

# INITIAL FIRE SAFETY INSPECTION REPORT

**TS Casual Wear Limited**

**RSC ID: 25934**

**Beraider Chala, 07 No Kewa, Sreepur, Gazipur-1740, Bangladesh.**

Geographical Coordinates : 24.18757837963827, 90.41705919042967

**Other Factories: None**



**Inspected By: Yusuf Ahmed**

**Date: 24-November-2024**

# Fire Safety Inspection Report

## TS Casual Wear Limited

### Introduction:

The **TS Casual Wear Limited** complex was surveyed for fire safety on **24-November-2024** 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


SI No	Building Name & Description	Construction History	Period
1	<b>Building-1: Main Production Building</b> 6 storied RCC building. Total Approx Area: 21,180 sq.meters.	Construction Start: February 2015 Construction End: October 2019 Date of first Operation: August 2017 Building Approval: 22-Jan-2015 (Sreepur Pouroshova)	Interim Construction
2	<b>Building-2: Security room, RMS room</b> Single storied RCC building. Total Approx Area: 44 sq. meters.	Construction Start: February 2015 Construction End: August 2015 Date of first Operation: August 2017	Interim Construction
3	<b>Building-3: Utility Building-1</b> Single storied RCC building. Total Approx Area: 269 sq. meters.	Construction Start: February 2015 Construction End: August 2015 Date of first Operation: August 2017	Interim Construction
4	<b>Building-4: Utility Building-2</b> Single storied RCC building. Total Approx Area: 84 sq. meters.	Construction Start: February 2015 Construction End: August 2015 Date of first Operation: August 2017	Interim Construction
5	<b>Building-5: Fire Pump &amp; Fire Control Room</b> Single storied RCC building. Total Approx Area: 124 sq. meters.	Construction Start: February 2015 Construction End: September 2015 Date of first Operation: August 2017	Interim Construction
6	<b>Shed-1: Security Rest Room</b> Single storied shed Total Approx Area: 41 sq. meters.	Construction Start: February 2015 Construction End: August 2015 Date of first Operation: August 2017	Interim Construction
7	<b>Shed-2: Maintenance Room</b> Single storied shed Total Approx Area: 28 sq. meters.	Construction Start: February 2015 Construction End: August 2015 Date of first Operation: August 2017	Interim Construction

**Factory Address:** Beraider Chala, 07 No Kewa, Sreepur, Gazipur-1740, Bangladesh.

**Findings & Recommendations :**

Table 1 summarizes the major fire safety issues identified during the inspection of main building. 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:**


SI No.	Category	Findings	Required Action	Remediation Time Frame
F-01	Fire rated Construction	<p>Areas used for combustible storage are open to the factory floor area and are not separated by fire rated construction.</p> <p>Location: 2nd and 4th floor of Building-1.</p>	<p>Provide dedicated storage rooms separated by a minimum 1-hr fire-rated construction. Provide minimum 0.75 hr. fire rated doors and seal all penetrations and openings by 1 hr. fire rated barrier construction.</p> <p>Where separate storage rooms are not feasible, provide defined storage areas and limit the storage arrangement as follows: -</p> <ul style="list-style-type: none"> <li>- Maximum height of 2.45m (8ft.) , maximum area of 23m<sup>2</sup> (250 ft<sup>2</sup>) and 3m (10ft.) clear distance from adjacent another unenclosed combustible storage.</li> <li>- If the building/floor is sprinkler protected: maximum height of 3.66m (12ft.) and maximum area of 93m<sup>2</sup> (1000 ft<sup>2</sup>) and 3m (10ft.) clear distance from adjacent another unenclosed combustible storage.</li> </ul>	Within 2 months
				

