

INITIAL FIRE SAFETY INSPECTION REPORT

Cotton Club (BD) Ltd. (Extension-3)

RSC ID: 26524

Geographical Coordinates: 23.991322380141746, 90.32230578749021

Address: Jarun (South), Kashimpur, Gazipur

Other Factories: Cotton Clout (BD) Ltd. [ID-9980]; Cotton Club (BD) Ltd. [ID-12019];
Cotton Club (BD) Ltd. (Extension) [ID-24250]; Cotton Club (BD) Ltd. (Extension-2) [ID-24591].



Inspected By: Md. Kawsar Rubaiat

Date: 30-December-2025

Fire Safety Inspection Report

Cotton Club (BD) Ltd. (Extension-3)

Introduction:

Cotton Club (BD) Ltd. (Extension-3) complex was surveyed for fire safety on **30-Dec-2025** 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

There are a total of 6 structures covered under this RSC ID-26524 with an underground LPG Tank. The buildings are as follows:

SL No	Building Name	Building Construction Period	Approval Date & Authority	Occupied	Structure type	Construction Category
1	Building-10A: B+G+4 Storied Building (Proposed B+G+M+9) Total Constructed Floor Area: 52,525 Sq. ft	Aug-2022 to Ongoing (Up to B+G+4)	Approved by Gazipur City Corporation on 20-Sep-2020	Dec-2024 (up to B+G+4)	RCC	New [A new approval is required, as per BNBC 2020, since the authority-permitted layout was not followed]
2	Building-15: B+G+5 Storied Building Total Floor Area: 50,821 Sq. ft	Sep-2021 to Feb-2024	Approved by Gazipur City Corporation on 20-Sep-2020	Apr-2024	RCC	Interim
3	WTP: Basement Total Floor Area: 600 Sq. ft	Feb-2021 to Dec-2021		Feb-2022	RCC	Interim
4	Cooling Tower: G+1 Storied Total Floor Area: 801 Sq. ft	May-2023 to Dec-2023		Jan-2024	Steel	Interim

5	Colour Kitchen: Single Storied Total Floor Area: 650 Sq. ft	Apr-2024 to Sep-2024	No Approval	Jan-2025	Steel	
6	LPG Shed: Single Storied Total Floor Area: 600 Sq. ft	Sep-2024 to Dec-2024	No Approval	Jan-2025	Steel	

Factory Address: Jarun (South), Kashimpur, Gazipur.

Findings & Recommendations :

Table-1 & 2 summarize 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: Building-10A & LPG Shed

SI No.	Category	Findings	Required Action	Remediation Time Frame
F-01	Means of Egress	The exit stair enclosures are not separated from work areas and other spaces on each floor by fire-rated construction. Location(s): All floors (Building-10A). Non-Compliance reason: 1. Unprotected opening from basement, ground floor, 2nd floor, etc. 2. Fire door non-functionality, 3. Unprotected from storage areas in the staircase.	The exit stair enclosure shall be provided with a minimum of 2- hr. fire resistance rating for buildings 4 or more stories. Provide 1.5 hr. fire rated door and seal all penetrations and openings by 2 hr. fire rated fire rated barrier construction for buildings with 4 or more stories in accordance with section 6.3.1.2 of RSC Technical Guidelines (Standard)¹ V1.0. Provide a fire-resistive rated assembly between the exterior exit stairs and the building up to 10 ft. beyond the end of the stair to achieve the required separation. The rated assembly shall be approved and/or designed by a qualified fire protection engineer. 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. Keep proper datasheet & certifications for installed fire doors & accessories on-site for verification. The clearance under the bottom of a door shall be a maximum of 3/4 in. (19 mm).	Within 3 Months



F-02	Means of Egress	Aisles were found missing in several locations throughout the building. Location(s): Basement, 2nd floor, etc. (Building-10A).	Provide minimum aisle widths of 36-in. Aisles mark shall be clearly visible.	Within 1 Month
 				
F-03	Means of Egress	Fire evacuation maps is not posted at the entrance of all exit stair. Location(s): All floors (Building-10A).	Fire evacuation maps shall be posted at the entrance to each exit stair in accordance with RSC Technical Guidelines (Standard)¹ V1.0 Section 13.3. .3.	Within 1 Month

