

INITIAL FIRE SAFETY INSPECTION REPORT

Factory Name: L'esquire Limited

RSC ID: 24930

Factory Address: Jamirdia, Valuka, Mymensingh.

Other Factories: None



Inspected By: Md. Rafat Arefin, Md. Kamrul Hasan & Tanvir Jubayer Rahman

Date: 25 January 2024

Fire Safety Inspection Report

Introduction:

L'esquire Limited complex was surveyed for fire safety on **25 January 2024** by The RSC Inspection Team. The purpose of the survey was to identify significant fire safety issues and to provide recommendations for remediation based on applicable standards specified by the RSC. The scope of this initial fire safety inspection was limited to the review and identification of major fire safety issues. The inspection did not include identification of minor deficiencies, which will be further addressed as part of follow-up inspections.

Limitations

The information in this fire safety inspection report was obtained during a visit to the facility and during interviews with local factory management. It has not been possible to provide independent verification for all the information and data collected, and, therefore, The RSC cannot accept general responsibility for omissions or errors arising from inaccuracies in this report from the information obtained.

The findings and recommendations in this report are not intended to imply, guarantee, ensure or warrant compliance with any government regulations. Additionally, the results do not imply in any way that compliance with the findings or recommendations as stated in this report will eliminate all hazards, risks or exposures or that hazards, risks or exposures not referred to in this report do not exist. Compliance with the findings and recommendations stated in this report does not relieve the factory owner from obligation to comply with specific project requirements, industry standards, or the provisions of any local government regulations.

General Factory Information

Factory Building name(s):

SL No	Building Name (Number of Stories)	Building Construction Period / Occupied	Structure type / Area (m2)
1	Production Building (B+G+9)	August, 2018 to September, 2023 / March, 2021	RCC / 65748 m2
2	Utility Building (B+G+M+2)	April, 2019 to January, 2023 / March, 2021	RCC / 6265.89 m2
3	Sub Station Building (G)	February, 2019 to December, 2019 / March, 2021	RCC / 116.17 m2
4	RMS Room & ATM Booth (G)	March, 2019 to November, 2019 / July, 2023	RCC / 96.65 m2
5	Main Gate-2 (G)	March, 2019 to November, 2019 / July, 2023	RCC / 219 m2



Factory Address:

Jamirdia, Valuka, Mymensingh.

Findings & Recommendations :

Table 1 summarizes the major fire safety issues identified during the inspection. Recommendations have been provided to address each issue. An implementation schedule shall be developed by the factory to remediate each of the findings. The specific timing of improvements, including any requested extensions due to design / installation constraints, shall be submitted to the RSC for review.

Table-1:

SI No.	Category	Findings	Required Action	Remediation Time Frame
1	Fire Rated Construction	Unsealed penetrations and openings are located in exit stair enclosures. (Production Building & Utility Building)	Seal all penetrations and openings in exit stair enclosure walls to maintain the fire separation.	Within 3 months
<div style="display: flex; justify-content: space-around;">   </div>				

