

# INITIAL FIRE SAFETY INSPECTION REPORT

**Viyellatex Limited (Extension)**

**RSC ID: 24744**

**297, Khairtul, Tongi, Gazipur**

Geographical Coordinates of factory building: 23.920732156773134, 90.3869508527614

**Other Factories:** Viyellatex Limited. (ID:9746)



**Inspected By: Shahina Imam & Mahbub Alam Sami**

**Date: 07 November-2023**

# Fire Safety Inspection Report

## Viyellatex Limited (Extension)

### Introduction:

**Viyellatex Limited (Extension)** Complex was surveyed for fire safety on **07 November, 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):**

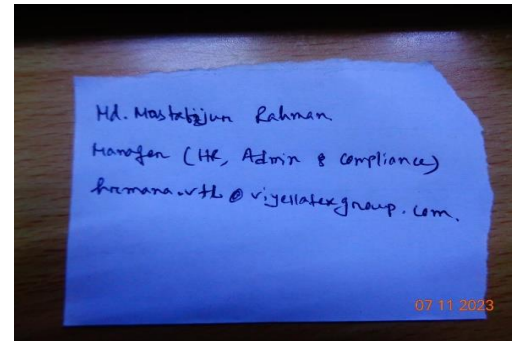
1. Building No-3 HR Building (2 Storied) (G+1) RCC; Area: 5930/floor sqft.  
Construction Start Date: April, 2010 ; Construction End Date: December, 2013 ; Production Start: January, 2014
2. Building No-4 Lab Building (4 Storied) (G+3) (RCC+ Steel); Area: 1325/floor sqft.  
Construction Start Date: June, 2007 ; Construction End Date: July, 2008 ; Production Start: July, 2008
3. Building No-5 Chemical Building (4 Storied) (G+3) RCC; Area: 6757/floor sqft.  
Construction Start Date: February, 2012 ; Construction End Date: December, 2013; Production Start: January, 2014
4. Building No-6 Utility-3 (3 Storied) (G+2) RCC; Area: 1540 sqft.  
Construction Start Date: June, 2014 ; Construction End Date: December, 2014; Production Start: January, 2015
5. Building No-7 Security Building (2 Storied) (G+1) RCC; Area: 158 sqft.  
Construction Start Date: May, 2005 ; Construction End Date: August, 2005; Production Start: August, 2005
6. Building No-9 Utility-1 (2 Storied) (G+1) RCC; Area: 1100 sqft.  
Construction Start Date: July, 2014 ; Construction End Date: December, 2014; Production Start: January, 2015
7. Shed-04 Boiler Room-3 (Single Story); Area: 750 sqft.  
Construction Start Date: January, 2012 ; Construction End Date: March, 2012; Production Start: March, 2012
8. Shed-05 Generator Room (Single Story); Area: 2050 sqft.  
Construction Start Date: May, 2005 ; Construction End Date: August, 2005; Production Start: August, 2005
9. Shed-07 Workshop (Single Story); Area: 1207 sqft.  
Construction Start Date: February, 2010 ; Construction End Date: December, 2010; Production Start: December, 2010
10. Shed-09 ETP (Single Story); Area: 530 sqft.  
Construction Start Date: March, 2003 ; Construction End Date: December, 2003; Production Start: December, 2003
11. Shed-10 Utility Scrap Room (Single Story); Area: 93 sqft.  
Construction Start Date: February, 2018 ; Construction End Date: March, 2018; Production Start: March, 2018

**Factory Address: 297,Khairtul, Tongi, Gazipur**

**Points of contact:**

Name: Md. Tarikul Islam  
Designation: Head of Maintenance  
Contact No: 01712-167596  
Email: maintenance.fabrics@viyellatexgroup.com

Name: Md.  
Designation: Head of Maintenance  
Contact No: 01712-167596  
Email: maintenance.fabrics@viyellatexgroup.com



**Table-1: Finding & recommendation**

| SI No. | Category                | Findings                                                                                                                                                                           | Required Action                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Remediation Time Frame |
|--------|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| F-1    | Fire Rated Construction | <p>The exit stairs are not separated from work areas , storage, other spaces due to non rated opening on each floor by fire rated construction.</p> <p>Location: B-3, B-4, B-5</p> | <p>Provide minimum 2-hr fire rated construction for buildings 4 storied or more and 1-hr for upto 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 and provide vestibules to avoid direct discharge from storage to exit stair enclosure.If fire rated doors are required to be held open for functional reasons, provide automatic closing devices tied to the fire alarm system.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 RSC Technical Guidelines (Standard) 6.8.3.1If 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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| F-2 | Fire-Rated Construction | <p>Areas used for in-process storage of combustible materials are open to the surrounding occupancy.</p> <p>Location: Ground floor (ZDC) of B-3.</p> | <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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| F-3 | Fire Rated Construction | Store room discharged directly into the exit stair enclosures.<br>Location: B-5 | Openings from exit enclosure to storage shall be provided with a vestibule with fire rated construction and openings. Provide a 2 hr. fire rated door on the exit stair side and a 1- hr. fire rated door on the storage side. Ensure that the fire rating of the vestibule construction matches that of the exit stair enclosure. | Within 3 Months |
|-----|-------------------------|---------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|

