

# INITIAL FIRE SAFETY INSPECTION REPORT

**Vertex Wear Limited. (Extension)**

**RSC ID: 24607**

**Varari, Tetuljhora, Rajfulbaria, Hemayetpur, Savar**

**Other Factories: Vertex Wear Limited (ID-9632), Neo Fashion Ltd (ID-10159) & Dress World Ltd.(ID-10218)**



**Inspected By: Nainin Nowrose & Md. Tanvir Rahman**

**Date: 17-Dec-2023**

# Fire Safety Inspection Report

## Vertex Wear Limited. (Extension)

### Introduction:

**Vertex Wear Limited. (Extension)** complex was surveyed for fire safety on **17-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

SL No	Building Name	Building Construction Period	Structure type	Construction time
1	Washing Building-6 storied	Jan-2018 to Jan-2023	RCC	Interim
2	ETP Building-6 storied	Jan-2018 to Jan-2023	RCC	Interim
3	Utility Building-3 storied	Jan-2018 to Jan-2019	RCC	Interim
4	Gate House and Child Care Building-2 storied	Jan-2018 to Jan-2019	RCC	Interim
5	Workshop Building-2 storied	Jan-2018 to Jan-2023	RCC	Interim
6	Sub-Station-Single storied	Jan-2018 to Jan-2019	RCC	Interim
7	Warehouse shed.	Mar-2014 to Jan-2016	Steel	Interim
8	Wastage Godown	Jan-2018 to Jan-2019	Steel	Interim

**Factory Address:** Varari, Tetuljhora, Rajfulbaria, Hemayetpur, Savar

## Findings & Recommendations :

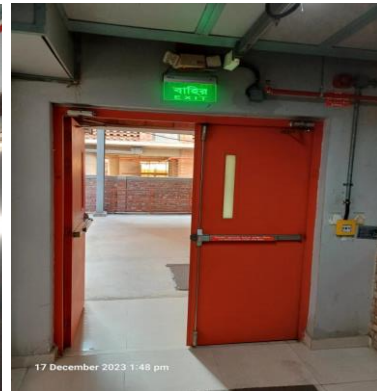
Table 1 summarizes the major fire safety issues identified during the inspection. Recommendations have been provided to address each issue. An implementation schedule shall be developed by the factory to remediate each of the findings. The specific timing of improvements, including any requested extensions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



Table-1:

SI No.	Category	Findings	Required Action	Remediation Time Frame
F-01	Fire Rated Construction	<p>Unsealed penetrations and openings are located in the fire rated floor/ceiling assemblies due to pvc toilet pipes, conveyer belt opening, lift shaft and cable riser.</p> <p><b>Location(s):</b> Washing Building, ETP &amp; Wear house shed.</p>	<p>Seal all penetrations and openings in floor/ceiling assemblies to maintain the fire separation at least by 3hr. The used sealer shall be 3rd party certified and installation shall be as per manufacturer's guideline. (Type-1 Construction).</p> <p>or,</p> <p>Provide a minimum 2-hr fire rated shaft to separate the utility risers from each floor if required. (Type-1 Construction).</p>	Within 3 months



F-02	Fire Rated Construction	<p>Openings from exit enclosures to storage areas are not provided with vestibules.  <b>Location:</b> Washing Building &amp; Warehouse Shed.</p>	<p>Opening from exit enclosure to storage areas shall be provided with a vestibule with fire rated construction and openings.  Provide 1.5- hr. fire rated door on the exit stair side and 1-hr fire rated door on the storage 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-03	Fire Rated Construction	<p>The Interim constructed building has been found steel-composite type and the steel columns and girders has been found in exposed condition without any fire protection.</p> <p><b>Location:</b> Warehouse shed &amp; Wastage Godown.</p>	<p>The building is interim steel structure which shall be type-I construction. So, provide require rating in the structural elements of the buildings. Consult with a qualified fire protection engineer. Follow BNBC 2006-Table 3.2.4, 3.1.9 and 3.3.1 as reference.</p>	Within 6 months
				