F-02	Means of egress	<p>The exit stairs are not separated from work areas and other spaces on each floor by fire rated construction due to non-functional fire rated doors. Several fire doors did not latch properly. A few fire doors were found tied open by ropes. The fire door interfacing work has not been fully completed.</p> <p>Location: Building-1.</p>	<p>The exit stair enclosure shall be provided with a minimum 2- hr. fire resistance rating for buildings four (4) stories or more. Provide a minimum 1.5 hr. fire rated door and seal all penetrations and openings by 2 hr. fire rated barrier construction for building with 4 or more stories.</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>	Within 2 months
------	-----------------	---	--	-----------------



F-03	Means of egress	<p>Storage rooms discharges directly into exit stair enclosure without vestibules.</p> <p>Location: Ground floor, 1st floor, 2nd floor &amp; 5th floor of Building-1.</p>	<p>Openings from the exit enclosure to the storage room, shall be provided with a vestibule with fire-rated construction and openings.</p> <p>Provide a minimum 1.5 hr. fire rated door on the exit stair side and a minimum 0.75- 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> <p>The minimum width for vestibules shall not be less than 1.1 m and length 1.8 m.</p>	Within 3 months
------	-----------------	---	---	-----------------






F-04	Fire rated Construction	<p>Unsealed penetrations and openings due to plastic sanitary pipe and electrical busbar risers are located in the fire-rated floor/ceiling assemblies in many places through out the building.</p> <p>Location: Building-1. Plastic pipe penetration was observed in the drinking water zone and inside mail and female toilet areas. BBT penetration was observed through all floors.</p>	<p>Provide a minimum 2-hr fire-rated shaft to separate the sanitary pipe and electrical busbar riser from each floor level. or Seal all penetrations and openings in floor/ceiling assemblies by 3-hr fire rated listed/certified materials. The installation of such fire-rated materials shall be following certified design.</p>	Within 3 months
				
F-05	Means of egress	<p>The maximum travel distance of the daycare room was found to be more than 9 m (30 ft). The daycare room discharges the occupants inside the storage area.</p> <p>Location: Ground floor of Building-1.</p>	<p>Day-care shall be located on the ground floor with a maximum travel distance of 9 m (30 ft) or located one story above level of exit discharge with direct access to an exit enclosure. If the above is not possible provide a minimum 2-hr fire rated exit corridor between the day-care room and exit stair.</p>	Within 2 months



F-06	Means of egress	<p>Aisles marks were found missing on several locations throughout the building.</p> <p>Location: Building 1.</p>	<p>Provide minimum aisle widths of 36-in. Aisles mark shall be clearly visible.</p>	<p>Within 1 month</p>
------	-----------------	---	---	-----------------------



F-07	Means of egress	<p>Fire evacuation maps were not posted at the entrance to each exit stairs.</p> <p>Location: 4th floor and 5th floor of Building-1.</p>	<p>Post fire evacuation maps at the entrance to each exit stair.</p>	<p>Within 1 month</p>
F-08	Fire rated Construction	<p>Dining area (E3 occupancy) is not separated by fire-rated construction from combustible storage area.</p> <p>Location: 5th floor, Building-1.</p>	<p>Separate the dining area from the storage occupancy by a minimum 3-hr. fire rated construction with a minimum 3-hr. rated opening protectives. Seal and/or protect all openings to maintain the required fire separations. Need to ensure at least two means of exits from the dining area leading directly to the street or leading to a corridor or open space having access to exits in two independent and different direction.</p>	<p>Within 3 months</p>
				
F-09	Fire rated Construction	<p>The childcare room (C1) and the Medical Room (D1) is not separated from the Fabric Store (H2) by fire rated construction.</p> <p>Location: Ground floor, Building-1</p>	<p>Separate the Childcare Room and the Medical Room from the Fabric Store by a minimum 4-hr fire rated construction. No opening assembly is permitted in a 4-hr fire rated wall.</p>	<p>Within 3 months</p>

				
F-10	Fire Protection System	<p>The travel distance between portable fire extinguishers were found to be more than 30 m (100 ft).</p> <p>Location: 4th and 5th floor of Building-1.</p>	<p>Portable fire extinguishers shall be installed throughout all new, interim, and existing facilities in accordance with BNBC 2020 and NFPA 10. Extinguishers shall be placed so that maximum travel distance to the nearest unit shall not exceed 30 m (100 ft).</p>	Within 1 month
				