2	Fire Rated Construction	<p>Fire doors has been installed in the openings of required fire rated assemblies (Exit stairs, Storage rooms, and other occupancy separations), However, fire doors were found with following issues</p> <ol style="list-style-type: none"> 1. Doors were kept open by means of door wedges. 2. Doors were not provided with adequate/required hardware. 3. Doors were found with excessive clearance. 4. Doors were not provided with required positive latching. 5. Fire doors and frames were found with holes that could impact the fire protection rating. 	<p>Install the fire door as per NFPA 80.</p> <p>Ensure that the fire doors are self-closing and positive latching and that they are provided with fire exit (panic) hardware where serving production floors. If fire doors are required to be held open for functional reasons, provide automatic closing devices tied to the fire alarm system.</p> <p>The clearance under the bottom of a fire door shall be a maximum of 19 mm. From edges and top shall be limited to a maximum 4.8 mm. All measurement shall be taken from the "pull side" of the door.</p> <p>Any modification of fire doors beyond the job site preparation shall be approved by the door manufacturer.</p>	Within 3 months
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3	Fire Rated Construction	Storage area & basement area discharges directly into exit stair enclosure. (Ground, 1st & 6th Floor of Production Building; and 1st & 6th Floor of Utility Building)	Openings from exit enclosure to storage room spaces shall be provided with a vestibule with fire rated construction and openings. Provide a 1.5 hr. fire rated door on the exit stair side and a 1-hr. fire rated door on the Store room side. Ensure that the fire rating of the vestibule construction matches that of the exit stair enclosure.	Within 3 months
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4	Fire Rated Construction	<p>The boiler and MEP Accessories Storage rooms are not separated by fire rated construction due to cable tray penetrations.</p> <p>(Ground Floor of Utility Building)</p>	<p>Any room or space housing boilers or other heat producing equipment shall be separated from other occupancies by a minimum 1 hour construction or by a minimum spatial separation of 3 m (10 ft) where located exterior to the building.</p>	Within 3 months
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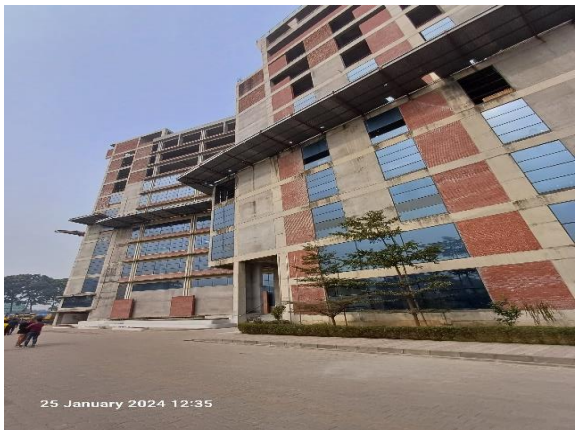
5	Fire Rated Construction	<p>Unsealed penetrations and openings are located in the fire-rated floor/ceiling assemblies due to Sanitary Line, BBT Riser.</p> <p>(Production Building)</p>	<p>Provide a minimum 2-hr fire rated shaft to separate the utility risers from each floor level or seal all penetrations and openings in floors/ceiling assemblies by 3-hr fire rated listed/certified materials.</p> <p>If fire stopping materials with proprietary design are used for seal, then it shall be classified for the purpose it is used for. Also the installation shall be as per the proprietary design it has been tested with.</p>	Within 3 months
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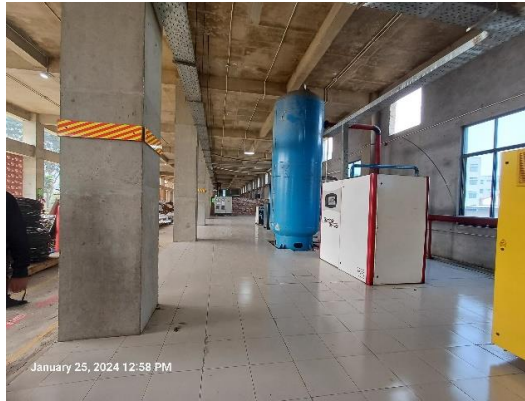
6	Fire Rated Construction	<p>Elevator shafts are directly open into all the exit stair enclosure except south-west stair and inside the floors.</p> <p>(Production Building)</p>	<p>Modify the elevator shaft as per RSC Technical Guideline (Standard) V1-6.14.3. An exit stairway shall not be built around a lift shaft unless both of them are located in a smoke proof enclosure and made of a material with fire resistance rating required for the type of construction of smoke proof enclosure. So, rearrange the facility to provide separate enclosure for lifts. If not possible anyway then provide a minimum 2-hr fire-rated elevator shaft with listed fire rated lift landing door to separate from each floor level.)</p>	Within 3 months
<div style="display: flex; justify-content: space-around;">   </div>				
7	Fire Rated Construction	<p>Uneven path of travel and blockage was observed in exit access.</p> <p>(North Side at exit discharge of the Utility Building)</p>	<p>Remove unnecessary items and level exit path to the public way.</p>	Within 1 week



