

FIRE SAFETY INSPECTION REPORT

ABLOOM DESIGN LTD.

**37, SOUTH SHASTAPUR, UPAZILA ROAD, FATULLAH,
NARAYANGANJ**

OTHER FACTORIES: NONE



ACCORD
on Fire and Building Safety in Bangladesh

July 19, 2014

SUMMARY

Abloom Design Ltd. was surveyed for fire safety on 7/19/2014 by Hughes Associates, Inc. This summary identifies the major deficiencies that were identified during the inspection.

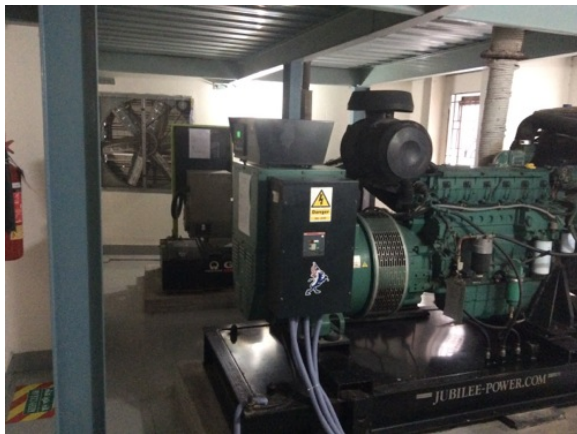
The purpose of this survey was to identify significant fire safety issues and to provide recommendations for remediation based on applicable standards specified by the Accord. The scope of this initial fire safety inspection was limited to the review and identification of major fire safety issues. The 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 - 8-story building

No.	Category	Finding	Recommendation	Remediation Timeframe
F-1	Fire Rated Construction	The boiler, generator and transformer rooms are not separated by fire-rated construction (openings, non-rated doors, penetrations). The boiler room were located on 2nd and 7th floors, and the generator and transformer rooms were located on ground floor.	Separate the boiler, generator and transformer rooms by a minimum 2-hr fire-rated construction. Seal and/or protected all openings to maintain the required fire separations	Within 3 months





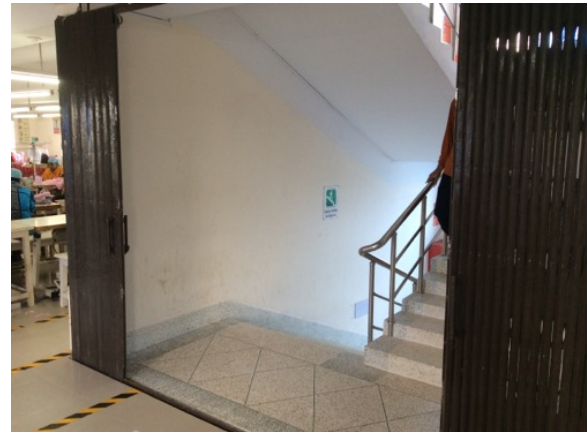
F-2	Fire Rated Construction	Areas used for combustible storage on the 1st, 2nd and 5th floors are not separated by fire-rated construction.	Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction. Where separate storage rooms are not feasible, provide defined storage areas and 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	Rooms used for combustible storage on the ground and 7th floors are not separated by fire-rated construction.	Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction.	Within 3 months
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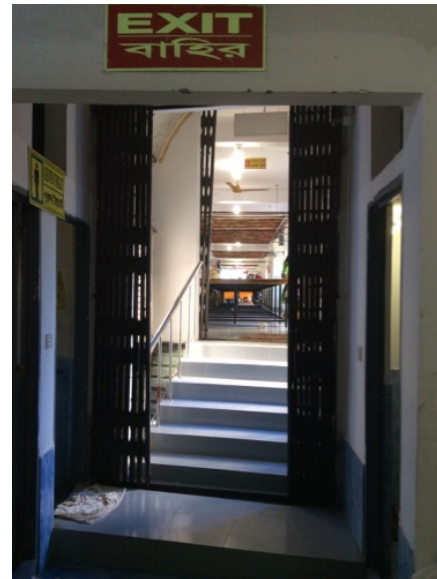
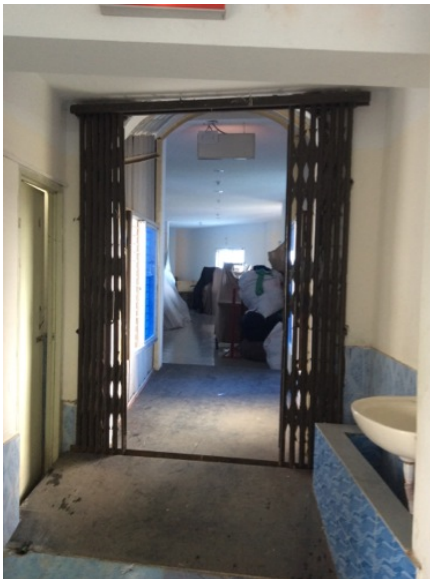
F-4	Fire Rated Construction	All exit stairs are not separated from work areas or other spaces on each floor by fire-rated construction.	Provide minimum 1.5-hr fire rated doors and seal all unprotected openings to separate the exit stairs from work areas and other building spaces on all floor levels. 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-5	Fire Rated Construction	Unsealed penetrations and openings on mezzanine floor are located in northeast 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	The building was connected to 6-story building with unprotected openings on 1st and 4th floors.	Provide 2-hr fire-rated separation.	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.	Immediate
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F-8 Egress

Storage was located in all exit stairs.

