

INITIAL FIRE SAFETY INSPECTION REPORT

LIBERTY KNITWEAR LTD. (Extension)

RSC ID: 24761

RAMARBAGH, KUTUBPUR, FATULLAH, NARAYANGANJ

23.643569, 90.488298

Other Factories: LIBERTY KNITWEAR LTD. [ID-9501], Midland Knitwear Ltd. [ID-9511], Midland Knitwear Ltd. (Extension) [ID-24760]



Inspected By: Md. Sadid Rahman

Date: 19-Dec-2023

Fire Safety Inspection Report

LIBERTY KNITWEAR LTD. (Extension)

Introduction:

LIBERTY KNITWEAR LTD. (Extension) complex was surveyed for fire safety on ID-**24761** 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):

Factory Building name(s): There are total **6 structures** in the factory compound under this RSC ID 24726. The buildings are as below:

1. B-01: ETP Building - 8 Storied RCC building [New Structure].

Approved from PWD on 13-Feb-2022. Construction started- Nov, 2017 and ended- Dec, 2019. Occupied- February, 2020. Total Floor area: 92,714 sqft (Approximately).

2. B-02: Canteen Building- 4 storied RCC building [Existing Structure].

Construction started- Mar, 2006 and ended Oct, 2007. Occupied-Nov, 2007. Total Floor area: 12,288 sft (Approximately).

Factory Address: RAMARBAGH, KUTUBPUR, FATULLAH, NARAYANGANJ

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: ETP Building and Canteen Building

Sl No.	Category	Findings	Required Action	Remediation Time Frame
F-1	Fire Rated Construction	The exit stairs are not separated from work areas, other spaces by fire-rated construction due to opening. Location: ETP Building - Ground Floor (Both Stair) and Stair-2 (from shed of Microfiber office Shed). Canteen Building- Both Stair (Opening on each floor)	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.	Within 3 months
 				

F-2	Fire Rated Construction	Elevator shafts are directly open into the inside of exit enclosure. Located: ETP Building (Stair-1)	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. 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.	Within 3 months
 				

F-3	Fire Rated Construction	Storage room discharges directly into exit stair enclosure. Location: ETP Building	Openings from exit enclosure to storage room, shall be provided with a vestibule with fire rated construction and openings. Provide a 1.5 hr. fire rated door on the exit stair side and a 1-hr. fire rated door on the store side. Ensure that the fire rating of the vestibule construction matches that of the exit stair enclosure.	Within 4 months
-----	-------------------------	---	---	-----------------



F-4	Fire Rated Construction	Penetrations and Opening through floor/ceiling assemblies are found unsealed. Location(s): ETP Building	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 of 3 hr. Provide a minimum 3-hr fire rated shaft to separate the utility risers from each floor if required.	Within 3 months
 				

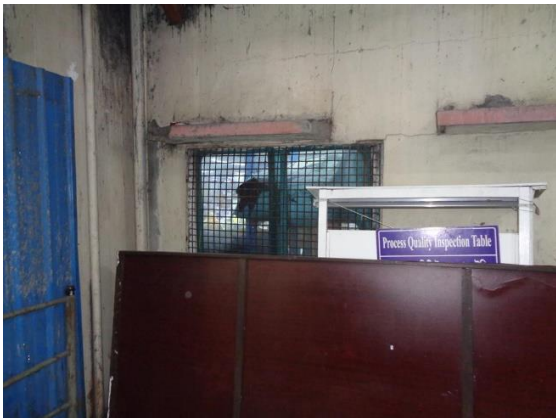
F-5	Fire Rated Construction	Interior building exit discharge has not been arranged as per 6.17.3 of RSC Technical Guidelines Standard. Location: ETP Building and Canteen Building.	A maximum of 50 percent of the number and capacity of the exit enclosures can discharge through areas on the level of exit discharge where all of the following are met: (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. (2) The interior discharge is not through a storage or hazardous occupancy. (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. (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. Or Provide 2-hr fire-rated exit passageway leading directly outside.	Within 3 months
-----	-------------------------	---	--	-----------------



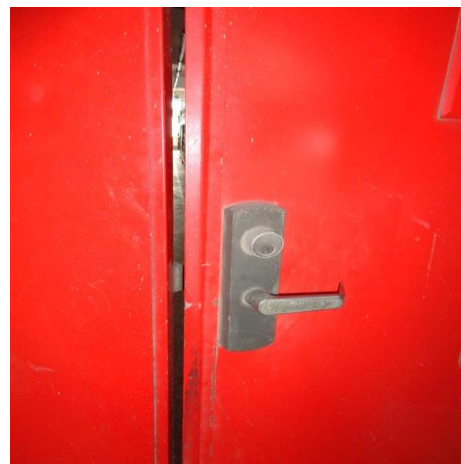
F-6	Fire Rated Construction	Storage area has been found not separated from other building and floor due to opening and non rated structure. Location: Jhute Shed (Outside ETP building on Ground Floor)	Separate the Jhute godown by 3hr rated separation from 1st floor of the ETP building or Remove the Jhute godown from open space between buildings.	Within 3 Months
 				

