

INITIAL FIRE SAFETY INSPECTION REPORT

Factory Name: Moms Touch Sweater

RSC ID: 24691

Factory Address: 14/2 Nayabari Road, Sataish, Tongi, Gazipur- 1712

Other Factories: None



Inspected By: A N Faisal Ahmed & Md. Rakibul Islam

Date: 16th May 2024

Fire Safety Inspection Report

Moms Touch Sweater

Introduction:

"Moms Touch Sweater" complex was surveyed for fire safety on **15 May 2024** 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.

Limitations

The information in this fire safety inspection report was obtained during a visit to the facility and during interviews with local factory management. It has not been possible to provide independent verification for all the information and data collected, and, therefore, The RSC cannot accept general responsibility for omissions or errors arising from inaccuracies in this report from the information obtained. The findings and recommendations in this report are not intended to imply, guarantee, ensure or warrant compliance with any government regulations. Additionally, the results do not imply in any way that compliance with the findings or recommendations as stated in this report will eliminate all hazards, risks or exposures or that hazards, risks or exposures not referred to in this report do not exist. Compliance with the findings and recommendations stated in this report does not relieve the factory owner from obligation to comply with specific project requirements, industry standards, or the provisions of any local government regulations.

General Factory Information

Factory Building name(s):

Building 1: Production Building (2 storied Steel Structure) ; Interim Period

Construction period: October, 2019 to June, 2020 (Occupied: July, 2020).

Approval Date: 24-Jul-2017 (RAJUK Approval); Building Area: 26908 sft

Building 2: Utility Building (Single storied RCC Structure) ; Interim Building

Construction period: October, 2019 to June, 2020 (Occupied: July, 2020)

Approval Date: No Approval (Machine layout approve by DIFE, 15 Jul, 2020) ; Building Area: 621 sft

Building 3: Boiler Building (Single storied Building) ; Interim Building

Construction period: October, 2019 to June, 2020 (Occupied: July, 2020)

Approval Date: No Approval (Machine layout approve by DIFE, 15 Jul, 2020); Building Area: 350 sft

Building 4: Linking Shed (Single storied Steel Structure) ; New Building

Construction period: November, 2023 to April, 2024 (Occupied: April, 2024).

Approval Date: **No Approval**; Building Area: 6320 sft

Building 5: Washing & Wastage Store Shed (Single storied Steel Structure) ; Interim Building

Construction period: October, 2019 to June, 2020 (Occupied: July, 2020)

Approval Date: No Approval (As-built machine layout approve by DIFE, 15 Jul, 2020)

Building Area: 1184 sft

Building 6: Connecting Walkway Shed (Single Storied Steel Structure); New Building

Construction period: November, 2023 to April, 2024 (Occupied: April, 2024).

Approval Date: **No Approval** ; Building Area: 642 sft

Findings & Recommendations :

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 review.

Table-1:

SI No.	Category	Findings	Required Action	Remediation Time Frame
F-1	Fire Rated Construction	The exit stair enclosures is not separated from work areas and other spaces on each floor by fire-rated construction. Location: Stair -01	The exit stair enclosure shall be provided with a minimum 1-hr fire resistance rating for buildings with 3 or fewer stories. Provide 0.75 hr. fire rated door and seal all penetrations and openings by 1 hr. fire rated fire rated barrier construction. 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
 				

F-2	Fire Rated Construction	The external steel stair of this building is not having a fire separation from the building beyond 10 feet of its span as required as per clause 6.3.1.3. Location: Exterior stair-2 at both floors of building-1 (Production building)	Exterior exit stairs shall be separated by minimum 1-hr fire-rated construction and The rating of the exterior wall shall extend 3.05 m (10 ft.) beyond the ends of the stair structure.	Within 3 months
 				
F-3	Fire Rated Construction	Electrical panel was located near stair. Location: Stair-1	Electrical appliances shall be remove or properly protected from stair enclosure.	Within 3 months



