

FIRE SAFETY INSPECTION REPORT

Factory Name: Disney Sweater Ltd. (Extension)

ACCORD ID: 23720

ADDRESS: Barpa, Rupshi, Rupganj, Narayanganj, Bangladesh. (23.746997,90.535633)

Other Factories: None



Inspected By: A.K.M Monoarul Huda & Mahfuza Khanom

Date: 29 July, 2019

Fire Safety Inspection Report

Factory Name: Disney Sweater Ltd. (Extension)

Introduction:

Disney Sweater Ltd. (Extension) complex was surveyed for fire safety on 29/07/2019 by The Accord 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 Accord. 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 Accord 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): Disney Sweater Ltd. (Extension)

Factory Address: Barpa, Rupshi, Rupganj, Narayanganj, Bangladesh.

Points of contact:

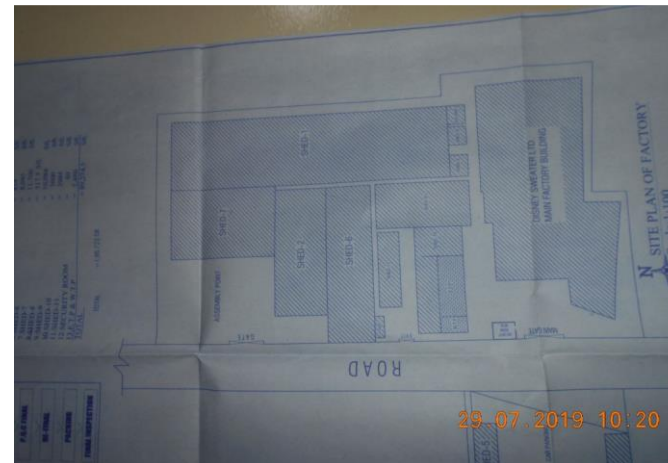
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General Factory Information- Disney Sweater Ltd. (Extension)

Number of Stories Below / Above Grade	0/1
Highest Occupied Floor Level / Height	Ground Floor
High Rise (Accord 3.2.1)	No
Occupiable Roof (Accord 3.2.2)	Not accessible (Shed)
Occupiable Roof Provided with Adequate Parapets / Guards (Accord 6.12.2.4)	N/A
Occupancy Classifications	G2 [Industrial], H[storage], Dining & Prayer [E]
Floor Plans Available	Yes



Date Of Construction	Shed-2: Nov 2016-Jan 2017; Shed-6: Dec 2016-25 Feb 2017; Shed-7: Dec 2016-Mar 2017; Shed-11: Dec 2017-Apr 2018
Major Renovations / Additions	No
Comments	Name Of Buildings: Shed-2 (Bonded wear house), 6 (Finished Goods Area-1), 7 (Winding), 11 (Finished Goods Area-2) & 9 (Finishing), 10 (Dining & Prayer)
Other Tenants In Building	No
Floors Occupied By Factory	Yes

Occupant load by floor

Floor	Use	Occupant Load	Comments
Shed A (Jointly Shed 02,06,07)			
Ground Floor	Bonded Wear House, Finished Goods Area-1, Winding and Yarn store	70	
Shed B(Jointly shed 09,10,11)			
Ground Floor	Finished Goods Area-2, Finishing , Dining and prayer	610	



Construction Features:

Non-Combustible Construction	No
Fire-Resistive Construction	No

Building Exposures:

North	Open area (Unused)
South	Main Building (Another ID)
East	Shed (Another ID)
West	Main Road

Vertical Openings:

Exit Stairs Enclosed in Fire-Rated Construction (Accord 6.14)	N/A	Single shed
Exit Stair Penetrations are Fire Rated (Accord 6.14)	N/A	
Exit Stair Openings are Fire Rated (Accord 6.14)	N/A	
Exterior Exit Stairs Separated From Building (Accord 6.3.1.3)	N/A	
Shafts Enclosed in Fire Rated Construction (Accord 4.5.7)	N/A	
Openings / Penetrations in Fire-Rated Floors are Protected (Accord	N/A	
Atrium Protected As Required (Accord 3.7)	N/A	



Egress Features:

