

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

Name of the Factory	: Chunji Apparels Ltd.
Address of the Factory	: Kamarpara, Puran Bazar Turag, 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	: 23 December 2014
Electrical Assessment Conducted by	: BUET
Date of Electrical Inspection	: 23 December 2014
BGMEA Membership No.	:

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:

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

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

(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 • Post emergency procedure notices in lift lobbies. • Remove obstruction from lift lobby • Provide training to the Trainers • Include Fire Drill and Training of the Trainers in Fire Safety Management Plan • Ensure secured wiring with lug • 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. • Produce drawings and show methods to demonstrate how prevention of smoke and fire propagation through voids between floors and interior walls (including stairways and lift shaft) will be ensured with fire-rated assembly according to the 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. • 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

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	<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 clearly visible illuminated exit• Provide drawings and plans for installation of Fire Lift as per the specifications provided in the Guidelines. sign to indicate exit from storage area.• Provide adequate number and type of illuminated exit signs so that exits can be seen from all corridors and evacuation paths.• Remove and replace incorrect directional signs.• 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 Transformer room.• Provide firefighting equipment as required by the Guidelines.• Provide aligned Horn Gap• 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.• Provide firefighting equipment as required by the Guidelines.• 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 Substation room.• Ensure earthing of panel door with fitted condition.• Provide clear identification mark on distribution panel.
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<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. • Prevent smoke and fire propagation through voids between floors and interior walls (including stair and lift shaft) with fire-rated assembly according to the Guidelines. • 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 passage, corridors and exits 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. • Convert all interior stairways into smoke proof enclosures equipped with Fire-rated side swinging doors opening in the direction of travel at each floor • The ground floor exits should be enclosed so as to ensure safe pathway for escape from the premises. • Provide continuous smoke-proof fire protected pathway along all the stairways from roof to the final exit. • 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 fire-rated solid walls from floor to ceiling to ensure fire separation of the storage area from others or maintaining proper storage size and distance between stored items as per the Guideline

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	<ul style="list-style-type: none"> • Provide enclosed Lift lobby with Fire door as part of the stair enclosure as specified in the Guidelines. • Provide appropriate Lift fire rated door and Fire switch • Remove collapsible gate on lift door at all levels. • 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. • Provide 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. • 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 Transformer room. • Provide fire rated enclosure from floor to ceiling and an approved fire rated self-closing swing door for the Generator room • Provide fire rated enclosure from floor to ceiling and an approved fire rated self-closing swing door for the Substation room.
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(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"> • Provide instructions for first aid and artificial respiration from exposure to electrical shock. • Provide cover on the cable trench and rubber mat in front of the panel • Ensure well-dressed cabling with lugs • Provide instructions for first aid from exposure to electrical
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	<p>shock</p> <ul style="list-style-type: none"> • 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 earthing to door. • Provide clear identification mark on distribution board. • Provide service ducts or insulated conduits • 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 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).