

FIRE SAFETY INSPECTION REPORT

A-PLUS IND LTD

**PLOT # 28, MILK VITA ROAD, SECTION #07, MIRPUR,
DHAKA - 1216, BANGLADESH**



ACCORD
on Fire and Building Safety in Bangladesh



March 10, 2014

SUMMARY


A-Plus Ind Ltd was surveyed for fire safety on 3/10/2014 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.

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	Hazardous materials storage area is not separated by fire-rated construction openings, non-rated doors and penetrations all 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
				
F-2	Fire Rated Construction	The boiler room is not separated by fire-rated construction (openings, non-rated doors, penetrations all present	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	The exit stairs are not separated from work areas on each floor by fire-rated construction.	<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 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	Each floor had extensive amounts of fabric and stored goods piled above storage guidelines, Combustible storage is not separated by fire-rated construction throughout factory.	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-6	Fire Rated Construction	The generator and transformer room is not separated by fire-rated construction openings, non-rated doors, penetrations all present.	Separate the generator and transformer room by a minimum 2-hr fire-rated construction. Seal and/or protected all openings to maintain the required fire separations	Within 6 months
		Located at outbuildings		



F-7	Egress	Storage was located in the egress paths throughout all of the factory floors, this needs to be kept clear at all times, in cases storage over spilling or above 9ft in height stacked in close proximity with main egress routes most notably basement, ground, fourth and fifth.	Keep egress paths and stairs clear of storage.	Immediate
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F-8	Egress	Collapsible steel sliding gated doors are provided at building exits, exit stairs, along egress routes on the first floor and main exit discharge at ground level. All egress doors were open with locks in sealed position.	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	Egress	The width of egress aisles is less than 36-in at certain locations throughout the factory floors were internal columns meet work station desks	Provide minimum aisle widths of 36-in.	Within 3 months
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F-10	Egress	The day-care room does not have direct access to an exit stair on the ground floor	Specify appropriate upgrade based on conditions: - Provide a minimum 2-hr fire-rated exit corridor between the day-care room and exit stair.	Within 3 months
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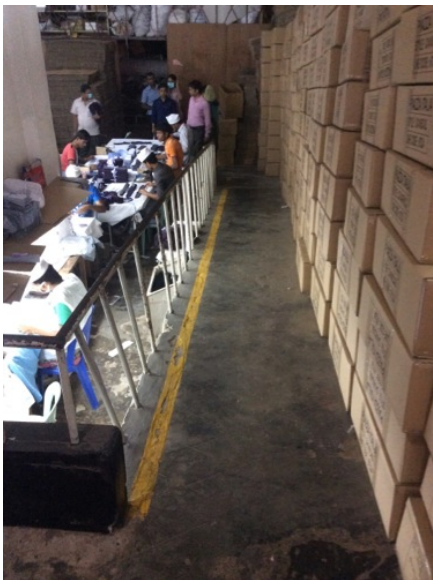


F-11 Egress

Common path of egress travel exceeds 30 m. The Basement/Ground level, the 2 exits to the main egress exit is within 15ft of each other with a common path of travel more than 30m

Reconfigure the egress arrangement to reduce the maximum common path of travel to not more than 30 m.

Within 3 months





F-12 Egress

Exit capacity is not adequate for the occupant load. Having calculated the exit capacity for each floor, the occupant load is excessively more than allowed due to there being only two main exit stairs and the door widths being narrow on the South most facing stair 5th floor and North most stair 3rd floor.

Specify appropriate upgrade based on conditions:
- Provide additional exits.

Within 3 months



F-13 Egress

Handrails are not provided in either of the exit stairs.

Provide handrails on at least one side of exit stair.

Within 3 months



F-14	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-15	Fire Protection	Inspection, testing, and maintenance records for the fire alarm system were not available.	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-16	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
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F-17	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-18	Egress Lighting	Exit signage was not adequate in line with Bangladesh building regulations throughout factory stairwells and floor plates	Provide exit signs above all exits to the exterior and all doors to the exit stairs.	Within 1 month
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F-19	Egress Lighting	A number of Emergency lights did not function in test mode bulbs possibly burned out, no maintenance schedules provided.	Regularly test the emergency lighting system on each floor and replace/repair lights as needed.	Within 1 month
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F-20	Egress Lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes throughout factory floors, the lighting on exit routes was sufficient however on floor plates the lighting was not adequate for safe egress.	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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