

FIRE SAFETY INSPECTION REPORT

**ZOOM SWEATERS LTD.
PAITY ROAD, DERMA,1362, BANGLADESH**



ACC  **RD**
on Fire and Building Safety in Bangladesh

March 3, 2014

SUMMARY

Zoom Sweaters Ltd. was surveyed for fire safety on 3/3/2014 by Hughes Associates, Inc. This summary identifies the major deficiencies that were identified during the inspection.

The purpose of this survey was to identify significant fire safety issues and to provide recommendations for remediation based on applicable standards specified by the Accord. 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.

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 Accord for approval.

Table 1. Findings And Recommendations

No.	Category	Finding	Recommendation	Remediation Timeframe
F-1	Fire Rated Construction	The exit stairs are not separated from work areas and other spaces on each floor by fire-rated construction.	<p>Provide minimum 1.5-hr fire rated doors and seal all unprotected openings to separate the exit stairs from work areas and other building spaces on all floor levels. 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.</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>	Within 3 months



F-2	Fire Rated Construction	Unsealed penetrations and openings are located in the fire-rated floor/ceiling assemblies from the first floor to the third floor next to the west stairwell.	Provide a minimum 2-hr fire-rated shaft to separate the utility risers from each floor level. Seal all penetrations and openings in floor/ceiling assemblies to maintain the fire separation.	Within 3 months
-----	-------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------



F-3	Fire Rated Construction	Areas used for combustible storage on factory floors are not separated by fire-rated construction.	<p>Provide defined storage areas and limit the storage arrangement as follows:</p> <ul style="list-style-type: none"> - Maximum height of 2.4m and maximum area of 23m² - If sprinkler protected: maximum height of 3.66m and maximum area of 93m² <p>Separate areas of unenclosed combustible storage by a minimum clear distance of 3m.</p>	Within 3 months
-----	-------------------------	----------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------



F-4	Fire Rated Construction	All four (4) storage rooms used for combustible storage on the ground floor are not separated by fire-rated construction.	Separate the storage rooms by minimum 1-hr fire-rated construction (fire doors) and seal all penetrations from the storage rooms to the interior of the building.	Within 3 months
-----	-------------------------	---------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------



F-5	Egress	Egress doors/gates with locking features are provided at building exits, exit stairs, along egress routes, and at exit discharge. All gates/doors were open and unlocked during the inspection.	Remove locking features from all egress doors/gates. If locks are required for security reasons, utilize special door locking features complying with NFPA 101.	Immediate
-----	--------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------



F-6	Egress	Collapsible gates and sliding doors are provided at exit stairs on each floor and at the west exit discharge.	Replace all gates / sliding doors along the means of egress with side-hinged, swinging egress doors.	Within 1 month
			If locks are required for security reasons, utilize special door locking features complying with NFPA 101.	



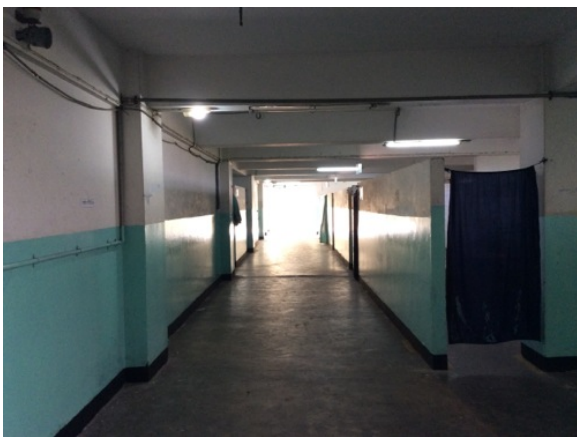


F-7 Egress

The north stair discharges inside the building on the first ground floor adjacent to storage areas. Two exits are available from the point, one exit is through the adjacent dining area and one exit is along the corridor to the west.

Provide sprinkler protection for discharge floor in accordance with NFPA 13.

Within 12 Months





F-8	Egress	The exits are not remotely located from each other such that a single fire event could compromise both exits on the first, second, and third floors.	Provide sprinkler protection in accordance with NFPA 13.	Within 12 Months
F-9	Egress	The width of egress aisles is less than 36-in. in several locations on the second and third floors.	Provide minimum aisle widths of 36-in.	Within 3 months



F-10	Egress	Common path of egress travel exceeds 75 ft. on the first, second, and third floors.	Reconfigure the egress arrangement to reduce the maximum common path of travel to not more than 75 ft.	Within 3 months
------	--------	-------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------	-----------------

F-11	Fire Protection	The fire alarm system is antiquated, not a listed system, and does not provide alarm and notification features consistent with acceptable standards.	Replace the fire alarm system with a new, listed addressable fire alarm system in accordance with NFPA 72.	Design within 4 months, install within 9 months
------	-----------------	------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------	-------------------------------------------------





F-12	Fire Protection	<p>The high-rise building has an occupied floor greater than 23m (75 ft) and is not provided with automatic sprinkler protection. The large occupant loads, heavy fuel loading, and anticipated extended egress times warrant sprinkler protection.</p> <p>The highest occupied floor appears to be over 75 ft.</p>	<p>Provide automatic sprinkler protection throughout the building in accordance with NFPA 13.</p>	<p>Design within 6 months, install within 12 months</p>
F-13	Fire Protection	<p>Inspection, testing, and maintenance records for the fire alarm system were not available.</p>	<p>Inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72.</p>	<p>Within 3 months</p>

F-14	Fire Protection	<p>Fire alarm horn units were provided on the exterior of the north stairwell on the first, second, and third floors. A single fire alarm horn/strobe unit was provided on the ground floor at the north stairwell discharge to the ground floor. Fire alarm horn/strobe units were observed to be missing from the exterior of the west stairwell on the first, second, and third floor.</p>	<p>The existing horn units on the exterior of the north stairwell may provide adequate audibility. Test the fire alarm system on all floors from the most remote locations and if adequate audibility is not achieved, provided additional notification appliances such that the fire alarm system is audible throughout the building in accordance with NFPA 72.</p>	<p>Within 6 months</p>
------	-----------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------



F-15	Fire Protection	The building is equipped with single-station smoke alarms. Smoke alarm activation sounds only a local alarm and does not provide automatic fire alarm notification of occupants.	Replace the single-station smoke alarms with automatic smoke detectors tied into the fire alarm system. Based on ceiling configuration, space the detectors in accordance with NFPA 72. Configure the fire alarm system to initiate occupant notification upon activation of any two smoke detectors in addition to the manual fire alarm stations.	Within 6 months
------	-----------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------



F-16	Egress Lighting	Manual on-off switch is provided for exit signage units in several locations throughout the building.	Remove manual on/off switches from exit signage units to prevent them from being switched off.	Within 1 month
------	-----------------	-------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------	----------------



F-17 Egress Lighting

Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes throughout the factory floor and stairwells.

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