F-7	Fire Rated Construction	Opening through floor/ceiling assemblies are found unprotected due to non rated steel structure. Location: 1st,2nd and 3rd floor of ETP building.	Seal all penetrations and openings in floor/ceiling assemblies by fire rated materials to maintain the fire resistance rating of 3 hr.	Within 3 Months
-----	-------------------------	--	--	-----------------



F-8	Fire Rated Construction	Opening through wall from other building [5 Storied Garments Building of ID-9501]are found unprotected due to window Location: 1st and 2nd floor of ETP building.	Seal all penetrations and openings by fire rated materials to maintain the fire resistance rating of 3 hr.	Within 3 Months
				

F-9	Fire Rated Construction	Fire door accessories (door coordinators, door closer, latching system, magnetic door holders) in various location have been found non-functional so fire separation is not being maintained. Locations: Stair 2 (ETP Building).	Factory shall ensure that the maintenance work shall be done for the door hardware and accessories on a regular basis as per NFPA 80 and manufacturer's published guideline. Repair/replace the hardware and accessories which are not functional or under unauthorized maintenance. Doors shall not be tied up with rope or blocked by obstacles. Keep the fire rated doors close all time, if for functional reason require to keep open then interfacing facility with functional FACP shall be ensured.	Within 1 month
-----	-------------------------	--	--	----------------



F-10	Means of Egress	Width of door has been found 28 inch on 4th floor of ETP Building and 29 inch on 2nd Floor of Canteen Building (Stair-1).	For Existing building (Canteen building) doors in a means of egress shall have a minimum width of 0.8 m (32 in.) and for Interim or New building doors in a means of egress shall have a minimum width of 1 m (39 in.).	Within 1 month
------	-----------------	---	---	----------------



F-11	Means of Egress	Stair width has been found less than 60 inch for new or interim construction and 35 inch for existing construction. Location: ETP Building- Stair-2 (50 inch) Canteen Building- Stair-1 (33 inch)	Provide minimum clear and unobstructed exit stair widths of 1.5 m(60 in.) for New construction and 0.9 m (35 in.) for existing construction in accordance with RSC Technical Guidelines Standard standard 6.5.6.2.1	Within 1 month
 				

F-12	Means of Egress	Headroom has been found 64 inch on Stair-1 of Canteen building. Location: Ground floor.	Headroom on stairs shall not be less than 2.03 m (6 ft 8 in.).	Within 1 months
				
F-13	Means of egress	Exit stairs serve more than 5 stories and do not have required re-entry provisions. Location: B#1: ETP Building	Every door in a stair enclosure serving more than 5 stories shall be provided with re-entry unless it meets RSC standard 6.8.3.1.	Within 1 month

F-14	Egress Lighting	Exit sign and Directional Sign are not provided at and towards exit at several floors. Location: ETP building and Canteen Building.	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 1 month
------	-----------------	--	---	----------------



F-15	Emergency Lighting	Manual on-off switch is provided for [emergency lighting / exit signage] units.	Remove manual on/off switches from emergency lighting / exit signage units to prevent them from being switched off.	Within 1 month
------	--------------------	---	---	----------------



F-16	Means of Egress	The emergency evacuation maps has not been updated with as built floor condition. Location: B#1: ETP Building, B# 2: Canteen Building	Fire evacuation maps shall be update and posted at the entrance to each exit stair.	Within 1 month
------	-----------------	--	--	-----------------------



F-17	Means of Egress	The exits are not remotely located from each other such that a single fire event could compromise both exits. Location: B# 2: Canteen Building.	Where two or more exits or means of egress are required, the exit doors or means of egress openings shall be located a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the building or area to be served measured in a straight line between exits or egress openings.	Within 1 month
------	-----------------	--	---	----------------



F-18	Fire Alarm & Detection system	Automatic fire alarm and detection system has been found installed 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, 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 4 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 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	Fire Protection System (Standpipe & Sprinkler)	The factory has installed a fire Standpipe & Sprinkle system which is required to be reviewed and verified.	Submit as-built drawings, testing records, equipment certification and other relevant documentation to the RSC for review and approval. Modification (if required) shall have to done as per the reviewed design and NFPA- 20. Upon approval & modification (if required) the factory shall inform RSC to conduct final testing and commissioning verification of the system for final acceptance.	Design within 1 months, installation/modification on within 3 months
		 		
F-21	Fire Protection System(ITM of fire pump)	Inspection, testing, and maintenance for the fire pump is not in accordance with NFPA 20, 25 and RSC Technical Guideline (Standard).	Inspect, test and maintain the fire pump in accordance with NFPA 20, 25 and RSC Technical Guideline (Standard) and keep written records on-site.	Within 1 Month (after installation)

F-222	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-23	Fire Protection System(ITM of Sprinkler)	Inspection, testing and maintenance of the automatic sprinkler system is not in accordance with NFPA 25.	Inspect, test and maintain the automatic sprinkler system and keep written records on- site, in accordance with NFPA 25 and RSC standards.	Within 1 month
F-24	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
F-25	Egress Lighting ITM	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