

INITIAL FIRE SAFETY INSPECTION REPORT

STANDARD GROUP LIMITED

RSC ID: 24668

Plot No.-10300, Building -1 and Building -2(4,5,6) Floor, Beraiderchala, Post-Gilaberaid.; Sreepur PS; Gazipur-1740; Bangladesh.

Geographical Coordinates of factory building: 24.19189045348925, 90.41203485370502,

Other Factories: N/A



**Inspected By: Md. Ferdaus Jaman, Shahina Imam,
Md. Kawsar Rubaiat and Mahbub Alam Sami**

Date: 16 November-2023

Fire Safety Inspection Report

STANDARD GROUP LIMITED

Introduction:

STANDARD GROUP LIMITED Complex was surveyed for fire safety on **16/11/2023** 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):

1. Main Production Building, (G+5), RCC
Construction: March 2012 to December 2018 & Occupied: December 2018
2. Washing Building (G+M+5), RCC
Construction: January 2018 to November 2021 & Occupied: February 2022
3. Chemical Building (G+3), RCC
Construction: February, 2019- November, 2021 & Occupied: February, 2022
4. Utility Building (G+M+3), RCC
Construction: March, 2017- October, 2018 & Occupied: December, 2018
5. Fire Pump Room, (B+G), RCC
6. Guard room (Single Story) RCC
7. RMS room (Single Story), RCC
8. Belt press M/C she (Single Story), Steel
9. ETP Building.
10. Parking Shed (Single Story) Steel

Factory Address: Plot No.-10300, Building -1 and Building -2(4,5,6) Floor, Beraiderchala, Post-Gilaberaid.; Sreepur PS; Gazipur-1740; Bangladesh.

Points of contact:

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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-1:

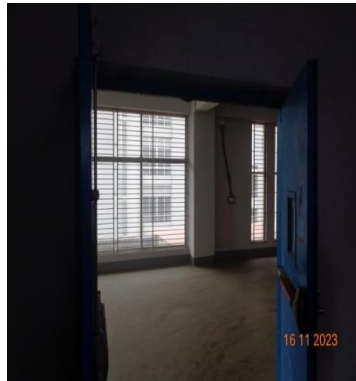
SI No.	Category	Findings	Required Action	Remediation Time Frame
F-1	Fire Rated Construction	The exit stairs are not separated from the Lift machine room, WTP room, Quarantine room, BBT room, window opening, Utility area (non-compliant door), etc. Location: Stair-8, Stair-10 Main production building, all floors. Stair- 4 & 5 (Level-6), Main production building. Stair-2, Utility building. Stair-1, Chemical building	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



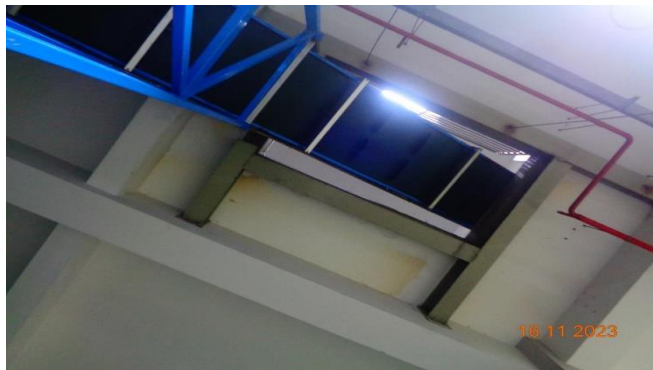
F-2	Fire Rated Construction	Elevator shafts directly open into the inside of the exit enclosure. Location: Main Production Building & Chemical building.	An exit stairway shall not be built around a lift shaft unless both of them are located in a smoke proof enclosure and made of a material with fire resistance rating required for the type of construction of smoke proof enclosure. Modify the elevator shaft as per The RSC Technical Guideline (Standard) V1-6.14.3. Rearrange the facility to provide separate enclosure for lifts. If not possible anyway provide a minimum 2-hr fire-rated elevator shaft with listed fire rated lift landing door to separate from each floor level.	
 				
