

# INITIAL FIRE SAFETY INSPECTION REPORT

## Amtranet Limited (New Buildings 2)

RSC ID: 24776

Kashba Tower,160, West Rajashon, Savar, Dhaka -1340

Geographical Coordinates: 23.847045, 90.272473

Other Factories: RSC ID: 11271 & 24267



Inspected By: Dilip Kumar Mondal and Md. Najmul Huda

Date: 14-Dec-2023

# Fire Safety Inspection Report

## Amtranet Limited (New Buildings 2)

### Introduction:

**Amtranet Limited (New Buildings 2)** complex was surveyed for fire safety on **14-Dec-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):

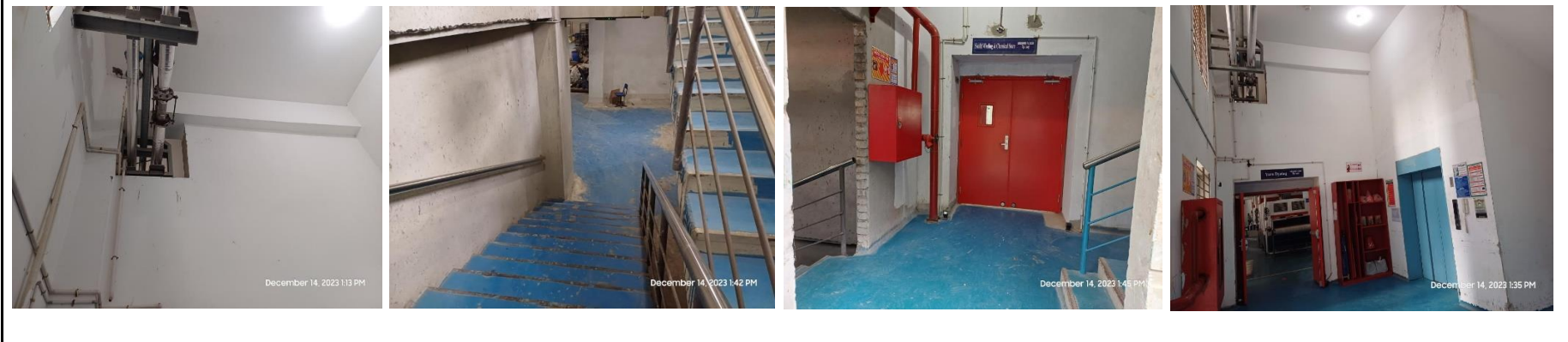
B#1	Building-3	Type of construction: Year of construction Construction period: Building approval from: Building approval date:	RCC Feb 2019 to Oct 2021 Interim Building Union Parishad 12-Jul-23
B#2	Building-4	Type of construction: Year of construction Construction period: Building approval from: Building approval date:	RCC Feb 2020 to Dec 2021 Interim Building Union Parishad 12-Jul-23
B#3	Utility Building	Type of construction: Year of construction Construction period: Building approval from: Building approval date:	RCC Feb 2020 to Dec 2021 Interim Building Union Parishad 12-Jul-23
B#4	Cooling Tower Building-4	Type of construction: Year of construction Construction period: Building approval from: Building approval date:	RCC Jan 2022 to May 2022 Interim Building Union Parishad 12-Jul-23
B#5	Empty Chemical Dram Shed	Type of construction: Year of construction Construction period: Building approval from: Building approval date:	Steel Feb, 2023 to Mar 2023 Interim Building Union Parishad 12-Jul-23
B#6	Wastage Shed	Type of construction: Year of construction Construction period: Building approval from: Building approval date:	Steel Feb 2023 to Mar 2023 Interim Building Union Parishad 12-Jul-23

**Findings & Recommendations :**

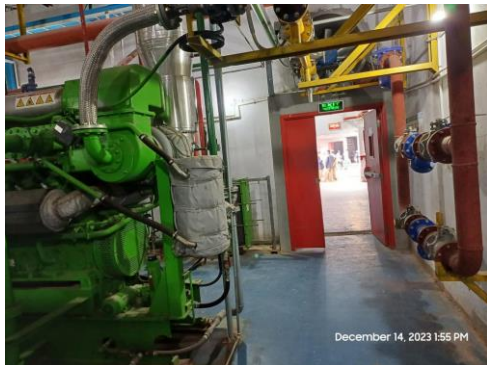
Table 1 summarize the fire safety non-compliant issues identified during the inspection. Recommendations have been provided to address each issue with specific remediation timeline. An implementation schedule shall be developed by the factory to remediate each of the findings. The specific timing of improvements, including any requested extensions due to design / installation constraints, shall be submitted to the RSC for review.

