

FIRE SAFETY INSPECTION REPORT

BANDO DESIGN LTD.

**PURBO NARSHINGAPUR, EARPUR UNION PANSHAD
ROAD, ASHULIA, DHAKA, BANGLADESH**

OTHER FACTORIES: NONE



ACCORD
on Fire and Building Safety in Bangladesh

Bangladesh Accord
Foundation

March 29, 2014

SUMMARY

Bando Design Ltd. was surveyed for fire safety on 29-03-2014 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	Storage rooms on floors G, 1, 2, and 4 and process areas on multiple floors used for combustible storage are not separated by fire-rated construction.	<p>Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction.</p> <p>Where separate storage rooms are not feasible, provide defined storage areas and limit the storage arrangement as follows:</p> <ul style="list-style-type: none"> - Maximum height of 2.4m and maximum area of 23m² - If sprinkler protected: maximum height of 3.66m and maximum area of 93m² <p>Separate areas of unenclosed combustible storage by a minimum clear distance of 3m.</p>	Within 3 months



F-2	Fire Rated Construction	The boiler is not separated from egress path by fire-rated construction.	Separate the boiler by a minimum 2-hr fire-rated construction. Seal and/or protected all openings to maintain the required fire separations	Within 3 months
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F-3	Fire Rated Construction	The East exit stairs are not separated from the transformer room.	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
			If fire doors are required to be held open for functional reasons, provide automatic-closing devices tied to the fire alarm system.	



F-4	Egress	Storage was located in both an stair at the ground floor.	Remove all storage from exit stairs and egress paths.	Immediate
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F-5 Egress

Egress doors and gates with locking features are provided throughout both stairs

Remove locking features from all egress doors and gates.

Immediate

If locks are required for security reasons, utilize special door locking features complying with NFPA 101.



F-6	Egress	<p>Exit capacity is not adequate for the occupant load on floors 2 or 4 and from the dining room on floor 5. Floor 2 has 849 occupants and Floor 4 has 705 occupants. The stair capacity is 653. The dining room on floor 5 has a reported capacity of 550 occupants, and only two exit doors from the room.</p>	<p>Reduce the number of occupants to no more than the exit capacity immediately.</p> <p>In the future, if the greater occupant load is desired, add additional exits.</p>	Immediate
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F-7	Egress	<p>Collapsible gates and sliding doors are provided throughout factory and interior partitions.</p>	<p>Replace all gates and sliding doors along the means of egress with side-hinged, swinging egress doors.</p> <p>If locks are required for security reasons, utilize special door locking features complying with NFPA 101.</p>	Within 1 month
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F-8	Egress	The width of egress aisles adjacent to the cutting tables on the ground floor 3 is less than 36-in.	Provide minimum aisle widths of 36-in.	Within 3 months
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F-9	Egress	Common path of egress travel exceeds 30 m on floor 1.	Reconfigure the egress arrangement to reduce the maximum common path of travel to not more than 30 m.	Within 3 months
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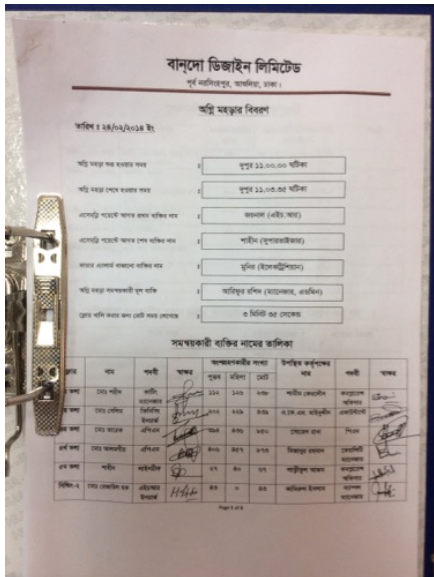
F-10	Egress	The exits are not remotely located from each other such that a single fire event could compromise both exits in the dining area and the laboratory.	- Provide additional exit(s). and/or - Provide sprinkler protection in accordance with NFPA 13.	Within 3 months
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F-11	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-12	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
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F-13	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
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F-14	Egress Lighting	Emergency lighting is not fully installed in areas of construction on floors 4 and 5.	Regularly test the emergency lighting system on each floor and replace/repair lights as needed.	Within 1 month
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F-15	Egress Lighting	Exit signs not installed on floors 4 and 5	Provide exit signs above all exits to the exterior and all doors to the exit stairs.	Within 3 months
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