F-4	Fire Rated Construction	Storage room directly discharge to exit stair enclosure without vestibules. Location: 1st floor and ground floor of building-1 (Production Building).	Openings from exit enclosure to storage and machine room 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 0.75- hr. fire rated door on the storage and machine room side. Ensure that the fire rating of the vestibule construction matches that of the exit stair enclosure. The minimum width for vestibules shall not be less than 1.1m and length 1.8m.	Within 3 months
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F-5	Fire Rated Construction	The main structural element (column, beam, Bracing, rafter, decking slab etc.) of the production building (2 storied steel structure) is constructed by steel which is non-rated and were found in exposed condition without any fire protection. Building -05 Washing & Wastage Store Shed is a masonry structure with roof shed. Structural element of roof is constructed by steel without any fire protection.	The building shall be type-I or II construction as per RSC Technical Guidelines (Standard) 3.5.2. Provide require rating in the structural elements of the building. Consult with a qualified fire protection engineer. Submit the proposed drawing/design to RSC for review. Once reviewed, install passive fire protection as per reviewed design.	Within 6 months
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F-6	Fire Rated Construction	Rooms used for combustible storage are not separated by fire rated construction and opening protective from other occupancy. Location: Ground floor of Building-1 Production Building, ground floor of Building-2 Linking Shed, ground floor of Building-5 Wastage Store	Separate the dedicated storage rooms by minimum 1-hr fire-rated construction. Provide 0.75 hr. fire rated door and seal all penetrations and openings by 0.75 hr. (45 Minutes) fire rated fire rated barrier construction.	Within 3 months
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F-7	Fire Rated Construction	Areas used for combustible storage open to the factory are not separated by fire rated construction. Location: Ground & 1st floors of Building -1 Production Building and ground floor of Building -04 Linking Shed	Separate the dedicated storage rooms by minimum 1-hr fire-rated construction. Provide 0.75 hr. fire rated door and seal all penetrations and openings by 1 hr. fire rated fire rated barrier construction. Where separate storage rooms are not feasible, provide defined storage areas and limit the storage arrangement as follows: - Maximum height of 2.45m (8ft.) , maximum area of 23m2 (250 ft2) and 3m (10ft.) clear distance from adjacent another unenclosed combustible storage. - If the building/floor is sprinkler protected: maximum height of 3.66m (12ft.) and maximum area of 93m2 (1000 ft2). -In process storage shall be limited to 10 percent of the building area of the story in which they occur.	Within 3 months
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F-8	Fire Rated Construction	Gas cylinders (CNG) located on north-west egress court near generator building; north-east corner beneath exterior stair-2 near boiler building of Building -01 : Main Production Building. LPG cylinder is located beside kitchen without any separation. Location: Building -05 Washing & Wastage Store	The RSC Technical Guideline (Standard) V1, section 3.4.2.1.11 prohibits the storage or use of liquefied or compressed flammable gas (LPG/CNG) cylinders within the factory building. However, if it is not feasible then conditionally those are permitted to be stored in a separate dedicated building on the factory premises within its boundaries if the building meets the following conditions. 1. The storage building must be at least 3 meters away from any other buildings and boundaries. 2. The exterior walls of the building must have a fire resistance rating of 3 hours using noncombustible 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). Additional requirements from "SUPPLEMENTARY PAPER ON TECHNICAL GUIDANCE NOTE FOR USE OF LIQUIFIED OR COMPRESSED FLAMMABLE GAS IN FACTORY PREMISES" also shall meet during remediation.	Within 3 months
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F-9	Fire Rated Construction	The egress court serving as a portion of discharge from Building -04 linking shed is not open to sky rather there is a connecting walkway shed with production building. Moreover, The part of egress court which is open to sky located at south side and east side of Building -01 production building was less than 10 ft wide where unprotected openings within 10 ft height were available with adjacent occupancies (Building -01 Production building, Building -03 Boiler building, Building -05 Washing and Wastage store shed.)	An egress court serving as a portion of the exit discharge shall be open to the sky or provided with a fire resistance rated enclosure the same as the exit enclosure. Egress courts less than 3050 mm (10 ft) in width (as measured between buildings) shall be provided with walls having a 1-hr fire resistance rated construction for a distance of 3050 mm (10 ft) above the floor of the court.	Within 3 months
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F-10	Fire Rated Construction	The Building-01 Production building (N-E) & Building-03 Boiler building are 5 ft apart and The Building-01 Production building (N-W) & Generator room located at Building02 Utility building are 11 ft 5 inch apart with unprotected opening in exterior wall which doesn't meet section 3.9 of RSC Technical Guidelines. Location: Production Building, Boiler Building & Utility Building.	All interim buildings and structures shall be separated from other buildings in accordance with BNBC 2006 Part 3 Table 3.2.2 and BNBC 2006 Part 3 Section 2.4.1.3 as per section 3.9 of RSC Technical Guidelines. Exterior walls of exit enclosures in interim and existing buildings must meet the requirements of BNBC 2006.. (See also 6.14.5).	Within 3 months
 				

F-11	Fire Rated Construction	The exit stairs do not discharge directly to the outside. Location: Internal Stair located in N-S of Building-01 Production Building. North exit of Linking Shed discharges through connecting walking shed.	Provide 2-hr fire-rated exit passageway leading directly outside (vestibules to separate any storage areas). Or, Provide sprinkler protection for discharge floor in accordance with NFPA 13 and meet RSC Technical Guidelines Standard V1.0_Section 6.17.3.	Within 3 months
 				