**Table-1:**

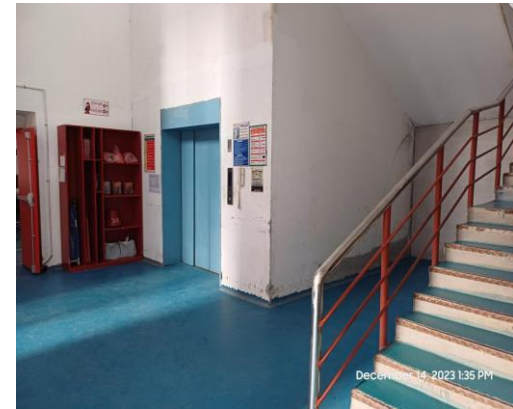
SI No.	Category	Findings	Required Action	Remediation Time Frame
F-1	Fire Rated Construction	<p>The exit stairs are not separated from work areas, other spaces on each floor by fire-rated construction.</p> <p><b>Location:</b> Building-3, Ground Floor Building-4, Basement</p>	<p>Provide minimum 2-hr fire rated construction for buildings 4 storied or more and 1-hr for up to 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. If fire rated doors are required to be held open for functional reasons, provide automatic closing devices tied to the fire alarm system.</p>	Within 3 months



F-2	Fire Rated Construction	<p>Storage and Generator rooms discharge directly into the exit stair enclosure.</p> <p><b>Location:</b> Building-4, Ground Floor Utility Building, Ground Floor</p>	<p>Openings from exit enclosure to storage and machine room spaces shall be provided with a vestibule with fire rated construction and openings.</p> <p><b>For 3 story or below;</b> Provide a 1 hr. fire rated door on the exit stair side and a 1-hr. fire rated door on the storage and generator room side. Ensure that the fire rating of the vestibule construction matches that of the exit stair enclosure.</p> <p><b>For 4 story or more;</b> Provide a 2 hr. fire rated door on the exit stair side and a 1.5 hr. fire rated door on the storage and generator room side. Ensure that the fire rating of the vestibule construction matches that of the exit stair enclosure.</p>	Within 3 months
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F-3	Fire Rated Construction	<p>Elevator shafts are directly open into the inside of exit enclosure.</p> <p><b>Located:</b> Building-3 Building-4</p>	<p>An exit stairway shall not be built around a lift shaft unless both of them are located in a smoke proof enclosure and made of a material with fire resistance rating required for the type of construction of smoke proof enclosure.</p> <p>Modify the elevator shaft as per The RSC Technical Guideline (Standard) V1-6.14.3.Rearrange the facility to provide separate enclosure for lifts. If not possible anyway provide a minimum 2-hr fire- rated elevator shaft with listed fire rated lift landing door to separate from each floor level.</p>	Within 3 months
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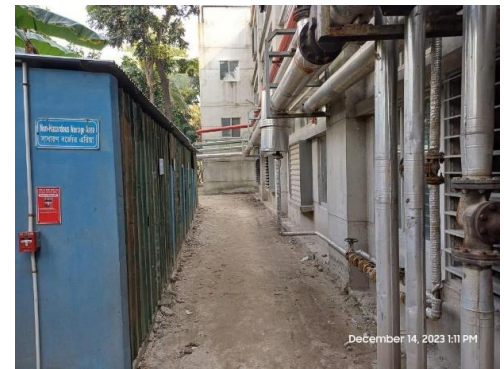
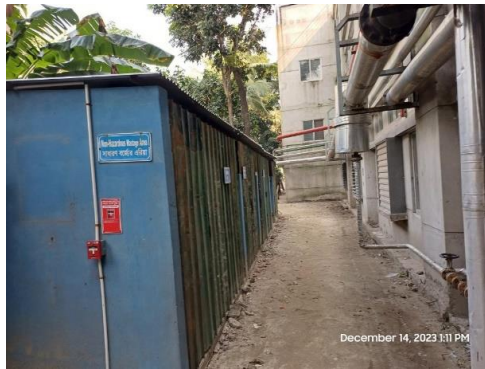




