

INITIAL FIRE SAFETY INSPECTION REPORT

SP Washing Ltd.

RSC ID: 24814

Shirir Chala, Mahona Vabanipur, Vawalgor, Gazipur Sadar, Gazipur

Google Coordinate: 24.1659109, 90.4250034

Other Factories: SP Garments Ltd [ID: 22993], SP Garments Ltd (Extension Building) [ID: 24241]



Inspected By: Mahfuza Khanom

Date: 10 January 2024

Fire Safety Inspection Report

SP Washing Ltd.

Introduction:

SP Washing Ltd. complex was surveyed for fire safety on **10/01/2024** 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): There are total 3 structures in the premises under this ID 24814_SP Washing Ltd.. Those are :

1. Main Building: 5-storied steel building Ground and 1st floor (Partial) is occupied by SP Washing Ltd. and others floors and 1st floor (Partial) is occupied by previous ID 22993_SP Garments Ltd. Building height 66'-2" (Upto Parapet), per floor area 3275.76 sq. m.

2. Chemical Store Shed: It is a single storied shed (area 144.93 sqm). Construction date for this shed is Jan, 2013-Feb, 2015 and occupied on Jan, 2016. Height of Chemical Store found 20 ft 7 in. (approx.) and located at grade level.

3. Biological ETP: It is a single storied shed (area 142 sqm). Construction date for this shed is Jan, 2013-Feb, 2015 and occupied on Jan, 2016. Height of ETP shed found 14 ft 5 in (approx.) and located at 5 ft 9 in above grade level. Total height 20 ft 1 in (approx).

For these above (3) structures: Design Approved by LGED Gazipur on 20 January 2014.

Construction Period Interim.

Factory Address: Shirir Chala, Mahona Vabanipur, Vawalgor, Gazipur Sadar, Gazipur.

Points of contact:

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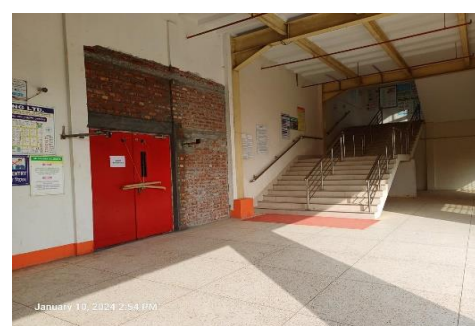
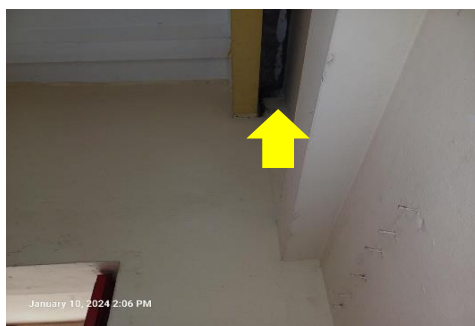
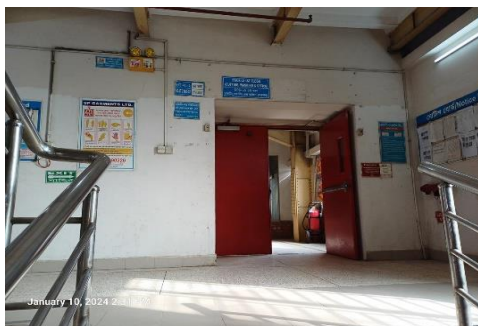
Findings & Recommendations :

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
F-1	Fire Rated Construction	Unsealed penetrations and openings are located in the fire rated floor/ceiling assemblies (electrical and plumbing penetrating pipes going through the fire rated assemblies).	Seal all penetrations and openings in floor/ceiling (full thickness of the floor/ceiling) assemblies by fire rated materials to maintain the fire resistance rating. Provide a minimum 2-hr fire rated shaft to separate the utility risers from each floor if required. 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.	Within 3 months
 The first photograph shows a hole in the ceiling above a door, with a timestamp of January 10, 2024 2:25 PM. The second photograph shows a hole in the ceiling above a doorway, with a timestamp of January 10, 2024 2:25 PM. The third photograph shows a hole in the ceiling next to a staircase, with a timestamp of January 10, 2024 2:01 PM.				