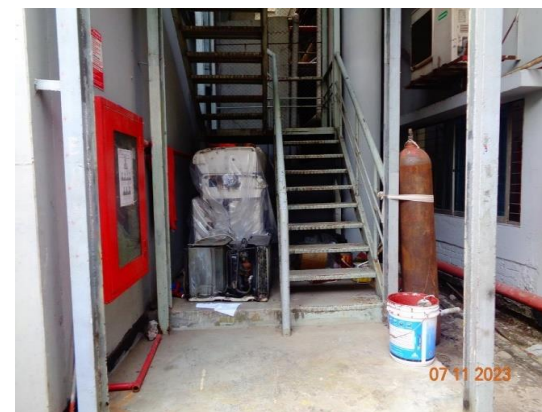


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| F-4 | Fire Rated Construction | Chemical Building B-5 is connected to 7 story B-2 at 1st floor is not separated by fire-rated construction. | Separate the buildings by minimum 2-hr fire-rated construction. Provide 1.5 hr. fire rated door and seal all penetrations and openings between the exterior connecting bridge and the building up to 10 ft. beyond the end of the stair by 2 hr. fire rated construction. | Within 3 Month |
|-----|-------------------------|-------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|





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| F-5 | Fire Rated Construction | <p>The Exit discharge path is less than 10ft wide and is not separated from the building interior.</p> <p>Location: B-3, B-4( East Side Stair) &amp; Utility-3</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. Alternatively, provide a second remote discharge path to the public way (only include this if feasible).</p> | Within 3 months |
|-----|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|



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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| F-6                                                                                                                                                                                                                                         | Fire Rated Construction | <p>Liquefied or compressed gas cylinders/CNG appliances (high pressure CNG pipeline and pressure reducing unit) used in a fuel of boiler were located within the factory. (Utility-1)</p> | <p>The RSC Technical Guideline (Standard) V1, section 3.4.2.1.11 prohibits the storage or use of liquefied or compressed flammable gas (LPG/CNG) cylinders within the factory building. However, if it is not feasible then conditionally those are permitted to be stored in a separate dedicated building on the factory premises within its boundaries if the building meets the following conditions.</p> <ol style="list-style-type: none"> <li>1. The storage building must be at least 3 meters away from any other building and boundaries.</li> <li>2. The exterior walls of the building must have a fire resistance rating of 3 hours using noncombustible construction.</li> <li>3. Doors and other openings in the exterior walls must be protected with suitable closing devices having a fire protection rating of 3 hours.</li> <li>4. The building is to be used for no other purpose than the storage of LPG/CNG cylinders.</li> <li>5. The building must be mechanically ventilated to control the accumulation of flammable vapors.</li> <li>6. The installations must be approved and accepted by the requirements of the AHJ, Gas supply company regulations, manufacturers/supplier's instructions/guidance, CIOB and all other applicable agencies, codes and standards.</li> </ol> | Within 1 months |
| <div style="display: flex; justify-content: space-around;">   </div> |                         |                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                 |

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| F-7                                                                                                                                                                                                                                       | Fire Rated Construction | Unsealed penetrations and openings are located at ground floor of B-3 in the fire rated floor/ceiling assemblies due to sanitary pipe. | 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.<br>or,<br>Provide a minimum 2-hr fire rated shaft to separate the BBT shaft & toilet area from each floor. | Within 3 Months |
| <div style="display: flex; justify-content: space-around;">   </div> |                         |                                                                                                                                        |                                                                                                                                                                                                                                                                                 |                 |
| F-8                                                                                                                                                                                                                                       | Mean of Egress          | Walking surface were not found level from exit discharge of Shed-5 & B-6 are not protected from slip or tripling hazard.               | Provide an level walking surface in exit discharge in accordance with 6.3.4 of RSC Technical Guidelines (Standard).                                                                                                                                                             | Within 3 Months |





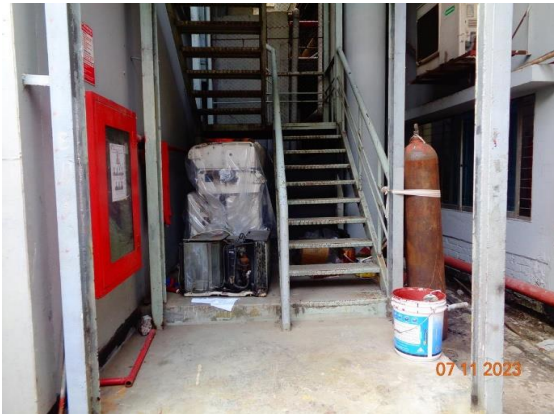
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| F-9 | Mean of Egress | The occupiable roof at B-5 & B-4 & B-9 is not provided with an adequate guard rail. | All occupiable roofs shall be provided with parapets or guards with a minimum height of 1067 mm (42 in.) | Within 1 months |
|-----|----------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-----------------|



