are not separated from [work areas, other spaces] on each floor by fire rated construction due to unprotected opening.</p> <p>Location: ETP building.</p> | <p>The exit stair enclosure shall be provided with a minimum of 2- hr. fire resistance rating with 90 minutes opening protection for buildings 4 or more stories.</p> <p>Ensure that the fire doors are self-closing and positive latching and that they are provided with fire exit (panic) hardware where serving production floors. If fire doors are required to be held open for functional reasons, provide automatic closing devices tied to the fire alarm system.</p> | Within 3 months |
|-----|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|

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| <div style="display: flex; justify-content: space-around;">   </div>                                                                                      |                         |                                                                                                                  |                                                                                                            |                 |
| F-4                                                                                                                                                                                                                                                                                                                            | Fire Rated Construction | Unprotected vertical shaft (conveyor belts) connecting multiple floor(Store ) were observed in the ETP building. | Provide a minimum 2-hr fire-rated shaft closure/door to separate the duct(conveyor belts) from each floor. | Within 3 months |
| <div style="display: flex; justify-content: space-around;">    </div> |                         |                                                                                                                  |                                                                                                            |                 |

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| F-5                                                                                                                                                                                                                                                           | Fire Rated Construction | <p>Single storied chemical store is RCC column &amp; brick wall but rafter is steel which appears to be nonrated and were found in exposed condition</p> <p>Location: Chemical store-1 and Chemical store-3</p> | <p>The building is a steel structure which shall be type-I or II construction. So, provide require rating in the structural elements of the building. Consult with a qualified fire protection engineer. Follow BNBC 2006-Table 3.2.4, 3.1.9 and 3.3.1 as reference. <b>Note:</b> J occupancy (Chemical Store) shall be type-I construction.</p> | Within 6 months |
| <div style="display: flex; justify-content: space-around; align-items: center;">   </div> |                         |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                  |                 |
| F-6                                                                                                                                                                                                                                                           | Mean of Egress          | <p>The exit discharge path [south side exit] is less than 10 ft wide and is not separated from the building interior.</p> <p>Location: East-south exit discharge</p>                                            | <p>Seal all penetrations and openings to the interior of the building along the discharge path, up to a height of 10 ft. to provide a minimum 1-hr fire separation</p>                                                                                                                                                                           | Within 3months  |



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| F-7 | Means of Egress | <p>Electrical panel boards (DB) are located on the inside of east Exit stair.</p> <p>Location: ETP building</p> | Remove electrical panel boards from exit stairs. | Within 1 month |
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| F-8                                                                                | Mean of Egress  | <p>Exits are not remotely located from each other such that a single fire event could compromise both exits.</p> <p>Location: ETP building</p> | <p>Modify exit arrangement to meet RSC Technical Guideline (Standard) V1- 6.6.6.</p> <p>Or</p> <p>Provide additional exit(s) to meet RSC Technical Guideline (Standard) V1- 6.6.6.</p>                                                                   | Immediately    |
|  |                 |                                                                                                                                                |                                                                                                                                                                                                                                                          |                |
| F-9                                                                                | Means of Egress | <p>Building did not have stair designation signs &amp; exit designation signs at required locations.</p> <p>Location: ETP building</p>         | <p>Provide stair designation sign &amp; exit 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.</p> | Within 1 month |
| F-10                                                                               | Means of Egress | <p>Building did not have occupant load signs at required locations.</p> <p>Location: All buildings</p>                                         | <p>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.</p>                                                                                      | Within 1 month |

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| F-11 | Mean of Egress  | Updated fire evacuation maps is not posted at the entrance of all exit stair.<br>Location: All buildings                                                          | Fire evacuation maps shall be posted at the entrance to each exit stair.                                                                                                                                                                                                                                                           | Within 1 month  |
| F-12 | Egress lighting | Exit sign was not provided at exit.<br>Location: All Structures                                                                                                   | 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.<br>Lighted exit signs shall be provided with either battery backup or uninterruptable power supply systems and shall be continuously illuminated. | Within 1 month  |
| F-13 | Egress lighting | Directional signs were not provided where direction of the path of travel to an exit has changed.<br>Location: ETP & dining building                              | 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-14 | Egress lighting | Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes .<br>Location: All Structures | 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 |

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| F-15 | ITM (Emergency light)         | 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-16 | Fire Alarm & Detection system | 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 |

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| F-17                                                                                                                                                                                                                                                              | ITM of Fire Alarm & Detection system | 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-18                                                                                                                                                                                                                                                              | Fire Protection System (Standpipe)   | Standpipe installation requires detailed review to confirm compliance with NFPA 14, 20, 22, 24 and RSC Technical Guideline (Standard).<br>Location: 4-storied ETP building | Submit the standpipe system drawing to RSC for review. Once reviewed, install or modify the standpipe system throughout the building in accordance with RSC Technical Guideline (Standard) and NFPA 14, 20,22 and 24. After installation the owner shall contact the RSC for witness of conducting the final acceptance testing of the standpipe system. | Design Review within 2 months and installation within 4 months. |



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| F-19 | ITM of Protection System (SUPS) | 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-20 | ITM of Protection System (SUPS) | 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-21 | 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 onsite, in accordance with NFPA 10 and The RSC Technical Guidelines (Standard). | Within 1 Month                      |