

FIRE SAFETY INSPECTION REPORT

Nemrac Design Ltd.

ACCORD ID: 12503

Plot: A-172, BSCIC I/A, Shashongaon Fatullah, Narayanganj

23.623296, 90.481701

Other Factories: None



Inspected by: Md. Rakibul Alam & Md. Hasibur Rahman Abir

Date: 08 December 2019



Fire Safety Inspection Report

Nemrac Design Ltd.

Summary

Nemrac Design Ltd. complex was surveyed for fire safety on 08 December 2019 by The Accord Inspection Team.

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	Exit stairs are not separated from work areas & other spaces on each floor by fire-rated construction due to unprotected openings and penetrations. (Both building)	Separate the exit stairs from work areas and other building spaces on all floor levels by minimum 2- hr fire-rated construction. Provide minimum 1.5- hr fire rated doors and seal all unprotected openings and penetrations to maintain the fire separation. Ensure that all fire doors are self-closing and positive latching, and are provided with fire exit (panic) hardware where serving production floors or assembly occupancies. 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.	Within 3 months





F-2 Egress

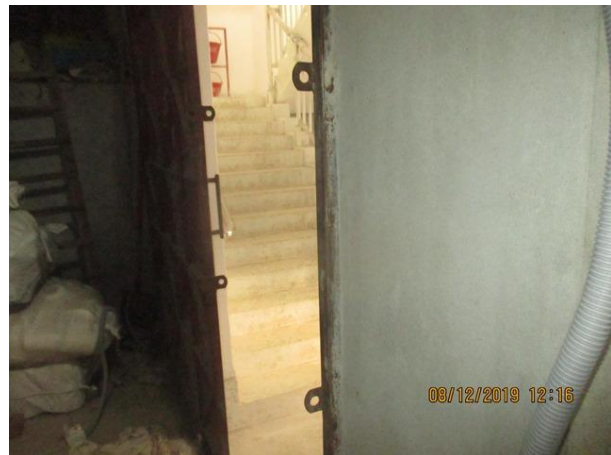
Egress gates on the all floor with locking features are provided at all exits & exit discharge. (Both building)

Remove locking features from all egress gates.

Immediately

If locks are required for security reasons, utilize special door locking features complying with ACCORD standard 6.8.2.





F-3	Fire Rated Construction	Room on the ground, basement floor used for combustible storage is not separated by a minimum 1-hr fire-rated construction. (Both building)	Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction.	Within 3 months
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F-4 Fire Rated Construction

Unsealed penetration (electrical and utility) is located in the fire-rated floor/ceiling assemblies. (Both building)

Provide a minimum 2-hr fire-rated shaft to separate the utility risers from each floor level and seal all penetrations in floor/ceiling assemblies to maintain the fire separation.

Within 3 months





F-5	Fire Rated Construction	The boiler room on the 6th floor at building 2 is not separated by fire rated construction.	Separate the boiler room by a minimum 2-hr fire-rated construction for high rise, Seal and/or protect all openings to maintain the required fire separations. Provide proper ventilation and consult a qualified engineer.	Within 3 months
			If applicable: When located to the exterior of a building, separate the boiler by by a minimum distance of 3m (10 ft).	



F-6	Fire Rated Construction	In process storage areas open to the factory floors not properly defined and/or not within limits (Both building)	Provide defined storage areas and limit the storage arrangement as follows: Maximum height of 2.45m (8 ft) and maximum area of 23 m² (250 ft²). If sprinkler protected: maximum height of 3.66m (12 ft) and maximum area of 93m² (1000 ft²). Separate the areas of unenclosed combustible storage by a minimum clear distance of 3 m (10 ft).	Within 3 months
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F-7	Fire Rated Construction	The generator room, Compressor room and transformer room on the ground floor is not separated by fire rated construction. (Both building)	Separate the generator room, compressor, and transformer room by a minimum 2-hr fire rated construction. Seal or/and protected all non openings and penetrations to maintain the required rating.	Within 3 months
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F-8	Fire Rated Construction	Storage and generator room at ground floor discharges directly into the exit stair discharge. (Both building)	Openings from exit enclosure to storage room, generator and transformer spaces shall be provided with a vestibule with fire rated construction and openings. Provide a 1.5 hr. fire rated door on the exit stair side and a 1-hr. fire rated door on the Store, generator, sub-station room side. Ensure that the fire rating of the vestibule construction matches that of the exit stair enclosure.	Within 3 months
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F-9	Fire Rated Construction	Unsealed penetrations and openings are located in exit stair enclosures. (Building 1, BD in stair wall)	Seal all penetrations and openings in exit stair enclosure walls to maintain the required fire separation.	Within 3 months
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F-10	Fire Rated Construction	Exit stairwell stairs are not enclosed in fire rated construction at building-1 top floor and building-2 top and basement floor.	Provide 2-hr continuous stairwell enclosure on each floor level.	Within 3 months
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F-11	Egress	Sliding doors are provided at the building exits, exit stairs, along egress routes and exit discharge. (Both building)	Replace all gates, sliding Doors and rolling shutters 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-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 at building-1. And building-2 does not have any fire alarm system.	Replace the fire alarm system with a new, listed automatic fire alarm system in accordance with NFPA 72 and ACCORD standards.	Design within 3 months Install within 6 months
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F-13	Fire Protection	Inspection, testing and maintenance of the automatic fire alarm system is not in accordance with NFPA 72.	Inspect, test and maintain the automatic fire alarm system and keep written records on-site, in accordance with NFPA 72.	Within 10 month
F-14	Fire Protection	The high-rise buildings has an occupied floor greater than 23m (75 ft) and is not provided with automatic sprinkler protection. (Both building)	Provide automatic sprinkler protection throughout the building in accordance with NFPA 13 and ACCORD standards.	Design within 3 months Install within 9 months
F-15	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.	Within 10 month



