

FIRE SAFETY INSPECTION REPORT

**RADIAL INTERNATIONAL LTD. UNIT 2
ZIRANI BAZAR, KASHIMPUR, GAZIPUR SADAR**

**OTHER FACTORIES: RADIAL INTERNATIONAL
LIMITED, ARRAY INTERNATIONAL.**



ACCORD
on Fire and Building Safety in Bangladesh

August 30, 2014

SUMMARY

Radial International Ltd. Unit 2 was surveyed for fire safety on 8/30/2014 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 / flammable liquid storage area on the ground 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	The boiler, generator, and transformer room located on the ground floor, is not separated by fire-rated construction, openings, non-rated doors, and penetrations.	Separate the boiler, 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 3 months



F-3	Fire Rated Construction	Areas used for combustible storage on the ground, second, third and fifth 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-4	Fire Rated Construction	Storage rooms used for combustible storage on the ground, second, third and fifth 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-5	Fire Rated Construction	The exit stairs are not separated from work areas, and other spaces on each floor by fire-rated construction. This was reflected throughout the building on all floors.	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-6	Fire Rated Construction	Unsealed penetrations and openings on all floors are located in each exit stair enclosure.	Seal all penetrations and openings in exit stair enclosure walls to maintain the fire separation.	Within 3 months
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F-7	Egress	Egress doors / gates with locking features are provided at building exits and exit discharge. This was reflected throughout the building on all floors.	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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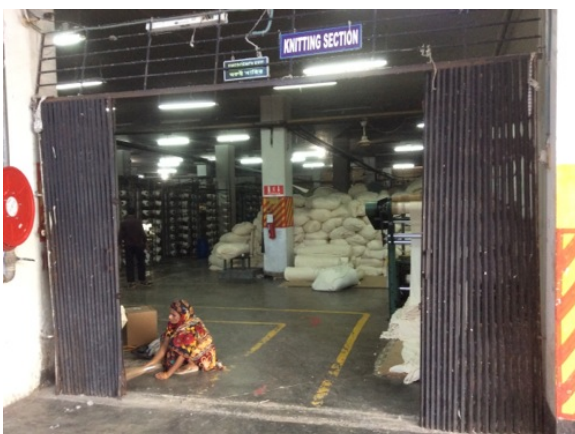
F-8	Egress	Storage was located in the egress path on the ground, second, third and fifth floors.	Keep egress paths and stairs clear of storage.	Immediate
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F-9	Egress	Storage was located in each exit stair, on all floors.	Remove all storage from exit stairs and egress paths.	Immediate
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F-10	Egress	Collapsible gates / sliding doors are provided at building exits and exit discharge. This was reflected throughout the building on all floors.	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-11	Egress	The width of egress aisles on the ground, second, third and fifth floors are less than 36-in.	Provide minimum aisle widths of 36-in.	Within 3 months
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F-12	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-13	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-14	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-15	Egress Lighting	Exit signage not illuminated (burned out, broken, etc.). This was reflected throughout the building on various floors.	Regularly inspect all exit signage and replace/install lights as needed to illuminate signs.	Within 1 month
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F-16	Egress Lighting	Manual on-off switch is provided for emergency lighting units. This was reflected throughout the building in various locations.	Remove manual on/off switches from emergency lighting units to prevent them from being switched off.	Within 1 month
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F-17	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-18	Egress Lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes. This was reflected throughout the building on all floors.	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