

INITIAL FIRE SAFETY INSPECTION REPORT

Ahsan Composite Ltd. (Extension 2)

RSC ID: 26156

Ward No-08, Holding No99/D, Chandra Pollibidyut Road, Kalikoir, Gazipur.

Geographical Coordinates: 24.042918, 90.259508

Other Factories: Ahsan Composite Ltd. (ID-9810) & Ahsan Composite Ltd. (Extension) - 24605



Inspected By: Nainin Nowrose & Muntasir Ahmad Nasif

Date: 06-Aug-2025

Fire Safety Inspection Report

Ahsan Composite Ltd. (Extension 2)

Introduction:

Ahsan Composite Ltd. (Extension 2) complex was surveyed for fire safety on **06-Aug-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 total 5 structures covered under this RSC ID 26156. The buildings are as below:						
SL No	Building Name & Type	Building Construction Period	Approval Date & Authority	Occupied	Area (Sq.ft.)	Construction Category
1	Building-15 (Knitting Building) 5 storied RCC Building (G+4)	Jan-2018 to Jul-2020	Approval from Kaliakoir Pouroshova for a Proposed Six-Storied Knitting Building, Dated 28-Dec-2020	Dec-2020	150,000	Interim
2	Shed 16 (Chemical store) Single storied Steel Shed	Jun-2023 to Dec-2023	Not Found	Feb-2024	9,601	New
3	Shed-17 (Yarn Store) Single Storied Steel Shed	Jun-2023 to Dec-2023	Not Found	Feb-2024	9,601	New
4	Wastage Shed Single Storied Steel shed	Jun-2023 to Jul-2023	Not Found	Feb-2024	1,500	New

5	Turning Shed Single Storied Steel Shed	Sep-2024 to Dec-2024	Not Found	Jun-2025	1,800	New
---	---	----------------------	-----------	----------	-------	-----

Factory Address: Ward No-08, Holding No99/D, Chandra Pollibidyut Road, Kalikoir, Gazipur.

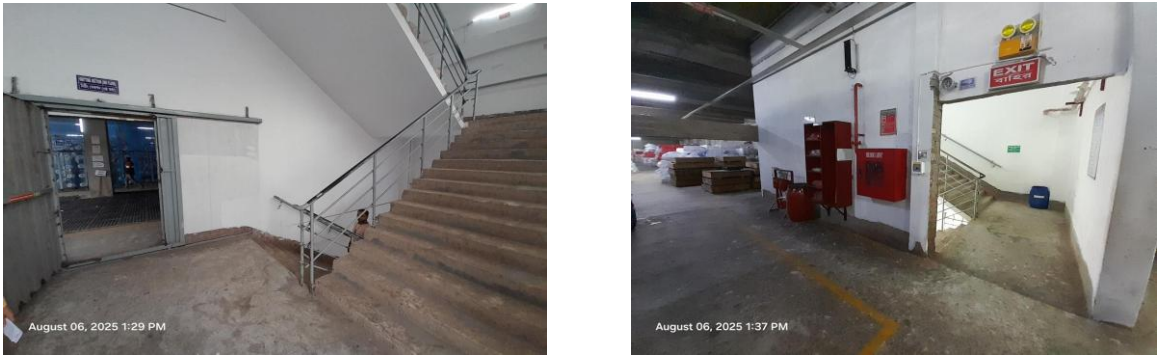
Findings & Recommendations :

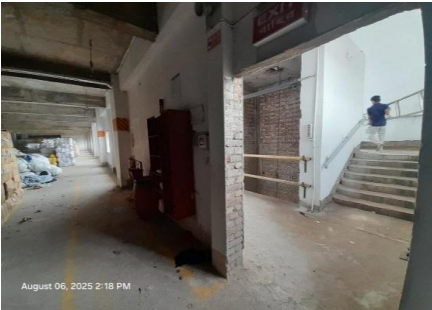
Table-1 summarizes the major fire safety issues identified during the inspection. Recommendations have been provided to address each issue. An implementation schedule shall be developed by the factory to remediate each of the findings. The specific timing of improvements, including any requested extensions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

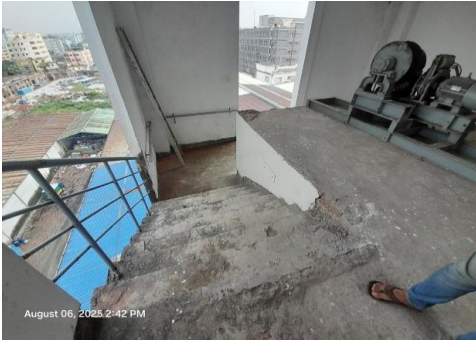
Table-1: All structures in this ID-26156.