F-04	Fire Rated Construction	<p>The exit stairs are not separated from other spaces by fire rated construction due to unprotected openings and penetrations.</p> <p><b>Location:</b> All buildings.</p>	<p>Provide minimum 2-hr rated fire wall and 1.5-hr fire rated doors for buildings that are 4 or more stories and minimum 1-hr rated fire wall and 0.75-hr fire rated doors for buildings that are less than 4 stories. Seal all unprotected openings &amp; penetrations to separate the exit stairs from work areas and other building spaces on all floor levels.</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>Once fire doors are installed, every door in a stair enclosure serving more than 5 stories shall be provided with re-entry.</p>	Within 3 months
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F-05	Fire Rated Constructions	<p>Catwalk has been constructed on High rack storage and the area of the the intermediate decks create full floors which requires fire rated separation.</p> <p><b>Locations:</b> Warehouse Shed.</p>	<p>Remove the catwalk of the intermediate deck.</p> <p>Or</p> <p>Maintain fire separation (3hr for type 1) between floor to floor as per BNBC 2006 Table 3.3.1. Provide required fire rating on the structural elements by following Table-3.2.4, 3.1.9 &amp; Table 4.4.1 of the RSC Technical Guidelines Standard or Table 3.3.1 of BNBC-2006. Consult a qualified fire protection engineer to design the rated construction barriers in between two floors and in structural members. Factory shall submit all required product datasheet, installation design along with design philosophy to RSC for review prior to installation on site.</p>	Within 3 months
				

F-06	Means of Egress	The width of stair-2 & 4 of Washing building, N & S stair of Warehouse Shed, stair-1, 2 & 3 of ETP building and stair of utility building is less than 60 in.	In interim construction, stairs shall have a minimum width of 1.5 m (60 in.) according to RSC Technical Guidelines (Standard V1.0) section 6.5.6.2.1. Provide minimum stair widths of 1.5 m (60 in).	Within 3 months
F-07	Means of Egress	A single means of egress (stair) is provided from the utility building.	For utility, ground or basement story is allowed a single exit with maximum of 50 occupants and 23 m (75ft) travel distance. All other stories which houses utility occupancy require a minimum of 2 egress exits.  Provide additional means of egress according to RSC Technical Guidelines (Standard) section 6.6.2.	Within 3 months


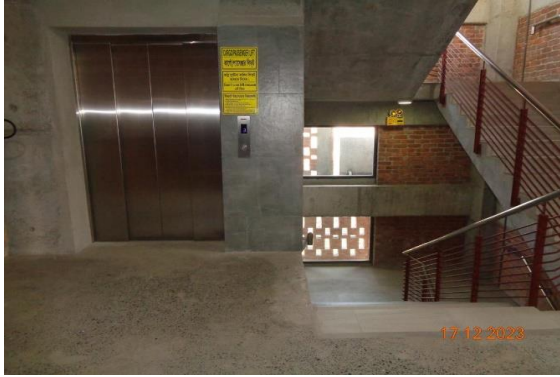


F-08	Means of Egress	Fire evacuation map is not posted at the entrance of all exit stair.	Fire evacuation maps shall be posted at the entrance to each exit stair	Within 01 month
F-09	Means of Egress	Aisles marking has not been provided on floor properly.	Provide minimum aisle width of 36-in and mark properly.	Within 1 month
				
F-10	Means of Egress	Building did not have stair designation signs and occupant load signs at required locations.	Provide stair, floor designation sign and occupant load signs at each floor entrance from the stair to the floor in English and Bengali.	Within 1 Month

F-11	Egress Lighting	The directional signs are not provided where there is a change in direction and where the continuation of the egress path is not obvious.	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
		 <p>17 December 2023 12:31 pm</p>	 <p>17 December 2023 12:14 pm</p>	
F-12	Means of Egress	<p>Electrical panels were located in the exit stair enclosures.</p> <p><b>Location:</b> Wear house shed.</p>	Remove and re-locate all electrical panels from exit stair enclosures.	Within 1 month