F-04	Means of Egress	The exterior exit stair is not separated from the building's interior. Location(s): West exit, Building-10A	Nonrated walls or unprotected openings enclose the exterior of the stairway and the walls or openings are exposed by other parts of the building at an angle of less than 180 degrees (3.14 rad), the building exterior walls within 3050 mm (10 ft) horizontally of a nonrated wall or unprotected opening shall have a fire-resistance rating of not less than 2 hr. in accordance with section 6.3.1.3 of RSC Technical Guidelines (Standard)¹ V1.0. If fire doors are required to be held open for functional reasons, provide automatic-closing devices tied to the fire alarm system.	Within 3 Months
				

F-05	Means of Egress	Building does not have stair/floor level designation signs at required locations on all floors. Location(s): Building-10A.	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 in accordance with RSC Technical Guidelines (Standard)¹ V1.0 Section 6.9.3.	Within 1 Month
F-06	Means of Egress	Building does not have occupant load signs at required locations on all floors. Location(s): All floors (Building-10A).	Post the occupant load for every assembly and production floor in a facility in a conspicuous space near the main exit or exit access doorway for the space in accordance with RSC Technical Guidelines (Standard)¹ V1.0 Section 6.4.4.	Within 1 Month

F-07	Means of Egress	Handrails are not provided on both sides of the exit stair. Location: Basement, Building-10A.	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.). Open guards shall have intermediate rails or pattern such that a sphere 200 mm (8 in.) in diameter cannot pass through any opening up to a height of 865 mm (34 in.). Handrail shall be constructed in accordance with RSC Technical Guidelines (Standard)¹ V1.0 Section 6.12.	Within 3 Months
				

F-08	Means of Egress	Unsealed penetrations and openings are located in exit stair enclosures due to electrical cable raceways. Location: Both stairs, Building-10A.	No other penetration into and through the exit enclosure except for fire alarm equipment electrical raceway, required exit doors, sprinkler piping, standpipes, and electrical conduit serving the exit enclosure is permitted in accordance with section 6.14.4 of RSC Technical Guidelines (Standard)¹ V1.0. So, relocate the electrical wires/raceways to somewhere else avoiding the exit enclosure, and seal the created unprotected openings with a minimum of 1.5 hours listed/certified fire-rated materials. Installation shall be as per manufacturer published installation guideline and the certification authority guideline to ensure the fire-rating. Or seal the penetration by 2-hr masonry construction.	Within 3 Months
				

F-09	Means of Egress	Storage area on the basement floor discharges directly into the exit stair enclosure. Location(s): Basement floor, Building-10A.	Openings from the exit enclosure to the storage areas shall be provided with a vestibule with fire-rated construction and openings in accordance with section 6.14.3 of RSC Technical Guidelines (Standard)¹ V1.0. Provide a min 1-hr fire-rated door on the exit stair side and a 1.5 hr. fire rated door on the Store, generator, sub-station room side. Ensure that the fire rating of the vestibule construction matches that of the exit stair enclosure as per RSC Technical Guidelines (Standard)¹ V1.0. section 6.14.3. The minimum width for vestibules shall not be less than 1.1m, and the length shall be 1.8m.	Within 3 Months
				

F-10	Means of Egress	Electrical appliances, storage, and panels were located in the exit stair enclosure. Location(s): East stair, Building-10A.	Remove and relocate all electrical panels, storage & accessories from the exit stair enclosures. Or, Provide fire separation with stair enclosure in accordance with section 6.3.1 of RSC Technical Guidelines (Standard)¹ V1.0.	Within 3 Months
 30/12/2025 4:36 pm  30/12/2025 4:35 pm				

F-11	Means of Egress	Exit stair terminates the occupants inside the building, which does not comply with section 6.17 of RSC Technical Guidelines (Standard)¹ V1.0. 2nd floor utility areas discharge internally through the storage area. Location(s): East stair and 2nd floor, Building-10A.	Exits shall discharge directly to the exterior of the building unless meeting the requirements of 6.17.2 or 6.17.3 as per RSC Technical Guidelines (Standard)¹ V1.0. The egress route shall be reconfigured to eliminate discharge through the hazardous store area. A compliant exit path shall be established that avoids exposure to hazardous conditions while maintaining the minimum required number of exits, travel distance limits, and all other life safety provisions in accordance with RSC Technical Guidelines (Standard)¹ V1.0.	Within 3 Months
				

F-12	Means of Egress	Directional signs are not provided where direction of the path of travel to an exit has changed. Location(s): All floors (Building-10A).	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 in accordance with RSC Technical Guidelines (Standard)¹ V1.0 Section 6.11.3.	Within 1 Month
				

F-13	Means of Egress	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes. Location(s): All floors (Building-10A).	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. Illumination on means of egress shall meet in accordance with RSC Technical Guidelines (Standard)¹ V1.0 Section 10.12.2.	Within 3 Months
				

