

FIRE SAFETY INSPECTION REPORT

MASCO COTTONS LTD.

ACCORD ID: 10230

44, REDWAN COMPLEX, GAZIPURA, TONGI, GAZIPUR

OTHER FACTORIES: NONE



ACCORD
on Fire and Building Safety in Bangladesh

January 30, 2015

SUMMARY

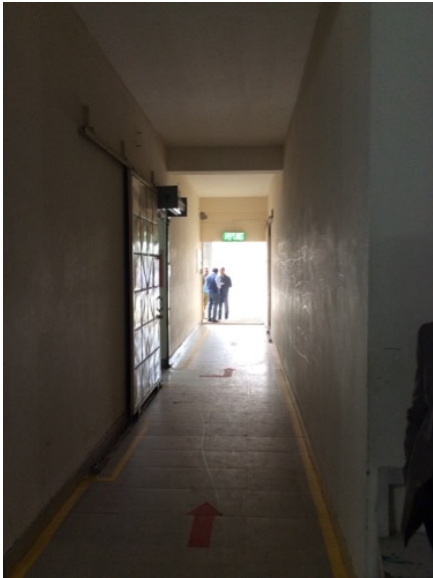
Masco Cottons Ltd. was surveyed for fire safety on 1/30/2015 by Jensen Hughes. This summary identifies the major deficiencies that were identified during the inspection.

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 access corridor from the ground floor dining room was not provided with 1 hr. fire resistance rating or approved NFPA 13 sprinkler system.	Provide exit access corridors with 1 hr. fire resistance rating or approved NFPA 13 sprinkler system.	Within 3 months
				
F-2	Fire Rated Construction	The northwest elevator machine room, located at the top of the northwest exit stair, is not separated by fire-rated construction due to openings and a non-rated door.	Separate the elevator machine room by a minimum 1-hr fire-rated construction. Seal and/or protected all openings to maintain the required fire separations.	Within 3 months



F-3	Fire Rated Construction	The boiler and air compressor rooms on the ground floor, were not separated by fire-rated construction due to openings and non-rated doors.	Separate the boiler and air compressor rooms by a minimum 1-hr fire-rated construction for non-high rise, and 2-hr fire rated construction for high rise. Seal and/or protect all openings to maintain the required fire separations. When located to the exterior of a building, 3m (10 ft.) separation is required. Provide proper ventilation and consult a qualified engineer.	Within 3 months
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F-4	Fire Rated Construction	Areas used for combustible storage, open to the factory are not separated by fire-rated construction. Specifically, the packing rooms on the fifth, fourth, third and second floors, there were also other random locations throughout the building that had storage open to the factory floor.	Provide defined storage areas and limit the storage arrangement as follows: - Maximum height of 2.45m (8ft.) and maximum area of 23m ² (250 ft ²) - If sprinkler protected: maximum height of 3.66m (12ft.) and maximum area of 93m ² (305ft ²) Separate areas of unenclosed combustible storage by a minimum clear distance of 3m (10ft.).	Within 3 months
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F-5	Fire Rated Construction	Rooms used for combustible storage are not separated by fire-rated construction. Specifically, the fabric store on the sixth floor, the cut panel room and accessory store on the first floor and the godown and wastage godown on the ground floor. The sixth floor fabric store discharged to the northwest exit stair and first floor cut panel room discharged to the northeast exit stair.	Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction. Provide a vestibule where a storage room discharges to an exit stair. Install a 1-hr fire rated door on the storage room side and a 1.5-hr fire rated door on the exit stair side.	Within 3 months
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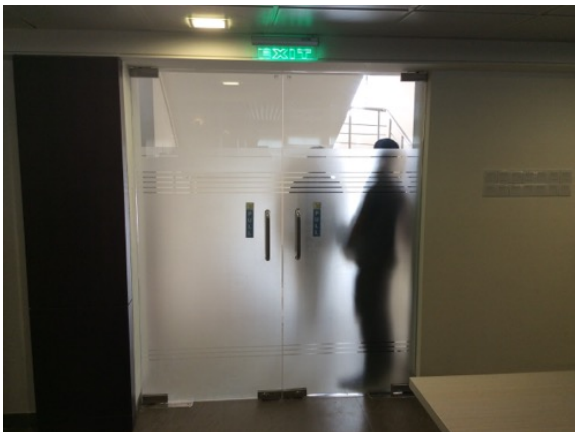


F-6	Fire Rated Construction	The northeast exit stair enclosure was not separated from work areas and other spaces on the ground floor by fire-rated construction.	The exit stair enclosure shall be provided with a minimum 1-hr fire resistance rating for buildings with 3 or fewer stories and a minimum of 2-hr fire resistance rating for buildings 4 or more stories.	Within 3 months
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F-7	Fire Rated Construction	The exit stairs are not separated from work areas and other spaces on each floor by fire-rated construction.	Provide minimum 1-hr rated doors for buildings with 3 or fewer stories and 1.5-hr fire rated doors for buildings that are 4 or more stories. 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-8	Fire Rated Construction	Electrical panels were located in the south and northeast exit stair enclosures on the ground floor.	Remove and re-locate all electrical panels from exit stair enclosure	Within 3 months
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F-9	Fire Rated Construction	The exit discharge path serving the northeast exit stair is less than 10 ft. wide and is not separated from the building interior. The ground floor boiler room, air compressor room, generator room, sub station, medical room and maintenance room all have unprotected openings to the discharge path.	Seal all penetrations and openings to the interior of the building along the discharge path, up to a height of 10 ft., to provide a minimum 1-hr fire separation. Alternatively, provide a second remote discharge path to the public way.	Within 6 months
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F-10	Egress	Building did not have stair designation signs or occupant load signs at required locations. No emergency evacuation plans were provided on the seventh floor.	Provide stair designation signs, occupant load signs and emergency evacuation plans at required locations.	Immediately
F-11	Egress	Egress doors and gates with locking features are provided at building exits, exit stairs and at exit discharge. All gates and doors were open and unlocked during the inspection.	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 and ACCORD standard 6.8.2.	Immediately