F-4	Fire Rated Construction	<p>Penetrations through floor/ceiling assemblies are found unsealed by the PVC pipe and electrical cables.</p> <p><b>Located:</b> B#1: Building-3 B#2: Building-4</p>	<p>Seal all penetrations and openings in floor/ceiling (full thickness of the floor/ceiling) assemblies by fire rated materials to maintain the fire resistance rating. Provide a minimum 3-hr fire rated shaft to separate the utility risers from each floor if required.</p>	Within 3 months
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F-5	Fire Rated Construction	<p>Chemical storage area is not separated by fire-rated construction having non rated door and unsealed penetrations and openings in exit stair.</p> <p><b>Location:</b> B#2: Building-4, Ground Floor.</p>	<p>Separate the Chemical Storage area by a minimum 4-hr fire-rated construction. Seal and/or protected all openings to maintain the required fire separations. Follow 2.13 of BNBC-2006. For the case of 4-hr fire separation no opening is permitted.</p>	Within 3 months
 <p>The images show a chemical storage area with blue barrels arranged in rows. The first image shows a view through a glass partition into a room with blue barrels. The second image shows a long aisle with blue barrels on both sides. The third image shows a close-up of blue barrels with a white label.</p>				

F-6	Fire Rated Construction	<p>The exit discharge path is less than 10 ft wide and is not separated from the building interior and other's storage area.</p> <p><b>Location:</b> B#2: Building-4, Stair-03.</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> <p>Alternatively, provide a second remote discharge path to the public way (only include this if feasible).</p>	Within 3 months
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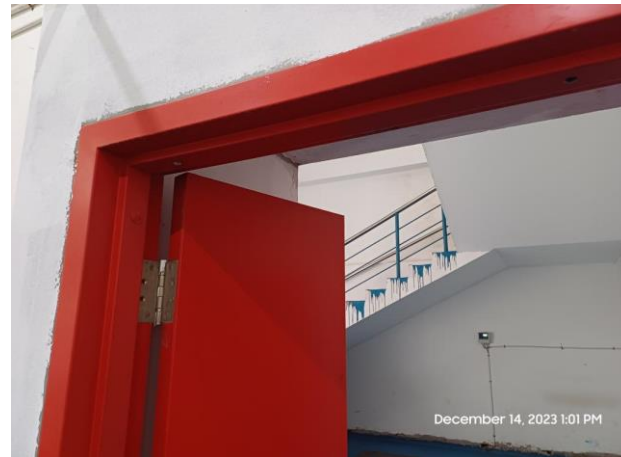
F-7	Fire-Rated Construction	<p>Stair was not directly discharge to the exterior of the building on ground floor.</p> <p><b>Location:</b> Building-4, Stair-01.</p>	<p>Exits shall discharge directly to the exterior of the building. The exit discharge shall be at grade or provide direct access to grade. Exit discharge shall not reenter a building in accordance with RSC Technical Guideline (Standard)-6.17.</p>	Within 3 months
<div style="display: flex; justify-content: space-around;">   </div>				
F-8	Fire-Rated Construction	<p>The chiller room, compressor room and transformer room was not separated properly by fire rated construction with other Occupancies/Areas/Production floor.</p> <p><b>Location:</b>  B#1: Building-3, 2nd Floor.  B#2: Building-4, Ground &amp; 2nd Floor.  B#3: Utility Building, 1st Floor.</p>	<p>Separate the chiller room, compressor room and transformer room by a minimum 2-hr fire rated construction. Seal and/or protected all openings to maintain fire separations.</p> <p>Or</p> <p>Relocate all to exterior of the building and maintain a minimum 3m (10 ft.) spatial separation distance from the building.</p>	Within 3 months