F-13	Means of Egress	Exit stair enclosure serving more than 5-stories is not provided with re-entry provisions on all floors. Location(s): Washing Building & ETP Building.	Every door in a stair enclosure serving more than 5 stories shall be provided with re-entry unless it meets RSC Technical Guideline (standard).6.8.3.1.	Within 3 months
F-14	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-15	Fire Rated Construction	Elevator shafts are directly open into exit enclosure.	<p>For interim construction, 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 (As per 6.14.3 of RSC Technical Guidelines (Standard) V1.0). So, separate the stair enclosure from elevator shaft throughout the building.</p> <p>Recommended to follow "SUPPLEMENTARY PAPER ON REMEDIATION GUIDANCE ELEVATOR OR LIFT SHAFT OPENING IN EXIT ENCLOSURES" for remediation.</p>	Within 3 months

					
F-16	Fire Detection & Alarm System	Fire alarm and detection system installation complete which requires detailed review to confirm compliance with NFPA 72.	<p>Submit as-built drawings, testing records, equipment certification and other relevant documentation to the RSC for review.</p> <p>Once reviewed, install or modify the fire detection and alarm system (where required) throughout the building in accordance with RSC technical guidelines (standard) and NFPA 72. The factory management shall contact RSC to conduct the final acceptance testing after the installation, testing &amp; commissioning.</p>	Design-1 Month Modification if required- 3 Months	



F-17	ITM of Fire Alarm & Detection system	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-18	Fire Protection System(Standpipe & Automatic Sprinkler System)	Fire Protection system(Standpipe & Automatic Sprinkler System) installation requires detailed review to confirm compliance with NFPA 13,14, 20, 22,24 and RSC standards. <b>Location:</b> Washing Building, ETP Building & Warehouse Shed.	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-1 Month Modification if required- 3 Months

F-19	ITM of Sprinkler	Inspection, testing, and maintenance for the automatic fire sprinkler system is not in accordance with NFPA 13 and 25 or as per RSC standard.	Inspect, test and maintain the automatic fire sprinkler system , and keep written records on-site, in accordance with NFPA 13 and 25 or as per RSC standard.	Within 1 month after installation.
F-20	ITM of Fire Pump	Inspection, testing, and maintenance for the fire pump is not in accordance with NFPA 20 or as per RSC Technical Guideline (Standard).	Inspect, test and maintain the fire pump system and keep written records on-site, in accordance with NFPA 20 or as per RSC Technical Guideline (Standard).	Within 1 month after installation.
F-21	ITM of Standpipe	Inspection, testing, and maintenance for the standpipe system is not in accordance with NFPA 25 or as per RSC standard.	Inspect, test and maintain the standpipe system in accordance with NFPA 25 or as per RSC Technical Guideline (Standard) and keep written records on-site.	Within 1 month after installation.

F-22	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). Keep written records on-site.	Within 1 month
F-23	ITM of Fire Extinguishers	Inspection, testing and maintenance of portable fire extinguishers is not found in accordance with NFPA 10.	Inspect, test and maintain the portable fire extinguishers and keep written records onsite, in accordance with NFPA 10.	Within 1 month
F-24	Smoking Sign	The required no smoking signs are not present in the factory.	Smoking is prohibited in any garment factory building or separate storage building. Signs shall be posted in Bengali and English at all building entrances. If the factory creates a designated smoking area outside the building, information of these areas will be posted on the signs.	Within 1 Month

F-25	Means of Egress	<p>Sliding doors are provided at building exits.</p> <p><b>Location:</b> Wastage Godown</p>	<p>Replace all collapsible and sliding doors along the means of egress with side-hinged, swinging egress doors.</p> <p>If locks are required for security reasons, utilize specialized door locking features complying with NFPA101.</p>	Within 1 month
				