The main production shed-A [Shed-2, 6,&7 interconnected] has 02 no's exits from Winding area (Shed-7), 03 no's exits from Bonded wear house (Shed-2) and 02 no's exits from Finishing Goods Area-1 (Shed-6). However, winding shed is interconnected with old jacquard section which was covered by another Accord ID. On the other hand, Shed-B [Shed-9, 10,&11 interconnected] has 03 no's exits from Finishing area (Shed-9), 02 no's exits from Dining area (Shed-10) and 03 no's exits from Finishing Goods Area-2 (Shed-11). Non-compliant locking features were observed at exit doors. All doors were open and unlocked during the inspection. Each floor had an adequate number of exits with sufficient exit capacity based on occupant load.

Emergency evacuation plans were provided but not posted at the entrance to each required exits. Occupant load signs were not provided at required locations. No smoking signs were not present. Fire drills are conducted monthly; records were provided during the inspection.

Floor	Occupant load	Nos of. Exit	Exit Capacity
Shed A (2,6,7)	70 (Shed-2: 05 persons, Shed-06: 05 persons, Shed-7: 60 persons)	2 (Considering winding)	499 (Winding)
Shed B (9,10,11)	610 (Shed-9: 200 persons, Shed-10: 405 persons, Shed-11: 05 persons)	3 (Considering Finishing)	999 (Finishing)

General:

Number of Exits Per Floor is Compliant (Accord 6.6)	Yes	
Capacity of Exits Per Floor Is Compliant (Accord 6.5.3)	Yes	
Exits Remotely Located (Accord 6.6.6)	Yes	



Exit Doors:

Egress Doors are Side Hinged (Accord 6.8.1)	Yes	
Egress Doors Swing Correctly (Accord 6.8.1)	No	
Egress Doors Without Locking Hardware in Direction of Travel (Accord	No	

Exit Stairs:

All Exit Stairs Discharge Directly to the Exterior (Accord 6.17)	N/A	
Handrails Provided on Both Sides (Accord 6.9.2.4)	N/A	
Exit Stairs Free of Storage and Obstructions (Accord 6.3.8, 6.3.9)	N/A	
Electrical Panels Located Outside of Exit Stairs	N/A	
Exit Stairs Serving More than 5 Stories Provided with Re-Entry (Accord	N/A	

Exit Access & Arrangement:

Means of Egress Free of Storage & Obstructions (Accord 6.3.8, 6.3.9)	No	
Means of Egress of Adequate Width (Accord 6.5)	No	

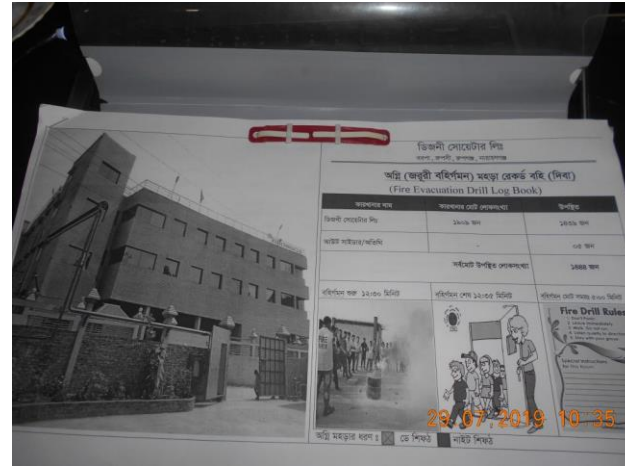
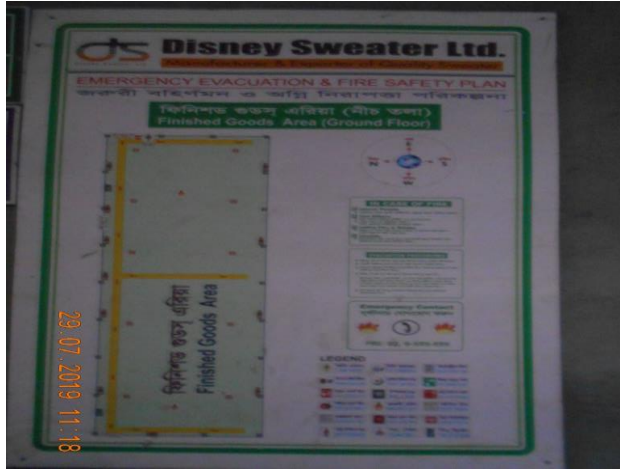