F-14	Means of Egress	A single means of exit has been provided on the basement floor. Location(s): Building-10A.	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 Technical Guideline (Standard), section 6.6.2. Provide additional exit and ensure that the exit doors or means of egress openings are located a distance apart as per RSC Technical Guideline (Standard) section 6.6.6	Within 3 Months
				

F-15	Means of Egress	Stair clear width was found less than 60 in. Location(s): Basement stair, Building-10A.	Stairs shall have a minimum clear width of 60 in. for all industrial occupancies as per RSC Technical Guideline (Standard) section 6.5.6.	Within 3 Months
				

F-16	Means of Egress	Uneven walking surfaces were found and exceeded a slope of 1 in 20 in the direction of travel. Location(s): 2nd floor, 3rd floor; Building-10A.	Walking surfaces shall be mostly level; however, they shall not exceed a slope of 1 in 20 in the direction of travel unless meeting the requirements for ramps in 6.10, shall meet the requirements for RSC Technical Guidelines (Standard)¹ V1.0 Section 6.3.4.2.	Within 3 Months
				

F-17	Means of Egress	Abrupt changes in the elevation of walking surfaces were observed, not meeting the RSC Technical Guidelines (Standard)¹ V1.0 Section 6.3.4. Location(s): 3rd floor, Building-10A.	Abrupt changes in elevation of walking surfaces shall not exceed ¼ in. unless provided with a beveled slope of 1 in 2 that do not exceed ½ in. Changes greater than ½ in. shall meet the requirements for RSC Technical Guidelines (Standard)¹ V1.0 Section 6.3.5.	Within 3 Months
 				

F-18	Means of Egress	Minimum ceiling height of the production floor is less than 3.3 meters for new Building. Location(s): 2nd floor to 4th floor, Building-10A. Available ceiling Height: 3 meters.	The ceiling height of a production floor shall not be less than 3.3 meter as per article 1.2, chapter 1, part III and article 2.11, Part III, Chapter -2, BNBC 2020.	Within 3 Months
				

F-19	Fire Rated Construction	Boiler & compressor are not separated by fire-rated construction from other Occupancies (Store). Location(s): 2nd floor, Building-10A.	Boilers or other heat-producing equipment shall be separated from other occupancies by a minimum 1-hr fire-rated construction (wall, floor, slab, etc.). Seal all penetrations and openings (door, window, etc.) should be protected by 0.75-hr (45 min) fire-rated materials to maintain the fire separation if required. All exhaust systems shall discharge to the exterior of the building in a safe location. Or Relocate it to the exterior of the building and maintain a minimum 3m (10 ft.) spatial separation distance from the building. Boiler room separation shall meet section 3.4.2.1.2 of RSC Technical Guideline (Standard).	Within 3 Months
				

F-20	Fire Rated Construction	Generator room is not properly separated by fire-rated construction from surrounding Occupancies. Location(s): Ground floor, Building-10A.	Generator room shall be separated from other occupancies by a minimum 2-hr fire-rated construction (wall, floor, slab, etc.). Seal all penetrations and openings (door, window, etc.), which should be protected by 1.5-hr fire-rated materials to maintain the fire separation if required. All exhaust systems shall discharge to the exterior of the building in a safe location. Or Relocate it to the exterior of the building and maintain a minimum 3m (10 ft.) spatial separation distance from the building. Generator room separation shall meet section 3.4.2.1.2 of RSC Technical Guideline (Standard)	Within 3 Months
				

F-21	Fire Rated Construction	It was observed that the 1st floor (claimed as mezzanine floor, which is more than one-third of the ground floor) is not separated from the ground floor by fire-rated construction. Location(s): 1st floor, Building-10A.	Separate each floor by fire-rated construction as per BNBC-2020, Part-3, chapter-3 and Tables 3.3.1 (a) and (b). 3-hr fire-rated separation is required from the claimed mezzanine floor (actually first floor) to the ground floor, and other surroundings, as well as separation is needed at the required number of exit stairs. Or, Maintain 1st floor mezzanine area as per BNBC 2020, Part III, Chapter 1.	Within 3 Months
				

F-22	Fire Rated Construction	Rooms used for storage of combustible materials are not separated from the surrounding occupancy (utility pump room). Location(s): Basement, Building-10A.	Rooms used for storage of combustible materials shall be separated from the surrounding occupancy with a minimum 1 hour construction in accordance with section 3.4.2.1.5 of RSC Technical Guideline (Standard).	Within 3 Months
 				

