

FIRE SAFETY INSPECTION REPORT

BD DESIGNS (PVT.) LTD.

ACCORD ID: 12331

**PLOT NO. 48-49, SECTOR 03, KARNAPHULI EPZ,
CHITTAGONG, 4204, BANGLADESH**

OTHER FACTORIES: NONE



ACCORD
on Fire and Building Safety in Bangladesh

October 26, 2015

SUMMARY

BD Designs (Pvt.) Ltd. was surveyed for fire safety on 10/26/2015 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	Proper certification was not available for fire rated doors installed in the factory in the west and east exit stairs on all floors.	Submit proper certifications for installed fire doors to the ACCORD for approval. If not available, or certification is not approved, install new, properly certified fire rated doors in accordance with ACCORD direction.	Immediately





F-2	Fire Rated Construction	The fire pump room is on going construction on ground floor west side shed.	Provide fire pump room with 2 hr rated fire separation when not sprinklered and 1 hr rated fire separation when provided with automatic sprinklers, in accordance with NFPA 20.	Within 3 months
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F-3	Fire Rated Construction	The industrial dryers are not separated by fire-rated construction due to openings, non-rated doors, and penetrations in the Factory floor, east side of the building on ground floor.	Separate the industrial dryer area by a minimum 2-hr fire-rated construction. Seal and protect all openings to maintain the required fire separations. Provide proper ventilation and consult with a qualified engineer.	Within 3 months
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F-4	Fire Rated Construction	The boiler and compressor rooms are not separated by fire-rated construction due to openings, non-rated doors and penetrations.	Separate the boiler and compressor rooms by a minimum 2-hr fire rated construction for high rise. Seal and protect all openings to maintain the required fire separations. Provide proper ventilation and consult a qualified engineer.	Within 3 months
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F-5	Fire Rated Construction	Rooms used for combustible storage are not separated by a minimum 1-hr fire-rated construction on 1st and 2nd floors.	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 (8 ft) and maximum area of 23m² (250 ft²) OR - If sprinkler protected: maximum height of 3.66m (12 ft) and maximum area of 93m² (1000 ft²) AND Separate areas of unenclosed combustible storage by a minimum clear distance of 3m (10ft).	Within 3 months
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F-6	Fire Rated Construction	Fire-rated floor and ceiling assemblies have unprotected openings and penetrations on all floors	Seal all penetrations and openings in floor and ceiling assemblies to maintain the fire separation.	Within 3 months
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F-7	Fire Rated Construction	Areas used for combustible storage open to the factory are not properly defined and not within limits on 1st, 2nd, and 4th floor.	Provide defined storage areas and limit the storage arrangement as follows: - Maximum height of 2.45m (8 ft) and maximum area of 23m² (250 ft²) OR - If sprinkler protected: maximum height of 3.66m (12 ft) and maximum area of 93m² (1000 ft²) AND Separate areas of unenclosed combustible storage by a minimum clear distance of 3m (10 ft).	Within 3 months
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F-8	Fire Rated Construction	The exit discharge path serving the utility shed on ground floor is less than 10 ft wide and is not separated from the building interior.	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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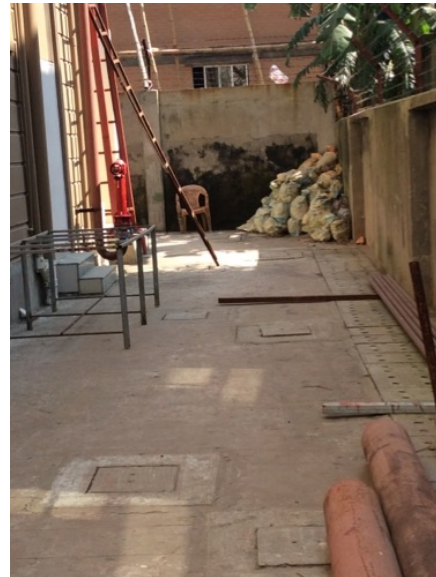
F-9	Egress	Building did not have stair designation signs and occupant load signs at required locations on all floors.	Provide stair designation signs and occupant load signs at required locations.	Immediately
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F-10	Egress	Exit capacity is not adequate for the occupant load on the 5th (plan-700 capacity 675) and 6th (1,000 max. capacity of dining, exit capacity 675)	Reduce occupant load immediately to not more than available exit capacity (675). Provide additional exits in the future to increase exit capacity.	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 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 ACCORD standard 6.8.2.	Immediately