Travel Distances, CPT, DE's Within Limits (Accord 6.13)	Yes	
Exit Access Corridors Provided with Proper Fire Protection / Separation (Accord 6.3.1.1)	No	
Daycare Within Limits (Accord 3.4.2.1.1)	Yes	
Egress Court Provided With Adequate Fire Rated Separation (Accord 6.17.2)	No	
Utility / Storage Rooms Adequately Separated from Exit Enclosures (Accord 6.14.3)	N/A	

Emergency Planning :

Emergency Evacuation Plans Provided (Accord 13.3)	No	
Fire Drills Conducted & Records Maintained (Accord 13.2)	Yes	
Smoking Prohibited (Accord 13.5)	No	





Fire Protection Features:

Fire Alarm System

Current System Overview:

The factory has started installation of addressable fire alarm system without approval from AHJ (Authority Having Jurisdiction). It consisted of manual alarm switches and siren units installed near the entrances. The activation switches reportedly triggered the fire alarm for the entire building. No functional test was conducted on the system during the inspection while system is in under installation. Records or assertions of regular testing or maintenance of the fire alarm system was provided which is not proper.

Type of System	Addressable, Under installation	
Fire Panel Location	Ground floor (Separate shed)	



Visible Notification Per NFPA 72	To be verified during functional test	
Audible Notification Per NFPA 72	To be verified during functional test	
Alarm Annunciation	No	
ITM per NFPA 72	No	
Functional Test Conducted	No	



Fire Detection System

Current System Overview:

Installation of addressable fire detectors are in progress.

Type of Detector	Addressable, Under installation	
Smoke Detection Per NFPA 72	No	



Standpipe System

Current System Overview:

The highest occupiable floor level from finished ground level is less than 10 m (33 ft.). According to Section-5.4.2, Part-5, Accord Standard, the system is not required for existing condition.



Standpipe System Required	No	
Type of System Installed	Modified Class-III	
Hose Connection Locations	Near exit	
ITM Per NFPA 25	No	
Comments	The system is currently not required.	



Sprinkler System

Current System Overview:

Currently no sprinkler system is installed in the factory and also not required based on Section 5.3.2.2 Part 5 & 3.5.3.1 Part 3, Accord Standard.



Sprinkler Protection Required	No	
Type of System Installed	N/A	
Location/Coverage	N/A	
ITM Per NFPA 25	N/A	
Comments	The system is currently not required.	

Fire Water Supply

Current System Overview:

Currently the standpipe system are connected with under ground water reservoir. Reported capacity of under ground water reservoir is 5,50,000 liter . The factory is installing fire pump and capacity is 1000 GPM.

Source, Location, & Capacity	Underground water reservoir, capacity 5,50,000 liter	
Fire Pump Provided	Yes	Installation under process
Fire Department Inlet & Outlet Connections Provided (Accord 5.5.4)	Yes	



Fire Pump Adequate (Accord 5.5.1)	To be verified during functional test	Reported Capacity of fire pump 1000 GPM
Fire Pump Room Provided With Adequate Fire Rated Separation (NFPA 20)	Yes	
Fire Pump ITM Per NFPA 25	No	



Portable Fire Extinguishers

Current System Overview:

Portable fire extinguishers, consisting of a mix of CO₂, dry chemical extinguishers were provided throughout the building. Inspection tags show recent and up-to-date inspections. Records or assertions of regular testing or maintenance of the portable fire extinguishers were provided as per standard.

Types Provided	CO ₂ , Dry Chemical.	
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Adequate Number/Spacing	Yes	
ITM Per NFPA 10	Yes	

Manual Fire Fighting Equipment

Current System Overview:

Manual fire fighting equipment's staged near the floor exits. Types of manual fire fighting equipment provided included: Extinguishers, buckets, escape hoods, bolt/lock cutters, shovels, stretchers and personal protection equipment.