8	Fire Rated Construction	<p>Unprotected openings in the exterior wall in two consecutive floors lying within 1.5 m and vertical spread of fire is not restricted.</p> <p>(Production Building)</p>	<p>Permitted unprotected openings in the exterior wall in two consecutive floors lying within 1.5 m laterally or vertically shall be separated with flame barriers as similar as sunshades or cornices or projected wall at least 750 mm from the external face of the exterior wall. The flame barrier shall have a fire resistance rating of not less than three-fourths hour.</p>	Within 3 months
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9	Fire Rated Construction	<p>Rooms used for combustible storage are not separated by fire rated construction with the compressor area on the 1st floor.</p> <p>(Utility Building)</p>	<p>Separate the dedicated storage rooms by minimum 1-hr fire-rated construction. Provide 0.75 hr. fire rated door and seal all penetrations and openings by 0.75 hr. (45 Minutes) fire rated fire rated barrier construction.</p>	Within 3 months
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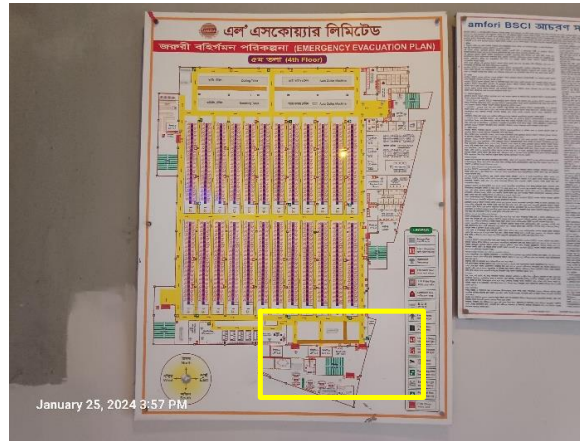


10	Means of egress	<p>Occupiable roofs provided with parapets or guards which is not as per standard.</p> <p>(Production Building & Utility Building)</p>	<p>All occupiable roofs shall be provided with parapets or guards with a minimum height of 1067mm (42 in.).</p>	<p>Within 1 month</p>
<div style="display: flex; justify-content: space-around;">   </div>				
11	Means of egress	<p>Handrails at open side acting as a guard in the exit stair where the height of the handrails found 35 in. Guards shall not be less than 42 inch to avoid falling hazard.</p> <p>(Utility Building)</p>	<p>Provide handrails on both side of the stairs which 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. Provide additional guard with a minimum height of 1067mm (42 in.).</p> <p>Guards are required to be according to RSC Technical Guidelines 6.12.2 (a sphere of 200 mm (8 in.) in diameter cannot pass through any opening up to a height of 865 mm (34 in.).</p>	<p>Within 1 month</p>



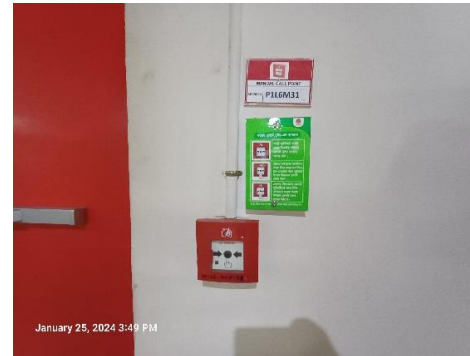
12	Emergency Lighting	<p>Directional sign not provided at all required locations.</p> <p>(Production Building)</p>	<p>Provide directional exit signs above all building exits to the exterior, all doors to the exit stairs and along all paths of travel where a change of direction is not obvious. Lighted directional signs shall be provided with either battery backup or uninterruptable power supply systems and shall be continuously illuminated.</p>	Within 1 month
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13	Means of egress	<p>South side portions of the production building (Office Rea) have single exit at all floors level of the 10 storied building.</p> <p>(Production Building)</p>	<p>The number of means of egress from any floor, story or portion thereof shall not be less than 2 except where a single exit is permitted by RSC guidelines 6.6.2, a single means of egress is permitted by RSC guidelines 6.6.5 or where a greater number is required by RSC guidelines 6.6.3.</p> <p>Or, Modify arrangement to provide/connect the portion with main building through horizontal exit (if possible)</p>	Within 3 months
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14	Emergency Lighting	<p>Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes and at exit stairs on all floors.</p> <p>(Production Building & Utility Building)</p>	<p>Test the emergency lighting system on each floor and provide additional emergency fixtures to supply adequate illumination along the means of egress. Provide a minimum illumination of 10 lux at the floor level within exit stairs and along exit discharge paths and a minimum 2.5 lux along exit access aisles.</p>	Within 1 month
15	ITM Emergency Lighting	<p>Inspection, testing, and maintenance for the emergency lighting system was not in accordance with The RSC Technical Guidelines (Standard).</p>	<p>Inspect, test and maintain the emergency lighting system in accordance with The RSC Technical Guidelines (Standard). Keep written records on-site.</p>	Within 1 month
16	Means of egress	<p>Building did not have occupant load signs at all the required locations.</p> <p>(Utility Building)</p>	<p>Provide occupant load signs at required locations.</p>	Within 2 weeks