F-23	Fire Rated Construction	Areas used for in-process storage of combustible materials are open to the surrounding occupancy. Location(s): 4th floor, Building-10A.	Provide defined storage areas and limit the storage arrangement as follows: Maximum height of 2.45 m and maximum area of 23 m² and is separated by a minimum 3.0 m (10ft) from other storage areas and they do not exceed 10 percent of the building area of the story in which they occur. or, If sprinkler protected, Maximum height 12 ft (3.66 m) and maximum area of 1000 ft² (93 m²) and separated by a at least 25 ft (7.62 m) and does not constitute more than 10 percent of the building area or 4000 ft² (372 m²) of the sprinklered area, whichever is greater. or, Enclose the storage area from the surrounding occupancy with a minimum 1 hour construction.	Within 3 Months
				

F-24	Fire Rated Construction	The fire pump room is not provided with adequate fire separation. Location(s): Fire Pump Room.	Provide fire pump room with 2 hr. rated fire separation when building is not fully sprinklered and 1 hr. rated fire separation when the building is provided with automatic sprinklers in accordance with NFPA 13. Or, Physically separate the pump room from the protected building by a minimum of 50 ft. (15.3 m) in accordance with NFPA 20. Provide direct access from the outside or provide a 2-hr enclosed passageway from an enclosed stairway or exterior exit.	Within 3 Months
				

F-25	Fire Rated Construction	Elevator shafts (Provision) open directly into the production floor without proper fire separation due to unprotected openings. Location(s): Ground & 1st floor, Building-10 A.	Elevator shaft shall be separated from the production area by 2 hours of fire-rated construction. 2-hr fire barriers shall be protected with a minimum 1.5-hr fire protective opening assemblies. Elevator Shaft is also required to be separated from the stair enclosure upon installation with 2-hr fire-rated elevator shaft (upon installation on all floors).	Within 3 Months
				

F-26	Fire Rated Construction	Bus bar penetrations through floor/ceiling assemblies are found unsealed due to installed fire door non-functionality and unseal penetrations. Location(s): All floors (Building-10A).	Seal all penetrations and openings in floor/ceiling assemblies by a listed through-penetration fire stop system tested in accordance with ASTM E814 or approved alternative standard to maintain minimum 3-hr. fire resistance rating. Installation shall be as per manufacturer's published installation guidelines and the certification authority guideline to ensure the fire-rating in accordance with section 4.7 of RSC Technical Guideline (Standard) Or, Provide a minimum 2-hr fire rated shaft to separate the penetration from each floor if required. Keep proper datasheet & certifications for installed fire doors & accessories on-site for verification.	Within 3 Months
				

F-27	Fire Rated Construction	The required fire separation distance for Building-10A does not comply with the requirements of BNBC 2020. Location(s): North & East side, Building-10A.	The exterior walls shall have a fire resistance and opening protection as specified in BNBC 2020 Part 3 Table 3.2.2 & 3.2.3 and BNBC 2020 Part 3 Section 2.4.1.3.	Within 6 Months
				

F-28	Fire Rated Construction	Liquefied or compressed gas cylinders (for hot work purposes) were located on the basement floor of the factory without adequate fire separation. Location(s): LPG shed.	Remove the liquefied or compressed flammable gas cylinders. The storage or use of liquefied or compressed flammable gas (LPG/CNG) cylinders within the factory building as per section 3.4.2.1.11 of RSC Technical Guidelines (Standard)¹ V1.0. Or, Factory shall follow the requirements RSC Published "SUPPLEMENTARY PAPER ON TECHNICAL GUIDANCE NOTE FOR USE OF LIQUIFIED OR COMPRESSED FLAMMABLE GAS IN FACTORY PREMISES" to use or store liquefied or compressed flammable gas cylinders in the factory premises.	Within 3 Months
				

F-29	Fire Rated Construction	Unprotected openings in the exterior wall on two consecutive floors lying within 1.5 m, and vertical spread of fire is not restricted. Location(s): Building-10A.	Provide flame barriers as similar as sunshades, cornices, or projected walls 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.	Within 6 Months
				

F-30	Fire Alarm & Detection System (FADS)	The factory has installed sprinkler based detection system in Building-10A. The factory has installed a fire alarm and detection system that requires a detailed review to confirm compliance with NFPA 72 and RSC Technical Guidelines (Standard). Location(s): Building-10A.	Submit the fire alarm and detection system design to RSC for review. Once the design is reviewed, install and modify the fire detection and alarm system throughout the building 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.	Design within 2 Months and modification/ installation with 4 Months
				
