

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

Name of the Factory	: Tracker Fashions Ltd.
Address of the Factory	: 72/B, Malibagh Chowdhury Para, Dhaka
Present Status of the Factory	: Under Operation
Structural Assessment Conducted by	: BUET
Date of Structural Inspection	: 25 th September 2014

BASIC INFORMATION:

The present building is a 6-storied (G+5) Factory building. The building has beam-column frame system and it is anticipated that the building was constructed on individual spread footing. The following information was noted:

- i. Building Usage Type : Garments Factory Building (converted from residential building).
- ii. Structural System : R.C. Beam-Column framed structure.
- iii. Floor System : Edge supported R.C. solid floor slab system.
- iv. Floor Area : Approx. 4200 sft per floor (as reported).
- v. No. of Stories : At present 6 (G+5).
- vi. Construction Year : 1984 to 1993 (as reported).
- vii. Foundation Type : No foundation drawing was made available during site visit. It is anticipated that individual column footings have been provided.
- viii. Design Drawings : Not available during site visit.
- ix. Soil Investigation Report : Available (Prepared by Amin Priem Engineers, 178/5 Kalyanpur, Shaymoli, Dhaka in June, 2013).
- x. Construction Materials : Reinforced concrete for all structural members, e.g. foundation, columns, floor beams, floor slabs, stair case etc (the type of aggregate is brick chips as reported during site visit).
- xi. Generator : Located in the ground floor of the building.

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) : Use of the building as per present loading condition (not exceeding 2kN/m²) may continue unless the findings of the DEA report are adverse. The roof top shall be kept open. Temporary canteen and a pigeon room constructed on the roof with C.I sheet roofing shall be removed as soon as possible to satisfy the requirements of RAJUK approved plan. The roof top should be kept clean and tidy.
- Mid Term (6-weeks) : Other than the ground floor, the intensity of loading due to storage of finished goods in carton boxes, finishing material, fabrics and accessories shall not exceed 60 psf (2.87 kN/m²) with ample working aisle in between store areas.
- Long Term (6-months) : A Detail Engineering Assessment (DEA) has to be completed. Necessary remediation's after completion of DEA.

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

Name of the Factory	: Tracker Fashions Ltd.
Fire & Electrical assessment conducted by	: BUET
Date of Fire & Electrical Inspection	: 23 rd September 2014

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(A): Recommendations for Fire Safety corrective actions:

Fire Safety Issues	
Immediate <i>(the factory should not continue to be occupied until these non-conformities have been rectified):</i>	N/A
Short Term <i>(Actions that must be incorporated into a Fire Safety Management Plan immediately (a week) and should be a regular activity)</i>	<p>Remove obstructions from all escape routes, aisles and passageways.</p> <p>Remove all combustible materials from transformer, substation, boiler and generator room, if exists.</p> <p>Maintain minimum effective width of corridors, passageways and aisles.</p> <p>Ensure adequate numbers of fire drills.</p> <p>Make sure that portable extinguishers are easily accessible, monitored and maintained at regular interval as per the Guidelines.</p> <p>Provide proper directional signs and exit signs in Bangla and English as per the Guidelines.</p>
Mid Term <i>(The remedial works indicated must be carried out within a period of 6 weeks)</i>	<p>Remove temporary structures from roof top.</p> <p>Prepare drawings to ensure adequate horizontal and vertical fire-rated separation inside one floor and between different floors, e.g. separation with stairways, storage, assembly areas, offices, and work areas. Also show methods to ensure proper separation of high risk areas (e.g., generator, boiler rooms) as per the Guidelines.</p> <p>Prepare drawings to ensure adequate number of exit doorways with minimum width in each floor according to the occupant load as per the Guidelines.</p> <p>Prepare plans to ensure all exit access doors are side-swinging type and open to the direction of traffic flow.</p> <p>Show methods to demonstrate how stairways are to satisfy the occupancy load according to the Guideline</p> <p>Provide design to install standard standpipe, hose and fire pump system.</p> <p>Provide design to install proper detection and alarm system. Establish command station as per the Guidelines.</p>

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<p>Long Term (The remedial works indicated must be carried out within a period of 6 months)</p>	<p>Ensure adequate horizontal and vertical fire-rated separation inside one floor and between different floors, e.g. separation with stairways, storage, assembly areas, offices, and work areas.</p> <p>Ensure all exit access doors are side-swinging type and open to the direction of traffic flow.</p> <p>Ensure adequate number of exit doorways with minimum width (0.9m) in each floor according to the occupant load as per the Guidelines.</p> <p>Ensure proper separation of high risk areas (e.g., generator, boiler rooms) as per the Guidelines.</p> <p>Install standard standpipe, hose and fire pump system. Install proper detection and alarm system.</p> <p>Provide fire rated enclosure, install self-closing fire rated door as per guidelines.</p>
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(B): Recommendations for Electrical Safety corrective actions:

Electrical Safety Issues	
<p>Immediate (the factory should not continue to be occupied until these non-conformities have been rectified):</p>	<p>N/A</p>
<p>Short Term (Actions that must be incorporated into a Fire Safety Management Plan immediately (a week) and should be a regular activity)</p>	<p>Provide instructions for first aid and artificial respiration from exposure to electrical shock.</p> <p>Provide cable trench with cover and rubber mat in front of the panel.</p> <p>Ensure well-dressed cabling with lugs and remove loose cabling.</p> <p>Ensure earthing of panel body & door with fitted condition.</p> <p>Provide distribution board as per guideline and put identification mark on distribution panel.</p> <p>Remove burnt/broken/loose MCB/MCCB box/socket.</p>
<p>Mid Term (The remedial works indicated must be carried out within a period of 6 weeks)</p>	<p>Provide separate service ducts for electrical cables.</p> <p>Provide new Emergency Lighting system.</p> <p>Provide appropriate Lightning Protection System as per guidelines.</p>
<p>Long Term (The remedial works indicated must be carried out within a period of 6 months)</p>	<p>N/A</p>