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| F-10                                                                               | Mean of Egress | Aisles mark is not provided of B-5                                                                                                                              | Aisles shall be provided with a minimum unobstructed clear-width of 0.9 m (36 in.).                                                                                 | Within 1 month |
|  |                |                                                                                                                                                                 |                                                                                                                                                                     |                |
| F-11                                                                               | Mean of Egress | Mean of Egress doors with locking features are provided along egress routes. Egress gates with locking features are provided at building exits, exit discharge. | Remove locking features from all egress doors and gates. If locks are required for security reasons, utilize special door locking features complying with NFPA 101. | Immediately    |



|      |                |                                                                                                     |                                                             |             |
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| F-12 | Mean of Egress | Aisels were obstructed and Storage was observed inside exit stair enclosure<br>Location: B-4, & B-5 | Remove all storage from exit stair enclosures, egress rout. | Immediately |
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| F-13                                                                                | Means of Egress | A single means of exit has been provided for 3rd floor of B-5.                                   | Provide additional exit according to RSC Technical Guidelines Standard V1.0 6.6.2                             | Within 3 Months |
| F-14                                                                                | Mean of Egress  | Common path of egress travel exceeds limit of production area at 1st floor of B-5.               | Reconfigure the egress arrangement to reduce the maximum common path of travel to not more than 23 m (75 ft.) | Within 3 months |
|  |                 |                                                                                                  |                                                                                                               |                 |
| F-15                                                                                | Means of Egress | Buildings did not have occupant load signs and floor designation sign at the required locations. | Provide occupant load signs at the required locations.                                                        | Within 1 month  |



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| F-16                                                                                                                                                                                                                                                            | Means of Egress | Evacuation maps are not posted properly at the entrance to each exit at several location of the factory. | Fire evacuation maps shall be posted at the entrance to each main exit.                                                                                                                                                 | Within 1 month |
| F-17                                                                                                                                                                                                                                                            | Means of Egress | Non compliant stair is provided at the occupiable roof of B-5                                            | Provide the stair in accordance to RSC Technical Guidelines (Standard) Section 6.5.6.2 & 6.9                                                                                                                            | Within 1 month |
| F-18                                                                                                                                                                                                                                                            | Mean of Egress  | Sliding doors are provided at B-5 & B-3 exit stair and along egress routes.                              | Replace all collapsible and sliding doors along the means of egress with side-hinged, swinging egress doors. If locks are required for security reasons, utilize special door locking features complying with NFPA 101. | Within 1 month |
| <div style="display: flex; justify-content: space-around; align-items: center;">   </div> |                 |                                                                                                          |                                                                                                                                                                                                                         |                |



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| F-19 | 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 1 Month                                                  |
| F-20 | Egress Lighting                      | Illuminated directional signs are not provided where direction of the path of travel to an exit has changed.<br><b>Location:</b> several location. | 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-21 | Fire Alarm & Detection System (FADS) | Automatic fire alarm & detection system installation requires detailed review to confirm compliance with NFPA 72 and RSC standards.                | Design & Installation of Fire Alarm & Detection system shall be in accordance with RSC standard and NFPA 72. Submit as-built design, documents and calculations to RSC for review prior installation/modification.<br><br>After installation/modification, the owner shall contact the RSC for witness of conducting the final acceptance testing of the fire detection & alarm system installation.<br><br>Also inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72. | Design Review within 2 months and installation within 4 months. |



|      |                                          |                                                                                                                               |                                                                                                                                                                                                                                |                                                                 |
|------|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| F-22 | Fire Detection System ( ITM of FADS)     | 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 Table-14.3.1 of NFPA 72.                                                                                                 | Within 1 Month after installation.                              |
| F-23 | Fire Protection System(Standpipe System) | Fire Protection system installation requires detailed review to confirm compliance with NFPA 14, 20, 22,24 and RSC standards. | Design & Installation Fire Protection system shall be in accordance with RSC standard. 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 within 4 months. |



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| F-24 | 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 1 Month after installation. |
| F-25 | Fire Protection System(ITM of Standpipe)                     | Inspection, testing, and maintenance for the standpipe system is not in accordance with NFPA 14 and 25 or as per RSC standard. | Inspect, test and maintain the fire pump and standpipe system, and keep written records on-site, in accordance with NFPA 14 and 25 or as per RSC standard. | Within 1 Month after installation. |

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| F-26 | ITM of Emergency light and Exit Sign | Inspection, testing, and maintenance for the exit sign and emergency lighting system was not in accordance with The RSC Technical standard. | Inspect, test and maintain the exit sign and emergency lighting system in the accordance with The RSC Technical standard. Keep written records on-site.             | Within 1 Month after installation |
| F-27 | 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                    |