

# FIRE SAFETY INSPECTION REPORT

## Unity Fabric Industries Ltd (Unit-2)

**ACCORD ID: 23652**

**BAHADURPUR, BHAWAL MIRZAPUR, GAZIPUR 1703, BANGLADESH**

**GPS Co-ordinates: 24.076474, 90.370719**

**Other Factories: None**



**Inspected by: Safawan Abyaz**

**Date: 15 July 2019**



## Fire Safety Inspection Report

### Unity Fabric Industries Ltd (Unit-2)

#### Introduction

**Unity Fabric Industries Ltd (Unit-2)** was surveyed for fire safety on 15 July 2019 by The Accord 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 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.



## Findings & Recommendations

Table 1 summarizes the major fire safety issues identified during the inspection. Recommendations have been provided to address each issue.

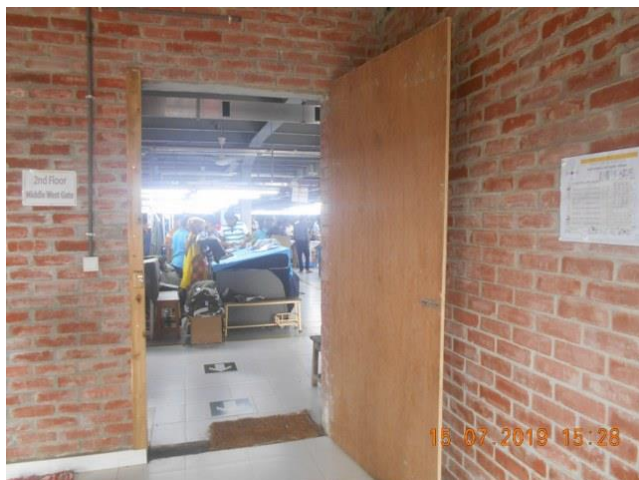
An implementation schedule shall be developed by the factory to remediate each of the findings. The specific timing of improvements, including any requested extensions due to design / installation constraints, shall be submitted to the Accord for approval.



**Table 1. Findings and Recommendations**

| No. | Category                | Finding                                                                                                                                             | Recommendation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Remediation<br>Timeframe |
|-----|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| F-1 | Fire Rated Construction | Exit stairs are not separated from work areas & other spaces on each floor by fire-rated construction due to unprotected openings and penetrations. | <p>Separate the exit stairs from work areas and other building spaces on all floor levels by minimum 2- hr fire-rated construction. Provide minimum 1.5- hr fire rated doors and seal all unprotected openings and penetrations to maintain the fire separation.</p> <p>Ensure that all fire doors are self-closing and positive latching, and are provided with fire exit (panic) hardware where serving production floors or assembly occupancies.</p> <p>If fire doors are required to be held open for functional reasons, provide automatic-closing devices tied to the fire alarm system.</p> <p>Once fire doors are installed, every door in a stair enclosure serving more than 5 stories shall be provided with re-entry unless it meets ACCORD standard 6.8.3.1.</p> | Within 3 months          |





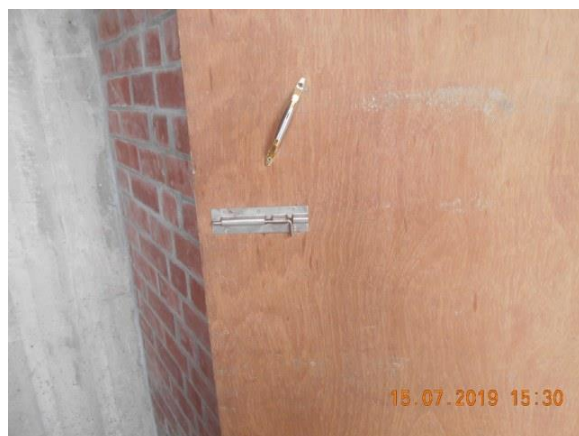
## F-2 Egress

Exit doors on several floors with slide bolts are provided at Exit stairs & along egress path.

Remove slide bolts or Locking features from all egress gates.

Immediate

If locks are required for security reasons, utilize special door locking features complying with ACCORD standard 6.8.2.



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|-----|-------------------------|---------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------|
| F-3 | Fire Rated Construction | Rooms on the ground & first floors used for combustible storage are not separated by fire rated construction. | Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction. | Within 3 months |
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| F-4 | Fire Rated Construction | Unsealed penetrations observed at the fire rated floor/ceiling assemblies due to the electrical BBT rise shaft near thread sucking room. | Provide a minimum 2-hr fire-rated shaft to separate the utility risers from each floor level or seal all penetrations in floor/ceiling assemblies to maintain required fire separation. | Within 3 months |
|-----|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|





