

FIRE SAFETY INSPECTION REPORT

ORNATE KNIT GARMENTS INDUSTRIES LTD

**DEWAN IDRIS ROAD, BORO RANGAMATIA, ASHULIA,
SAVAR, DHAKA, BANGLADESH**



ACCORD
on Fire and Building Safety in Bangladesh

March 25, 2014

SUMMARY

Ornate Knit Garments Industries Ltd was surveyed for fire safety on 3/25/2014 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 - 4 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	The boiler /generator room is not separated by fire-rated construction. Openings, non-rated doors and penetrations are open to safe egress routes.	Separate the boiler / generator room by a minimum 2-hr fire-rated construction. Seal and/or protected all openings to maintain the required fire separations	Within 1 month



F-2	Fire Rated Construction	Areas used for combustible storage are not separated by fire-rated construction. Half height walling, non rated fire doors and combustible storage open to the first floor.	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-3	Fire Rated Construction	Unsealed penetrations and openings are located in the fire-rated floor/ceiling assemblies, Electrical shaft open to all Textown occupied floors.	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
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F-4	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-5	Fire Rated Construction	The exit stairs are not separated from work areas, other spaces 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 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. 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	Egress	Egress doors / gates with locking features are provided at all building exits, exit stairs, along egress routes and exit discharge. All 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
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F-7	Egress	Storage was located in the egress path at ground level adjacent with the dying shed egress point.	Keep egress paths and stairs clear of storage.	Immediate
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F-8	Egress	Exit capacity is not adequate for the occupant load. The egress capacity on the third floor 457, exceeds the calculated egress capacity of 380.	Reduce occupant load to not more than available exit capacity. Or To allow for increased employees on floor. Provide additional exits.	Immediate
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F-9	Egress	Collapsible gates / sliding doors are provided at building exits, exit stairs, along egress routes and main exit discharge throughout Building1.	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
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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 fire alarm system does not appear to provide adequate audible notification coverage due to the type of production on each floor a greater amount of decibels is required.	Provide additional notification appliances such that the fire alarm system is audible throughout the building in accordance with NFPA 72.	Within 6 months
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F-13	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.	Remove 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
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F-14	Egress Lighting	Manual on-off switch is provided for emergency lighting / exit signage units on all floors .	Remove manual on/off switches from emergency lighting / exit signage units to prevent them from being switched off.	Within 1 month
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F-15	Egress Lighting	Inspection, testing, and maintenance records for the emergency lighting system were not available.	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
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F-1	Fire Rated Construction	Hazardous materials and flammable liquid storage area is not separated by fire-rated construction. Chemical store does not have the required fire rated construction door assembly, penetration to walling present.	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
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F-2	Fire Rated Construction	Areas used for combustible storage on the ground floor are not separated by fire-rated construction, roller shutters are used for entry to and from the storage space.	Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction.	Within 3 months
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F-3	Fire Rated Construction	Unsealed penetrations and openings are located in the fire-rated floor/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 floor/ceiling assemblies to maintain the fire separation.	



F-4	Fire Rated Construction	The exit stairs are not separated from work areas, other spaces on each floor by fire-rated construction. Steel gated sliding doors are present on each floor.	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. 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-5	Egress	Storage was located in the egress path on the Third floor.	Keep egress paths and stairs clear of storage.	Immediate
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F-6	Egress	Egress doors gates with locking features are provided at building exits and main 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
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F-7	Egress	Fabric material has been fixed to stair risers and treads creating tripping and slipping hazard at the rear exit stairwell to the ground floor.	Remove fabric from stair treads.	Immediate
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F-8	Egress	Collapsible gates / sliding doors are provided at building exits and main exit discharge points.	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
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F-9	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-10	Fire Protection	Activation of the fire alarm system by a manual fire alarm station provides automatic occupant notification only on the floor of alarm and not throughout the building.	Configure the fire alarm system to initiate automatic occupant notification on all floor levels to facilitate whole-building evacuation upon any manual fire alarm station activation.	Within 1 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
F-12	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.	Remove 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-13	Egress Lighting	Manual on-off switch is provided for emergency lighting / exit signage units throughout the factory floors.	Remove manual on/off switches from emergency lighting / exit signage units to prevent them from being switched off.	Within 1 month
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F-14	Egress Lighting	Inspection, testing, and maintenance records for the emergency lighting system were not available.	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 are not separated by fire-rated construction on the third floor, both exit doors are non fire rated.	Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction.	Within 3 months
				
F-2	Egress	Egress doors and gates with locking features are provided at all building exits, exit stairs, along egress routes and main exit discharge. The 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-3	Egress	Storage was located throughout the exit stair.	Remove all storage from exit stairs and egress paths.	Immediate
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F-4	Egress	Collapsible gates/ sliding doors are provided at all building exits, exit stairs, along egress routes and main 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
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F-5	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-6	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-7	Fire Protection	The fire alarm system does not appear to provide adequate audible notification coverage.	Provide additional notification appliances such that the fire alarm system is audible throughout the building in accordance with NFPA 72.	Within 6 months
F-8	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.	Remove 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-9	Egress Lighting	Manual on-off switch is provided for emergency lighting / exit signage units in this building.	Remove manual on/off switches from emergency lighting / exit signage units to prevent them from being switched off.	Within 1 month
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F-10	Egress Lighting	Inspection, testing, and maintenance records for the emergency lighting system were not available.	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 4. Findings And Recommendations - Shed Dyeing and Finishing

No.	Category	Finding	Recommendation	Remediation Timeframe
F-1	Fire Rated Construction	Areas used for combustible storage are not separated by fire-rated construction on the ground floor, Large storage area with non adequate fire rated separation. Storage open throughout the ground floor being processed in large quantities.	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	Egress	Roller shutters with locking features are provided at building exits. All roller shutters 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
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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 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-5	Fire Protection	The fire alarm system at present does not appear to provide adequate audible notification coverage required for the decibel levels the production on this factory floor creates.	Provide additional notification appliances such that the fire alarm system is audible throughout the building in accordance with NFPA 72.	Within 6 months
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F-6	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.	Remove 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
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F-7	Egress Lighting	Manual on-off switch is provided for emergency lighting / exit signage units on the ground and mezzanine level of this shed building.	Remove manual on/off switches from emergency lighting / exit signage units to prevent them from being switched off.	Within 1 month
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F-8	Egress Lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes at ground floor level.	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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F-9	Egress Lighting	Inspection, testing, and maintenance records for the emergency lighting system were not available.	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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