F-3	Fire Rated Construction	Elevator shafts are directly open into the production floor without proper fire separation Location: Washing Building	Ensure minimum 1.5-hr fire rating for the doors of elevator shafts otherwise close the shafts area with 2-hr fire rated construction barrier and 1.5-hr fire rated doors.	Within 3 months



F-4	Fire Rated Construction	Storage rooms & Chemical stores discharge directly into the exit stair enclosure. Location: Stair-2, 3 & 7; Ground, 1st & 3rd floor of main production Building. Chemical building & Washing Building.	Openings from exit enclosure to storage room, shall be provided with a vestibule with fire rated construction and openings. 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-5	Fire Rated Construction	Penetrations through floor/ceiling assemblies were found to be unsealed. Location(s): Expansion joint on all floors Plumbing pipes, electrical cables, Air pipeline, Steam line, Conveyor belt etc in the Main Production building, Washing building and utility building.	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 with 3-hr fire-rated listed/certified materials. The installation of such fire-rated materials shall follow a certified design.	Within 3 months
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F-6	Fire Rated Construction	Unsealed penetrations were located in stair enclosures due to cable passing from floors & lift machine room. Location: Main production building, stair-7 & Chemical building rooftop.	Seal all penetrations and openings in the wall of exit enclosure walls (full thickness of the wall) by fire rated materials to maintain the fire resistance rating.	Within 3 months
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F-7	Fire Rated Construction	Areas used for in-process storage of combustible materials are open to the surrounding occupancy. Combustible materials has kept under cutting table which is non compliant. Location: Main Production Building Ground floor, 1st floor & 3rd Floor.	Provide defined storage areas and limit the storage arrangement as follows: - 1. General Condition: Maximum height of 2.4m and maximum area of 23m². Separate areas of unenclosed combustible storage by a minimum clear distance of 3m. 2. If sprinkler protected: maximum height of 3.66m and maximum area of 93m². Separate areas of unenclosed combustible storage by a minimum clear distance of 3m. or 3. Enclose the storage area from the surrounding occupancy with a minimum 1-hour construction.	Within 3 months
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F-8	Means of Egress	Electrical DB were observed inside the exit enclosure. Location: Main building, Ground floor & top floor.	Remove/ relocate the power cables and circuit breaker from the exit stair enclosure. Seal/protect all unprotected openings. 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.	Within 3 Months
 				
F-9	Mean of Egress	Means of egress have ceiling height less than 2.03 m (6ft 8 in.) Location: Stair case of Main production Building.	Ensure minimum headroom 6ft 8 inch or re-route the egress way to avoid the critical path.	Within 3 month.



F-10	Means of Egress	Parapets or guards were not provided on the occupied roof. Location: Washing Building	All occupiable roofs shall be provided with parapets or guards with a minimum height of 1067 mm (42 in.).	Within 1 months
 				

F-11	Egress Lighting	The directional signs are not provided where there is a change in direction and where the continuation of the egress path is not obvious. Location: Main building & Washing Building	Install illuminated directional signs shall be provided where there is a change in the direction for the path of travel and the direction to an exit is not obvious.	Within 1 month
 				
F-12	Emergency Lighting	Manual on-off switch is provided for [emergency lighting / exit signage] units.	Remove manual on/off switches from emergency lighting / exit signage units to prevent them from being switched off.	Within 1 month



F-13	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: Main Building & Washing Building.	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
 				
F-14	Means of Egress	The building did not have evacuation plans and occupant load signs and evacuation plans at required locations on all floors	Provide evacuation plans and occupant load signs at all required locations.	Within 1 month

F-15	Egress Lighting ITM	Inspection, testing, and maintenance for the emergency lighting system were not in accordance with The RSC Technical Guidelines (Standard).	Inspect, test and maintain the emergency lighting system in the accordance with The RSC Technical Guidelines (Standard) and keep written records on-site.	Within 1 month after installation
F-16	Fire Alarm & Detection system	Automatic fire alarm and detection system installation has been found 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/modification within 4 months



F-17	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).	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)	The Standpipe is required for Main Production, Utility & Chemical Buildings. Standpipe system installation requires detailed review to confirm compliance with NFPA 14 and RSC standards.	Submit as-built drawings, testing records, equipment certification and other relevant documentation to the RSC for review and approval.	Design Review within 2 months and installation/modification within 4 months.



F-19	Fire Protection System (Sprinkler)	The Sprinkler is required for Washing Building. The sprinkler is installed at main production building. The Fire Protection system installation requires detailed review to confirm compliance with NFPA 13, 20, 22,24 and RSC standards.	Submit as-built drawings, testing records, equipment certification and other relevant documentation to the RSC for review and approval. Modification (if required) shall have to done as per the reviewed design and NFPA- 20. 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.
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F-20	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).	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	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).	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-22	Fire Protection System(ITM of Sprinkler)	Inspection, testing and maintenance of the automatic sprinkler system is not in accordance with NFPA 25.	Inspect, test and maintain the automatic sprinkler system and keep written records on- site, in accordance with NFPA 25 and RSC standards.	Within 1 Month (after installation)

F-23	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 months
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