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: 5-storied Production Building-15 (Knitting Building).	The exit stair enclosure shall be provided with a minimum 1-hr fire resistance rating for buildings with 3 or fewer stories and a minimum of 2- hr. fire resistance rating for buildings 4 or more stories. Provide 1-hr. fire rated door and seal all penetrations and openings by 1 hr. fire rated fire rated barrier construction for building with 3 or fewer stories. Provide 1.5 hr. fire rated door and seal all penetrations and openings by 2 hr. fire rated fire rated barrier construction for building 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	Electrical DB & Lift Machine are located inside exit stair enclosure. Location: Stair-3 enclosure of Building-15 (Knitting Building) at roof top.	Remove and re-locate all Electrical panels, Machines from 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-03	Means of Egress	Storage areas and similar normally unoccupied spaces discharges directly into the exit stair enclosure. Location: Stair-2,3 at Ground floor, stair-1,2,3 at 1st floor and stair-3 at 4th floor 5-storied Production Building-15 (Knitting Building).	Openings from exit enclosure to Storage areas/ basements/ transformer rooms/ generator rooms/ boiler rooms and similar normally unoccupied spaces 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./1-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 length 1.8m. Within 3 months
		   	

F-04	Means of Egress	Handrails are not provided on both sides of exit stairs on roof top stair. Having handrails on one side of said staircase, may pose as a falling hazard during evacuation. Locations: Stair-3 enclosure of 5-storied Production Building-15 (Knitting Building).	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 construct in accordance with RSC Technical Guidelines (Standard)¹ V1.0 Section 6.12.	Within 3 months
 				

F-05	Means of Egress	Falling hazards are present at the staircase/ several lift openings located within the stair enclosures and floor areas, which are situated at a high altitude. Location: Exit Stair-3 enclosure and Lift opening inside floor area S-E side of the 5-storied Production Building-15 (Knitting Building).	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. New and interim: Guards shall have a minimum height of 1067 mm (42 in.). Existing: Guards shall have a minimum height of 760 mm (30 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/Handrail shall construct in accordance with RSC Technical Guidelines (Standard)¹ V1.0 Section 6.12	Within 1 month
 				

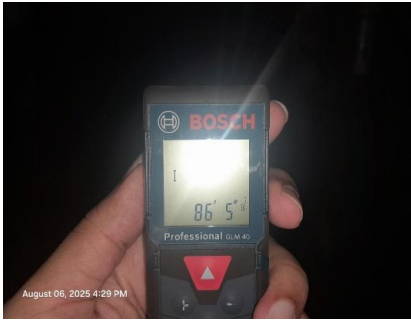
F-06	Fire Rated Construction	Penetrations through floor/ceiling assemblies are found unsealed due to electrical cable risers, plastic/plumbing and steam/air pipes. Location: Throughout the 5-storied Production Building-15 (Knitting Building).	Seal all penetrations and openings in floor/ceiling assemblies by a listed through-penetration fire stop system tested in accordance with ASTM E814 or approved alternative standard to maintain minimum 3-hr./ 2-hr. fire resistance rating. Installation shall be as per manufacturer published installation guideline and the certification authority guideline to ensure the fire-rating in accordance with section 4.7 of RSC Technical Guideline (Standard) . Factory is recommended to submit the design methodology for review if any proprietary listed materials are used for penetration. Or, Provide a minimum 2-hr fire rated shaft to separate the penetration from each floor if required.	Within 3 months
------	-------------------------	---	--	-----------------



F-07	Fire Rated Construction	Shaft connecting all floors created unprotected openings due to non-rated exhaust duct & elevator shaft. Location: Throughout the 5-storied Production Building-15 (Knitting Building).	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./ 2-hr. fire resistance rating. Installation shall be as per manufacturer published installation guideline 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.	Within 3 months
				
F-08	Means of Egress	The egress court [serving North and East exit] is less than 10 ft wide and is not separated from the building interior/adjacent building exterior which is not in accordance with section 6.17.2 of RSC Technical Guidelines (Standard)¹ V1.0. Location: North and East side of the 5-storied Production Building-15 (Knitting Building).	Egress courts less than 3050 mm (10 ft) in width (as measured from the building and the adjacent property line) shall be provided with walls having a 1-hr fire resistance rated construction for a distance of 3050 mm (10 ft) above the floor of the court. Seal all penetrations and openings to the interior of the building along the discharge path, up to a height of 10 ft. to provide a minimum 1-hr fire separation.	Within 3 months

