

INITIAL FIRE SAFETY INSPECTION REPORT

Magic Works Ltd.

RSC ID: 24658

8/54 Jhalpaza, 10 Hobirbari Mymensingh, Bhaluka, Mymensingh, 2240

24.340037, 90.419558

Other Factories: No



Inspected By: Nirmal Chandra Sinha & Md. Sadid Rahman

Date: 29 January 2023

Introductions:

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Magic Works Ltd. complex was surveyed for fire safety **on 29-Jan-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.

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: Findings & Recommendations of Building # 1, 2, 3, 4, 5, 6, 7, 8, 9

S/N	Category	Findings	Required Action	Remediation Time Frame
F-1	Fire Rated Construction	The exit stairs are not separated from work areas, other spaces on each floor by fire-rated construction. Installed fire doors were open by the external objects. Location - Building-1 & 2	The exit stair enclosure shall be provided with a minimum 1-hr fire resistance rating for buildings with 3 or fewer stories and a minimum of 2- hr. fire resistance rating for buildings 4 or more stories. Provide 0.75 hr. fire rated door and seal all penetrations and openings by 1 hr. fire rated fire rated barrier construction for building with 3 or fewer stories. Provide 1.5 hr. fire rated door and seal all penetrations and openings by 2 hr. fire rated fire rated barrier construction for building with 4 or more stories. Provide a fire-resistive rated assembly between the exterior exit stairs and the building up to 10 ft. beyond the end of the stair to achieve the required separation. The rated assembly shall be approved and/or designed by a qualified fire protection engineer. 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.	Within 3 months



F-2	Fire Rated Construction	Floor to Floor opening has been found on East side of the building. Location : Ground,1st and 2nd floor of Building-1.	A shaft enclosure shall be have a minimum fire-resistance rating of 2 hr. when connecting four stories or more and a minimum fire-resistance rating of 1 hr. when connecting three stories or less.	Within 3 Months
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F-3	Fire Rated Construction	Rooms used for combustible storage are not separated by fire rated construction due to penetration and opening. Location : Basement of Building-1.	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.	Within 3 Months
				

F-4	Fire Rated Construction	Areas used for combustible storage are not separated by fire rated construction. Location: Building-1.	Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction. Where separate storage rooms are not feasible, provide defined storage areas and limit the storage arrangement as follows: - Maximum height of 2.4m and maximum area of 23m² - 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.	Within 3 months
				

F- 5	Fire Rated Construction	Store area are not separated from Dining area by fire rated construction. Location: 1st Floor of Building-1	Separate the dedicated storage rooms by minimum 3-hr fire-rated construction. Provide 3 hr. fire rated door and seal all penetrations and openings by 3 hr. fire rated fire rated barrier construction.	3 months
 				

F-6	Fire Rated Construction	The Generator , Transformer and Sub Station room are not separated by fire rated construction due to openings, non-rated doors, penetrations. Location: Building-6	Separate the boiler room by a minimum 1-hr fire rated construction. Seal and/or protected all openings to maintain fire separations.	Within 3 months
 				

F-7	Fire Rated Construction	The Interim constructed building has been found steel-composite type and the steel columns and girders has been found in exposed condition without any fire protection. Location : Building-1, 2	The Interim constructed building shall be type-1 or type-2. Chemical store also shall be type-1 construction. Provide required fire rating on the structural elements by following Table-3.2.4, 3.1.9 & Table 4.4.1 of the RSC Technical Guidelines (StandardV1.0) or Table 3.3.1 of BNBC-2006. Consult a qualified fire protection engineer to design the rated construction barriers in between two floors and in structural members. TGN 7 requirements may apply if the building is fully sprinklered not limiting the size of fire compartments less than 2000 m² and unprotected slab-beam assembly demonstrates a 0.5-hour fire rating. All columns are required to be protected with 1-hour fire rating. Or, Provide 1.5 hours fire rating to floor slab and beams & 2 hours fire rating to vertical columns assuming minimum front access requirement has been met as per BNBC 2006 Part 3 Table 3.1.9, where sprinkler system is not provided throughout the building.	Within 6 months
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F-8	Egress	Travel distance to reach an exit exceed the values listed in RSC Technical Guidelines (Standard), during inspection it was more than 200 ft. Location: Building-1	Travel distance limitations for G2 (RMG factories) shall be increased to 60 m (200ft) where a complete automatic fire detection system, portable fire extinguishers, and standpipe system are provided in accordance with RSC Technical Guidelines (Standard). Travel distance limitations for G2 (RMG factories) shall be increased to 122 m (400 ft.) where a complete automatic sprinkler system, automatic fire alarm system and portable fire extinguishers are provided in accordance with RSC Technical Guidelines (Standard).	Within 3 Months
 				

F-9	Egress	Aisle are not properly marked. Location: Building-1	Aisles shall be properly marked and provided with a minimum unobstructed clear- width of 0.9m (36 in).	Within 1 Month
				

F-10	Egress	Building did not have stair designation signs and occupant load signs at required locations on all floor. Location: Building-1, 2	Provide stair designation signs and occupant load signs at required locations.	Within 1 Month
F-11	Egress Lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes. Location: Building-1	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-12	Egress	Fire evacuation map is not posted at the entrance of all exit stair. Location: Building-1	the entrance of all exit stair. Location: Building-9 Fire evacuation maps shall be posted at the entrance to each exit stair.	Within 1 Month
F- 13	Egress Lighting	Inspection, testing, and maintenance for the emergency lighting system was not in accordance with The RSC Technical Guidelines (Standard). Location: Building # 1,2,3,4,5,6, 7, 8, 9	Inspect, test and maintain the emergency lighting system in accordance with The RSC Technical Guidelines (Standard). Keep written records on-site.	Within 3 months
F- 14	Egress Lighting	Exit sign not provided at exit. Location: Building-1	Illuminated 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 1 month
F- 15	Inspection Testing and Maintenance of Portable Fire Extinguisher.	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.	Within 3 months

F- 16	Inspection, testing, and maintenance of the Fire Pump (ITM).	Inspection, testing and maintenance of the fire pump system is not in accordance with NFPA 20.	Inspect, test and maintain the fire pump system and keep written records on-site, in accordance with NFPA 25.	Within 3 months.
F- 17	Fire Alarm & Detection system	An addressable fire alarm & detection system has been found installed which is required to be reviewed and verified.	Submit as-built drawings, testing records, equipment certification and other relevant documentation to the RSC for review, modification (if required) shall have to done as per the reviewed design and NFPA-72 with a listed Addressable Fire Alarm System. 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 modification within 4 months (if required).



F-18	Inspection Testing and Maintenance of Fire Alarm and Detection System (ITM)	Inspection, testing, and maintenance for the fire alarm system is not in accordance with NFPA 72.	Inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72.	Within 1 month (after installation completed).
F-19	Human Element Program	"No Smoking" sign has not been found on all factory floor.	Smoking shall be prohibited in any garment factory building, separate storage building, or any building or area where the Inspector of the Factories Rules (1.6.3.7) Part 53 requires that smoking be prohibited. Signs shall be posted in Bengali and English at all building entrances. If an Owner creates a designated smoking area outside the buildings, information on the location of these designated areas shall be posted on the signs required in 13.5.2.	Within 1 month