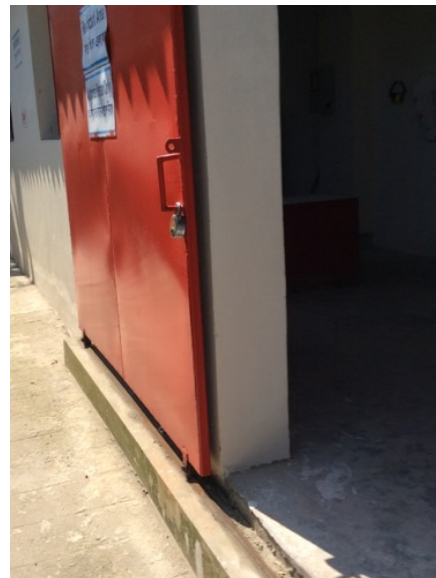


F-12	Egress	Storage was located in the egress path on ground and 5th floors.	Keep egress paths and stairs immediately clear of storage.
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F-13	Egress	Collapsible gates and sliding doors are provided at building exits, along egress routes, and exit discharge on all floors.	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-14	Egress	Exit stairs serve more than 5 stories and do not have required re-entry provisions on all floors.	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.	Within 3 months
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F-15	Fire Protection	Fire alarm system installation requires detailed review to confirm compliance with NFPA 72 and ACCORD standards.	Submit as-built drawings, testing records, equipment certification and other relevant documentation to the ACCORD for review and approval.	Within 1 month
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F-16	Fire Protection	Fire pump installation requires detailed review to confirm compliance with NFPA 20 and ACCORD standards.	Submit as-built drawings, testing records, equipment certification and other relevant documentation to the ACCORD for review and approval.	Within 1 month
F-17	Fire Protection	Automatic sprinkler system installation requires detailed review to confirm compliance with NFPA 13 and ACCORD standards.	Submit as-built drawings, testing records, equipment certification and other relevant documentation to the ACCORD for review and approval.	Within 1 month
F-18	Fire Protection	Standpipe system installation requires detailed review to confirm compliance with NFPA 14 and ACCORD standards.	Submit as-built drawings, testing records, equipment certification and other relevant documentation to the ACCORD for review and approval.	Within 1 month
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 and ACCORD standards.	Within 3 months
F-20	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 and ACCORD standards.	Within 3 months
F-21	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 and ACCORD standards.	Within 3 months

F-22	Fire Protection	Inspection, testing and maintenance of the automatic sprinkler system is not in accordance with NFPA 25.	Inspect, test and maintain the automatic sprinkler system and keep written records on-site, in accordance with NFPA 25 and ACCORD standards.	Within 3 months
F-23	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 and ACCORD standards.	Within 3 months
F-24	Fire Protection	Fire pump is not provided and appears to be needed for the standpipe system and fire demand.	Provide a fire pump in accordance with NFPA 20 and ACCORD standards, or provide an alternative water supply source capable of meeting the required fire protection demand, subject to ACCORD approval.	Within 6 months





F-25	Egress Lighting	Exit signage was not provided at along a path of egress and in a readily visible location on all 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
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F-26	Egress Lighting	Inspection, testing and maintenance for the emergency lighting system was not in accordance with ACCORD standards.	Inspect, test and maintain the emergency lighting system in the accordance with ACCORD standards. Keep written records on-site.	Within 3 months
F-27	Egress Lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes on all floors.	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

