

FIRE SAFETY INSPECTION REPORT

BHML INDUSTRIES LTD.

ACCORD ID: 12003

**KAMARJURY, NATUN BAZAR, NATIONAL
UNIVERSITY, GAZIPUR.**

OTHER FACTORIES: NONE



ACCORD
on Fire and Building Safety in Bangladesh

February 13, 2015

SUMMARY

BHML Industries Ltd. was surveyed for fire safety on 2/13/2015 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	Electrical panels were located in the exit stair enclosure.	Remove and re-locate all electrical panels from exit stair enclosures.	Within 3 months
-----	-------------------------	---	--	-----------------



F-2	Fire Rated Construction	The boiler and compressor rooms are not separated by fire-rated construction due to openings, non-rated doors, and penetrations on ground floor.	Separate the boiler and compressor rooms by a minimum 1-hr fire-rated construction for non-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
-----	-------------------------	--	--	-----------------



F-3	Fire Rated Construction	Areas used for combustible storage open to the factory are not separated by fire-rated construction on 1st, 2nd and 3rd floors.	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
-----	-------------------------	---	--	-----------------



F-4	Fire Rated Construction	Rooms used for combustible storage are not separated by fire-rated construction on 2nd 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 2.45m (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
-----	-------------------------	---	---	-----------------





F-5	Fire Rated Construction	The exit stair enclosures are not separated from work areas and other spaces on each 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
-----	-------------------------	--	---	-----------------



F-6	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

If fire doors are required to be held open for functional reasons, provide automatic-closing devices tied to the fire alarm system.

Once fire doors are installed, every door in a stair enclosure serving more than 5 stories shall be provided with re-entry unless it meets ACCORD standard 6.8.3.1.





F-7	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
-----	-------------------------	--	---	-----------------



F-8	Fire Rated Construction	Storage rooms discharges directly into exit stair enclosure on northeast and southeast exit stairs ground floor.	Openings from exit enclosure to storage room spaces shall be provided with a vestibule with fire rated construction and openings. .	Within 3 months
-----	-------------------------	--	---	-----------------

Provide a 1 hr. fire rated door on the exit stair side and a 1-hr. fire rated door on the storage room side. Ensure that the fire rating of the vestibule construction matches that of the exit stair enclosure.





F-9	Fire Rated Construction	<p>The exterior exit stair is not properly separated from the building. location:</p> <ol style="list-style-type: none"> 1. Northeast of Production building on all floors. 2. Southeast of utility building. 	<p>Exterior exit stairs shall be separated from the building with a rating requirement of 1 hr. fire rating for 3 or fewer stories or 2 hr. fire rating for 4 or more stories. The rating of the exterior wall shall extend 3.05 m (10ft) beyond the ends of the stair structure.</p>	Within 6 months
-----	-------------------------	---	---	-----------------



F-10	Egress	Building did not have stair designation signs and occupant load signs at required locations on all the floors.	Provide stair designation signs and occupant load signs at required locations.	Immediately
F-11	Egress	Egress doors and gates with locking features are provided at building exits, exit stairs, along egress routes and exit discharge on all the floors. All gates and doors were open and unlocked during 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 the egress path on 1st, 2nd and 3rd floors.

Keep egress paths and stairs immediately clear of storage.





F-13	Egress	Storage was located in the exit stair on ground floor.	Remove all storage from exit stairs and egress paths.	Immediately
------	--------	--	---	-------------





F-14 Egress

Collapsible gates and sliding doors are provided at building exits, exit stairs, along egress routes, and 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





F-15 Egress

Handrails are not provided on both sides of the exit stair.

Provide handrails on both sides of the exit stair . 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



F-16	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
------	-----------------	---	--	---



F-17	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-18	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-19	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-20	Fire Protection	Visible and audible notification was not provided for the building in accordance with NFPA 72.	Provide visible and audible notification for the building in accordance with NFPA 72.	Within 3 months



F-21	Egress Lighting	Exit signage was not provided along a path of egress and in a readily visible location on all the floors.	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
------	-----------------	---	---	----------------

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 the accordance with The ACCORD standard. Keep written records on-site.	Within 3 months
F-23	Egress Lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes on 1st,2nd and 3rd floor along egress paths.	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