F-12	Fire Rated Construction	The boiler and compressor room is not separated from Washing areas by fire rated construction due to penetrations on Building-03.	Separate the boiler and compressor rooms by a minimum 1-hr fire-rated construction. Seal and/or protect all openings to maintain the required fire separations.	Within 3 months



F-13	Fire Rated Construction	Male & Female prayer area are not separated from adjacent floor area by fire rated construction. Location: Building 01 1st floor.	Separate the prayer areas by a minimum 2-hr fire-rated construction having minimum two direct access to exit stair or safe location. Seal and/or protected all openings to maintain the required fire separations.	Within 3 months
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F-14	Fire Rated Construction	Combustible construction materials (Plywood wall) were used in compartmentation of metal store, accessory store, inspection room, sample section, doctors room, winding section at Building -01 Main production Building.	Remove all combustible construction materials (Wooden wall, ceiling and doors) in the building and replace by non combustible materials. (BNBC 2006 Section-2.8 and Table-4.2.2	Within 3 months
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F-15	Means of Egress	Egress doors/gates with locking features not complying with NFPA101 are provided. Location: Throughout the factory buildings.	Remove locking features from all egress doors/gates. If locks are required for security reasons, utilize specialized door locking features complying with NFPA101.	Immediate
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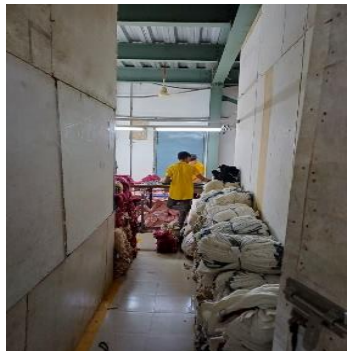
F-16	Means of Egress	Sliding door, Roller shutter were provided at building exit. Location: Throughout the factory buildings.	Replace all collapsible gates/ sliding doors/ rolling shutter doors along the means of egress with side-hinged, swinging egress doors. Doors in a means of egress shall have a minimum width of 1 m (39 in.) as per section 6.5.6 of RSC Technical Guidelines If locks are required for security reasons, utilize specialized door locking features complying with NFPA101.	Within 3 months
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F-17	Means of Egress	Door was side-hinged swinging type but not outward where occupant load was 85. Building 4: Linking Shed	Doors serving an occupant load of more than 50 shall swing in the direction of egress travel.	Within 3 months
A photograph showing the interior of a room, likely a sewing workshop. There are several sewing machines on tables. A large white door is open, leading outside. The date "15 05 2024" is visible in the bottom right corner.				

F-18	Means of Egress	Aisles were found obstructed by storage, machines and table . Location: Throughout the factory buildings.	Remove all storage from exit stairs and egress paths. Keep egress paths clear of storage, machines and tables.	Immediate
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F-19	Means of Egress	Aisles were found missing on several locations throughout the factory of all structures.	Provide minimum aisle widths of 36-in throughout the factory. Aisles mark shall be clearly visible.	Within 3 months
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F-20	Means of Egress	Headroom measured less than the 80 inch (2.03 m) in egress path located in Linking Shed (electrical cable channel) and beneath interior stair of main production building.	All means of egress shall have a minimum ceiling height of 2.3 m (7 ft 6 in.) with projections from the ceiling not less than 2.03 m (6 ft 8 in.). The minimum ceiling height shall be maintained for at least 2/3 of the space or room as long as the remaining area shall be not less than 2.03 m (6 ft 8 in.). Headroom on stairs shall not be less than 2.03 m (6 ft 8 in.).	Within 3 months
 				

F-21	Means of Egress	Aisles near north exit of Building-04 Linking shed sloped 1:4. After discharging from south exit from Linking shed a level difference of 36" found which is in bare land underwater.	Exit access aisles may be level or ramped with slopes not exceeding 1 in 8 as per BNBC 2006 Section 3.8.2 and 3.8.3. The change in level shall be readily apparent and if not, marked with additional signage or floor markings.	Within 3 months
 				

F-22	Means of Egress	North-East exit door swing out over landing of exterior stair located at 1st floor in Building- 01 production building .	A landing shall be provided on both sides of doors used in the means of egress. Door shall not swing out over stairs in accordance with RSC standard Section 6.8.5.	Within 3 months
				
F-23	Means of Egress	Handrails are not provided as per standard as maximum height less than the limit. (32") Location: Building- 01 Production Building	Handrails shall have a minimum height of 865 mm (34 in.) and a maximum height of 965 mm (38 in.) as measured from the leading edge of the tread.	Within 3 months



F-24	Means of Egress	Building did not have stair designation, floor designation signs at both the floors. Occupant load signs had not been posted yet at all required locations. Location: All Buildings & Sheds.	Provide stair designation, floor designation signs and occupant load signs at all the required locations.	Within 3 months
F-25	Means of Egress	Evacuation map are not posted on required locations and few emergency evacuation map was found posted but these were not updated. Moreover, evacuation map was found obstructed.	Updated fire evacuation maps shall be posted at the entrance to each exit stair. Evacuation map shall be free from all obstruction.	Within 3 months