F-2	Fire Rated Construction	The exit stairs are not separated from work areas and other spaces on each floor by fire rated construction. Unprotected openings and penetrations have been observed with exit stair enclosure. Non-rated steel members have been observed from floor to exit stair enclosure without proper fire rating. Fire door has been installed and found functional. However, one fire door at Ground floor exit has been found non-functional due to maintenance work.	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 0.75 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. 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. Any modification of fire doors beyond the job site preparation shall be approved by the fire door manufacturer.	Within 3 months
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F-3	Fire Rated Construction	The main structural elements of Main building are constructed by steel and other Sheds are non-rated structure and were found in exposed condition without any fire protection. As per RSC Technical Guidelines (Standard) 1.5.4 this buildings are defined as an interim building so, fire protection shall be provided for the structural elements of the building following section 3.5.2 of RSC Technical Guidelines (Standard) V1.0.	For interim construction, the building shall be Type 1 or Type 2 construction as required in BNBC 2006 Part 3 Table 3.2.4. So, provide require rating for the structural elements of the building following BNBC 2006-Table 3.2.4, 3.1.9 and 3.3.1. As per BNBC 2006, J occupancy shall be Type-1 construction. If factory keeps the amount of chemical to a limited amount as per BNBC 2006 exempted quantity, factory can propose fire rating requirement as storage building. Submit the proposed drawing/design to RSC for review. Once reviewed, install passive fire protection as per reviewed design.	Within 6 months
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F-4	Fire Rated Construction	Dining area (Temporary) has a seating capacity of 136 (E4 occupancy) with working area which is not separated by fire rated construction according to Table 3.2.1 BNBC 2006. Location: 3rd floor	Provide at least 3-hr fire separation between E4 and G2 and H2 and maintain at least 2 exits leading directly to the exit stair. Or Relocate the assembly occupancy to or from this building to meet the requirement as per BNBC 2006, Part 3 Table 3.2.1 and part 4 chapter 3 section 3.21.3.	Within 3 months
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F-5

Fire Rated
Construction

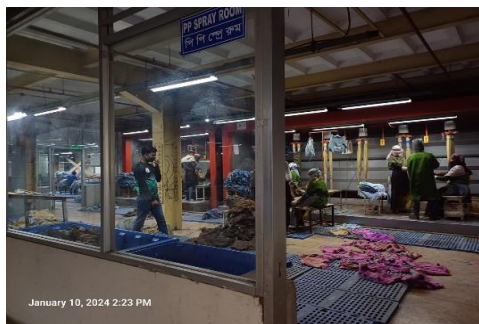
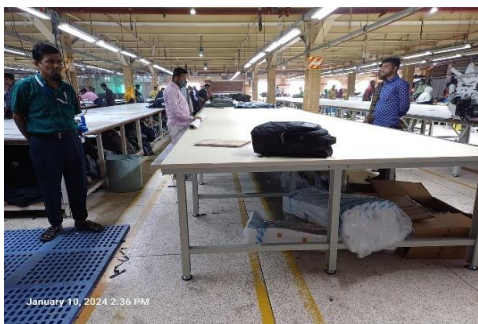
Hazardous materials / flammable storage area is not properly separated by fire-rated construction due to openings & penetrations.
Location: Main Building (Ground floor), Acid tank of 3000 liter beside the Main Building, Chemical Store Shed.

Hazardous materials / flammable storage shall be in compliance and separated in accordance with BNBC 2006 Part 3 Section 2.13 and Table-3.2.1.

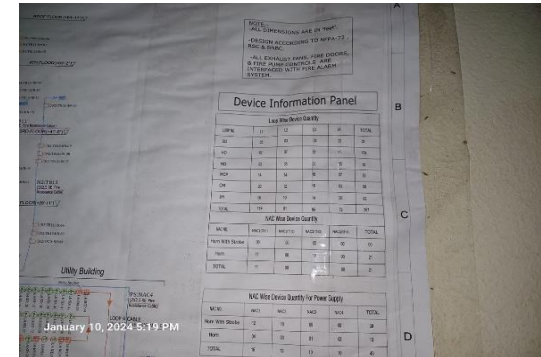
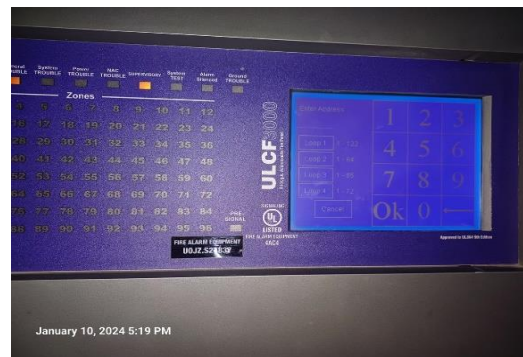
Within 3 months



