

INITIAL FIRE SAFETY INSPECTION REPORT

Factory Name: Unimas Sportswear Ltd. (New Expansion Building)

Factory ID: 24338

Address: Bagbari, Kashimpur, Gazipur Sadar, Gazipur.

Google Coordinate: 23.955842, 90.313079

Other Factories: N/A



Inspected By: Nirmal Chandra Sinha and Md. Anisuzzaman

Date: 31 January 2022

Introduction:

Unimas Sportswear Ltd. (New Expansion Building) complex was surveyed for fire safety on **31-Jan-2022** 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.

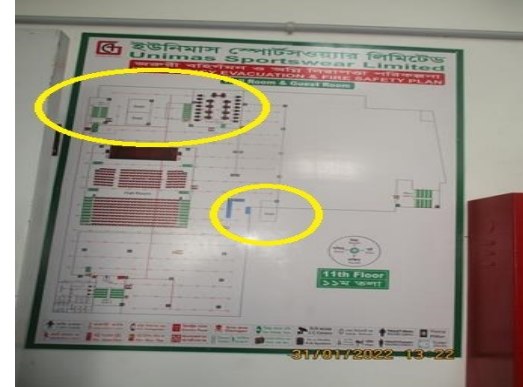
Table 1- summarizes the fire safety non-compliant issues identified during the inspection. Recommendations have been provided to address each issue with specific remediation timeline. An implementation schedule shall be developed by the factory to remediate each of the findings. The specific timing of 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
F-1	Fire Rated Construction	<p>The exit stairs are not separated from work areas and other spaces on each floor by fire-rated construction.</p> <p>During inspection it was observed that the factory has installed fire doors at exit.</p> <p>Location: New expansion building.</p>	<p>Submit installed fire rated door documents to the RSC for review. Provide minimum 2-hr fire rated separation exit enclosure. Provide minimum 1.5-hr fire rated doors and seal all unprotected openings and penetration to separate the exit stairs from work areas and other building spaces on all floor levels.</p> <p>The clearance under the bottom of a fire door shall be a maximum of 19mm.</p> <p>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.</p> <p>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.</p>	Within 3 months



F-2	Fire Rated Construction	<p>Elevator shafts are directly open into the production floor without proper fire separation.</p> <p>Location: New expansion building.</p>	<p>Ensure minimum 2-hr listed/3rd part certified fire rated lift landing doors for elevator shafts otherwise close the area of the shaft with a 2-hr fire-rated construction barrier.</p>	Within 3 months
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F-3	Fire rated construction.	Storage room discharges directly into exit stair enclosure. Location: 7th & 8th floor of expansion building of the exit stair-3,4,5,6 & 7	<p>Openings from exit enclosure to storage spaces shall be provided with a vestibule with fire rated construction and openings.</p> <p>Provide a 1.5-hr. fire rated door on the exit stair side and a 1-hr. fire rated door on the storage room side. Store rooms directly discharge in exit stair enclosure shall be separated in accordance with the Accord standard 6.14.3.</p> <p>Ensure that the fire rating of the vestibule construction matches that of the exit stair enclosure.</p>	Within 3 months
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F-4	Fire Rated Construction	<p>Unsealed penetrations and openings are located in the fire-rated floor/ceiling assemblies.</p> <p>Location: Electrical riser of various location of throughout the expansion building, near to part of building A & D</p>	<p>Seal all penetrations and openings in floor/ceiling assemblies to maintain the fire separation at least by 3-hr. The used sealer shall be 3rd party certified and installation shall be as per manufacturer's datasheet.</p> <p>Or</p> <p>Provide a minimum 2-hr fire rated shaft to separate the utility risers from each floor if required.</p>	Within 3 months
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F-5	Fire Rated Construction	Room used for combustible storage are not properly fire separated by fire rated construction at several floor of new expansion building.	Provide dedicated storage rooms separated by minimum 1 hr. fire rated construction. Seal all unprotected openings and penetration.	Within 3 months



