

FIRE SAFETY INSPECTION REPORT

**SM KNITWEAR (PVT) LTD.
SHIRICALA, BHABANIPUR, GAZIPUR.**

OTHER FACTORIES: NONE



ACCORD
on Fire and Building Safety in Bangladesh

August 21, 2014

SUMMARY

SM Knitwear (Pvt) Ltd. was surveyed for fire safety on 21-08-2014 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.

Tables 1 - 3 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 - Building 1.

No.	Category	Finding	Recommendation	Remediation Timeframe
F-1	Fire Rated Construction	Electrical room in the west exit stair on the ground floor is not separated by fire-rated construction.	Separate the electric room by a minimum 2-hr fire-rated construction. Seal and/or protected all openings to maintain the required fire separations.	Within 3 months
				
F-2	Fire Rated Construction	The boiler room is not separated by fire-rated construction (openings and non-rated doors).	Separate the boiler room by a minimum 2-hr fire-rated construction. Seal and/or protected all openings to maintain the required fire separations.	Within 3 months



F-3	Fire Rated Construction	Areas used for combustible storage on the 3rd and 5th floors are not separated by fire-rated construction.	Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction. Where separate storage rooms are not feasible, provide defined storage areas and limit the storage arrangement as follows: - Maximum height of 2.4m and maximum area of 23m² - If sprinkler protected: maximum height of 3.66m and maximum area of 93m² Separate areas of unenclosed combustible storage by a minimum clear distance of 3m.	Within 3 months
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F-4	Fire Rated Construction	Rooms used for combustible storage on the ground, 2nd and 3rd floors are not separated by fire-rated construction.	Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction.	Within 3 months
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F-5	Fire Rated Construction	All exit stairs are not separated from work areas on each floor by fire-rated construction.	Provide minimum 1.5-hr fire rated doors and seal all unprotected openings to separate the exit stairs from work areas 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. If fire doors are required to be held open for functional reasons, provide automatic-closing devices tied to the fire alarm system.	Within 3 months
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F-6	Fire Rated Construction	Unsealed penetrations and openings are located in the fire-rated floor/ceiling assemblies.	Seal all penetrations and openings in floor/ceiling assemblies to maintain the fire separation.	Within 3 months
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F-7	Fire Rated Construction	Unsealed penetrations and openings are located in the south and west exit stair enclosures.	Seal all penetrations and openings in exit stair enclosure walls to maintain the fire separation.	Within 3 months
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F-8	Egress	Egress gates with locking features are provided at building exits, exit stairs and exit discharge.	Remove locking features from all egress doors and gates. If locks are required for security reasons, utilize special door locking features complying with NFPA 101.	Immediate
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F-9	Egress	Collapsible gates are provided at building exits, exit stairs and exit discharge.	Replace all gates 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-10	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
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F-11	Fire Protection	Inspection, testing, and maintenance of 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 NFPA 72.	Within 3 months
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F-12	Fire Protection	The building is equipped with single-station smoke alarms and conventional smoke detectors.	Replace and remove single-station smoke alarms and conventional smoke detectors. Provide automatic smoke detection throughout the building, tied into the fire alarm system, in accordance with NFPA 72.	Within 6 months
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F-13	Egress Lighting	Inspection, testing, and maintenance for the emergency lighting system was not in accordance with The ACCORD standard.	Inspect, test and maintain the emergency lighting system in accordance with The ACCORD standard. Keep written records on-site.	Within 3 months
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Table 2. Findings And Recommendations - Building 2.

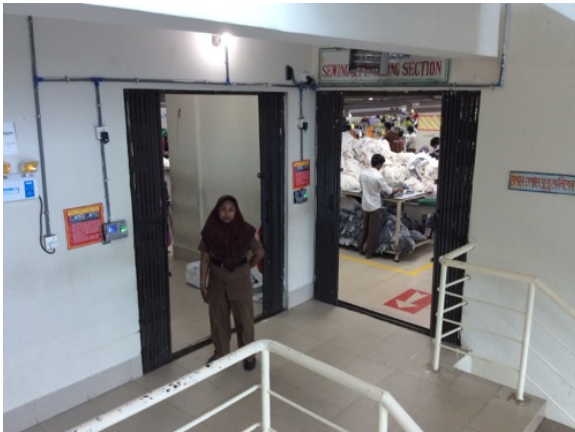
No.	Category	Finding	Recommendation	Remediation Timeframe
F-1	Fire Rated Construction	Areas used for combustible storage on the 1st and 3rd floors are not separated by fire-rated construction.	Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction. Where separate storage rooms are not feasible, provide defined storage areas and limit the storage arrangement as follows: - Maximum height of 2.4m and maximum area of 23m² - If sprinkler protected: maximum height of 3.66m and maximum area of 93m² Separate areas of unenclosed combustible storage by a minimum clear distance of 3m.	Within 3 months



