

FIRE SAFETY INSPECTION REPORT

SHARMIN APPARELS LIMITED
EAST NARASHINGHAPUR, ZIRABO, ASHULIA, SAVAR

OTHER FACTORIES: SHARMIN FASHIONS LTD.



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

April 23, 2014

SUMMARY

Sharmin Apparels Limited was surveyed for fire safety on 4/23/2014 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 - 2 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 - Main Factory Building

No.	Category	Finding	Recommendation	Remediation Timeframe
F-1	Fire Rated Construction	Hazardous materials / flammable liquid storage areas are not separated by fire-rated construction (openings, non-rated doors, penetrations). Locations: -55 gallon drums of diesel fuel located adjacent to generators. -Possible hazardous area on First floor where masked personnel was spraying unknown substance in an unsealed, non-ventilated area.	Separate the hazardous materials / flammable liquid storage 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	Areas used for combustible storage are not separated by fire-rated construction. Locations: -Storage areas on the First floor had gated doors and security mesh for separation which does not create a fire barrier. -General storage on multiple floors was open to production areas.	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 23m ² - If sprinkler protected: maximum height of 3.66m and maximum area of 93m ² Separate areas of unenclosed combustible storage by a minimum clear distance of 3m.	Within 3 months
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F-3	Fire Rated Construction	<p>The exit stairs are not separated from work areas and other spaces on each floor by fire-rated construction.</p> <p>At the time of the inspection, it appeared that the doors to the exit stairs were possible fire-rated doors; however, it was unclear whether or not these doors were listed assemblies. A test report was provided by factory personnel; however, it is not evident that the tests were conducted by an approved listing agency.</p>	<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
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F-4	Fire Rated Construction	Unsealed penetrations and openings are located in the fire-rated wall and ceiling assemblies.	Provide a minimum 2-hr fire-rated shaft to separate the utility risers from each floor level.	Within 3 months
			Seal all penetrations and openings in wall and ceiling assemblies to maintain the fire separation.	



F-5	Fire Rated Construction	Unsealed penetrations and openings are located in 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-6	Fire Rated Construction	Corrugated metal roofing is used to cover the exit stairs at the Roof level, which does not constitute the classification of fire-rated construction for the stairs.	Enclose the stairs with a minimum 2-hr fire-rated construction.	Within 3 months
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F-7	Egress	Egress doors / gates with locking features are provided at building exits, exit stairs, along egress routes, and exit discharge.	Remove locking features from all egress doors / gates. If locks are required for security reasons, utilize special door locking features complying with NFPA 101.	Immediat
		Locations: All floors.		





F-8 Egress

Storage was located in the exit stair.

Remove all storage from exit stairs and egress paths.

Immediate

Locations:
Various exit stair landings.



F-9	Egress	<p>Collapsible gates and sliding doors are provided at building exits, exit stairs, along egress routes, and exit discharge.</p> <p>Locations: Collapsible gates and sliding doors on all floors.</p>	<p>Replace all gates / sliding doors along the means of egress with side-hinged, swinging egress doors.</p> <p>If locks are required for security reasons, utilize special door locking features complying with NFPA 101.</p>	Within 1 month
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F-10	Egress	Current travel distances are excessive on the Ground floor since what appears to be a horizontal exit does not have adequate separation.	Provide adequate separation and opening protectives for horizontal exits in compliance with the requirements of BNBC Part 4, Section 3.12. In addition, upgrade the fire alarm, detection, and firefighting systems per the applicable findings elsewhere in this report.	Within 3 months
F-11	Egress	Handrails are not provided in the exit stair.	Provide handrails on both sides of exit stair.	Within 3 months
		Location: East exit stair (Stair 07).		




F-12	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-13	Fire Protection	Inspection, testing, and maintenance for the fire alarm system was 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-14	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. 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-15	Egress Lighting	Exit sign not provided at exit. Location: Southeast exit stair (Stair 01) on Fourth floor.	Provide exit signs above all exits to the exterior and all doors to the exit stairs.	Within 1 month
				

F-16	Egress Lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes. Locations: All areas.	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
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Table 2. Findings And Recommendations - Dining Shed

No.	Category	Finding	Recommendation	Remediation Timeframe
F-1	Egress	Egress doors / gates with locking features are provided at building exits and exit discharge.	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-2	Egress	Collapsible gates and sliding doors are provided at building exits and exit discharge.	Replace all gates / sliding doors 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-3	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-4	Fire Protection	Inspection, testing, and maintenance for the fire alarm system was 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-5	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. 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
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F-6	Egress Lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes. Locations: All areas.	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
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