

FIRE SAFETY INSPECTION REPORT

METRO DYEING AND KNITTING LTD

RAMARBAG, KUTUBPUR, FATULLAH,

OTHER FACTORIES: BEACON KNITWEAR LTD.



ACCORD
on Fire and Building Safety in Bangladesh

April 8, 2014

SUMMARY

Metro Dyeing and Knitting Ltd was surveyed for fire safety on 4/8/2014 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 - Building 1, 3 and 4 (Combined)

No.	Category	Finding	Recommendation	Remediation Timeframe
F-1	Fire Rated Construction	Hazardous material and flammable liquid storage area was not separated by fire rated construction in 6th floor of building 4.	Separate the hazardous materials and flammable liquid storage room by a minimum 2-hr fire-rated construction. Seal and protect all openings to maintain the required fire separations.	Within 3 months
				
F-2	Fire Rated Construction	The boiler, generator and transformer was not separated in the ground floor of Building no 2.	Separate the boiler, generator and transformer by a minimum of 2-hr fire-rated construction. Seal and protect all openings to maintain the required fire separations	Within 3 months

F-3	Fire Rated Construction	All the floors of Building no 1 (except the first floor) and all the floors of Building no 4 had combustible storage that were not separated by fire-rated separation.	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	Within 3 months
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F-4	Fire Rated Construction	The exit stairs were 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.	Within 3 months
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If fire doors are required to be held open for functional reasons, provide automatic-closing devices tied to the fire alarm system.





F-5	Fire Rated Construction	Unsealed penetrations and openings were 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
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Seal all penetrations and openings in floor/ceiling assemblies to maintain the fire separation.





F-6	Fire Rated Construction	Unsealed penetrations and openings were 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-7	Egress	All the exit doors and building exits had locking features. The exit of a storage room in building 4 was locked during inspection and could not be open.	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-8	Egress	In the 5th floor storage was located in egress path.	Keep egress paths and stairs clear of storage.	Immediate
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F-9	Egress	Storage was located in South west stairwell in 2nd floor, in North west stair well in 2nd, 7th and rooftop.	Remove all storage from exit stairs and egress paths.	Immediate
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F-10	Egress	Collapsible gates and sliding doors were provided at building exit, exit stairs and exit discharges in all the floors of Building no 1 and Building no 4.	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-11	Egress	In 2nd, 3rd, 4th, 5th, 6th floor egress routes were partially obstructed by row of column	Provide minimum aisle widths of 36-in.	Within 3 months
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F-12	Egress	The East exit stair door of Building no 1 in 1st floor did not swing to the way of egress.	Modify the egress door to swing in the direction of egress travel.	Within 3 months
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F-13	Egress	East exit stair of Building no 1 discharges in the ground floor of Building no 3 which is open to a Dyeing facility.	Provide 2-hr fire-rated exit passageway leading directly outside.	Within 6 months
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F-14	Fire Protection	The fire alarm system was antiquated, not a listed system, and did 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-15	Fire Protection	The high-rise building had an occupied floor greater than 23m (75 ft) and was 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
F-16	Fire Protection	The building was equipped with single-station smoke alarms. Smoke alarm activation sounded only a local alarm and did not provide automatic fire alarm notification to the 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-17	Egress Lighting	Exit signs were not provided at the exits from the 1st floor.	Provide exit signs above all exits to the exterior and all doors to the exit stairs.	Within 1 month



F-18	Egress Lighting	Exit signage was not illuminated in multiple location of Building no 1 and Building no 4	Regularly inspect all exit signage and replace/install lights as needed to illuminate signs.	Within 1 month
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Table 2. Findings And Recommendations - Building 6

No.	Category	Finding	Recommendation	Remediation Timeframe
F-1	Fire Rated Construction	All the floors had combustible storage areas which were open to the production area.	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 Separate areas of unenclosed combustible storage by a minimum clear distance of 3m.	Within 3 months





F-2	Fire Rated Construction	The exit stairs were 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 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-3	Fire Rated Construction	Unsealed penetrations and openings were located in the fire-rated floor and ceiling assemblies.	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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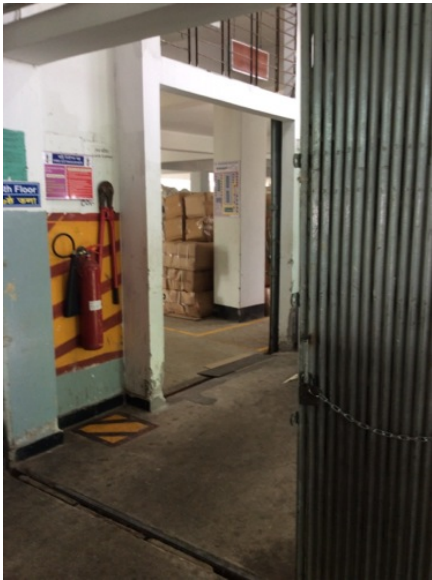
F-4	Fire Rated Construction	Unsealed penetrations and openings were located in exit stair enclosures.	Seal all penetrations and openings in exit stair enclosure walls to maintain the fire separation.	Within 3 months
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F-5	Egress	All the doors and gates had lockable features and were open and locked 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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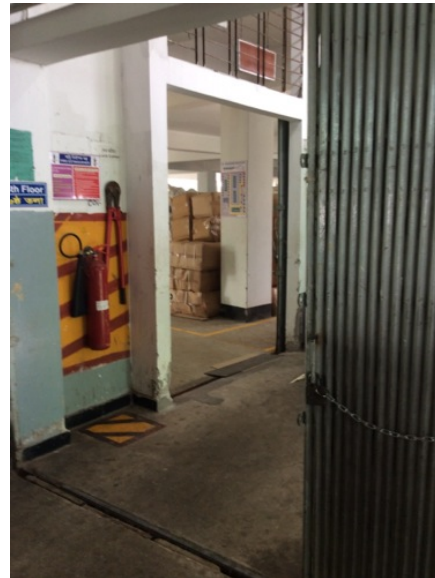




F-6	Egress	Storage was located in the egress path in the ground floor	Keep egress paths and stairs clear of storage.	Immediate
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F-7	Egress	Collapsible gates were provided in all the floors and North exit discharge.	Replace all gates / sliding doors 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-8	Fire Protection	The fire alarm system was antiquated, not a listed system, and did 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 building was equipped with single-station smoke alarms. Smoke alarm activation sounded only a local alarm and did not provide automatic fire alarm notification to the 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-10	Egress Lighting	Emergency lights were missing on the 6th floor.	Regularly test the emergency lighting system on each floor and replace/repair lights as needed.	Within 1 month
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