F-11	Fire rated Construction	<p>Unprotected openings were observed in the exterior wall of the building in two consecutive floors lying within 1.5 m and vertical spread of fire is not restricted.</p> <p>Location: South side of Building-1.</p>	<p>Provide flame barriers as similar as sunshades or cornices or projected wall at least 750 mm from the external face of the exterior wall.</p> <p>The flame barrier shall have a fire resistance rating of not less than three-fourths hour.</p>	Within 3 months





F-12	Means of egress	<p>Electrical panels were observed inside the exit stair enclosure.</p> <p>Location: Ground floor, 2nd floor and 3rd floor of stair-3, Building-1.</p>	Remove/relocate the electrical panels from the exit stair enclosures.	Within 2 months
------	-----------------	--	---	-----------------





F-13	Means of egress	<p>The south side exit from the ground floor discharges inside the loading-unloading area. Location: Building-1.</p>	<p>Exits shall discharge directly to the exterior of the building unless meeting the requirements of 6.17.2 or 6.17.3 of RSC Technical Guidelines (Standard). The exit discharge shall be at grade or provide direct access to grade. Exit discharge shall not re-enter a building.</p> <p>An egress court serving as a portion of the exit discharge shall be open to the sky or provided with a fire resistance rated enclosure the same as the exit enclosure. Egress courts less than 3050 mm (10 ft) in width (as measured from the building and the adjacent property line) shall be provided with walls having a 1-hr fire resistance rated construction for a distance of 3050 mm (10 ft) above the floor of the court.</p> <p>Or,</p> <p>A maximum of 50 percent of the number and capacity of the exit enclosures can discharge through areas on the level of exit discharge where all of the following are met:</p> <p>(1) Automatic sprinkler protection is provided throughout the level of exit discharge or portion of the level of discharge where separated from non sprinklered portions of the floor by fire barriers with the same fire resistance rating as the exit enclosure.</p> <p>(2) The interior discharge is not through a storage or hazardous occupancy.</p> <p>(3) The entire area of the level of exit discharge is separated from areas below by construction having a fire resistance rating not less than that required for the exit enclosure.</p> <p>(4) The way to the exterior shall be free and unobstructed and shall be readily visible and identifiable from the point of discharge of the interior exit.</p>	Within 3 months
------	-----------------	--	---	-----------------





F-14	Means of Egress	<p>Occupiable roofs were provided with parapets but the parapet heights were found to be less than 42 inches.</p> <p>Location: Roof floor of Building-1.</p>	<p>Provide parapets for occupiable roofs with a minimum height of 1067mm (42 inch.).</p>	<p>Within 1 month</p>
				
F-15	Means of Egress	<p>Widths of exit stairs were found to be less than 1.5 m (60 in.).</p> <p>Location: Stair-1, Stair-4 and Stair-5 of Building-1.</p>	<p>In interim construction and for newly constructed stairs, stairs shall have a minimum width of 1.50 m (60 in.) for all industrial occupancies according to section 6.5.6.2.1 RSC Technical Guidelines (Standard).</p>	<p>Within 3 months</p>
				

F-16	Means of Egress	Building did not have stair designation signs and occupant load signs at required locations on all floors  Location: 4th and 5th floor of Building-1.	Stair designation signs shall be provided at each floor entrance from the stair to the floor in English and Bengali. Signs shall indicate the name of the stair and the floor level. Signs shall be posted adjacent to the door.  The occupant load shall be posted for every assembly and production floor in a facility in a conspicuous space near the main exit or exit access doorway for the space.	Within 1 month
F-17	Emergency Lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes and at exit stairs on all floors.  Location: All floors of Building-1.	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 1 month
F-18	Emergency 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.  Location: All floors of Building-1.	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-19	Emergency Lighting	Exit signs were not provided at entrance to exits. Location: Office area, 3rd floor of Building- 1.	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. Lighted exit signs shall be provided with either battery backup or uninterruptable power supply systems and shall be continuously illuminated.	Within 1 month
				