Remove all storage from exit stairs and egress paths.

Immediate





F-9	Egress	Collapsible gates / sliding doors are provided at building exits, exit stairs, along egress routes 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
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F-10	Egress	Exit door on the ground floor does not swing in the direction of egress travel.	Modify the egress door to swing in the direction of egress travel.	Within 3 months
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F-11	Egress	Handrails are not provided in the northeast exit stair out of the building.	Provide handrails on at least one side of exit stair.	Within 3 months
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F-12	Egress	Headroom in the northeast egress path on ground was not properly provided. Note : Headroom is 1.85 m.	Provide the headroom shall be not less than 2.03 m. in all means of egress.	Within 3 months
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F-13	Egress	All exit stairs discharge inside the building.	Provide 2-hr fire-rated exit passageway leading directly outside (vestibules to separate any storage areas) or Provide sprinkler protection for discharge floor in accordance with NFPA 13.	Within 6 months
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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	The fire alarm system on the 1st, 3rd, 4th and 5th floors was not in working order.	Repair the fire alarm system on all floors are in working order.	Within 1 month
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F-16	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-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.	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-18	Egress Lighting	Exit signs on the ground, 1st and 5th floors not provided at exit.	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	Exit signage in most of floors not illuminated (burned out, broken, etc.).	Regularly inspect all exit signage and replace/install lights as needed to illuminate signs.	Within 1 month
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F-20	Egress Lighting	Emergency lightings in most of floors did not function in test mode (burned out, broken, etc.).	Regularly test the emergency lighting system on each floor and replace/repair lights as needed.	Within 1 month
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F-21	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 accordance with The ACCORD standard. Keep written records on-site.	Within 3 months
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Table 2. Findings And Recommendations - 6-story building

No.	Category	Finding	Recommendation	Remediation Timeframe
F-1	Fire Rated Construction	Chemical room on the 3rd floor is not separated by fire-rated construction (openings, non-rated doors, penetrations).	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 on the ground floor is not separated by fire-rated construction.	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	Rooms used for combustible storage on the 1st, 5th and roof floors are not separated by fire-rated construction.	Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction.	Within 3 months
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F-4	Fire Rated Construction	The exit stairs are not separated from work areas or 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-5	Fire Rated Construction	The building was connected to 8-story building with unprotected openings on 2nd and 5th floors.	Provide 2-hr fire-rated separation.	Within 3 months
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F-6	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.	Immediate
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F-7	Egress	Storage was located in the exit stair.	Remove all storage from exit stairs and egress paths.	Immediate
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F-8	Egress	Collapsible gates / sliding doors are provided at building exits, exit stair, along egress routes 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
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F-9	Egress	Exit doors on the ground, 1st, 5th and roof floors did not swing in the direction of egress travel.	Modify the egress door to swing in the direction of egress travel.	Within 3 months
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F-10	Egress	A single means of egress is provided on the 1st to roof floor in building.	Provide additional means of egress.	Within 3 months
F-11	Egress	A landing was not provided on both side of exit door on the ground floor.	Provide the landing on both side of doors used in the means of egress.	Within 3 months



F-12	Egress	The exit stair discharge inside the building.	Provide 2-hr fire-rated exit passageway leading directly outside (vestibules to separate any storage areas) or Provide sprinkler protection for discharge floor in accordance with NFPA 13.	Within 6 months
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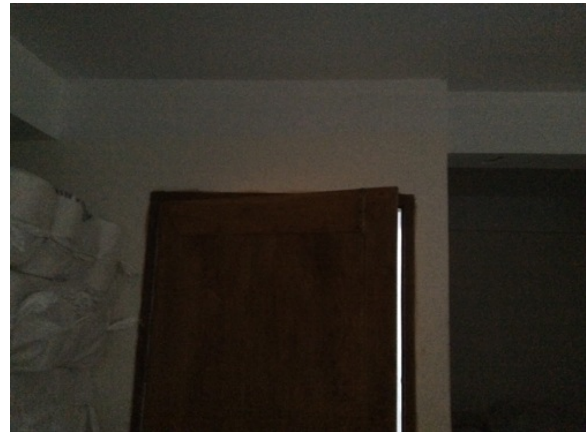
F-13	Fire Protection	The fire alarm system is antiquated, not a listed system, and does not provide alarm and notification features consistent with acceptable standards.	Replace the fire alarm system with a new, listed addressable fire alarm system in accordance with NFPA 72.	Design within 4 months, install within 9 months
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F-14	Fire Protection	The fire alarm system on 1st, 2nd, 5th and roof floors was not in working order or not installed.	Repair the fire alarm system on all floors are in working order.	Within 1 month
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F-15	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
F-16	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-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.	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-18	Egress Lighting	Exit sign on the ground, 1st, 5th and roof floors not provided at exit.	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	Exit signage on the 3rd floor not illuminated (burned out, broken, etc.).	Regularly inspect all exit signage and replace/install lights as needed to illuminate signs.	Within 1 month
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F-20	Egress Lighting	Some emergency lightings did not function in test mode (burned out, broken, etc.).	Regularly test the emergency lighting system on each floor and replace/repair lights as needed.	Within 1 month
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F-21	Egress Lighting	Manual on-off switch is provided for emergency lighting / exit signage units.	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-22	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 accordance with The ACCORD standard. Keep written records on-site.	Within 3 months
F-23	Egress Lighting	The factory did not install the emergency lightings in work areas on all floors.	Provide the emergency lighting above egress path.	Within 3 months