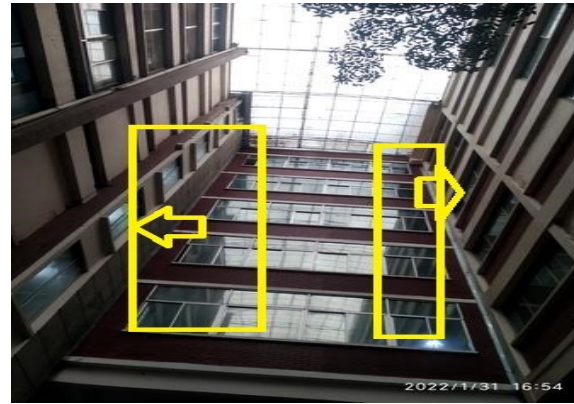
F-6	Fire rated construction.	Exit discharge path (passageway) are not properly separated by fire rated construction due to unprotected openings & penetrations. Location: N-W site (stair-6) & S- W side of expansion building.	Separate the exit passageway (ceiling, floor, wall etc.) by 2- hr. fire-resistance rated construction and shall terminate at an exit discharge.	Within 3 months
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F-7	Fire rated construction	<p>Areas used for in-process storage of combustible materials are open to the surrounding occupancy. Location: Throughout of the expansion building.</p>	<p>Provide defined storage areas and limit the storage arrangement as follows: Maximum height of 2.45 m and maximum area of 23 m² and is separated by a minimum 3.0 m (10ft) from other storage areas and they do not exceed 10 percent of the building area of the story in which they occur. If sprinkler protected, Maximum height 12 ft (3.66 m) and maximum area of 1000 ft² (93 m²) and separated by a at least 25 ft (7.62 m) from other storage areas and does not constitute more than 10 percent of the building area or 4000 ft² (372 m²) of the sprinklered area, whichever is greater. or, Enclose the storage area from the surrounding occupancy with a minimum 1 hour fire rated construction.</p>	Within 3 months
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F-8	Fire Rated Construction	<p>Exterior exit stairs are not properly separated from the building.</p> <p>Location: Stair-3 & stair-7 of near building A & D</p>	<p>Exterior exit stairs shall be separated from the building with a rating requirement of [1 hr. fire rating for 3 or fewer stories or 2 hr. fire rating for 4 or more stories]. The rating of the exterior wall shall extend 3.05 m (10 ft) beyond the ends of the stair structure.</p>	<p>Within 3 months</p>
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F-9	Fire Rated Construction	<p>The exit discharge path (Egress Court) was less than 10 ft wide and was not separated from the building interior.</p> <p>Location: N-W site (stair-6) & S-W side (stair-5) side of expansion building</p>	<p>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 2-hr fire separation.</p>	Within 3 months
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F-10	Fire Rated Construction	<p>Building expansion joint opening is not sealed by fire rated sealant/material.</p> <p>Location: All floor Between Expansion building & Existing A, D & B</p>	<p>Seal the building expansion joint opening by 3 hr. listed fire rated sealant/material to maintain required floor to floor separation. The used sealer shall be 3rd party certified and installation shall be as per manufacturer's datasheet.</p>	Within 3 months
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F-11	Fire rated construction.	<p>9th floor (office) are not separated from 10th floor (Auditorium ,showroom & other area) by fire rated construction .</p> <p>Location: Expansion building.</p>	<p>Separate each floors by fire rated construction as per BNBC, Part-3, chapter-3 and Table 3.3.1.</p> <p>Minimum 2-hr fire rated separation is required from other surroundings of 9th floor to 10th floor as well as separation is needed at required number of exit stairs.</p>	Within 3 months