F-6	Fire Rated Construction	Liquefied or compressed gas cylinders were located within the factory in Canteen Shed located at West side of Main Building .	LPG/CNG cylinders are permitted to be stored in a separate dedicated building on the factory premises within its boundaries if the building meets the following conditions: 1. The storage building must be at least 3 meters away from any other buildings and boundaries. 2. The exterior walls of the building must have a fire resistance rating of 3 hours using noncombustible construction. 3. Doors and other openings in the exterior walls must be protected with suitable closing devices having a fire protection rating of 3 hours. 4. The building is to be used for no other purpose than the storage of LPG/CNG cylinders. 5. The building must be mechanically ventilated to control the accumulation of flammable vapors. 6. The installations must be approved and accepted by the requirements of the AHJ, Gas supply company regulations, manufacturers/supplier's instructions/guidance, Chief Inspector of Boiler (CIOB) and Chief Inspector of Explosives Bangladesh (CIEB). Additional requirements from "SUPPLEMENTARY PAPER ON TECHNICAL GUIDANCE NOTE FOR USE OF LIQUIFIED OR COMPRESSED FLAMMABLE GAS IN FACTORY PREMISES" also shall meet during remediation.	Within 3 months
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F-7	Means of Egress	Width of aisles is less than 0.9m (36-in.).	Aisles shall be provided with a minimum unobstructed clear-width of 0.9 m (36 in.).	Within 3 months
 				

F-8	Fire Alarm and Detection System	During inspection it has been observed that the factory has a common fire alarm system with SP Garments Ltd [ID: 22993], SP Garments Ltd (Extension Building) [ID: 24241]. Few discrepancies are observed in the system of SP Washing Ltd. (not limited to) during visit: address labeling is missing in some devices, interfacing of exhaust fan not found proper, total number of devices not matched with fire alarm control panel and as-built drawing device count table, as-built drawing not found updated based on actual site condition in several cases.	Modify the fire detection and alarm system (where required) throughout the building in accordance with RSC technical guidelines (standard) and NFPA 72 and update the as-built drawing, calculations and T&CVI report accordingly. After modification the verification of the fire alarm system and as-built drawings, calculations, testing records, equipment certification and other relevant documentation will be verified by RSC as a part of Final Verification process.	Within 3 months
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F-9	Fire Alarm and Detection System (ITM)	Inspection, testing and maintenance for the fire detection and alarm system was 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/ modification
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F-10	Fire Protection System (Standpipe, Sprinkler & Fire Pump System)	During inspection it has been observed that the factory has a common fire pump system with SP Garments Ltd [ID: 22993], SP Garments Ltd (Extension Building) [ID: 24241]. Few discrepancies are observed at SP Washing Ltd. (not limited to): as-built drawing not found updated based on actual site condition in several cases, sprinkler coverage not found in few locations in ground floor and top most landing but detector has been provided in these areas, activating flow switch of floor control valve assembly not provided fire alarm signal at 1st floor during testing, feedmain is not found protected by a degree of fire resistance, pressure gauge at one of the riser topmost found non-functional, floor control valve of sprinkler system at Ground floor not found accessible and free of obstruction, automatic sprinkler system is not installed beneath cutting tables greater than 4 ft in width that are used for storage of combustibles.	Modify the automatic sprinkler system, standpipe and fire pump systems (where required) in accordance with RSC technical guidelines (standard) and NFPA 13, 14, 20, 22 and 25 and update the as-built drawing, calculations and T&CVI report accordingly. After modification the verification of the suppression system and as-built drawings, calculations, testing records, equipment certification and other relevant documentation will be verified by RSC as a part of Final Verification process.	Within 3 months
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F-11	Fire Protection System (ITM of Standpipe)	Inspection, testing, and maintenance for the standpipe system is not in accordance with NFPA 25.	Inspect, test and maintain the fire pump and standpipe system, and keep written records on-site, in accordance with NFPA 25.	Within 1 month after installation/ modification
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F-12	Fire Protection System (ITM of Sprinkler)	Inspection, testing, and maintenance for automatic sprinkler system is not in accordance with NFPA 25.	Inspect, test and maintain automatic sprinkler system and keep written records on-site, in accordance with NFPA 25.	Within 1 month after installation/ modification
F-13	Fire Protection System (ITM of Fire Pump)	Inspection, testing and maintenance of the fire pump system is not in accordance with NFPA 25.	Inspect, test and maintain the fire pump system and keep written records on-site, in accordance with NFPA 25.	Within 1 month after installation/ modification