

FIRE SAFETY INSPECTION REPORT

NAFA APPARELS LIMITED
HIZALHATI, BAROIPARA, KALIAKOR



ACCORD
on Fire and Building Safety in Bangladesh

April 9, 2014

SUMMARY

Nafa Apparels Limited was surveyed for fire safety on 4/9/2014 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	The boilers, generators, and transformer are not separated from adjacent areas by fire-rated construction (openings, penetrations).	Separate the boilers, generators, and transformer by a minimum 2-hr fire-rated construction. Seal and/or protect all openings to maintain the required fire separations.	Within 3 months



F-2	Fire Rated Construction	Areas used for combustible storage are not separated by fire-rated construction. Locations: -Storage rooms on all floors with ventilation ports along the walls and open, gated doors that compromise the fire barrier. -General storage on multiple floors was open to production areas.	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-3	Fire Rated Construction	The exit stairs are not separated from work areas and other spaces on each floor by fire-rated construction.	Provide minimum 1.5-hr fire rated doors and seal all unprotected openings to separate the exit stairs and bridge 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-4	Fire Rated Construction	Unsealed penetrations and openings are located in the fire-rated floor/ceiling assemblies.	Provide a minimum 2-hr fire-rated shaft to separate the utility risers from each floor level.	Within 3 months
		Location: All floors.	Seal all penetrations and openings in floor/ceiling assemblies to maintain the fire separation.	

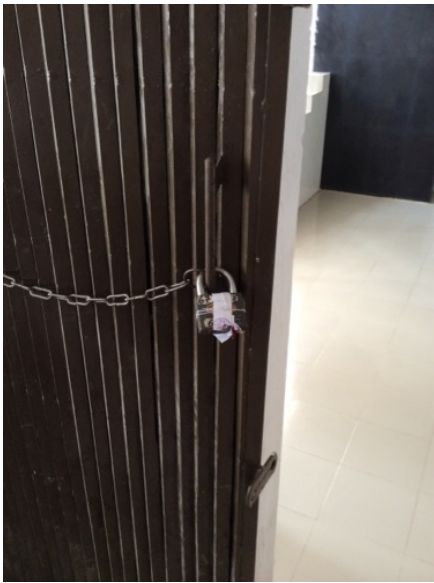




F-5	Fire Rated Construction	Areas used for combustible storage are not separated by fire-rated construction. Location: Storage/godown shed approximately 10 feet from the north side of the main building.	Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction. Where separate 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-6	Egress	Egress doors / gates with locking features are provided at building exits, exit stairs, along egress routes, and exit discharge. Locations: Collapsible gates and sliding doors on all floors. Doors were open and unlocked during the survey.	Remove locking features from all egress doors / gates. If locks are required for security reasons, utilize special door locking features complying with NFPA 101.	Immediat
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F-7	Egress	Exit capacity is not adequate for the occupant load. The dining area at the Third floor / rooftop level of the three story portion of the building has direct access to only three of the five exit stairs at that level. Therefore, the occupant load (reported as 702 persons, 1/3 of the total building population) exceeds the calculated egress capacity for the three exit stairs (570 persons).	Reduce occupant load to not more than available exit capacity.	Immediate
F-8	Egress	Collapsible gates / sliding doors are provided at building exits, exit stairs, along egress routes, and exit discharge. Locations: Collapsible gates and sliding doors 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





F-9	Egress	Evacuation plans on various floors do not indicate use of an outside exit stair which is marked as an exit.	Update evacuation plans to indicate relevant exits and to provide adequate exit knowledge.	Within 1 month
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F-10	Egress	Exit stair door does not swing in the direction of egress travel.	Modify the egress door to swing in the direction of egress travel.	Within 3 months
		Locations: Doors leading to exit stairs from rooftop of the three story portion of the building.		



F-11	Egress	Exit discharge path along west side of building is an egress court less than 10 feet wide.	Provide minimum 1-hr fire-rated factory exterior wall up to 10ft above grade. Seal and/or protect all openings to maintain the required fire separations.	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	A fire alarm system did not appear to be in the storage/godown shed; therefore, alarm and notification features consistent with acceptable standards are not provided.	Install a new, listed addressable fire alarm system in accordance with NFPA 72.	Design within 4 months, install within 9 months
F-14	Fire Protection	Inspection, testing, and maintenance records for the fire alarm system were not available.	Inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72.	Within 3 months

F-15	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.	Replace the single-station smoke alarms with automatic smoke detectors tied into the fire alarm system. Configure the fire alarm system to initiate occupant notification upon activation of any two smoke detectors in addition to the manual fire alarm stations.	Within 6 months
				
F-16	Fire Protection	The storage/godown shed did not appear to be equipped with smoke alarms.	Install automatic smoke detectors tied into the fire alarm system. Configure the fire alarm system to initiate occupant notification upon activation of any two smoke detectors in addition to the manual fire alarm stations.	Within 6 months
F-17	Egress Lighting	Storage areas on various floor levels are dark due to a low level of lighting and storage is stacked above eye level. Illuminated, directional exit signage is not provided.	Provide illuminated, directional exit signage throughout so that the direction of paths of egress are clearly indicated.	Within 1 month



F-18	Egress Lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes. Locations: All areas.	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
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F-19	Egress Lighting	Emergency lights did not appear to be in the storage/godown shed; therefore, adequate illumination levels are not anticipated along egress routes.	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
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