				
F-09	Means of Egress	The maximum travel distance exceeds 45 m which does not meet the requirements of Section 6.13 of RSC Technical Guidelines (Standard). Available travel distance: 234 ft 5 inch Location: Store area on 4th floor of the 5-storied Production Building-15 (Knitting Building).	Reconfigure the egress arrangement to meet 6.13 of RSC Technical Guidelines (Standard). Or, Provide additional exits so that the travel distance shall not exceed the maximum allowable limit.	Within 3 months
				

F-10	Means of Egress	Common path of egress travel exceeds 30 m at store area (H2) which does not meet the requirements of Section 6.13 of RSC Technical Guidelines (Standard). Available Common path: 103 ft 1 in. Location: Store area on 4th floor of the Production Building-15 (Knitting Building).	Reconfigure the egress arrangement to reduce the maximum common path of travel to not more than 30 m. The common path of egress travel for Group H (storage) occupancies with not more than 30 occupants shall not exceed 30 m (100 ft). Section 6.13.2 of RSC Technical Guidelines (Standard) shall meet.	Within 3 months
 				

F-11	Means of Egress	Common path of egress travel exceeds 8 m (25 ft) at Chemical Store area (J2) which does not meet the requirements of Section 6.13 of RSC Technical Guidelines (Standard). Available Common path: 86 ft 5 in. Location: Chemical Shed (Shed-16).	Reconfigure the egress arrangement to reduce the maximum common path of travel to not more than 8 m. 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-12	Means of Egress	Headroom measured less than the 80 inch. Available Headroom: 70 inch Location: North side at knitting section on All floors of the Production Building-15 (Knitting Building).	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-13	Fire Rated Construction	Rooms used for storage of combustible materials are not separated from the surrounding occupancy/areas Location: Ground and 4th floor of the Production Building-15 (Knitting Building).	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-14	Fire Rated Construction	Areas used for in-process storage of combustible materials are open to the surrounding occupancy. Location: 1st to 4th floor of the Production Building-15 (Knitting Building).	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-15	Fire Rated Construction	Compressor/heat producing equipment is not properly separated by fire rated construction with other Occupancies/Areas Location: All floors of the Production Building-15 (Knitting Building).	Compressor 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 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-16	Means of Egress	The exits are not remotely located from each other such that a single fire event could compromise both exits of the building. Location: Shed-16 (Chemical Store).	Provide additional exit or reconfigure the exit arrangement to ensure that the exit doors or means of egress openings are located a distance apart as per RSC Technical Guideline (Standard) section of 6.6.6.	Within 3 months



F-17	Fire Rated Construction	Aisles were found missing on several locations throughout the building. Location: Building-15, Shed 16, Shed-17 and Turning Shed.	Provide aisle with a minimum unobstructed clear-width of 0.9 m (36 in.) in accordance with section 6.5.1 of RSC Technical Guidelines (Standard)¹ V1.0. Aisles mark shall be clearly visible.	Within 3 months
------	-------------------------	---	---	-----------------



F-18	Fire Rated Construction	Sliding type doors have been provided along means of egress [building exits, exit stairs, along egress routes, exit discharge]. Location: Building-15, Shed 16, Turning Shed.	Replace all collapsible/sliding/shutter type doors & gates by the side-hinged swinging type doors in accordance with section 6.8.1 of RSC Technical Guidelines (Standard)¹ V1.0. All doors in a means of egress shall be of the side-hinged swinging type. Roll-down and sliding gates and shutters shall not be allowed. Doors serving an occupant load of more than 50 shall swing in the direction of egress travel.	Within 3 months
 The first photograph shows a sliding door at the base of a staircase, with a timestamp of August 06, 2025 1:28 PM. The second photograph shows a dark, possibly non-compliant door in a brick-walled interior, with a timestamp of August 06, 2025 2:16 PM. The third photograph shows an exterior gate or shutter at a building entrance, with a timestamp of August 06, 2025 4:42 PM.				
F-19	Means of Egress	Building does not have updated occupant load signs at required locations on all floors. Location: All Structures of this ID.	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-20	Means of Egress	Fire evacuation maps is not posted at the entrance of all exit stair. Location: All Structures of this ID.	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.	Within 1 month
				
F-21	Means of Egress	Exit signage/directional signage not illuminated during testing (burned out, broken, etc.). Location: All Structures of this ID.	Regularly inspect all exit signage/directional signage as per RSC Technical Guidelines (Standard)¹ V1.0. and replace/install lights as needed to illuminate signs.	Within 1 month