F-12	Fire Rated Construction	<p>Lift machine room was not properly fire separated due to unprotected opening & penetration.</p> <p>Location: N-W side Stair-6 of expansion building .</p>	<p>Seal all penetrations and openings in the wall (full thickness of the wall) assemblies by minimum 2-hr fire-rated materials to maintain the required fire-resistance rating.</p>	Within 3months
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F-13	Fire Rated Construction	<p>The factory is using/storing liquified gas cylinders without proper separations</p> <p>Location: Dormitory building & near to boiler room.</p>	<ol style="list-style-type: none"> 1. The storage building must be at least 3 meters away from any other building and boundaries. 2. The exterior walls of the building must have a fire resistance rating of 3 hours using non-combustible construction. 3. Doors and other openings in the exterior walls must be protected with suitable closing devices having a fire protection rating of 3 hours. 4. The building is to be used for no other purpose than the storage of LPG/CNG cylinders. 5. The building must be mechanically ventilated to control the accumulation of flammable vapors. 6. The installations must be approved and accepted by the requirements of the AHJ, Gas supply company regulations, manufacturers/supplier's instructions/guidance, Chief Inspector of Boiler (CIOB) and Chief Inspector of Explosives Bangladesh (CIEB). 	within 3months
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F-14	Fire Rated Construction	<p>Warehouse (Building-D & A) are not properly separated from production floor of expansion building due to unprotected opening & penetration.</p> <p>Location: 2nd floor to 6th floor of expansion building</p>	<p>Seal all penetrations and openings in the wall (full thickness of the wall) assemblies by minimum 2-hr fire-rated materials to maintain the required fire-resistance rating.</p>	Within 3months
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F-15	Fire Rated Construction	<p>Compressors are not properly separated from other surrounding occupancy (production) by fire rated construction due to unprotected opening.</p> <p>Location: N-W side ground floor expansion building.</p>	<p>Compressors shall be separated from the other surrounding occupancy by a minimum 2-hr fire-rated construction (wall, floor, slab, etc.). Seal all penetrations and openings (door, window, etc.) by minimum 1.5-hr fire-rated materials to maintain the fire separation as required. All exhaust systems shall discharge to the exterior of the building in a safe location.</p> <p>Or, Relocate the compressor to the exterior of the building and maintain a minimum 3m (10 ft.) spatial separation distance from the building.</p>	Within 3 months
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F-16	Fire Rated Construction	Smoking area are not separated by fire rated construction due to unprotected opening. Location: near to stair-5	Separate smoking area by a minimum 2-hr fire rated construction. Seal all penetrations and openings in exit stair enclosure and separation walls to maintain the required fire separation.	Within 2 months
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F-17	Fire Rated Construction	Unprotected vertical shaft (chute/garbage) connecting multiple floor (Store & production floor) were observed in the expansion building.	Provide a minimum 2-hr fire-rated shaft closure/door to separate the duct from each floor.	Within 3 months
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F-18	Means of egress	<p>Sliding/shutter type doors have provided along means of egress. Location: 3rd,4th,5th & 6th floor of packing section & 10th floor of showroom.</p>	<p>Replace all sliding/shutter type doors & gates by the side-hinged swinging type doors. If locks are required for security reasons, utilize special door locking features complying with NFPA 101.</p>	Within 1 month
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F-19	Means of egress	Egress gates with locking features are provided on several floors of expansion building exits.	Remove locking features from all egress doors and gates. If locks are required for security reasons, utilize special door locking features complying with NFPA 101 and ACCORD standard 6.8.2.	Immediately
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F-20	Means of Egress	Storage was located in the egress path exit stair enclosure and aisles & Infront of elevator on several floors.	Remove all storage from exit stairs and egress paths.	Immediately
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F-21	Means of Egress	Electrical line from substation pass through the S-W side stair-5 exit enclosure.	As per Accord standard 6.14.4 shift/relocate the electrical cables / BBT inside the floor or provide 2 hour fire rated wrapping which cables are passing exit stair enclosure.	within 1 month
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F-22	Means of Egress	The egress path along means of egress (aisles) has interrupted by obstruction/storage at several floor of expansion building.	Means of egress shall be maintained continuously free and clear of all obstructions/storage. Or Keep egress paths and stairs clear of storage.	Immediately
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F-23	Means of Egress	<p>Parapets or guards are provided in occupied roof which is less than 1067mm (42 inch).</p> <p>Location: Dormitory building</p>	<p>Provide parapets or guards with a minimum height of 1067mm (42 inch.).</p>	<p>Within 3 months</p>
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F-24	Means of Egress	Width of aisles is not provided on several floors of expansion building.	Aisles shall be provided with a minimum unobstructed clear-width of 0.9 m (36 in.).	Within 1 month
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F-25	Means of Egress	Common path of egress travel exceeds limit on the 9th floor of expansion building.	Reconfigure the egress arrangement to reduce the maximum common path of travel to not more than 23 m (75 ft.) or 30 m (100 ft.) as per Accord building standard article 6.13.2.	Within 3 months
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F-26	Means of Egress	The exit discharge path (passageway) are obstructed by construction materials Location: expansion building.	Means of egress shall be maintained continuously free and clear of all obstructions	Immediately
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F-27	Means of Egress	<p>Electrical panel boards (DB) are located on the inside of Exit stair.</p> <p>Location: Dormitory building</p>	<p>Remove electrical panel boards from exit stairs. Or Relocate the electrical power line to a suitable location.</p>	Within 1 month
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F-28	Means of Egress	The first floor height (headroom) in storage area was found less than 2.03m (6ft 8 inch). Location: first floor of expansion building.	The minimum headroom shall be 2.03m (6 ft 8 inch) as per Accord standard 6.3.3.	Within 3 months
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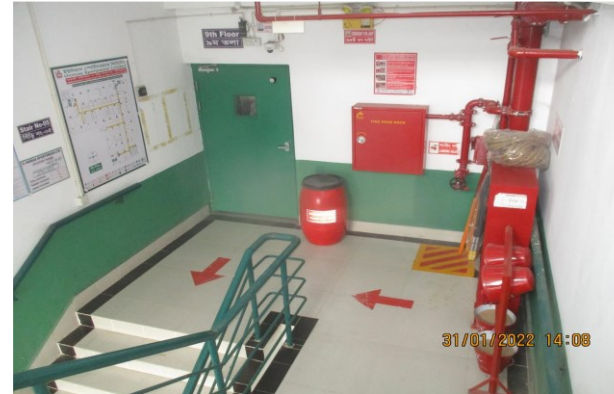