F-16	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.	Within 10 month
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F-17	Egress	Egress door serving 50 or more occupants but does not swing in the direction of egress travel. (Both building stair discharge doors at ground floor and building-2 basement)	Modify swing direction of egress doors to the direction of egress travel.	Within 3 months
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F-18	Egress	Fire evacuation maps is not posted at the entrance of the exits at most of the floors.	Fire evacuation maps shall be posted at the entrance to each exits and exit stairs.	Within 1 month
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F-19	Egress Lighting	Exit signage not illuminated (burned out, broken, etc.).	Regularly inspect all exit signage and replace/install lights as needed to illuminate signs. The source of illumination shall provide not less than 50 lux at the illuminated surface with a contrast of not less than 0.5. Approved self-luminous signs which provide evenly illuminated letters having a minimum luminance of 0.2 cd/m ² may also be used.	Within 1 month
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F-20	Egress Lighting	Exit signage was not provided at all the exits / along the path of egress / in a readily visible location.	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-21	Egress Lighting	Emergency lighting did not function in test mode (burned out, broken, etc.) at building-1.	Regularly test the emergency lighting system on each floor and replace/repair lights as needed.	Within 1 month
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F-22	Egress Lighting	No emergency lighting (lighted exit signage, IPS/battery powered lighting) was present at the building-2	Provide emergency lighting throughout the building in accordance with The ACCORD standard.	Immediately
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F-23	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
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F-24	Egress Lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes.	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
F-25	Egress	Building did not have stair designation sign, occupant load sign & floor level signs at required locations.	Provide occupant load sign, stair & floor designation sign at required locations.	Within 1 month
F-26	Egress	Storage was located in the exit stairs, aisles and elevator shaft.	Remove all storage from stairs, aisles and elevator shaft. Keep egress path free from storage and obstruction	Immediately





F-27	Fire Protection	No fire alarm, hose cabinets/reels, portable fire extinguishers or manual fire fighting equipment was provided in the building-2 at the time of the inspection.	Until that time that installation of automatic fire alarm, fighting system, provide fire hose cabinets/reels. Provide portable extinguishers and manual fire fighting equipment throughout the building.	Immediately
F-28	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 1 month
F-29	Fire Rated Construction	Diesel fuel storage was located inside the generator room and basement store.	Remove all diesel fuel storage from the generator room and relocate to the exterior such that the diesel fuel storage is at least 10 ft from required egress paths. If located along egress paths or in a utility building, separate the diesel fuel storage with 2-hr fire rated construction. There shall be no diesel fuel storage in a factory production building.	Immediately





F-30	Fire Rated Construction	Liquefied or compressed gas cylinders are located within the factory. (Building-1 top floor)	The storage or use of liquefied or compressed flammable gas cylinders shall be prohibited within the factory building.	Immediately
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F-31	Fire Rated Construction	Electrical panels were located in the exit stair enclosure. (Building-1 ground floor and building-2 top floor).	Remove and re-locate all electrical panels from exit stair enclosures. Or separate by 2hr fire rated construction barrier.	Within 1 months
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F-32	Fire Rated Construction	Dinning at top floor does not have fire separation from other areas (Building-1)	Separate the dining area by a minimum 2-hr fire rated construction having direct access to exit stairs.	Within 3 months
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F-33 Egress

Adequate aisles were not provided at 6th floor iron section, 4th floor printing section at building-2 and several floors at building-1.

Aisles shall be provided with a minimum unobstructed clear-width of 0.9 m (36 in.).

Within 3 months



F-34	Egress	Welders were welding in exit stair enclosures. (Building-1)	Keep the egress paths free from storage, obstruction and work activities.	Immediately
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