F-2	Fire Rated Construction	Rooms used for combustible storage on the ground, 3rd, 4th and 5th floors are not separated by fire-rated construction.	Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction.	Within 3 months
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F-3	Fire Rated Construction	All exit stairs are not separated from work areas on each floor by fire-rated construction.	Provide minimum 1.5-hr fire rated doors and seal all unprotected openings to separate the exit stairs from work areas 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. If fire doors are required to be held open for functional reasons, provide automatic-closing devices tied to the fire alarm system.	Within 3 months
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F-4	Fire Rated Construction	The east and west exit stairwell are not enclosed in fire-rated constructions on the ground floor.	Provide minimum 2-hr fire-rated construction walls for continuous exit stairwell enclosure on each floor.	Within 3 months
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F-5	Egress	Egress gates with locking features are provided at building exits, exit stairs and exit discharge.	Remove locking features from all egress doors and gates. If locks are required for security reasons, utilize special door locking features complying with NFPA 101.	Immediate
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F-6	Egress	Collapsible gates and sliding doors are provided at building exits, exit stairs and exit discharge.	Replace all gates along the means of egress with side-hinged, swinging egress doors.	Within 1 month
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If locks are required for security reasons, utilize special door locking features complying with NFPA 101.



F-7	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
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F-8	Fire Protection	Inspection, testing, and maintenance of 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 NFPA 72.	Within 3 months
F-9	Fire Protection	The building is equipped with single-station smoke alarms and conventional smoke detectors.	Replace and remove conventional smoke detectors and single-station smoke alarms. Provide automatic smoke detection throughout the building, tied into the fire alarm system, in accordance with NFPA 72.	Within 6 months



F-10	Egress Lighting	Inspection, testing, and maintenance for the emergency lighting system was not in accordance with The ACCORD standard.	Inspect, test and maintain the emergency lighting system in accordance with The ACCORD standard. Keep written records on-site.	Within 3 months
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Table 3. Findings And Recommendations - Building 3.

No.	Category	Finding	Recommendation	Remediation Timeframe
F-1	Fire Rated Construction	Areas used for combustible storage on the ground and 2nd floors are not separated by fire-rated construction.	Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction. Where separate storage rooms are not feasible, provide defined storage areas and limit the storage arrangement as follows: - Maximum height of 2.4m and maximum area of 23m² - If sprinkler protected: maximum height of 3.66m and maximum area of 93m² Separate areas of unenclosed combustible storage by a minimum clear distance of 3m.	Within 3 months



F-2	Fire Rated Construction	Rooms used for combustible storage on the 2nd, 3rd and 4th floors are not separated by fire-rated construction.	Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction.	Within 3 months
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F-3	Fire Rated Construction	All exit stairs are not separated from work areas on each floor by fire-rated construction.	Provide minimum 1.5-hr fire rated doors and seal all unprotected openings to separate the exit stairs from work areas 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. If fire doors are required to be held open for functional reasons, provide automatic-closing devices tied to the fire alarm system.	Within 3 months
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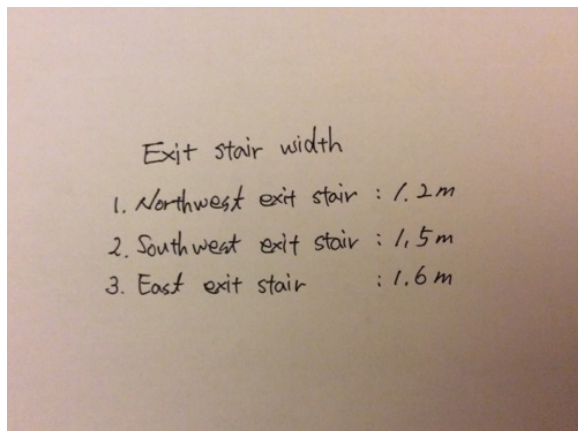
F-4	Fire Rated Construction	Unsealed penetrations and openings on each floor are located in the fire-rated floor/ceiling assemblies.	Seal all penetrations and openings in floor/ceiling assemblies to maintain the fire separation.	Within 3 months
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F-5	Egress	Egress gates with locking features are provided at building exits, exit stairs and exit discharge.	Remove locking features from all egress doors and gates. If locks are required for security reasons, utilize special door locking features complying with NFPA 101.	Immediate
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F-6	Egress	Collapsible gates and sliding doors are provided at building exits, exit stairs and exit discharge.	Replace all gates along the means of egress with side-hinged, swinging egress doors. If locks are required for security reasons, utilize special door locking features complying with NFPA 101.	Within 1 month	
					