F-12	Egress	Storage was located in a required egress path from the first floor sample section.	Keep egress paths and stairs clear of storage.	Immediately
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F-13	Egress	Storage was located underneath the northwest exit stair on the ground floor.	Remove all storage from exit stairs and egress paths.	Immediately
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F-14	Egress	Collapsible gates and sliding doors are provided at building exits, exit stairs, along egress routes and at exit discharge.	Replace all gates and sliding doors along the means of egress with side-hinged, swinging egress doors in accordance with ACCORD standard 6.8.1.	Within 1 month
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F-15	Egress	The width of several egress aisles in the first floor accessory store, were less than 36-in.	Provide minimum aisle widths of 36-in.	Within 3 months
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F-16	Egress	Handrails were not provided on both sides of all exit stairs.	Provide handrails on both sides of the exit stairs. New handrails shall have a minimum height of 865 mm (34 in.) and a maximum height of 965 mm (38 in.) as measured from the leading edge of the tread. Intermediate handrails shall be provided when the stair width exceeds 2.2 m (87 in.)	Within 3 months
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F-17	Fire Protection	The fire alarm system is antiquated, not a listed system and does not provide alarm and notification features consistent with acceptable standards. Also, no fire alarm system was provided on the seventh floor.	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-18	Fire Protection	Inspection, testing and maintenance of portable fire extinguishers is not in accordance with NFPA 10.	Inspect, test and maintain the portable fire extinguishers and keep written records on-site, in accordance with NFPA 10.	Within 3 months
F-19	Fire Protection	Inspection, testing and maintenance for 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-20	Fire Protection	Inspection, testing and maintenance of the fire pump system is not in accordance with NFPA 20.	Inspect, test and maintain the fire pump system and keep written records on-site, in accordance with NFPA 20.	Within 3 months
F-21	Fire Protection	Inspection, testing and maintenance of the standpipe system is not in accordance with NFPA 14.	Inspect, test and maintain the standpipe system and keep written records on-site, in accordance with NFPA 14.	Within 3 months

F-22	Fire Protection	The fire alarm system does not appear to provide adequate audible notification coverage throughout all areas of all floors. No fire alarm system was provided on the seventh floor and only a single horn unit was observed on some floors.	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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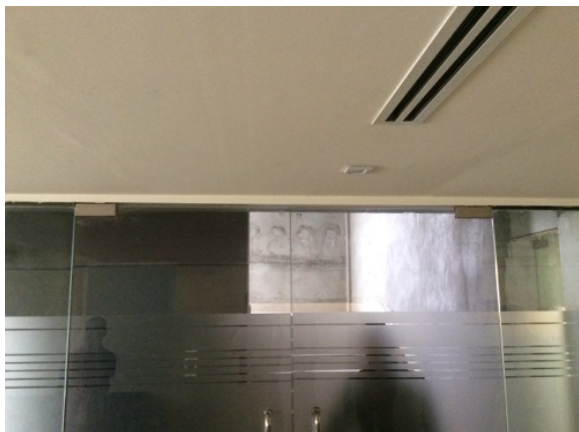
F-23	Fire Protection	Fire pump did not meet ACCORD standard 5.5.	Ensure that the fire pump meets ACCORD standard 5.5. If not, provide a new fire pump.	Within 6 months
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F-24	Fire Protection	The required standpipe system is not installed in accordance with the ACCORD standard.	Install a new standpipe system in accordance with ACCORD standard 5.4 and NFPA 14. A class III system shall be installed in buildings with the highest occupiable floor 10 m (33 ft.) above grade or more. A class I system shall be permitted in buildings protected throughout by an approved automatic sprinkler system.	Within 6 months
F-25	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 9 months



F-26	Egress Lighting	Exit signage was not provided in several locations throughout the building. Specifically, from the seventh floor training room, to the seventh floor northwest exit stair (and along route), to the seventh floor northeast exit stair (and along route), to the first floor northeast exit stair and from the ground floor child care room.	Provide exit signs above all building exits to the exterior, all doors to the exit stairs and along all paths of travel where a change of direction is not obvious.	Within 1 month
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F-27	Egress Lighting	Manual on-off switch is provided for exit signage units in the building.	Remove manual on/off switches from exit signage units to prevent them from being switched off.	Within 1 month
F-28	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 the accordance with The ACCORD standard. Keep written records on-site.	Within 3 months
F-29	Egress Lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along all egress routes in the building. Also, no emergency lighting was present on the seventh floor.	Test the emergency lighting system on each floor and provide additional emergency fixtures to supply adequate illumination along the means of egress. Provide a minimum illumination of 10 lux at the floor level within exit stairs and along exit discharge paths and a minimum 2.5 lux along exit access aisles.	Within 3 months