				
F-22	Fire Rated Construction	Elevator shafts open directly into the production floor without proper fire separation due to unprotected opening. Location: Building-15 (Knitting building).	Elevator shaft shall be separated from production area by 2 hours fire rated construction. 2-hr fire barriers shall be protected with minimum 1.5-hr fire protective opening assemblies.	Within 3 months



F-23	Inspection, Testing & Maintenance (Fire)	The Building approval for Shed 16 (Chemical store), Shed-17 (Yarn Store, Wastage Shed & Turning Shed from appropriate authority are not available at site.	Get all the required licenses and permits from the proper issuing authority and keep it at site.	Within 1 month
------	--	--	--	----------------

F-24	Fire Rated Construction	The required fire separation distance between Shed-17 (Yarn Store) & Turning shed and Shed-17 (Yarn Store) & Wastage Shed does not comply with the requirements of BNBC 2020. Location: Shed-17 (Yarn Store) & Turning Shed	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-25	Fire Rated Construction	The required fire separation distance between Shed 16 does not comply with the requirements of BNBC 2020. Unprotected openings were found within 7 ft 8 inch in north side between Shed-16 (Chemical Shed) & Production Building-15 (Knitting Building). Location: Shed 16 (Chemical Shed)	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-26	Fire Rated Construction	The required fire separation distance between Production Building-15 (Knitting Building) & Shed-16 (Chemical Shed) at south side and Building-15 (Knitting Building) and boundary wall at north, east & west side does not comply with the requirements of BNBC 2006. Location: 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-27	Fire Rated Construction	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes. Location: Building-13, Shed-16, Shed-17 & Turning Shed.	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-28	Fire Rated Construction	Directional signs are not provided where direction of the path of travel to an exit has changed. Location: All Structures of this ID.	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 3 months
 The photographs show four different views of a warehouse interior. The first photo shows a long aisle with yellow directional arrows on the floor. The second photo shows a narrow aisle with a red arrow on the floor. The third photo shows a large stack of white bags. The fourth photo shows a narrow aisle with yellow directional arrows on the floor.				

F-29	Fire Rated Construction	The required standpipe system is not installed in accordance with the RSC Technical Guidelines (Standard)¹ V1.0. Location: 5-storied Production Building-15 (Knitting Building)	A standpipe system shall be installed in buildings with the highest occupiable floor 10 m (33 ft.) above grade or more to meet section 5.4.2 of RSC Technical Guideline (Standard). If the building is protected throughout by an approved automatic sprinkler system a class I system shall be permitted.) Installation of the Standpipe system shall be in accordance with RSC Technical Guidelines (Standard)¹ V1.0. section 5.4 and NFPA 14. 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 14,20,22 and 24. After installation the owner shall contact the RSC for witness of conducting the final acceptance testing of the standpipe system.	Design within 2 month and modification/ installation with 4 months
  				

F-30	Inspection, Testing & Maintenance (Fire)	Inspection, testing and maintenance of the standpipe system is not in accordance with NFPA 25. Location: 5-storied Production Building-15 (Knitting Building)	Inspect, test and maintain the standpipe system and keep written records on-site, in accordance with NFPA 25 and RSC Technical Guidelines (Standard) ¹ V1.0.s.	Within 1 Month after installation.
F-31	Inspection, Testing & Maintenance (Fire)	Inspection, testing and maintenance of the fire pump system is not in accordance with NFPA 25. Location: 5-storied Production Building-15 (Knitting Building)	Inspect, test and maintain the fire pump system and keep written records on-site, in accordance with NFPA 25 and RSC Technical Guidelines (Standard) ¹ V1.0.s.	Within 1 Month after installation.

F-32	Inspection, Testing & Maintenance (Fire)	Inspection, testing, and maintenance for the exit sign and emergency lighting system were not in accordance with the RSC Technical Guidelines (Standard). Location: All Structures of this ID.	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-33	Fire Alarm & Detection System (FADS)	The fire alarm system is antiquated, not a listed system and does not provide alarm and notification features consistent with acceptable standards. Location: All structures under this RSC ID 26156.	Replace the fire alarm system with a new, listed addressable fire alarm system in accordance with NFPA 72 to meet section 5.7.3 of RSC Technical Guideline (Standard) Submit the proposed fire alarm 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/ 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 month and modification/ installation with 4 months



F-34	Inspection, Testing & Maintenance (Fire)	Inspection, testing and maintenance for the fire alarm system is not in accordance with NFPA 72 and The RSC Technical Guidelines (Standard). Location: All Structures of this ID.	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.s.	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: All Structures of this ID.	Inspect, test and maintain the portable fire extinguishers and keep written records onsite, in accordance with NFPA 10 and RSC Technical Guidelines (Standard).	Within 1 month