F-31	Inspection, Testing & Maintenance (Fire)	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 NFPA 72 and RSC Technical Guidelines (Standard)¹ V1.0.	Within 1 Month after installation

F-32	Fire Suppression System (SUPS)	Sprinkler system is not mandatory for the building based on the current height and type of construction at present condition, but the system is installed for the building along with standpipe system in lieu of automatic detection system. Both the system requires detailed review to confirm compliance with NFPA 13, 14, 20, 22, 24, and RSC Technical Guidelines (Standard). Location(s): Building-10A.	Submit the sprinkler system drawing to RSC for review. Once the design is reviewed, install and modify the sprinkler/standpipe system throughout the building in accordance with review comment, RSC Technical guideline (Standard) and NFPA 13,14,20,22 and 24. After installation the owner shall conduct internal testing and commissioning and then contact the RSC for witness of final acceptance testing. (Provide automatic sprinkler protection along with class-I standpipe system throughout the building in accordance with NFPA 13, 14, 20 and 22. Submit design to RSC for review prior installation.)	Design within 2 Months and modification/ installation with 4 Months
 				

F-33	Fire Suppression System (SUPS)	Fire pump installation requires detailed review to confirm compliance with NFPA 20 and RSC Technical Guidelines (Standard)¹ V1.0. Location(s): Building-10A, Building 15.	Submit as-built drawings, testing records, equipment certification and other relevant documentation to the RSC for review and approval. Submit the standpipe system drawing to RSC for review. Once reviewed, install or modify the standpipe system throughout the building in accordance with RSC Technical Guidelines (Standard)¹ V1.0. and NFPA 14 and 20. The factory management shall contact RSC to conduct the final acceptance testing after the installation, testing & commissioning.	Design within 2 Months and modification/ installation with 4 Months
 				
F-34	Inspection, Testing & Maintenance (Fire)	Inspection, testing and maintenance of the standpipe system, sprinkler system & fire pump are not in accordance with NFPA 25. Location(s): All Buildings.	Inspect, test and maintain the standpipe system, sprinkler system & fire pump and keep written records on-site, in accordance with NFPA 25 and RSC Technical Guidelines (Standard)¹ V1.0.	Within 1 Month after installation

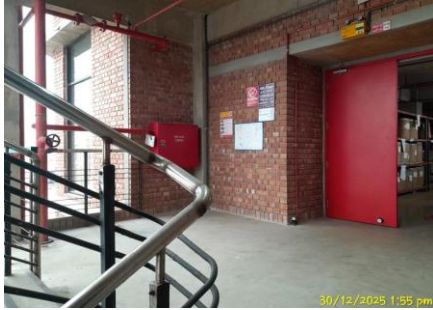
F-35	Inspection, Testing & Maintenance (Fire)	Inspection, testing, and maintenance of portable fire extinguishers is not in accordance with NFPA 10. Location(s): All Buildings.	Inspect, test and maintain the portable fire extinguishers and keep written records on- site, in accordance with NFPA 10 and RSC Technical Guidelines (Standard) ¹ V1.0.s.	Within 1 Month
F-36	Inspection, Testing & Maintenance (Fire)	Inspection, testing, and maintenance for the exit sign and emergency lighting system was not in accordance with the RSC Technical Guidelines (Standard)¹ V1.0. Location(s): Building-10A.	Inspect, test and maintain the exit sign and emergency lighting system in the accordance with the RSC Technical Guidelines (Standard) ¹ V1.0.. Keep written records on-site.	Within 1 Month
F-37	Inspection, Testing & Maintenance (Fire)	Written housekeeping policy was not found, which is required as per RSC Technical Guideline (Standard) section 13.6.	Establish written corporate and plant policies on housekeeping to ensure scheduled cleaning for floor, wall, ceiling, supply and return air ventilation systems. Promptly reschedule skipped cleanings. Provide a documented line of authority for authorizing a cleaning delay and rescheduling. As a general rule the maximum tolerable deposit thickness for loose fluffy lint is 13 mm (½ in.) over a maximum of 46.5 m2 (500 ft2). Limit dense deposits to 6 mm (¼ in.) and oil saturated deposits to 3.2 mm (⅛ in.).	Within 1 Month

