

# FIRE SAFETY INSPECTION REPORT

## A Plus Sweater Ltd.

ACCORD ID: 12501

Sorifpur Road, Malekerbari, National University, Gazipur

23.966152, 90.377033

Other Factories: None



Inspected by: Md. Rakibul Alam & A K M Monoarul Huda

Date: 22 September, 2016



## Summery

**A Plus Sweater Ltd.** was surveyed for fire safety on September 22, 2016 by The Accord Inspection Team. This summary identifies the major deficiencies that were identified during the inspection. The purpose of this 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.

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 Accord for approval.



**Table 1. Findings And Recommendations**

| No. | Category                   | Finding                                                                                                                                             | Recommendation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Remediation<br>Timeframe |
|-----|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| F-1 | Fire Rated<br>Construction | Exit stairs are not separated from work areas & other spaces on each floor by fire-rated construction due to unprotected openings and penetrations. | <p>Separate the exit stairs from work areas and other building spaces on all floor levels by minimum 2- hr fire-rated construction. Provide minimum 1.5- hr fire rated doors and seal all unprotected openings and penetrations to maintain the fire separation.</p> <p>Ensure that all fire doors are self-closing and positive latching, and are provided with fire exit (panic) hardware where serving production floors or assembly occupancies.</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          |



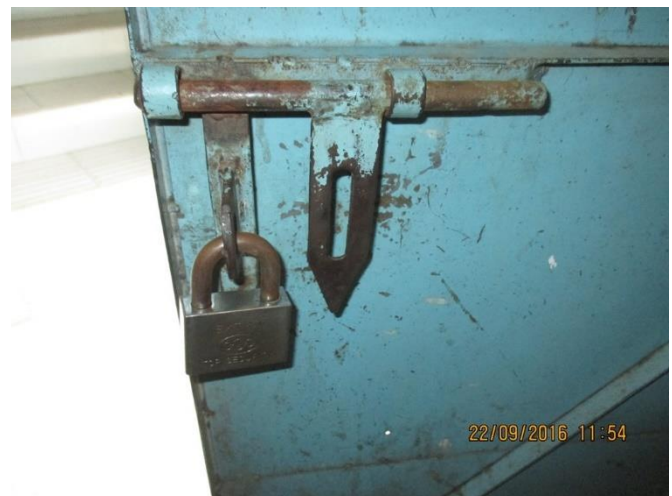
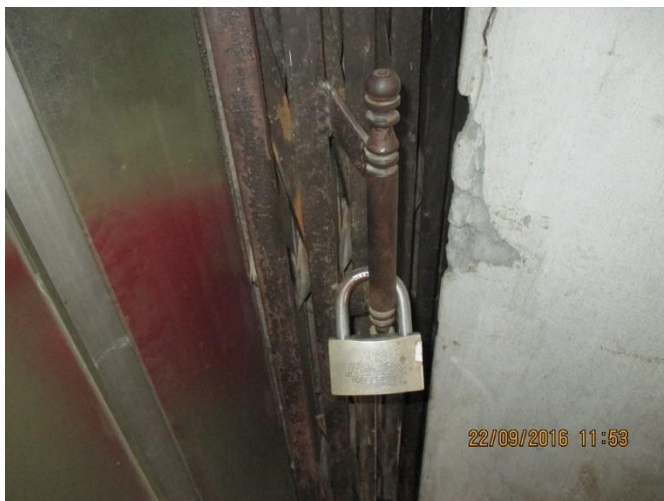


F-2 Egress Egress gates on the all floor with locking features are provided at all exits & exit discharge.

Remove locking features from all egress gates.