Types Provided	Buckets, escape hoods, bolt/lock cutters, shovels, stretchers and personal protection equipment etc.	
Location of Equipment	Near exits	



Other Features

Emergency Lighting & Exit Signs

Overview:

Emergency lights have been provided in the production floor and above exits. There were multiple florescent lights that had an alternate UPS. They are keeping records or assertions of regular testing or maintenance of the emergency lighting system & exit signage units as per standard; but not maintained properly.

Exits and Exit Access Properly Marked with Exit Signage	No	
Emergency Power	Yes	
Adequate Emergency Lighting for Exits & Exit Access	No	
Adequate Inspection / Testing (Accord 10.12)	No	





Elevator

Overview:

No elevator is provided.

Elevator Opens Into Exit Enclosure	N/A	
Elevator Shaft/Doors Fire-Rated	N/A	
Automatic Recall	N/A	



Compressor Equipment

Overview:

One compressor (Capacity 30kW) is located in separate shed at rear side of the jacquard shed.

Location(s)	Separate shed	
Fire Rated Separation	Yes	



Boiler & Furnace Equipment

Overview:

Three no's boiler of capacity 3000 kg/hr and one boiler of capacity 626 Kg/hr are located in a separate building which is far away from the production area.



Location(s)	Utility Building	
Fire Rated Separation (Accord 3.4.2.1.5)	Yes	
Storage / Use of Liquefied Gas Cylinders Prohibited Within Building (Accord 3.4.2.1.11)	Yes	
Hazardous Materials / Flammable Liquid Storage Area Provided With Adequate Fire Rated Separation (Accord 3.4.2.1.10)	Yes	



Generator & Tranformer:

Overview:

No generator or transformer was found at factory premises.



Location(s)	N/A	
Fire Rated Separation (Accord 3.4.2.1.5)	N/A	
Hazardous Materials / Flammable Liquid Storage Area Provided With	N/A	
Generator Area Free of Additional Fuels	N/A	

Storage Areas

Overview:

Storage rooms are found in the following area: Shed-A (Bonded ware house, Finished goods area 1, Yarn storage) & Shed-B (Finished goods area-2) without proper fire rated separation. In process storage areas were not observed within limit.

Location(s)	Shed-A, Shed-B	
Fire Rated Separation (Accord 3.4.2.1.5)	No	



Open Storage Within Limits (Accord 3.4.2.1.6)	No	
Storage Areas Separated from Exit Stairs & Discharge Paths	No	



Other Information

Overview: None





Findings & Recommendations :

The following "Table" 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 Accord for approval.

SI No.	Category	Findings	Required Action	Remediation Time Frame
1	Fire rated construction	Areas used for in-process storage of combustible materials are open to the surrounding occupancy. Location: Winding & Finishing shed.	Provide defined storage areas and limit the storage arrangement as follows:- 1. General Condition: Maximum height of 2.4m and maximum area of 23m ² . Separate areas of unenclosed combustible storage by a minimum clear distance of 3m. 2. If sprinkler protected: maximum height of 3.66m and maximum area of 93m ² . Separate areas of unenclosed combustible storage by a minimum clear distance of 3m. or 3. Enclose the storage area from the surrounding occupancy with a minimum 1 hour construction.	Within 3 months




SI No.	Category	Findings	Required Action	Remediation Time Frame
				
2	Fire rated construction	<p>Rooms used for storage of combustible materials are not separated from the surrounding. Location: Bonded wear house, Yarn store, Finished Goods Store 1 & 2.</p>	<p>Rooms used for storage of combustible materials shall be separated from the surrounding occupancy with a minimum 1 hour construction.</p>	<p>Within 3 months</p>




SI No.	Category	Findings	Required Action	Remediation Time Frame
				
3	Fire rated construction	The exit discharge path is less than 10 ft wide and is not separated from the building interior.	<p>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.</p> <p>Alternatively, provide a second remote discharge path to the public way (only include this if feasible).</p>	Within 3 months




SI No.	Category	Findings	Required Action	Remediation Time Frame
				
4	Fire rated construction	<p>Corridor serving more than 30 occupants is not separated by fire rated construction. Location: South side Shed-A (Winding, Bonded wear house, Finished Goods Area-1).</p>	<p>1. Separate the corridor by a minimum 1-hr fire rated construction. Or 2. Provide automatic sprinkler system throughout the story as per NFPA 13</p>	Within 3 months