Table-2: Building-15 & others

SI No.	Category	Findings	Required Action	Remediation Time Frame
F-38	Means of Egress	The exit stair enclosures are not separated from work areas and other spaces on each floor by fire-rated construction. Location(s): All floors (Building-15). Non-Compliance reason: 1. Unprotected opening from lift machine room, Ground floor, Basement, etc.	The exit stair enclosure shall be provided with a minimum of 2- hr. fire resistance rating for buildings 4 or more stories. Provide 1.5 hr. fire rated door and seal all penetrations and openings by 2 hr. fire rated fire rated barrier construction for buildings with 4 or more stories in accordance with section 6.3.1.2 of RSC Technical Guidelines (Standard)¹ V1.0. Provide a fire-resistive rated assembly between the exterior exit stairs and the building up to 10 ft. beyond the end of the stair to achieve the required separation. The rated assembly shall be approved and/or designed by a qualified fire protection engineer. 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. Keep proper datasheet & certifications for installed fire doors & accessories on-site for verification. The clearance under the bottom of a door shall be a maximum of 3/4 in. (19 mm).	Within 3 Months



F-39	Means of Egress	Aisles were found missing in several locations throughout the building. Location(s): Ground floor (Building-15).	Provide minimum aisle widths of 36-in. Aisles mark shall be clearly visible.	Within 1 Month
F-40	Means of Egress	Fire evacuation maps are not updated as per site condition. Location(s): All floors (Building-15).	Post the occupant load for every assembly and production floor in a facility in a conspicuous space near the main exit or exit access doorway for the space, in accordance with RSC Technical Guidelines (Standard)¹, V1.0, Section 6.4.4.	Within 1 Month

F-41	Means of Egress	The exterior of the east stair is enclosed by non-rated walls or unprotected openings, which are exposed to other parts of the building at an angle of less than 180 degrees (3.14 rad). Location(s): East exit, Building-15.	Nonrated walls or unprotected openings enclose the exterior of the stairway and the walls or openings are exposed by other parts of the building at an angle of less than 180 degrees (3.14 rad), the building exterior walls within 3050 mm (10 ft) horizontally of a nonrated wall or unprotected opening shall have a fire-resistance rating of not less than 1 hr. in accordance with section 6.3.1.3 of RSC Technical Guidelines (Standard)¹ V1.0. Openings within such exterior walls shall be protected by opening protectives having a fire protection rating of not less than ¾ hr.	Within 3 Months
				

F-42	Means of Egress	Building does not have updated occupant load signs at the required locations on all floors. Location(s): All floors (Building-15), WTP & Colour Kitchen.	Post the updated occupant load for every assembly and production floor in a facility in a conspicuous space near the main exit or exit access doorway for the space in accordance with RSC Technical Guidelines (Standard)¹ V1.0 Section 6.4.4.	Within 1 Month
F-43	Means of Egress	Handrails are not provided on both sides of the exit stair. Location: Basement, WTP.	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.). Open guards shall have intermediate rails or pattern such that a sphere 200 mm (8 in.) in diameter cannot pass through any opening up to a height of 865 mm (34 in.). Handrail shall be constructed in accordance with RSC Technical Guidelines (Standard)¹ V1.0 Section 6.12.	Within 3 Months
				

F-44	Means of Egress	Unsealed penetrations and openings are located in exit stair enclosures due to electrical cable raceways. Location: WTP Stair.	No other penetration into and through the exit enclosure except for fire alarm equipment electrical raceway, required exit doors, sprinkler piping, standpipes, and electrical conduit serving the exit enclosure is permitted in accordance with section 6.14.4 of RSC Technical Guidelines (Standard)¹ V1.0. So, relocate the electrical wires/raceways to somewhere else avoiding the exit enclosure, and seal the created unprotected openings with a minimum of 1.5 hours listed/certified fire-rated materials. Installation shall be as per manufacturer published installation guideline and the certification authority guideline to ensure the fire-rating. Or seal the penetration by 2-hr masonry construction.	Within 3 Months
				

F-45	Means of Egress	Storage area on the basement floor discharges directly into the exit stair enclosure. Location(s): Basement floor, Building-15.	Openings from the exit enclosure to the storage areas shall be provided with a vestibule with fire-rated construction and openings in accordance with section 6.14.3 of RSC Technical Guidelines (Standard)¹ V1.0. Provide a min 1-hr fire-rated door on the exit stair side and a 1.5 hr. fire rated door on the Store, generator, sub-station room side. Ensure that the fire rating of the vestibule construction matches that of the exit stair enclosure as per RSC Technical Guidelines (Standard)¹ V1.0. section 6.14.3. The minimum width for vestibules shall not be less than 1.1m, and the length shall be 1.8m.	Within 3 Months
				

F-46	Means of Egress	Electrical appliances, storage, and panels were located in the exit stair enclosure. Location(s): Both stairs, Building-15.	Remove and relocate all electrical panels, storage & accessories from the exit stair enclosures. Or, Provide fire separation with stair enclosure in accordance with section 6.3.1 of RSC Technical Guidelines (Standard)¹ V1.0.	Within 3 Months
				

