

# INITIAL FIRE SAFETY INSPECTION REPORT

## Daeyu Bangladesh LTD (Extension)

RSC ID: 24567

731, Bhannara Mouchak, Gazipur

Geographical Coordinates of factory building: 24.035842, 90.300165

**Other Factories: Daeyu Bangladesh Ltd.-9831 (In the premises)**



Inspected By: Dilip Kumar Mondal and Shahina Imam

Date: 02 May-2023



**Table-1: Finding & recommendation for Building**

SI No.	Category	Findings	Required Action	Remediation Time Frame
F-1	Fire Rated Construction	<p>On the date of inspection, it has been observed ground floor, 1st floor, and 2nd floor of the non-rated steel building were extended with RCC construction that caused individual floor areas of more than 22,000 sq. ft. As a result, the existing non-rated building greater than 2 stories and per floor area exceeding 2000m2 (22000 ft2) is not provided with automatic sprinkler protection according to RSC Technical Guidelines (Standard Part 3 Section 3.5.3.</p>	<p>Provide automatic sprinkler protection throughout the building in accordance with NFPA 13 as when because in accordance with RSC Technical Guideline 3.8.2.2 -When no separation is provided between construction types, the lesser construction type shall apply to each building that is not separated in accordance.</p> <p>or</p> <p>3.8.2 Separation. Construction types shall be separated by fire walls or provided with 4 hr. fire-resistance rated walls, and it shall not apply to construction of an unprotected steel frame structure on the roof of a building.</p>	<p>Within 9 Months</p>



F-2	Fire Rated Construction	The exit stairs are separated from work areas & other spaces on each floor by fire rated construction	<p>Stair shall be enclosed with a minimum 2-hr fire-rated construction. Seal all unprotected openings and provide minimum 1.5 -hr. fire rated doors to separate the exit stairs from work areas and other building spaces on all floor levels. Ensure that the fire doors are self-closing, positive latching and that they are provided with fire exit (panic) hardware where serving production floors.</p> <p>If fire doors are required to be held open for functional reasons, provide automatic-closing devices tied to the fire alarm system.</p>	Within 3 Months
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F-3	Fire Rated Construction	<p>Penetrations through floor/ceiling assemblies are found unsealed. Location: On ground floor production area.</p>	<p>Seal all penetrations and openings in floor/ceiling (full thickness of the floor/ceiling: minimum 3 hr.) assemblies by third-party certified fire rated materials to maintain the fire resistance rating. or, Provide a minimum 2-hr fire rated shaft to separate the utility risers from each floor if required.</p>	Within 3 Months
<div style="display: flex; justify-content: space-around;">   </div>				
F-4	Fire Rated Construction	<p>Room used for combustible storage are not separated by fire rated construction. Location: 2nd floor of 3 story RCC building.</p>	<p>Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction. Where separate storage rooms are not feasible, provide defined storage areas and limit the storage arrangement as follows: - Maximum height of 2.4m and maximum area of 23 m<sup>2</sup> - If sprinkler protected: maximum height of 3.66m and maximum area of 93 m<sup>2</sup> Separate areas of unenclosed combustible storage by a minimum clear distance of 3m.</p>	Within 3 Months




F-5	Fire Rated Construction	<p>Areas used (in-process storage ) for combustible materials are open to the surrounding occupancy.          Location: Ground floor of 3 story building.</p>	<p>Provide defined storage areas and limit the storage arrangement as follows:-</p> <ol style="list-style-type: none"> <li>1. General Condition: Maximum height of 2.4m and maximum area of 23m<sup>2</sup>. Separate areas of unenclosed combustible storage by a minimum clear distance of 3m.</li> <li>2. If sprinkler protected: maximum height of 3.66m and maximum area of 93m<sup>2</sup>. Separate areas of unenclosed combustible storage by a minimum clear distance of 3m.</li> </ol> <p style="text-align: center;">or</p> <ol style="list-style-type: none"> <li>3. Enclose the storage area from the surrounding occupancy with a minimum 1 hour construction.</li> </ol>	Within 3 Months
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F-6	Fire Rated Construction	The Middle-Stair discharge to the interior of the Building.	Modify stair to discharge directly outside. Or Provide 2-hr fire-rated exit passageway leading directly outside (Vestibule to separated any storage areas.)	Within 3 Months
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F-7	Fire Rated Construction	The external steel stair of steel structure building is not having a fire separation from the building beyond 10 feet of its span as required as per RSC Technical Guidelines (Standard) 6.3.1.3.	The exterior wall opening within 10 ft beyond the end of the exterior stair have to be sealed by minimum 1.5 hr. 3rd party certified sealer. In accordance with RSC Technical Guidelines (Standard) 6.3.1.2 and 6.3.1.3.	Within 3 Months
				
