

INITIAL FIRE SAFETY INSPECTION REPORT

Needle Drop Ltd (Extension)

Factory ID: 24268

50, Chandapara, Bashon Road, NU, Joydebpur, Gazipur-1704

Other Factories: Needle Drop Ltd (ID-10307)



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Date: 16 Nov 2021

Fire Safety Inspection Report

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Introduction:

Needle Drop Ltd (Extension) complex was surveyed for fire safety on 16/11/2021 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.

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 approval.

Table-1:

SI No.	Category	Findings	Required Action	Remediation Time Frame
F-1	Fire-Rated Construction	The exit stair enclosures are not separated from work areas and other spaces on each floor by fire-rated construction due to not interlacing the doors with fire alarm system. Location: All stairs, Main Production Building (Expansion).	<p>Stair shall be enclosed with a minimum 2-hr fire-rated construction. Seal all unprotected openings and provide minimum 1.5 -hr. fire rated doors to separate the exit stairs from work areas and other building spaces on all floor levels. Ensure that the fire doors are self-closing, positive latching and that they are provided with fire exit (panic) hardware where serving production floors.</p> <p>If fire doors are required to be held open for functional reasons, provide automatic-closing devices tied to the fire alarm system.</p>	Within 3 months



F-2	Fire-Rated Construction	Unsealed penetrations and openings are located in the fire-rated floor/ceiling assemblies due to expansion joints and electric riser. Location: All floor, Main Production Building (Expansion joint).	<p>Seal the expansion joints by 2-hr fire rated materials to ensure the required fire separation as well as to maintain structural characteristic for the expansion joint.</p> <p>If sealed by listed rated material, provide all the relevant documents and certificate during follow-up and ensure checking facility with expert if required.</p>	Within 3 months
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F-3	Fire-Rated Construction	Areas used for combustible storage located at several floor are not separated by fire-rated construction.	<p>Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction.</p> <p>Where separate storage rooms are not feasible, Provide defined storage areas and limit the storage arrangement as follows:</p> <ul style="list-style-type: none"> - Maximum height of 2.45m (8ft.) and maximum area of 23m² (250 ft²). - If sprinkler protected: maximum height of 3.66m (12ft.) and maximum area of 93m² (1,000 ft²). <p>Separate areas of unenclosed combustible storage by a minimum clear distance of 3m (10ft.).</p>	Within 3 months
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F-4	Fire-Rated Construction	<p>Storage room/areas discharges directly into the exit stair discharge.</p> <p>Location: Ground & 1st floor, Main Production Building (Expansion).</p>	<p>Openings from exit enclosure to storage room, generator and transformer spaces shall be provided with a vestibule with fire rated construction and openings.</p> <p>Provide a 1.5 hr. fire rated door on the exit stair side and a 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 Accord standard 6.14.3.</p>	Within 3 months
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F-5	Fire Rated Construction	Dining is not separated from other occupancies by fire rated construction on 2nd floor.	<p>Separate the dining area by a minimum 2-hr fire- rated construction and provide at least two means of exits leading directly to the street or leading to a corridor or stairwell or open space having access to exits in two independent and different direction. Seal and/or protected all openings to maintain the required fire separations.</p>	Within 3 months
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F-6	Mean of Egress	A single means of egress is provided from prayer room at roof floor where the occupant load exceeds 49 persons.	Reduce occupant load to not more than 49 persons. Or Provide additional means of egress.	Within 3 months
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F-7	Mean of Egress	Exit stair door/egress door serving 50 or more occupants does not swing in the direction of egress travel. Location: Roof, Main Production Building (Expansion).	Modify the egress door to swing in the direction of egress travel.	Within 3 months
				
F-8	Mean of Egress	Sliding door is provided at building exits and along egress routes. Location: Prayer room, Roof, Main Production Building (Expansion).	Replace all gates / sliding doors along the means of egress with side-hinged, swinging egress doors. If locks are required for security reasons, utilize special door locking features complying with NFPA 101.	Within 1 month



F-9	Means of Egress	<p>Building did not have occupant load and stair designation signs at required exit stair entrances. Location: Main Production Building (Expansion).</p>	<p>Provide floor and stair designation and occupant load signs at each floor entrance from the stair to the floor in English and Bengali. Stair designation sign shall indicate the name of the stair. Signs shall be posted adjacent to the door.</p>	Within 1 month
F-10	Means of Egress	<p>Fire evacuation map is not posted at the entrance of all exit stair.</p>	<p>Fire evacuation maps shall be posted at the entrance to each exit stair.</p>	Within 1 month

F-11	Means of Egress	Re-entry not provided where exit stair enclosure serving more than 5 stories.	Re-entry door shall be provided in a stair enclosure serving more than 5 stories accordance with Accord Standard 6.8.3.1.	Within 1 month
F-12	Egress Lighting	Directional signs are not provided where direction of the path of travel to an exit has changed.	Illuminated directional signs shall be provided where there is a change in the direction for the path of travel and the direction to an exit is not obvious.	Within 1 month

F-13	Fire-Rated Construction	Liquefied or compressed gas cylinders were located within the factory.	<p>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.</p> <ol style="list-style-type: none"> 1. The storage building must be at least 3 meters away from any other building 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, CIOB and all other applicable agencies, codes and standards. 	Within 1 month
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F-14	Fire Alarm & Detection system (FADS)	The addressable fire alarm and detection system is installed for the building. The fire alarm and detection system installation requires detailed review to confirm compliance with NFPA 72 and relevant Standard.	Submit the Fire Alarm and Detection system design to RSC for review and modify the system as per the recommendation. The equipment shall be listed and 3rd party certified. The installation shall be as per NFPA -72.	Design submission within 1 month and installation modification within 3 months
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F-15	ITM of Fire Alarm & Detection system (FADS)	Inspection, testing, and maintenance for the fire alarm system is not in accordance with NFPA 72.	Inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72.	Within 1 month after installation.
F-16	Fire-Protection System (Standpipe System)	The highest occupied floor of existing building is more than 10 m (33 ft.) above grade where standpipe system is mandatory and installed but the compliance level shall be verified as per relevant Standard.	<p>Submit the standpipe system design to RSC for review and modify the system as per recommendation. The equipment shall be listed and 3rd party certified. The installation shall be as per NFPA-14, 20, 22 and 24.</p> <p>Provide sprinkler system for the fire pump room as per NFPA-13 (Extra Hazard Group-II).</p>	Design submission within 1 month and installation modification within 3 months.



F-17	ITM of Standpipe System (SUPS).	Inspection, testing and maintenance of the standpipe system is not in accordance with NFPA 25.	Inspect, test and maintain the standpipe system and keep written records on-site, in accordance with NFPA 25.	Within 1 month after installation
F-18	ITM of Fire Pump	Inspection, testing and maintenance of the fire pump system is not in accordance with NFPA 20.	Inspect, test and maintain the fire pump system and keep written records on-site, in accordance with NFPA 20.	Within 1 month after installation