F-29	Means of Egress	Building did not have stair designation signs & exit designation signs at required locations. Location: all building	Provide stair designation sign & exit designation sign at each floor entrance from the stair to the floor in English and Bengali. Signs shall indicate the name of the stair and the floor level. Signs shall be posted adjacent to the door.	Within 1 month
F-30	Means of Egress	Updated Fire evacuation maps is not posted at the entrance of all exit stair. Location: expansion building	Updated Fire evacuation maps shall be posted at the entrance to each exit stair.	Within 1 month
F-31	Egress Lightning	Exit sign not provided at required exit. Location: Several location of the expansion building.	Lighted exit signs shall be placed at entrance to an exit. Additional exit signs shall be placed throughout the facility anywhere the continuation of the egress is not obvious. Lighted exit signs shall be provided with either battery backup or uninterruptable power supply systems and shall be continuously illuminated.	Within 1 month

F-32	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 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
F-33	Egress lighting(ITM)	Inspection, testing, and maintenance for the exit sign and emergency lighting system was not in accordance with The ACCORD standard.	Inspect, test and maintain the exit sign and emergency lighting system in the accordance with The ACCORD standard. Keep written records on-site.	Within 3 months
F-34	Fire Alarm & Detection System (FADS)	The fire alarm and detection system installation requires detailed review to confirm compliance with NFPA 72.	Submit as-built drawings, testing records, equipment certification and other relevant documentation to the RSC for review and approval/acceptance test.	Design within 2 months, Modification within 4 months (if required).



F-35	Fire Protection System(Standpipe)	Standpipe system installation requires detailed review to confirm compliance with NFPA 14 ,20 ,22 & 24	Submit as-built drawings, testing records, equipment certification and other relevant documentation to the RSC for review and approval/acceptance test.	Design within 2 months, Modification within 5 months (if required).
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F-36	Fire Protection	<p>The high-rise building has an occupied floor greater than 23m (75 ft.). Automatic sprinkler system has installed in the factory building premises. Automatic sprinkler system installation requires to detailed review to confirm compliance with NFPA 13 and Accord standard for the buildings in the factory premises.</p>	<p>Provide automatic sprinkler protection installation throughout the building in accordance with NFPA 13. Submit as-built drawings, testing records, equipment certification and other relevant documentation to the RSC for review and approval.</p>	<p>Design submission Within 2 months, Modification within 6 months (if required)</p>
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F-37	Fire Protection System(ITM of fire pump)	Inspection, testing, and maintenance for the fire pump is not in accordance with NFPA 20, 25 or as per Accord standard.	Inspect, test and maintain the fire pump in accordance with NFPA 20,25 or as per Accord standard and keep written records on-site.	Within 1 Month after installation.
F-38	Fire Protection System(ITM of Standpipe)	Inspection, testing, and maintenance for the Standpipe system is not in accordance with NFPA 14,25 or as per Accord standard.	Inspect, test and maintain the standpipe system in accordance with NFPA 14,25 or as per Accord standard and keep written records on-site.	Within 1 Month after installation.

F-39	Fire Detection System (ITM of FADS)	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 or as per Accord standard.	Within 1 Month after installation.
F-40	Fire Protection System(ITM of Sprinkler)	Inspection, testing, and maintenance for the Standpipe system is not in accordance with NFPA 13,25 or as per Accord standard.	Inspect, test and maintain the standpipe system in accordance with NFPA 13,25 or as per Accord standard and keep written records on-site.	Within 1 Month after installation.
F-41	Fire Protection System(ITM of Extinguisher)	Inspection, testing, and maintenance of the extinguisher system is not in accordance with NFPA 10 or as per Accord standard.	Inspect, test and maintain the extinguisher system, and keep written records on-site, in accordance with NFPA 10 or as per Accord standard.	Within 3 months