F-8	Mean of Egress	Egress door serving 50 or more occupants but does not swing in the direction of egress travel. Location: South Stair & Middle Stair.	Modify swing direction of egress doors to the direction of egress travel. Doors serving an occupant load of more than 50 shall swing in the direction (out-ward) of egress travel	Within 1 Month



F-9	Mean of Egress	Handrails are not provided on both sides of each exit stairs on all floors. Having handrails on one side of said staircase, may pose as a falling hazard during evacuation.	Provide handrails on both sides of the exit stair. New 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. Intermediate handrails shall be provided when the stair width exceeds 2.2 m (87 in.)	Within 3 months
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F-10	Means of Egress	Aisles are not provide with a minimum unobstructed clear with of 36 in. Location: Ground Floor of 3 Story building.	Aisles shall be provided with a minimum unobstructed clear- with of 0.9m (36 in).	Within 1 Month
				
F-11	Mean of Egress	Parapets or guards are not provided in occupied roof. OR Parapets or guards are provided in occupied roof which is less than 1067mm (42 inch.). Location: Roof top	Provide parapets or guards with a minimum height of 1067mm (42 inch.).	Within 3 months



F-12	Mean of Egress	Building did not have stair designation signs at required locations.	Provide stair designation sign at each floor entrance from the stair to the floor in English and Bengali. Signs shall indicate the name of the stair and the floor level. Signs shall be posted adjacent to the door.	Within 1 Month
F-13	Mean of Egress	Building did not have occupant load signs at the required locations.	Provide stair designation signs and occupant load signs at the required locations.	Within 1 Month
F-14	Egress lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes.  Location: At all Floors of both building.	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-15	Egress Lighting	Illuminated directional signs are not provided where direction of the path of travel to an exit has changed. Location: At all floors.	Illuminated directional signs shall be provided where there is a change in the direction for the path of travel and the direction to an exit is not obvious.	Within 1 month
F-16	Egress lighting	Manual On/Off Switch is provided at emergency lighting.	Remove manual on/off switches from emergency lighting / exit signage units to prevent them from being switched off.	Within 1 Month



F-17	Egress lighting(ITM)	Inspection, testing, and maintenance for the exit sign and emergency lighting system was not in accordance with The RSC standard.	Inspect, test and maintain the exit sign and emergency lighting system in the accordance with The RSC standard. Keep written records on-site.	Within 1 Months
F-18	Fire Alarm & Detection System (FADS)	Automatic fire alarm & detection system installation requires detailed review to confirm compliance with NFPA 72 and RSC standards.	<p>Design &amp; Installation of Fire Alarm &amp; Detection system shall be in accordance with RSC standard and NFPA 72. Submit as-built design, documents and calculations to RSC for review prior installation/modification.</p> <p>After installation, the owner shall contact the RSC for witness of conducting the final acceptance testing of the fire detection &amp; alarm system installation.</p> <p>Also inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72.</p>	Within 6 Months



F-19	Fire Detection System ( ITM of FADS)	Inspection, testing, and maintenance for the fire alarm system is not in accordance with NFPA 72.	Inspect, test and maintain the fire alarm system and keep written records on-site, in accordance with Table-14.3.1 of NFPA 72.	Within 1 month after installation.
F-20	Fire Protection System(Standpipe)	Standpipe system installation requires detailed review to confirm compliance with NFPA 14 and RSC standards.	Submit as-built drawings, testing records, equipment certification and other relevant documentation to the RSC for review and approval.	Within 6 Months



F-21	Fire Protection System(ITM of standpipe)	Inspection, testing, and maintenance for the Standpipe system is not in accordance with NFPA 25 and RSC Technical Guideline (Standard).	Inspect, test and maintain the standpipe system in accordance with NFPA 25 and RSC Technical Guideline (Standard) and keep written records on-site.	Within 1 Month after installation.
F-22	Fire Protection System(ITM of fire pump)	Inspection, testing, and maintenance for the fire pump is not in accordance with NFPA 25 and RSC Technical Guideline (Standard).	Inspect, test and maintain the fire pump in accordance with NFPA 25 and RSC Technical Guideline (Standard) and keep written records on-site.	Within 1 Month (after installation)
F-23	Fire Protection System(ITM of Extinguisher)	Inspection, testing, and maintenance of the extinguisher system is not in accordance with NFPA 10 or as per Accord standard.	Inspect, test and maintain the extinguisher system, and keep written records on-site, in accordance with NFPA 10 or as per Accord standard.	Within 1 Month