17	Fire Alarm & Detection system	Automatic fire alarm and detection system installation has been found complete which requires detailed review to confirm compliance with NFPA 72 and The RSC Technical Guidelines (Standard).	Submit the fire alarm system design to RSC for review. Once the design is reviewed, install and modify the fire detection and alarm system throughout the buildings in accordance with review comment, RSC Technical Guidelines (Standard) and NFPA 72. After installation the owner shall conduct internal testing and commissioning and then contact the RSC for witness of final acceptance testing. Also inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with Table-14.3.1 of NFPA 72.	Design Review within 2 months and installation/modification within 4 months
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18	Fire Protection System (Standpipe)	<p>The building has highest occupiable floor level more than 11 meter (33 ft.) which requires standpipe system.</p> <p>(Production Building & Utility Building)</p>	<p>Submit the standpipe system drawing to RSC for review. Once the design is reviewed, install and modify the standpipe system throughout the building in accordance with review comment, RSC Standard and NFPA 14, 20, 22 and 24. After installation the owner shall conduct internal testing and commissioning and then contact the RSC for witness of final acceptance testing.</p>	<p>Design Review within 2 month and installation within 4 months (If require).</p>
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19	Fire Protection System (Sprinkler)	<p>The highest occupiable floor level is more than 75 ft. which requires sprinkler system.</p> <p>(Production Building)</p>	<p>Submit the sprinkler system drawing to RSC for review. Once the design is reviewed, install and modify (if required) the sprinkler system throughout the building in accordance with review comment, RSC Standard and NFPA 13,20,22 and 24. After installation the owner shall conduct internal testing and commissioning and then contact the RSC for witness of final acceptance testing.</p>	<p>Design Review within 2 month and installation within 4 months (If require).</p>
20	ITM of Fire Alarm System	<p>Inspection, testing, and maintenance for the fire alarm system is not in accordance with NFPA 72 or as per RSC standard.</p>	<p>Inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72 (Table-14.3.1) or as per RSC standard.</p>	<p>Within 1 Month after installation.</p>

21	ITM of Standpipe System	Inspection, testing and maintenance for the standpipe system was not in accordance with standard.	Inspect, test and maintain the standpipe system in accordance with of NFPA 25 and keep written records on-site.	Within 1 Month after installation.
22	ITM of Pump System	Inspection, testing, and maintenance for the Fire pump & water system is not in accordance with NFPA 25 or as per RSC standard.	Inspect, test and maintain the fire pump & water system and keep written records on-site, in accordance with NFPA 25 or as per RSC standard.	Within 1 Month after installation.
23	ITM of Sprinkler System	Inspection, testing, and maintenance for the sprinkler system is not in accordance with NFPA 25, 13 or as per RSC standard.	Inspect, test and maintain the sprinkler system and keep written records on-site, in accordance with NFPA 25, 13 or as per RSC standard.	Within 1 Month after installation.

24	ITM extinguisher	Inspection, testing and maintenance of portable fire extinguishers is not in accordance with NFPA 10.	Inspect, test and maintain the portable fire extinguishers and keep written records on- site, in accordance with NFPA 10 and RSC Technical Guidelines.	Within 1 month
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