F-26	Means of Egress	Storage is found in generator room as well as substation room.	Keep generator and substation room free of storage.	Within 3 months
 				
F-27	Fire Protection System	Fire extinguishers coverage were not provided as per standard. Location: All Buildings & Sheds.	Portable Fire Extinguishers shall install as per RSC Technical Guidelines 5.6. Extinguishers shall be placed so that maximum travel distance to the nearest unit shall not exceed 30 m (100 ft). Mounting height shall meet RSC Technical Guidelines 5.6.2.1 & 5.6.2.2.	Within 3 months

F-28	Fire Protection System	Fire extinguishers were found located floors in generator room. Fire extinguishers are found obstructed by storage at both floors of production building.	In no case shall the clearance between the bottom of the fire extinguisher and the floor be less than 4 in.(102 mm). As per NFPA 10 section 6.1.3.8.3 Fire extinguishers should be accessible all the time.	Within 3 months
				
F-29	Fire Extinguishers ITM	Inspection, testing and maintenance of portable fire extinguishers is not in accordance with NFPA 10. Location: All Buildings	Inspect, test and maintain the portable fire extinguishers and keep written records onsite, in accordance with NFPA 10 and RSC standards.	1 month after installation

F-30	Fire Alarm & Detection System (FADS)	The fire alarm system is antiquated, not a listed system and does not provide alarm and notification features consistent with acceptable standards. Location: All Buildings and Sheds	Replace the fire alarm system with a new, listed addressable fire alarm system in accordance with NFPA 72. Design & Installation of Fire Alarm system shall be in accordance with RSC standard and NFPA 72. Submit design, documents and calculations to RSC for review prior installation/modification. Once the design is reviewed, install the fire detection and alarm system throughout the building in accordance with review comment, RSC/ RSC Technical Guidelines (Standard) and NFPA 72. Complete the fire alarm installation as per NFPA 72. After installation the owner shall conduct internal testing and commissioning and then contact the RSC for witness of final acceptance testing. Submit as-built drawings, testing records, equipment certification and other relevant documentation to the RSC for review and approval. Modification (if required) shall have to done as per the reviewed design and NFPA- 72. Upon approval & modification (if required) the factory shall inform RSC to conduct final testing and commissioning verification of the system for final acceptance.	Design within 2 months, installation/modification on within 4 months
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F-31	ITM FADS	Inspection, testing and maintenance for the fire detection and alarm system was not in accordance with standard.	Inspect, test and maintain the fire alarm system and keep written records on-site, in accordance with Table-14.3.1 of NFPA 72.	1 month after installation
F-32	Egress Lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes. Location: All Buildings & Sheds	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	Manual on-off switch is provided for emergency lights. Location: All Buildings & Sheds	Remove manual on/off switches from emergency light units to prevent them from being switched off.	Within 3 months
				
F-34	Egress Lighting	Exit signage was not provided at several locations of factory buildings. Location: All Buildings & Sheds	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 3 months

						
F-35	Egress Lighting	Directional Exit signage was not provided along the path of egress where there is a change in the direction for the path of travel and the direction to an exit is not obvious. Location: All Buildings & Sheds		Provide directional 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. Lighted directional signs shall be provided with either battery backup or uninterruptable power supply systems and shall be continuously illuminated.		Within 3 months

F-36	Egress Lighting	An emergency power system is not provided for Exit signs and means of egress illumination.	An emergency power system shall be provided to supply power to Exit signs and means of egress illumination. Existing battery-operated or uninterruptable power supply systems can be continued to be used to supply exit signs and means of egress illumination where monthly testing of such systems is conducted and properly documented. Emergency power shall be provided for a minimum duration of 60 min.	Within 3 months
F-37	Emergency Lighting ITM	Inspection, testing, and maintenance for the exit sign and emergency lighting system was not in accordance with The RSC standard. Location: All Buildings	Inspect, test and maintain the exit sign and emergency lighting system in the accordance with The RSC standard. Keep written records on-site.	Within 3 months
F-38	Human Element Program	The required no smoking signs are not present inside the factory building.	Smoking is prohibited in any garment factory building or separate storage building. Signs shall be posted in Bengali and English at all building entrances. If the factory creates a designated smoking area outside the building, information of these areas will be posted on the signs.	Within 3 months

F-39	Human Element Program	Fire drills are not conducted according to section 13.2 of RSC Technical Guidelines (Standard) V1.0.	Fire drills shall be conducted according to section 13.2 of RSC Technical Guidelines (Standard) V1.0.	Within 3 months
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