F-47	Means of Egress	The exit stair enclosure from the WTP is not separated from the Building-15 WTP Vessel area. Location(s): WTP stair.	The exit stair enclosure shall be provided with a minimum 1-hr fire resistance rating for buildings with 3 or fewer stories. Provide 1-hr. fire-rated door and seal all penetrations and openings by 1 hr. fire rated fire rated barrier construction for buildings with 3 or fewer stories in accordance with section 6.3.1.2 of RSC Technical Guidelines (Standard)¹ V1.0. Provide a fire-resistive rated assembly between the exterior exit stairs and the building up to 10 ft. beyond the end of the stair to achieve the required separation. The rated assembly shall be approved and/or designed by a qualified fire protection engineer.	Within 3 Months
				

F-48	Means of Egress	Directional signs are not provided where direction of the path of travel to an exit has changed. Location(s): All floors (Building-15).	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 in accordance with RSC Technical Guidelines (Standard)¹ V1.0 Section 6.11.3.	Within 1 Month
				

F-49	Means of Egress	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes. Location(s): All floors (Building-15).	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. Illumination on means of egress shall meet in accordance with RSC Technical Guidelines (Standard)¹ V1.0 Section 10.12.2.	Within 3 Months
 				

F-50	Means of Egress	Common path of egress travel exceeds 8 m. Location(s): Groud floor, Dyes Chemical Store, Building-15. Available: 40 ft.	Reconfigure the egress arrangement to reduce the maximum common path of travel to not more than 8 m. The common path of egress travel shall not exceed 23 m (75 ft). Where the building is provided with a complete automatic sprinkler system, the common path of egress travel shall not exceed 30 m (100 ft). The common path of egress travel for Group H (storage) occupancies with not more than 30 occupants shall not exceed 30 m (100 ft). The common path of egress travel for Group J (high hazard) occupancies shall not exceed 8 m (25 ft). Section 6.13.2 of RSC Technical Guidelines (Standard) shall meet.	Within 3 Months
				

F-51	Means of Egress	Headroom measured less than 80 inches. Location(s): Basement, Building-15. Available: 5 ft.	All means of egress shall have a minimum ceiling height of 2.3 m (7 ft 6 in.) with projections from the ceiling not less than 2.03 m (6 ft 8 in.). The minimum ceiling height shall be maintained for at least 2/3 of the space or room as long as the remaining area shall be not less than 2.03 m (6 ft 8 in.). Headroom on stairs shall not be less than 2.03 m (6 ft 8 in.) as per RSC Technical Guideline (Standard) section of 6.3.3.	Within 3 Months
				
F-52	Means of Egress	Exit stairs serve more than 5 stories and do not have required reentry provisions on all floors. Location(s): Building-15.	Every door in a stair enclosure serving more than 5 stories shall be provided with re-entry unless it meets RSC Technical Guidelines (Standard)¹ V1.0. Section 6.8.3.1.	Within 3 Months

F-53	Means of Egress	Uneven walking surface were found and exceed a slope of 1 in 20 in the direction of travel. Location(s): West exit ramp, Building-15.	Walking surfaces shall be mostly level; however, shall not exceed a slope of 1 in 20 in the direction of travel unless meeting the requirements for ramps in 6.10, shall meet the requirements for RSC Technical Guidelines (Standard)¹ V1.0 Section 6.3.4.2	Within 3 Months
				

F-54	Means of Egress	Guard rail provided is not as per standard. Location(s): Roof, Building-15.	Guards shall be provided at all open sides of means of egress that exceed 760 mm (30 in.) above the floor or finished ground below. Guards shall have a minimum height of 1067 mm (42 in.). Open guards shall have intermediate rails or pattern such that a sphere 200 mm (8 in.) in diameter cannot pass through any opening up to a height of 865 mm (34 in.). Guard shall construct in accordance with RSC Technical Guidelines (Standard)¹ V1.0 Section 6.12.	Within 3 Months
				

F-55	Means of Egress	Exit ramp slope is not as per the requirement. Location(s): Colour Kitchen.	New ramps shall not have a running slope greater than 1 in 12 (8 percent) as per RSC Technical Guidelines (Standard)¹ V1.0 Section 6.10. Ramps shall be provided with handrails on both sides of the ramp as per the RSC Technical Guidelines (Standard)¹ V1.0 Section 6.12.1.	Within 3 Months
				

