

# INITIAL FIRE SAFETY INSPECTION REPORT

**Factory Name:** AMC KNIT COMPOSITE LTD

**Factory ID:** 24102

**ADDRESS:** Baniarchala, Memberbari, Gazipur (24.15807.90.41244)

**Other Factories:** None



**Inspected By:** Md. Rafat Arefin

**Date:** 25th May, 2021

# Fire Safety Inspection Report

**Factory Name:** AMC Knit Composite Ltd

## Introduction:

**AMC Knit Composite Ltd** complex was surveyed for fire safety on **25/05/2021** 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

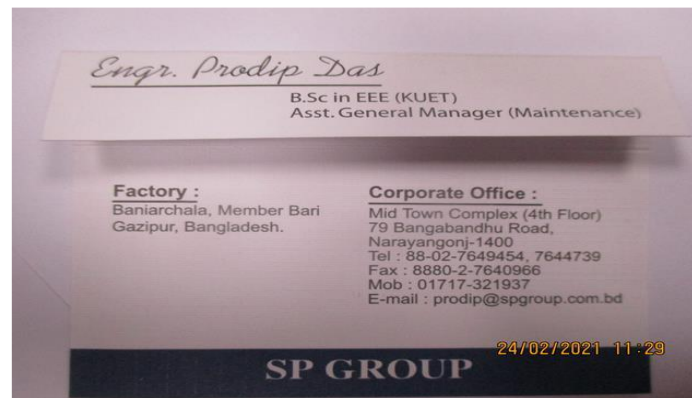
**Factory Building name(s):** 1. Old Building; 2. New Building; 3. Dyeing Shed-1 & 2.

**Factory Address:** Baniarchala, Memberbari, Gazipur

**Points of contact:**

**1. Name:** ENGR.PRODIP DAS;  
**Designation:** Asst.General Manager;  
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**Designation:** Manager;  
**Contact No:** 01755536803;  
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## 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 RSC for approval.

Table-1:

Sl No.	Category	Findings	Required Action	Remediation Time Frame
1	<b>Fire Rated Construction</b>	Boiler or furnace room is not properly separated by fire rated construction with compressor and mechanical workshop. <b>Location: Boiler and utility shed</b>	Boilers or other heat producing equipment shall be separated from other occupancies by a minimum 1-hr 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. Or Relocate it to exterior of the building and maintain a minimum 3m (10 ft.) spatial separation distance from the building.	Within 3 months



2	<b>Fire Rated Construction</b>	Chemical storage area is not separated by fire-rated construction having non rated door and unsealed penetrations and openings. <b>Location: Dyeing shed-01</b>	Separate the chemical storage room by 2-hr fire rated construction. Seal all penetrations and protect the openings to maintain the required fire separations. Keep 16-points MSDS of all chemicals in the storage area.	Within 3 months
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3	<b>Fire Rated Construction</b>	<p>Areas used for in-process storage of combustible materials are open to the surrounding occupancy.  <b>Location: Dyeing Shed-01</b></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> </ol> <p>Or</p> <ol style="list-style-type: none"> <li>2. Enclose the storage area from the surrounding occupancy with a minimum 1 hour construction.</li> </ol>	Within 3 months
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4	<b>Egress</b>	Collapsible/sliding/shutter type doors have provided along means of egress (exits) <b>Location: Dyeing Shed-01 &amp; 02</b>	Replace all collapsible/sliding/shutter type doors & gates by the side-hinged swinging type doors.  If locks are required for security reasons, utilize special door locking features complying with NFPA 101.	Within 1 month
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5	<b>Egress</b>	Doors along means of egress are provided with non compliant locking system. <b>Location: Dyeing Shed-01 &amp; 02</b>	<ol style="list-style-type: none"> <li>1. Remove all non compliant locking features from egress doors.</li> <li>2. If locks are required for security reasons, utilize special door locking features complying with NFPA 101.</li> <li>3. Doors may be locked where the latch and lock are disengaged with one motion where the occupant load does not exceed 49 persons.</li> <li>4. Doors may be provided with locking hardware from the ingress side provided that a panic bar is installed on any door with an occupant load exceeding 49 persons.</li> </ol>	Immediate
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6	<b>Egress</b>	<p>The egress path along means of egress has interrupted by obstruction/storage. (Aisles)  <b>Location: Dyeing Shed-01</b></p>	<p>Means of egress shall be maintained continuously free and clear of all obstructions/storage.          Or          Keep egress paths and stairs clear of storage.</p>	Immediate
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7	<b>Egress</b>	Fire evacuation maps is not posted at the entrance of all exit stair. <b>Location: Dyeing Shed-01 &amp; 02</b>	Fire evacuation maps shall be posted at the entrance to each exit stair.	Within 1 month
8	<b>Egress Lighting</b>	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes. <b>Location: Dyeing Shed-01 &amp; 02</b>	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

9	<b>Egress Lighting</b>	Exit sign not provided at exit. <b>Location: Dyeing Shed-01 (North &amp; South exit) &amp; 02</b>	Lighted 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 3 months
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10	<p><b>Fire Rated Construction</b></p>	<p>The exit stairs are not separated from dining areas on top floor by fire-rated construction.</p> <p>Additionally, Fire Doors has been installed at openings of exit stair enclosure from the production areas at other floors. However, abusement of fire compartmentation has been observed by the use of door wedges in fire doors.</p> <p><b>Location: Old Building</b></p>	<p>Stair shall be enclosed with a minimum 2-hr fire-rated construction. Seal all unprotected openings and provide minimum 1.5-hr fire rated doors to separate the exit stairs from work areas and other building spaces on all floor levels. Ensure that the fire doors are self-closing, positive latching and that they are provided with fire exit (panic) hardware where serving production floors.</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>Within 3 months</p>
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11	<b>Fire Rated Construction</b>	Unsealed penetrations and openings are located in exit stair enclosures. <b>Location(s): Ground floor, Old Building</b>	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
				

