Name of the Factory	:	SONNET TEXTILE INDUSTRIES LTD.
Address of the Factory	:	Mazid tower, 807/859, Barik Mia high school lane, Goshaildanga, Bander, Chittagong
Present Status of the Factory	:	Under operation.
Structural Assessment Conducted by	:	ACCORD
Date of Structural Inspection	:	
Fire Assessment Conducted by	:	TUV
Date of Fire Inspection	:	13 December, 2015
Electrical Assessment Conducted by	:	TUV
Date of Electrical Inspection	:	13 December, 2015
BGMEA Membership No.	:	1528

BASIC INFORMATION:

The assessed factory building is 7 - Story R.C.C structure. The frame system of the building is beam-column frame all through the structure. The following information was noted:

i.	Building Usage Type	:	Garment Factory.
ii.	Structural System	:	RCC beam column system.
iii.	Floor System	:	RCC Beam slab.
iv.	Floor Area	:	
v.	No. of Stories	:	7 - Story
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:

(A): Recommendations for Fire Safety Corrective Actions:

Immediate (*the factory should not continue to be occupied until these non-conformities have been rectified*):	N/A
Short Term (*Actions that must be incorporated into a Fire Safety Management Plan immediately (1 ~ 2 weeks) and should be a regular activity*	Provide aisle marking with arrow guiding and exit signage on all Evacuation pathways or provided with overhead signage fixed at ceiling level. - Illuminated exit sign should be posted above the exit door, - It should be clearly visible at all time, - Provide directional signs wherever necessary. - All exit doors should be clearly marked for easy identification. -Signage should be uniform The first aid hose and standpipe performance should be checked periodically and properly tagged.
Mid Term (*The remedial works indicated must be carried out within a period of 6 weeks)*	Replace all existing exit doors on evacuation routes, exit doors with side hinged type door, which swing outward and in the direction of travel. Swinging of the door should not constrict the width of the corridor / passage below 0.9 meter. Remove all locking device from all egress door. All exit doors should be open-able from the side they serve without the use of a key. Provide handrails on both side of each stairway with height of 0.9m measured from the nose of stair to the top of the handrail. Doors in stair should be outward opening, side-swing, self closing, non-lockable 2 hours fire rated doors in all stair way encloses.(Also needs to cover the floors occupied by other tenants) Prepare design for installation of fire rating smoke proof enclosure. 2 hours fire rating doors for exit should not be less than that of 4 hours fire resistance rating of the walls of the smoke proof fire rated entry lobby(Also needs to cover the floors occupied by other tenants). Prepare proper plan and design for 4 hours fire rated barriers with 2 hours fire rated doors at ground floor electrical substation and generator room, which located at the adjacent to south side final exit Prepare proper plan and design for 2 hrs fire rated barrier with 1.5 hrs fire rated door for storage area at ground floor.

	Provide 1.5 fire rated door at 1st floor bonded store □ Prepare proper plan and design for 4 hours fire rated barriers with 2 hours fire rated door at 2nd floor boiler room, which located at the adjacent to finishing section □ The egress paths should be illuminated with emergency lighting with power back-up supply & illumination should be a minimum of 10 lux for all corridors & exit doors. Aisles should be provided with a minimum 2 lux. □ Produce design and plan for automatic detection system with automatic fire alarm and control panel.(Also needs to cover the floors occupied by other tenants) □ Provide adequate nos. of smoke detectors to cover the whole factory building. □ Prepare proper design and plan for dedicated fire pump with alternate backup power supply. □ Replace existing 1 inch hose pipe with 1.5 inch hose pipe to meet the requirement of RMG guideline. □ Prepare plan and design for dedicated water storage tank for firefighting operation as per RMG guideline. □ Prepare proper design and plan for fire lifts equipped with approved intercommunication (including two way voice communications) with the fire command station or control room on the ground floor lobby of the building. □ Complete full design and plan for providing fire command station equipped with detailed floor plans along with clearly demarcated locations of fire detection and fighting devices and through the panel board able to detect fire alarm from any floor.
Long Term (*The remedial works indicated must be carried out within a period of 6 months)*	□ Install smoke proof fire rated entry lobby at emergency stairways to separate from the area of incidence (Also needs to cover the floors occupied by other tenants). □ Provide 4 hours fire rated barriers with 2 hours fire rated doors at ground floor electrical substation and generator room, which located at the adjacent to south side final exit □ Provide 2 hrs fire rated barrier with 1.5 hrs fire rated door for storage area at GF. □ Provide 4 hours fire rated barriers with 2 hours fire rated door at 2nd floor boiler room, which located at the adjacent to finishing section □ Install automatic detection system with automatic fire alarm and control panel.(Also needs to cover the floors occupied by other tenants) □ Install dedicated fire pump with alternate backup power supply. □ Stand pipe supplying first aid hose should have minimum

	pressure of 200 KPa. Provide dedicated storage tank for firefighting operation Install fire lifts equipped with approved intercommunication (including two way voice communications) with the fire command station or control room on the ground floor lobby of the building. Provide fire command station equipped with detailed floor plans along with clearly demarcated locations of fire detection and fighting devices and through the panel board able to detect fire alarm from any floor.

(B): Recommendations for Electrical Safety Corrective Actions:

Immediate (*the factory should not continue to be occupied until these non-conformities have been rectified*):	N/A
Short Term (*Actions that must be incorporated into a Fire Safety Management Plan immediately (a week) and should be a regular activity*	All strands cables at exposed ends should be properly soldered / crimped and insulated.
Mid Term (*The remedial works indicated must be carried out within a period of 6 weeks)*	Refill the silica gel. Ensure that accessories of transformers like breathers, vent pipe, buchholz relay, silica gel must be in order at substation. Install smoke detection and provide firefighting equipment in the substation and generator room. Provide and maintain clear and legible identifications numbers & names on all incoming and outgoing circuits of HT / LT panels. Provide cable connections with properly soldered / welded lugs at (LT/MDB/DB/SDB)'s. Ensure that all the electrical connections are properly secured with lugs. Avoid bunching of cable at bus bar, use individual circuit and over current device for every incoming and outgoing circuit at the distribution boards. Provide cable joints of porcelain / PVC connectors with PIB tape wound around before placing the cable in the box. Provide proper separate earthing/grounding to generator. Ensure that generator body frame to have two separate and distinct connections to the earth / ground.

Long Term (*The remedial works indicated must be carried out within a period of 6 months)*	□ Area of substation / transformer to meet requirements of Table 4.3 of RMG Guideline; the area should be 45m2, or relocate the substation/ transformer room. □ Provide 4 hour fire rated walls all around the generator room on ground level. □ For buildings > 20m high, provide at least one vertical shaft of 200 x 400 mm for every 1500 sq.m. floor area. □ 1. Provide the ECC to meet minimum cross-sectional area as per table 4.5. 2. Ensure that connections between conductors / equipment are provided to durable electrical continuity and adequate mechanical strength and protection. 3. The continuous earth connection is provided back to the main intake supply earth. □ Provide adequate protection against lightning depending on the probability of a strike and acceptable risk levels at roof top of building.