F-20	Emergency Lighting	Manual on-off switches are provided for exit signs. Location: Ground floor to 3rd floor of Building- 1.	Remove manual on/off switches from exit signage units to prevent them from being switched off.	Within 1 month
				
F-21	ITM Emergency Lighting	Inspection, testing and maintenance for the emergency lighting system was not in accordance with The RSC standard.	Inspect, test and maintain the emergency lighting system in the accordance with The RSC standard. Keep written records on-site.	Within 1 month

F-22	Fire Detection & Alarm System	<p>Automatic fire alarm and detection system installation found ongoing which requires detailed review to confirm compliance with NFPA 72 and The RSC Technical Guidelines (Standard).</p> <p>Location: All structures under this factory ID.</p>	<p>Submit the fire alarm system design to RSC for review. Once the design is reviewed, install and/or modify the fire detection and alarm system throughout the buildings in accordance with review comment, RSC Technical Guidelines (Standard) and NFPA 72 standard. After installation the owner shall conduct internal testing and commissioning and then contact the RSC for witness of final acceptance testing.</p>	<p>Design Review within 2 months and installation/modification within 4 months</p>
 <p>The first photograph shows a fire alarm control panel with a red fire alarm pull station below it. The second photograph shows a red fire alarm sounder with a sign that reads 'SOUNDER WITH HORN' and 'সড়িতার উইথ হর্ন' (Sounder with Horn) and 'NAC- Z- F-'. The third photograph shows the ceiling area with fire alarm wiring and a sounder horn.</p>				
F-23	ITM of Fire Detection & Alarm System	<p>Inspection, testing and maintenance for the fire alarm system is not in accordance with table 14.3.1 of NFPA 72.</p>	<p>Inspect, test and maintain the fire alarm system and keep written records on-site, in accordance with Table 14.3.1 of NFPA 72 and The RSC Technical Guidelines (Standard) and keep written records on-site.</p>	<p>Within 1 month (after installation)</p>

F-24	Fire Protection System	<p>The highest occupied floor level of Building-1 is more than 10 m (33 ft) where Class III automatic standpipe and hose system is required. Class III standpipe system was found installed which is supplied by a fire pump and a water supply system. The standpipe system and fire pump and water supply system requires detailed review to confirm compliance with the RSC Technical Guidelines (Standard), NFPA 14, 20, 22 and other relevant standards.</p> <p>Location: Building-1.</p>	<p>Submit the automatic standpipe and hose system design along with the fire pump and water supply system design to RSC for review. Once the design is reviewed, install and/or modify the automatic standpipe and hose system design throughout the buildings in accordance with review comments, RSC Technical Guidelines (Standard) and NFPA 14, 20, 22 and other relevant standards. After installation the owner shall conduct internal testing and commissioning and then contact the RSC for witness of final acceptance testing.</p>	<p>Design Review within 2 months and installation within 4 months</p>
				
F-25	ITM of Standpipe system	<p>Inspection, testing and maintenance of the standpipe system is not in accordance with NFPA 25.</p>	<p>Inspect, test and maintain the standpipe system and keep written records on-site, in accordance with NFPA 25.</p>	<p>Within 1 month after installation.</p>
F-26	ITM of fire pump system	<p>Inspection, testing, and maintenance for the fire pump is not in accordance with NFPA 25.</p>	<p>Inspect, test and maintain the fire pump, and keep written records on-site, in accordance with NFPA 25.</p>	<p>Within 1 month after installation.</p>
F-27	ITM extinguisher	<p>Inspection, testing and maintenance of portable fire extinguishers is not in accordance with NFPA 10.</p>	<p>Inspect, test and maintain the portable fire extinguishers and keep written records onsite, in accordance with NFPA 10.</p>	<p>Within 1 month</p>