12	<b>Fire Rated Construction</b>	<p>Areas used for in-process storage of combustible materials are open to the surrounding occupancy.  <b>Location: Old Building</b></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> </ol> <p>Or</p> <ol style="list-style-type: none"> <li>2. Enclose the storage area from the surrounding occupancy with a minimum 1 hour construction.</li> </ol>	Within 3 months
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13	<b>Fire Rated Construction</b>	Rooms used for storage of combustible materials are not separated from the adjacent dining areas. <b>Location: Old Building</b>	Rooms used for storage of combustible materials shall be separated from the surrounding occupancy with a minimum 1 hour construction.	Within 3 months
				
14	<b>Egress</b>	Exit capacity is not adequate for the occupant load. <b>Location(s): Old Building; Exit capacity: 380 Occupant load: 2nd: 406; 3rd: 382; 4th: 402; 5th: 594;</b>	1. Reduce occupant load to not more than available exit capacity. Or 2. Provide additional exits to increase exit capacity.	Immediate

15	<b>Egress</b>	<p>During the inspection egress aisles were obstructed by combustible storages and available clear width were found less than 36 inch.  <b>Location: Old Building</b></p>	<p>Provide aisles free from obstructions and with minimum clear widths of 36-inch.</p>	<p>Immediate</p>
<div style="display: flex; justify-content: space-around;">   </div>				
16	<b>Egress</b>	<p>Storage &amp; Electrical panels were located in the exit stair.  <b>Location: Old Building</b></p>	<p>Remove all storage from exit stairs.</p>	<p>Immediate</p>



17	<b>Egress</b>	<p>Parapets or guards are not provided with a minimum 42 inch height in Occupiable roof  <b>Location: Old Building</b></p>	<p>Provide parapets or guards with a minimum height of 1067mm (42 inch.).</p>	<p>Within 3 months</p>
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18	<b>Egress Lighting</b>	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes. <b>Location: Old Building</b>	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
19	<b>Egress Lighting</b>	Manual on-off switch is provided for [emergency lighting / exit signage] units. <b>Location: Old Building</b>	Remove manual on/off switches from emergency lighting / exit signage units to prevent them from being switched off.	Within 3 months



20	<p><b>Fire Rated Construction</b></p>	<p>Fire Doors has been installed at openings of exit stair enclosure from the production areas at other floors. However, abusement of fire compartmentation has been observed by the use of door wedges in fire doors.  <b>Location: New Building</b></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>Within 3 months</p>
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21	<b>Fire Rated Construction</b>	<p>Unsealed penetrations and openings are located in exit stair enclosures.</p> <p><b>Location: New Building (North Exit, Glass façade connecting production area &amp; Exit stair enclosure)</b></p>	<p>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.</p>	Within 3 months
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22	<b>Fire Rated Construction</b>	<p>Penetrations through floor/ceiling assemblies are found unsealed.</p> <p><b>Location: New Building (North side Glass façade connecting all floors)</b></p>	<p>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.</p> <p>Provide a minimum 2-hr fire rated shaft to separate the utility risers from each floor if required.</p>	Within 3 months
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23	<b>Egress</b>	<p>The egress path along means of egress has interrupted by obstruction/storage. (Aisles)  <b>Location: New Building</b></p>	<p>Means of egress shall be maintained continuously free and clear of all obstructions/storage.          Or          Keep egress paths and stairs clear of storage.</p>	Immediate
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24	<b>Egress Lighting</b>	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes. <b>Location: New Building</b>	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
25	<b>Egress Lighting</b>	Exit signage not illuminated during testing (burned out, broken, etc.). <b>Location: New Building</b>	Regularly inspect all exit signage as per Accord standard and replace/install lights as needed to illuminate signs.	Within 3 months



26	<b>Egress Lighting Checklist</b>	<p>Inspection, testing, and maintenance for the exit sign and emergency lighting system was not in accordance with The ACCORD standard.</p> <p><b>Location(s): All Buildings</b></p>	<p>Inspect, test and maintain the exit sign and emergency lighting system in the accordance with The ACCORD standard. Keep written records on-site.</p>	Within 3 months
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27	<b>Fire Extinguishers Checklist</b>	<p>Inspection, testing, and maintenance for the fire extinguishers is not in accordance with NFPA 10 or as per Accord standard.</p> <p><b>Location(s): All Buildings</b></p>	<p>Inspect, test and maintain the fire extinguishers, and keep written records on-site, in accordance with NFPA 10 or as per Accord standard.</p>	<p>Within 3 months</p>
28	<b>Fire Alarm &amp; Detection System</b>	<p>Fire alarm system installation requires detailed review to confirm compliance with NFPA 72 and ACCORD standards.</p> <p><b>Location(s): All Buildings</b></p>	<p>Submit as-built drawings, testing records, equipment certification and other relevant documentation to the RSC for review and approval.</p> <p>And</p> <p>Inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72 or as per Accord standard.</p>	<p>Design within 3 months, Modification within 6 months</p>



29	Fire Protection	<p>The building has an occupied floor greater than 10 meter (33 feet) and its not provided with standpipe system as per NFPA 14 &amp; 20.</p> <p><b>Location(s): Old Building &amp; New Building</b></p>	<p>Provide standpipe and hose system as per NFPA 14 &amp; 20</p>	<p>Design within 3 months, Modification within 6 months</p>
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