SI No.	Category	Findings	Required Action	Remediation Time Frame
				
5	Fire rated construction	The newly constructed sheds have steel structural members with tin roof sheet.	<p>New construction shall be Type-1 or Type-2 construction in accordance with Accord standard 3.5.2.1 and BNBC Part-2, Table-3.2.4.</p> <p>Ensure fire-resistive rated construction following Section 4.4 and Table 4.4.1 of the Accord Standard or Table 3.3.1 and Table 4.1.1 from BNBC Part 4.</p>	Within 4 months




SI No.	Category	Findings	Required Action	Remediation Time Frame
				
6	Egress	Doors along means of egress are provided with non compliant locking system.	<ol style="list-style-type: none"> 1. Remove all non compliant locking features from egress doors. 2. If locks are required for security reasons, utilize special door locking features complying with NFPA 101. 3. Doors may be locked where the latch and lock are disengaged with one motion where the occupant load does not exceed 49 persons. 4. Doors may be provided with locking hardware from the ingress side provided that a panic bar is installed on any door with an occupant load exceeding 49 persons. 	Immediate



SI No.	Category	Findings	Required Action	Remediation Time Frame
7	Egress	 <p>Egress door serving 50 or more occupants] does not swing in the direction of egress travel.</p>	Modify the egress door to swing in the direction of egress travel.	Within 1 month





SI No.	Category	Findings	Required Action	Remediation Time Frame
				
8	Egress	Fire evacuation maps is not posted at the entrance of each exits.	Fire evacuation maps shall be posted at the entrance of each exits.	Within 1 month




SI No.	Category	Findings	Required Action	Remediation Time Frame
9	Egress	Occupant load sign is missing in several sheds.	Provide occupant load signs at all required locations.	Within 1 month
10	Egress	Storage was located in the egress path.	Keep egress path and stair clear of storage.	Immediate





SI No.	Category	Findings	Required Action	Remediation Time Frame
				
11	Egress	Aisles mark is not provided at floor. Location: Shed-B	Provide clear and unobstructed aisles width (minimum 36 in.) at all required locations.	Within 1 month




SI No.	Category	Findings	Required Action	Remediation Time Frame
				
12	Egress Lighting	Exit sign not provided at exit at several locations.	<p>Lighted exit signs shall be placed at entrance to an exit. Additional exit signs shall be placed throughout the facility anywhere the continuation of the egress is not obvious.</p> <p>Lighted exit signs shall be provided with either battery backup or uninterruptable power supply systems and shall be continuously illuminated.</p>	Within 1 month



SI No.	Category	Findings	Required Action	Remediation Time Frame
				
13	Egress Lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes.	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.	Within 3 Months



SI No.	Category	Findings	Required Action	Remediation Time Frame
				
14	Egress Lighting	Inspection, testing, and maintenance for the emergency lighting system was not in accordance with The ACCORD standard.	Inspect, test and maintain the emergency lighting system in the accordance with The ACCORD standard. Keep written records on-site.	Within 1 month



SI No.	Category	Findings	Required Action	Remediation Time Frame
15	Fire Alarm & Detection System	<p>The fire alarm and detection system is antiquated, not a listed system, and does not provide alarm and notification features consistent with acceptable standards.</p> <p>Note: Installation of addressable fire alarm system is going on without having approval from AHJ.</p>	<p>Replace the fire detection system with a new, listed addressable fire detection system in accordance with NFPA 72.</p>	<p>Design within 2 months, Install/Modify within 6 months</p>



SI No.	Category	Findings	Required Action	Remediation Time Frame
16	Fire Alarm & Detection System (ITM)	Inspection, testing, and maintenance for the fire alarm system is not in accordance with NFPA 72 or as per Accord standard.	Inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72 or as per Accord standard.	Within 9 months
17	Fire Protection	The required no smoking signs are not present in the factory.	Smoking is prohibited in any garment factory building or separate storage building. Signs shall be posted in Bengali and English at all building entrances. If the factory creates a designated smoking area outside the building, information of these areas will be posted on the signs.	Within 1 month