F-7	Egress	The occupant load for the 3rd and 4th floors are 650 and 610 persons, however these exceed the egress exit capacity provided which is 537 persons.	Reduce occupant load to not more than available exit capacity (537) or Provide additional exits.	Within 3 months	

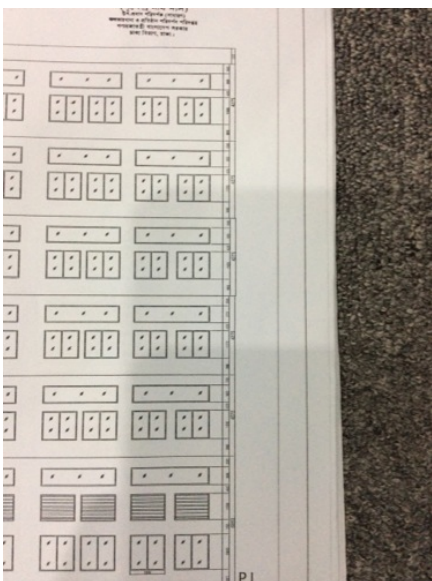


F-8	Fire Protection	The fire alarm system is antiquated, not a listed system, and does not provide alarm and notification features consistent with acceptable standards.	Replace the fire alarm system with a new, listed addressable fire alarm system in accordance with NFPA 72.	Design within 4 months, install within 9 months
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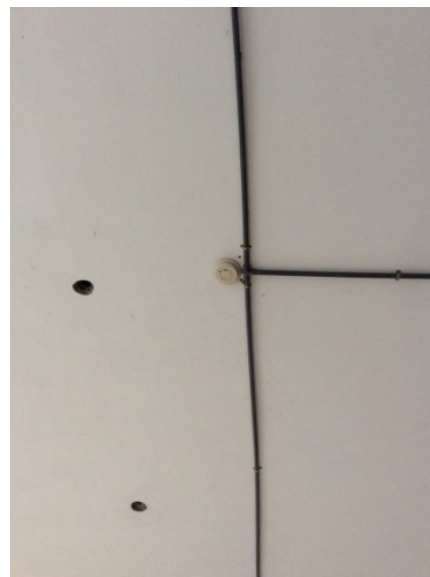




F-9	Fire Protection	The high-rise building has an occupied floor greater than 23m (75 ft) and is not provided with automatic sprinkler protection. The large occupant loads, heavy fuel loading, and anticipated extended egress times warrant sprinkler protection.	Provide automatic sprinkler protection throughout the building in accordance with NFPA 13.	Design within 6 months, install within 12 months
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F-10	Fire Protection	Inspection, testing, and maintenance of 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 NFPA 72.	Within 3 months
F-11	Fire Protection	The building is equipped with single-station smoke alarms and conventional smoke detectors.	Replace and remove conventional smoke detectors and single-station smoke alarms. Provide automatic smoke detection throughout the building, tied into the fire alarm system, in accordance with NFPA 72.	Within 6 months



F-12	Egress Lighting	Inspection, testing, and maintenance for the emergency lighting system was not in accordance with The ACCORD standard.	Inspect, test and maintain the emergency lighting system in accordance with The ACCORD standard. Keep written records on-site.	Within 3 months
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