

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

Name of the Factory	: Atlantic Garments Ltd.
Address of the Factory	: Plot 4, Road 7, Block C, Section 6 Mirpur, Dhaka.
Present Status of the Factory	: Under operation.
Structural Assessment Conducted by	:
Date of Structural Inspection	:
Fire Assessment Conducted by	: BUET
Date of Fire Inspection	: 20 December, 2013
Electrical Assessment Conducted by	: BUET
Date of Electrical Inspection	: 20 December, 2013
BGMEA Membership No.	: 471

BASIC INFORMATION:

The following information was noted:

- i. Building Usage Type : Garment Factory.
- ii. Structural System :
- iii. Floor System :
- iv. Floor Area :
- v. No. of Stories :
- vi. Construction Year :
- vii. Foundation Type :
- viii. Design Drawings :
- ix. Soil Investigation Report :
- x. Construction Materials :
- xi. Generator :

RECOMMENDATIONS FOR CORRECTIVE ACTION:

The recommendations of corrective action for both Structural and Fire & Electrical Safety comprises in Short Term, Mid Term and Long Term basis.

The recommendations for **Structural Safety** corrective action are:

- | | |
|------------------------|---|
| Short Term (Immediate) | : |
| Mid Term (6-weeks) | : |
| Long Term (6-months) | : |

The recommendations for **Fire & Electrical Safety** corrective action are:

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

(A): Recommendations for Fire Safety Corrective Actions:

<p>Immediate</p> <p><i>(the factory should not continue to be occupied until these non-conformities have been rectified):</i></p>	<ul style="list-style-type: none"> • Keep corridors and passageways on escape routes free of any obstructions to ensure unobstructed path of travel along the aisles, corridors, and passageways to the exits. • Relocate work benches, temporary storage in such a way that corridors, passageways and aisles are at least 1.0m wide on all escape routes • Remove obstructions from stairways • Provide training to the Trainers • Include Training of the Trainers in Fire Safety Management Plan • Ensure regular monitoring and maintenance of extinguishers, including inspection and expiry/re-service labels. • Ensure adequate illumination • Ensure well-dressed cabling with lugs • Ensure double earthing of generator frame
<p>Short Term</p> <p><i>(Actions that must be incorporated into a Fire Safety Management Plan immediately (1 ~ 2 weeks) and should be a regular activity)</i></p>	<p>N/A</p>
<p>Mid Term</p> <p><i>(The remedial works indicated must be carried out within a period of 6 weeks)</i></p>	<ul style="list-style-type: none"> • Provide design drawings to demonstrate how designated storage areas, assembly areas, offices and work areas should be separated with fire-rated walls and doors according to the Guideline occupancy separation will be achieved. • Retrofitting of internal layout needed with appropriate drawings following guidelines. • Retrofitting drawing of internal layout needed as per guidelines. • Provide drawings to arrange adequate number of doorways at each floor as per the Guidelines and produce the plan for construction of these doorways. • Provide floor plans with equipment, worker and work space arrangements to ensure appropriate occupancy load as per the Guidelines • Produce design drawings to demonstrate how stairways are to be made of adequate dimensions and appropriate specifications and to be converted into smoke-proof enclosures equipped with

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

	<p>Fire-rated side swinging doors opening in the direction of travel at each floor.</p> <ul style="list-style-type: none"> • Provide easily identifiable escape routes, clear and free of obstruction. • Provide drawings and plans for installation of Fire Lift as per the specifications provided in the Guidelines. • Provide adequate number and type of illuminated exit signs so that exits can be seen from all corridors and evacuation paths. • Provide English and Bangla Exit instructions where necessary. • Post directional signs at appropriate locations. • Provide fire extinguishers that meet the requirements of the Guidelines. • Provide adequate number of additional fire-fighting equipment to meet the Factory Rules • Produce design drawings to demonstrate the incorporation of fire rated enclosure from floor to ceiling and an approved fire rated self-closing swing door for the boiler room. • Produce design drawings to demonstrate the incorporation of fire rated enclosure from floor to ceiling and an approved fire rated self-closing swing door for the Transformer room. <p>Produce design drawings to demonstrate the incorporation of fire rated enclosure from floor to ceiling and an approved fire rated self-closing swing door for the Generator room.</p>
<p>Long Term</p> <p><i>(The remedial works indicated must be carried out within a period of 6 months)</i></p>	<ul style="list-style-type: none"> • Mixed use buildings and Buildings housing RMGs, use some floors that fall under “Mixed Occupancy” (e.g. Storage, Office, Work areas, etc.). The designated storage areas, assembly areas, offices and work areas should be separated with fire-rated walls and doors according to the Guidelines. • Different occupancy in different floors should be separated with fire-rated construction according to the Guidelines. • Provide fire-rated separation to prevent smoke and fire propagation through staircases and grills on the interior walls • Doors on all escape routes to open in the direction of travel • Ensure adequate number of doorways in each floor according to the occupant load as per the Guidelines. • Internal retrofitting needed to create safe