F-56	Means of Egress	A single means of exit has been provided on the interim construction. Location(s): Colour Kitchen.	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 Technical Guideline (Standard), section 6.6.2. Provide additional exit and ensure that the exit doors or means of egress openings are located a distance apart as per RSC Technical Guideline (Standard) section 6.6.6.	Within 3 Months
				

F-57	Fire Rated Construction	Rooms used for storage of combustible materials are not separated from the surrounding occupancy (WTP Vessel area). Location(s): Basement, Building-15.	Rooms used for storage of combustible materials shall be separated from the surrounding occupancy with a minimum 1 hour construction in accordance with section 3.4.2.1.5 of RSC Technical Guideline (Standard).	Within 3 Months
				

F-58	Fire Rated Construction	Chemical storage area is not separated from the WTP vessel & WTP areas due to unprotected openings. Location(s): Ground floor, Building-15.	Provide a 4-hour fire-rated construction barrier to separate the chemical store from the surrounding areas. The 4-hour fire-resistive separation shall have no openings/ no unprotected openings therein and shall provide a fire resistance for at least four hours. or, Ensure exempt amounts of chemicals as per Table 3.2.7 (BNBC 2006).	Within 3 Months
				

F-59	Fire Rated Construction	Elevator shafts open directly into the exit enclosure, which doesn't comply with RSC Technical Guidelines (Standard), section 6.14.3. Location(s): All floors, Building-15.	Provide a minimum 2-hr fire rated elevator shaft to separate it from stair enclosure. No discharge is accepted through elevator shaft. Seal all openings to maintain fire separations.	Within 3 Months
				

F-60	Fire Rated Construction	The required fire separation distance for Building-15 does not comply with the requirements of BNBC 2006. Location(s): South, East & West side, Building-15.	The exterior walls shall have a fire resistance and opening protection as specified in BNBC 2006, Tables 3.2.2 and Part 3 Section 2.4.1.3.	Within 6 Months
				

F-61	Fire Rated Construction	Unprotected openings in the exterior wall on two consecutive floors lying within 1.5 m, and vertical spread of fire is not restricted. Location(s): Building-15.	Provide flame barriers as similar as sunshades, cornices, or projected walls 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. For Interim Building, BNBC 2006 Part III chapter 3 clause 3.1.7.2.	Within 6 Months
				

F-62	Fire Alarm & Detection System (FADS)	The factory has installed sprinkler based detection system in Building-15. The factory has installed a fire alarm and detection system that requires a detailed review to confirm compliance with NFPA 72 and RSC Technical Guidelines (Standard). Location(s): Building-15.	Submit the fire alarm and detection system design to RSC for review. Once the design is reviewed, install and modify the fire detection and alarm system throughout the building 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.	Design within 2 Months and modification/ installation with 4 Months
				
F-63	Inspection, Testing & Maintenance (Fire)	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 NFPA 72 and RSC Technical Guidelines (Standard) ¹ V1.0.	Within 1 Month after installation

F-64	Fire Suppression System (SUPS)	Sprinkler system is not mandatory for the building based on the current height and type of construction at present condition, but the system is installed for the building along with standpipe system in lieu of automatic detection system. Both the system requires detailed review to confirm compliance with NFPA 13, 14, 20, 22, 24, and RSC Technical Guidelines (Standard). Location(s): Building-15.	Submit the sprinkler system drawing to RSC for review. Once the design is reviewed, install and modify the sprinkler/standpipe system throughout the building in accordance with review comment, RSC Technical guideline (Standard) and NFPA 13,14,20,22 and 24. After installation the owner shall conduct internal testing and commissioning and then contact the RSC for witness of final acceptance testing. (Provide automatic sprinkler protection along with class-I standpipe system throughout the building in accordance with NFPA 13, 14, 20 and 22. Submit design to RSC for review prior installation.)	Design within 2 Months and modification/ installation with 4 Months

F-65	Inspection, Testing & Maintenance (Fire)	Inspection, testing, and maintenance for the exit sign and emergency lighting system was not in accordance with the RSC Technical Guidelines (Standard)¹ V1.0. Location(s): Building-15.	Inspect, test and maintain the exit sign and emergency lighting system in the accordance with the RSC Technical Guidelines (Standard) ¹ V1.0.. Keep written records on-site.	Within 1 Month
F-66	Inspection, Testing & Maintenance (Fire)	The Building approval from the appropriate authority is not available on-site. Location(s): Building- 10A, Colour Kitchen, LPG Shed, LPG Tank.	Get all the required licenses and permits from the proper issuing authority and keep it at site.	Within 1 Month