

# FIRE SAFETY INSPECTION REPORT

**Factory Name: Marma Composite Ltd. (extension)**

**ACCORD ID: 23534**

**ADDRESS: Tongabari, Ashulia, Savar**

**Other Factories: None**



**Inspected By: Mohd. Atick Al Zaman,  
Date: 07 January, 2019.**

# Fire Safety Inspection Report

**Factory Name: Marma Composite Ltd. (extension)**

## **Introduction:**

ACCORD ID: 23534

Marma Composite Ltd. (extension) was surveyed for fire safety on 7 January, 2019 by The Accord Inspection Team. This summary identifies the major deficiencies that were identified during the inspection.

The purpose of this survey was to identify significant fire safety issues and to provide recommendations for remediation based on applicable standards specified by the Accord. 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 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 Accord for approval

## Findings & Recommendations :

Factory Name: Marma Composite Ltd. (extension)

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 Accord for approval.

Table-1:

SI No.	Category	Findings	Required Action	Remediation Time Frame
1	Handrail	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. Or, Handrails are not provided at exit stairs.	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



2	Fire Rated Construction	<p>The exit stair enclosures are separated from work areas and other spaces on each floor by fire-rated construction. Fire Doors have been provided with proper hour rating. But doors are kept open and installation of magnetic hold open device to interface with Fire Alarm System have been done but the devices are not interfaced with any approved FACP. Moreover Exit stair enclosures have unprotected openings within 10 feet towards production floor at two stairs.</p>	<p>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.</p> <p>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.</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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3	Fire Rated Construction	Rooms used for combustible storage are not separated by fire rated construction. Location: wastage go down shed at ground floor adjacent to the mail building	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
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4	Fire Rated Construction	Areas used for in-process storage of combustible materials are open to the surrounding occupancy (specify the occupancy/area, location)	<p>Provide defined storage areas and limit the storage arrangement as follows:-</p> <ol style="list-style-type: none"><li>1. General Condition: Maximum height of 2.4m and maximum area of 23m<sup>2</sup>. Separate areas of unenclosed combustible storage by a minimum clear distance of 3m.</li><li>2. If sprinkler protected: maximum height of 3.66m and maximum area of 93m<sup>2</sup>. Separate areas of unenclosed combustible storage by a minimum clear distance of 3m.</li></ol> <p>or</p> <ol style="list-style-type: none"><li>3. Enclose the storage area from the surrounding occupancy with a minimum 1 hour construction.</li></ol>	Within 3 months
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5	Opening/Penetration	Penetrations through floor/ceiling assemblies are found unsealed.	Seal all penetrations and openings in floor/ceiling (full thickness of the floor/ceiling) assemblies by fire rated materials to maintain the fire resistance rating. Provide a minimum 2-hr fire rated shaft to separate the utility risers from each floor if required.	3 months
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6	Fire Detection and Alarm System	The building is equipped with single-station smoke alarms. Smoke alarm activation sounds only a local alarm and does not provide automatic fire alarm notification of occupants.	Remove single-station smoke alarms. Provide automatic smoke detection throughout the building, tied into the fire alarm system, in accordance with NFPA 72.	Design within 3 months and installation within 9 months
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7	Egress	Parapets or guards are not provided in occupiable roof less than 42 inches	Provide parapets or guards with a minimum height of 1067mm (42 inch.).	within 1 month
				
8	Opening/ Penetration	Unsealed penetrations and openings are located in exit stair enclosures.	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



9	Egress	North-West exit stair does not have a proper exit discharge as well as the discharge path is unusable	Provide steps outside exit door from ground floor to courtyard and make a road / egress path for smooth discharge of occupants. Means of egress shall be maintained continuously free and clear of all obstructions	Within 1 month
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10	Fire Rated Construction	Storage area were found inside the exit stair case.	Remove all storage area from inside the exit stair case	Immediately
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11	Boiler or furnace room	Boiler or furnace room is not properly separated by fire rated construction with other Occupancies/Areas (specify the occupancy/area, location and construction materials of room).	<p>1. Boilers or other heat producing equipment shall be separated from other occupancies by a minimum 1-hr (2-hr for highrise building) fire rated construction (wall, floor, slab etc). Seal all penetrations and openings (door, window etc.) should be protected by 0.75-hr (45 min) fire rated materials to maintain the fire separation if required. All exhaust systems shall discharge to the exterior of the building in a safe location.</p> <p>Or</p> <p>Relocate it to exterior of the building and maintain a minimum 3m (10 ft.) spatial separation distance from the building.</p>	Within 3 months
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12	Fire Detection and Alarm System	Activation of the fire detection system by a manual fire detection alarm station provides automatic occupant notification only on the floor of alarm and not throughout the building.	Configure the fire detection system to initiate automatic occupant notification on all floor levels to facilitate whole-building evacuation upon any manual fire alarm station activation.	Design within 3 months and installation within 9 months
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13	Fire Protection System (ITM)	Inspection, testing, and maintenance for the fire alarm system is not in accordance with NFPA 72 or as per Accord standard.	Inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72 or as per Accord standard.	Within 3 month (After completion of the installation)
14	Fire Protection System	The existing factory building with an occupiable floor greater than 10 m (33 ft) above the finished grade is not protected with an approved standpipe system. Reviewed design was not found during follow-up inspection	Submit the as-built design of fire fighting system to Accord in accordance with NFPA 14 & installation should be as per the reviewed design	Design within 3 months and installation within 9 months



15	Fire Protection System (ITM)	Inspection, testing & maintenance of the standpipe system is not in accordance with NFPA 14.	Inspect , test & maintain the standpipe system & keep written records on - site , in accordance with NFPA 14.	Within 03 months (After complete installation)
16	Emergency 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

17	Inspection, testing, and maintenance	Inspection, testing, and maintenance for the exit sign and emergency lighting system was not in accordance with The ACCORD standard.	Inspect, test and maintain the exit sign and emergency lighting system in the accordance with The ACCORD standard. Keep written records on-site.	Within 3 Months
18	Inspection, testing, and maintenance	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 ACCORD standards.	Within 3 Months
19	Stair designation	Building did not have stair designation signs and occupant load signs at required locations.	Provide stair designation signs and occupant load signs at required locations.	1 week