F-9	Fire-Rated Construction	Mezzanine on the ground floor was found to be more than one-third of the floor area. Location: Building-3.	According to BNBC 2006, Chapter 1, Part 3, 1.12.6: The total area of mezzanine floors in a building shall not exceed one-third the plinth area of the building. Therefore, the mezzanine floor is required to be provided with 2-hour fire rated separation.	Within 3 months
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F-10	Fire Rated Construction	<p>Installed fire doors throughout the factory were not swinging and closing properly due to inappropriate installation of door accessories (closer, coordinaator, holding devices etc.).</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> <p>The clearance under the bottom of a fire door shall be a maximum of 3/4 in. (19 mm).</p>	Within 1 month
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F-11	Fire Rated Construction	<p>Areas used for in-process storage of combustible materials are open to the surrounding occupancy.</p> <p>Combustible materials has kept under cutting table which is non compliant.</p> <p><b>Location:</b> Main Building at several locations.</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> <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-12	Means of Egress	<p>Occupiable roof is not provided with an adequate parapet / guard rail.</p> <p>Location: Building-04, Roof Top.</p>	<p>All occupiable roofs shall be provided with parapets or guards with a minimum height of 1067 mm (42 in.)</p>	<p>Within 2 months</p>
<p>The image block contains three photographs. The left and right photographs are close-ups of a silver metal guardrail. A yellow measuring tape is held vertically against the rail, showing a height of approximately 1.07 meters (42 inches). The middle photograph shows a wide view of the roof top, which is currently under construction or renovation. There are several vertical rebar structures protruding from the concrete surface. In the background, other multi-story buildings are visible under a clear sky. Each photograph has a timestamp in the bottom right corner: 'December 14, 2023 2:13 PM' for the side views and 'December 14, 2023 2:14 PM' for the wide view.</p>				

F-13	Means of Egress	<p>Uneven path of travel and blockage in exit access.</p> <p><b>Locations:</b> Utility Building, Exit-02(N-W)</p>	<p>Remove unnecessary items and level exit path to the public way.</p>	<p>Within 1 month</p>
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F-14	Means of Egress	<p>Aisles marking has not been provided on the floor properly.</p> <p><b>Location:</b> B#2: At several locations in Building-4.</p>	Provide minimum aisle widths of 36-in.	Within 3 months
 <p>The first two photographs show a long aisle in a warehouse with blue floor markings and white rolls of material. The third photograph shows a wider aisle with a concrete floor and a pillar.</p>				
F-15	Egress Lighting	<p>The directional signs are not provided where there is a change in direction and where the continuation of the egress path is not obvious.</p> <p><b>Location:</b> B#1: Building-3 B#2: Building-4</p>	Install 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-16	Fire Protection System	<p>The highest occupied floor of existing building is more than 10 m (33 ft.) and less than 23 m above grade where standpipe system is mandatory and the standpipe system is not installed in accordance with NFPA 14, 20,22 and 24.</p>	<p>Submit as-built drawings, testing records, equipment certification and other relevant documentation to the RSC for review. Once reviewed, install or modify the sprinkler, standpipe system and pump (where required) throughout the building with RSC Technical Guideline (Standard) and NFPA 14 and 20. The factory management shall contact RSC to conduct the final acceptance testing after the installation, testing &amp; commissioning. Note: As the buildings are interconnected and evacuation process is shared so the system shall be design considering single event fire incident (Single compartment for all buildings).</p>	<p>Design Review within 2 months and installation within 3 months</p>
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F-17	Fire Protection System(ITM of Standpipe)	Inspection, testing, and maintenance for the Standpipe system is not in accordance with NFPA 14, 25 and RSC Technical Guideline (Standard).	Inspect, test and maintain the standpipe system in accordance with NFPA 14, 25 and RSC Technical Guideline (Standard) and keep written records on-site.	Within 1 Month (after installation)
F-18	Fire Alarm & Detection system	Automatic fire alarm and detection system installation has been found complete which requires detailed review to confirm compliance with NFPA 72 and The RSC Technical Guidelines (Standard).	Submit the fire alarm system design to RSC for review. Once the design is reviewed, install and modify the fire detection and alarm system throughout the buildings in accordance with review comment, Accord/ RSC Technical Guidelines (Standard) and NFPA 72. After installation the owner shall conduct internal testing and commissioning and then contact the RSC for witness of final acceptance testing. Also inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with Table-14.3.1 of NFPA 72.	Design Review within 2 months and installation/modification within 3 months
				
F-19	Fire Alarm & Detection system (ITM of FADS)	Inspection, testing and maintenance for the fire alarm system is not in accordance with NFPA 72 and The RSC Technical Guidelines (Standard).	Inspect, test and maintain the fire alarm system and keep written records on-site, in accordance with NFPA 72 and The RSC Technical Guidelines (Standard) and keep written records on-site	Within 1 month (after installation)

F-20	ITM of Egress Lighting	Inspection, testing, and maintenance for the emergency lighting system were not in accordance with The RSC Technical Guidelines (Standard).	Inspect, test and maintain the emergency lighting system in the accordance with The RSC Technical Guidelines (Standard) and keep written records on-site.	Within 3 months
F-21	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 3 months