

INITIAL FIRE SAFETY INSPECTION REPORT

Factory Name: KM Nobely Garments Ltd.

Factory ID: 23244

ADDRESS: Zorun, Konabari, Gazipur-1702

Google Coordinate: 23.999978, 90.323780

Other Factories: N/A



Inspected By: Nirmal Chandra Sinha and Md. Sadid Rahman

Date: 21 December 2020

Fire Safety Inspection Report

Factory Name: KM Nobely Garments Ltd.

Introduction:

KM Nobely Garments Ltd. complex was surveyed for fire safety on **21/12/2020** by The RSC Inspection Team. The purpose of the survey was to identify significant fire safety issues and to provide recommendations for remediation based on applicable standards specified by the RSC. 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 RSC for approval.

Table-1 Findings & Recommendations:

SI No.	Category	Findings	Required Action	Remediation Time Frame
1	Fire Rated Construction	Building-1&2: The exit stairs are not separated from work areas and other spaces on each floor by fire-rated construction.	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. Provide minimum 1.5-hr fire rated doors for buildings that are 4 or more stories. Seal all unprotected openings to separate the exit stairs from work areas and other building spaces on all floor levels. Seal all penetrations and openings in exit stair enclosure walls to maintain the fire separation as per Accord standard 6.3.1.3. 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. 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



2	Fire Rated Construction	Building-1&2: Storage rooms and process areas used for combustible storage are not separated by fire rated construction on 1st & ground floor in building-1 and ground & 1st floor in building-2 respectively.	Rooms used for storage of combustible materials shall be separated from the surrounding occupancy with a minimum 1 hour construction. Where separate storage rooms are not feasible, provide defined storage areas and limit the storage arrangement as follows: 1. General Condition: Maximum height of 2.4m and maximum area of 23m². Separate areas of unenclosed combustible storage by a minimum clear distance of 3m. 2. 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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3	Fire Rated Construction	Building-1: Dining areas are not separated by fire rated construction from office and finished goods store on 1st floor.	Separate dining area by a minimum 2-hr fire rated construction having direct access to exit stairs. Seal and/or protect all openings to maintain the required fire separations.	Within 3 months
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4	Fire Rated Construction	Hazardous materials / flammable liquid storage areas are not separated by fire-rated construction due to openings, nonrated doors from the ETP control room on 1st floor.	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
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5	Fire Rated Construction	The ETP control room is not separated by fire- rated construction from chemical storage room due to openings and non-rated doors. The ETP control room exit stair discharge inside the chemical room.	Separate the ETP control room and chemical storage room according to Accord standard 3.4.2.1.10. Seal and/or protect all openings to maintain the required fire separations. Provide proper ventilation and consult a qualified engineer. Provide minimum 2-hr fire-rated exit passageway leading directly outside (vestibules to separate any storage areas) from ETP control room. Alternatively, provide a second remote discharge path to the public way (only include this if feasible).	Within 3 months
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6	Fire Rated Construction	The boiler, generator, compressor and transformer rooms are not separated by fire rated construction (openings, non-rated doors, penetrations) from each other.	Separate the boiler, generator, compressor and transformer rooms by a minimum 2-hr fire-rated construction from each other. Seal and/or protected all openings to maintain the required fire separations	Within 3 months



7	Fire Rated Construction	Building-1&2: The newly constructed production shed building-2 and 3rd & 4th floors of production building-1 are not fire rated construction. Hence, 3rd & 4th floors of the building-1 & shed building-2 are not separated by a fire resistive rated construction barriers.	Newly construction building shall be Type-1 & Type-2 construction in accordance with Accord building standard 3.5.2.1 and BNBC part-2 Table-3.2.4. Provide fire-resistive rated construction barriers following Section 4.4 and Table 4.4.1 of the Accord Standard or Table 3.3.1 and Table 4.1.1 from BNBC Part 4. Consult a qualified fire protection engineer to design the rated construction barriers.	Within 6 months
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8	Egress Capacity	Exit capacity (606) is not adequate for the occupant load (735) on 1st floor of the building-2.	Reduce occupant load immediately to not more than available exit capacity (606) on the 1st floor of the building-2. Provide additional exits in the future to increase exit capacity.	Immediately

KM Nobely Garments Ltd.
Zorun, Konabari, Gazipur.

Floor Description

Building-1 (5 Storied Production Building)			
Floor	Description	Occupant Strength	Present Today
Ground Floor	Wash Section, Medical Room.	247	126
1st Floor	Canteen, Office Room, Dining, Conference room, Finished Goods Area.	19	19
2nd Floor	Packing Area.	31	29
3rd Floor	Finishing, Folding, Iron, Quality.	152	134
4th Floor	Finishing, Folding, Iron, Quality.	151	138

Building-2 (2 Storied Pre Fabricated Building)			
Floor	Description	Occupant Strength	Present Today
Ground Floor	Bonded Warehouse, Cutting, Quality, Bartack, Sub store, Lesser room.	174	164
1st Floor	Sewing, Quality, Conference room, Maintenance room.	736	691

9	Egress	Building did not have stair designation signs and occupant load signs at required locations.	Provide stair designation signs and occupant load signs at required locations.	Within 1 month
10	Fire Detection & Alarm System	An addressable fire alarm system has installed in the factory building premises. Fire detection system installation requires to detailed review to confirm compliance with NFPA 72 and Accord standard for all buildings in the factory premises.	Submit as-built drawings, testing records, equipment certification and other relevant documentation to the RSC for review and approval.	Design submission (Within 2 months), Modification within 4 months (if required)



11	Inspection, Testing, and Maintenance of the Fire Detection & Alarm System	Inspection, testing, and maintenance for the fire alarm system is not in accordance with NFPA 72 or as per Accord standard.	Inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72.	Within 1 months (after complete installation of listed fire alarm system)
12	Fire Protection	The existing factory building with an occupiable floor greater than 10 m (33 ft) above the finished grade but standpipe system is not installed in the building (Applicable for Building-1)	Install a new standpipe system in accordance with ACCORD standard 5.4 and NFPA 14. A class III system shall be installed in buildings with the highest occupiable floor 10 m (33 ft.) above grade or more. A class I system shall be permitted in buildings protected throughout by an approved automatic sprinkler system.	Design within 4 months and installation within 9 months

13	Inspection, testing, and maintenance of the standpipe system	Inspection, testing, and maintenance of the standpipe system is not in accordance with NFPA 14 or as per Accord standard.	Inspect, test and maintain the standpipe system, and keep written records on-site, in accordance with NFPA 25 or as per Accord standard.	Within 1 months (after complete installation of listed protection system)
14	Inspection, testing, and maintenance of the fire pump	Inspection, testing, and maintenance of the fire pump is not in accordance with NFPA 20 or as per Accord standard.	Inspect, test and maintain the fire pump, and keep written records on-site, in accordance with NFPA 25 or as per Accord standard.	Within 1 months (after complete installation of listed fire pump set)
15	Egress lighting	Directional signs are not provided where direction of the path of travel to an exit has changed. Location: Production shed building-2.	Illuminated directional signs shall be provided where there is a change in the direction for the path of travel and the direction to an exit is not obvious.	Within 1 month



16	Emergency 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 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
				
17	Inspection, testing, and maintenance of Emergency light and Exit Sign	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 the accordance with The ACCORD standard. Keep written records on-site.	Within 3 months