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

	<p>passage, corridors and exits as per the guidelines</p> <ul style="list-style-type: none">• Ensure appropriate workspace for the occupant load of each floor as per the Guidelines • Change layout of workstations to ensure allowable occupancy load as per the guidelines. • Ensure prevention of fire and smoke propagation through vertical shafts by providing fire rated enclosures around the openings along with seals in shafts and ducts at floor separations. • Provide service duct for electrical cables. • Convert all interior stairways into smoke proof enclosures equipped with Fire-rated side swinging doors opening in the direction of travel at each floor. • Close wall openings adjacent to the exterior staircases to prevent fire and smoke propagation • Provide continuous smoke-proof fire protected pathway along all the stairways from roof to the final exit. • Provide stairways of adequate dimensions and of appropriate specifications according to the Guidelines as required for the occupancy load. • Remove all collapsible security gates and roller shutters from all exit stairway access doors. • Remove Sliding doors from all Final Exits. Where sliding doors are provided at final exits, these shall not be relied on for means of exit. • Provide fire doors as approved by the Guidelines • Provide smoke and heat vents as required (e.g. Storage, etc.) • Provide Fire Lift in building matching the specifications provided in the Guidelines. • Provide new Emergency Lighting system that meets the specified emergency lighting requirements of the Guidelines. • Equip Command Station with all facilities required to meet the Guidelines requirements. • Provide standard Standpipe& Hose system that complies with the Guidelines requirements for supply of water, minimum pressure in the standpipe and size (diameter) of the standpipe.
--	---

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

	<ul style="list-style-type: none"> • Ensure that Siamese connections are available as specified by the Guidelines. • Provide Fire pump with specifications to meet the Guidelines requirements • Provide fire rated enclosure from floor to ceiling and an approved fire rated self-closing swing door for the boiler room • Provide fire rated enclosure from floor to ceiling and an approved fire rated self-closing swing door for the Transformer room. • Provide fire rated enclosure from floor to ceiling and an approved fire rated self-closing swing door for the Generator room
--	--

(B): Recommendations for Electrical Safety Corrective Actions:

<p>Immediate</p> <p><i>(the factory should not continue to be occupied until these non-conformities have been rectified):</i></p>	<ul style="list-style-type: none"> • Remove combustible materials from substation • Ensure accessibility and ventilation to substation • Provide instructions for first aid and artificial respiration from exposure to electrical shock • Provide rubber mat as per guidelines • Ensure well-dressed cabling with lugs • Provide instructions for first aid from exposure to electrical shock • Remove obstruction to ensure access to MDB/MCB Box • Ensure well-dressed cabling with lugs
<p>Short Term</p> <p><i>(Actions that must be incorporated into a Fire Safety Management Plan immediately (a week) and should be a regular activity</i></p>	N/A
<p>Mid Term</p> <p><i>(The remedial works indicated must be carried out within a period of 6 weeks)</i></p>	<ul style="list-style-type: none"> • Provide easy access to the substation • Produce design drawings to demonstrate the incorporation of fire rated enclosure from floor to ceiling and an approved

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

	<p>fire rated self-closing swing door for the Substation room.</p> <ul style="list-style-type: none"> • Ensure earthing of panel body & door with fitted condition. • Provide clear identification mark on distribution panel. • Replace damaged panel door • Provide earth leads. • Provide earthing to body & door. • Provide earth bar/neutral bar • Install MDB/SDB/SB or MCB on metal board. • Provide earthing of Motor frame • Replace undressed messy wiring/cables • Properly solder cable ends • Provide design drawings for the fire detection and alarm system in accordance with the Guideline requirements and hazard situation, (with appropriate specifications and drawings) showing how they will be implemented along with implementation plan.
<p>Long Term</p> <p><i>(The remedial works indicated must be carried out within a period of 6 months)</i></p>	<ul style="list-style-type: none"> • Provide fire rated enclosure from floor to ceiling and an approved fire rated self-closing swing door for the Substation room. • Install appropriate detectors • Provide appropriate Lightning protection system. • Install the fire detection and alarm systems in accordance with the Guideline requirements and hazard situation (based on appropriate specifications and drawings).