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|-----|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| F-5 | Fire Rated Construction | The new building construction is prefabricated steel type which is non-rated and all the RCC deck slabs are resting on the steel columns and beams/girders. Hence the structural members of each floor require insulation by fire resistive rated construction materials to separate the floors from each other. | Provide fire resistive rated insulation of the structural Members of each floor following section 4.4 and table 4.4.1 of the Accord standard or table 3.3.1 (Part 3, BNBC 2006) and table 4.4.1 from BNBC part 4.<br><br>Consult a qualified fire protection engineer to design the rated insulation. required fire separations. | Within 3 months |
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|-----|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| F-6 | Fire Rated Construction | Areas on the 1 <sup>st</sup> & 2 <sup>nd</sup> floors used for combustible storage open to the factory are not properly defined and/or not within limits. | <p>Provide defined storage areas and limit the storage arrangement as follows:</p> <p>Maximum height of 2.45m (8 ft) and maximum area of 23 m<sup>2</sup> (250 ft<sup>2</sup>).</p> <p>If sprinkler protected: maximum height of 3.66m (12 ft) and maximum area of 93m<sup>2</sup> (1000 ft<sup>2</sup>).</p> <p>Separate the areas of unenclosed combustible storage by a minimum clear distance of 3 m (10 ft).</p> | Within 3 months |
|-----|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|





F-7 Egress

Storages were located inside the exit stair enclosure at ground Level.

Remove storages & obstructions Immediate from exit stairs immediately.



F-8 Fire Rated Construction

Exit access corridor from ground floor sewing section is not separated by fire rated construction.

Access corridor serving an occupant load exceeding 30 shall be separated by walls &

Within 3 months



doors having a fire resistance rating of minimum 1-hr unless provided with a functional sprinkler system throughout the story as per Accord building standard 6.3.1.1



|     |                         |                                                                               |                                                                                                                             |                 |
|-----|-------------------------|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|-----------------|
| F-9 | Fire Rated Construction | Elevator shaft construction is incomplete and open to floors and exit stairs. | Provide 2-hr rated elevator shaft to separate from stairs and floors. The landing doors shall be of same resistance rating. | Within 3 months |
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|      |        |                                                                                    |                                                                                                       |           |
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| F-10 | Egress | Egress aisles were Partially obstructed by process goods.<br>Location: First Floor | Keep egress aisles clear of any kind of obstruction & storage. Maintain clear aisle width of 36 inch. | Immediate |
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| F-11 | Egress | Required headroom was not anticipated along an egress aisle due to cable channel & steam lines at ground floor. | Provide minimum headroom Of 6ft. 8 inch in accordance With Accord standard 6.3.3. | Within 1 month |
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|------|-----------------|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| F-12 | Fire Separation | The fire pump room is not separated by fire rated | Separate the fire pump room by minimum 2-hr fire rated construction. 1-hr fire separation is acceptable if the building is fully sprinklered. | Within 3 months |
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| F-13 | Fire Alarm | An addressable fire alarm & detection system installation was ongoing during inspection day. Additionally, single station smoke alarms were located at several locations. | Complete the installation & submit as built design, testing records, product information, listing documents to Accord for review and approval.<br><br>Upon approval & installation The owner shall contact Accord to conduct the final acceptance testing. | Within 6 months |
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| F-14 | Fire Alarm      | Inspection, testing and maintenance of the automatic fire alarm system is not in accordance with NFPA 72. | Inspect, test and maintain the automatic fire alarm system and keep written records on-site, in accordance with NFPA 72 (after installation).                                                                                                        | Within 1 month  |
| F-15 | Fire Protection | The building has an occupied floor at 10 m Or 33 ft. Thus, it requires a class-III standpipe System.      | Provide a class III standpipe system as per NFPA 14. submit the design, testing records, hydraulic calculation to Accord for review & approval. upon approval & installation the owner shall contact Accord to conduct the final acceptance testing. | Within 6 months |
| F-16 | Fire Protection | Fire pump appears to be needed as per Accord Standard 5.5.1.                                              | Provide fire pump as per based on the standpipe/ sprinkler system hydraulic demand. Installation must comply with NFPA                                                                                                                               | Within 3 months |
| F-17 | Fire Protection | 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 20 (after installation).                                                                                                                   | Within 3 month  |
| F-18 | Egress          | Fire evacuation maps are not posted at the entrance of the exits at most of the floors.                   | Fire evacuation maps shall be posted at the entrance to each exit and exit stairs.                                                                                                                                                                   | Within 1 month  |



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| F-19 | Egress Lighting | Exit signage was not provided at all the exits / along the path of egress / in a readily visible location. | Provide exit signs above all building exits to the exterior, all doors to the exit stairs and along all paths of travel where a change of direction is not obvious. | Within 1 month |
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| F-20 | 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 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 3 months |
|------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|



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|------|-------------------------|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| F-21 | Egress Lighting         | Inspection, testing and maintenance for the emergency lighting system was not in accordance with ACCORD standards. | Inspect, test and maintain the emergency lighting system in the accordance with ACCORD standards. Keep written records on-site.                                                            | Within 3 months |
| F-22 | Egress                  | Building did not have stair designation sign, occupant load sign & floor level signs at required locations.        | Provide occupant load sign, stair & floor designation signs at required locations.                                                                                                         | Within 1 month  |
| F-23 | Egress                  | Combustible items Have been used as Building materials.                                                            | Remove & replace the combustible materials with non-combustible ones.                                                                                                                      | Within 3 months |
| F-24 | Fire Rated Construction | The dining area is not separated by fire rated construction with other occupancies.                                | Separate the dining area from production & other occupancies by minimum 2-hr fire rated construction. provide rated passageways leading directly to exit stairs of same resistance rating. | Within 3 months |