Immediately

If locks are required for security reasons, utilize special door locking features complying with ACCORD standard 6.8.2.



|     |                         |                                                                                                          |                                                                                    |                 |
|-----|-------------------------|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------|
| F-3 | Fire Rated Construction | Storage on the second floor and fourth floor is not separated by a minimum 1-hr fire-rated construction. | Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction. | Within 3 months |
|-----|-------------------------|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------|



|     |                         |                                                                          |                                                                                                   |                 |
|-----|-------------------------|--------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|-----------------|
| F-4 | Fire Rated Construction | Unsealed penetrations and openings are located in exit stair enclosures. | Seal all penetrations and openings in exit stair enclosure walls to maintain the fire separation. | Within 3 months |
|-----|-------------------------|--------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|-----------------|



|     |                         |                                                                                                      |                                                                                                                                                                                                                              |                 |
|-----|-------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| F-5 | Fire Rated Construction | The boiler room and substation room on the ground floor is not separated by fire-rated construction. | Separate the boiler and sub-Station room by a minimum 2-hr fire-rated construction. Seal and/or protect all openings to maintain the required fire separations. Provide proper ventilation and consult a qualified engineer. | Within 3 months |
|     |                         |                                                                                                      | If applicable: When located to the exterior of a building, separate the boiler by by a minimum distance of 3m (10 ft).                                                                                                       |                 |



|     |        |                                                                                                                                                            |                                                                                                                                                                                                                                            |                |
|-----|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| F-6 | Egress | Collapsible gates, sliding doors and roll down shutter type doors are provided at the building exits, exit stairs, along egress routes and exit discharge. | Replace all gates, sliding doors and rolling shutters along the means of egress with side-hinged, swinging egress doors.<br><br>If locks are required for security reasons, utilize special door locking features complying with NFPA 101. | Within 1 month |
|-----|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|



|     |                         |                                                                        |                                                                                                               |             |
|-----|-------------------------|------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-------------|
| F-7 | Fire Rated Construction | Liquefied or compressed gas cylinders were located within the factory. | The storage or use of liquefied or compressed flammable gas cylinders shall be prohibited within the factory. | Immediately |
|-----|-------------------------|------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-------------|





|     |                 |                                                                                                                                                     |                                                                                                                               |                                                   |
|-----|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| F-8 | Fire Protection | The fire alarm system is antiquated, not a listed system and does not provide alarm and notification features consistent with acceptable standards. | Replace the fire alarm system with a new, listed automatic fire alarm system in accordance with NFPA 72 and ACCORD standards. | Design within 4 months<br>Install within 9 months |
|-----|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|



|      |                 |                                                                                                                                                                                  |                                                                                                                                                                             |                                                   |
|------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| F-9  | Fire Protection | Inspection, testing and maintenance of the automatic fire alarm system is not in accordance with NFPA 72.                                                                        | Inspect, test and maintain the automatic fire alarm system and keep written records on-site, in accordance with NFPA 72 (after installation).                               | Within 1 month                                    |
| F-10 | Fire Protection | The building is equipped with single-station smoke alarms. Smoke alarm activation sounds only a local alarm and does not provide automatic fire alarm notification of occupants. | Remove single-station smoke alarms. Provide automatic smoke detection throughout the building, tied into the fire alarm system, in accordance NFPA 72 and ACCORD standards. | Design within 4 months<br>Install within 9 months |



|      |                 |                                                                                                                 |                                                                                                              |                                                   |
|------|-----------------|-----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| F-11 | Fire Protection | The existing building has an occupied floor greater than 10m (33 ft) and is not provided with standpipe system. | Provide standpipe system protection throughout the building in accordance with NFPA 14 and ACCORD standards. | Design within 3 months<br>Install within 6 months |
|------|-----------------|-----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|---------------------------------------------------|



|      |                 |                                                                                                                        |                                                                                                                                    |                 |
|------|-----------------|------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| F-12 | Fire Protection | 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 (after installation). | Within 1 month  |
| F-13 | Egress          | Egress door serving 50 or more occupants but does not swing in the direction of egress travel.<br><br>At ground floor. | Modify swing direction of egress doors to the direction of egress travel.                                                          | Within 3 months |



F-14 Egress

The width of egress  
aisles is less than 36-in.  
  
At different floors.

Aisles shall be provided with  
a minimum unobstructed  
clear-width of 0.9 m (36 in.).

Within 3  
months



|      |        |                                                               |                                                                                                                                                                                                                                                                                              |                 |
|------|--------|---------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| F-15 | Egress | Handrails are not provided on both sides of both exit stairs. | 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.) | Within 3 months |
|------|--------|---------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|



|      |        |                                                                        |                                                                                                          |                 |
|------|--------|------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-----------------|
| F-16 | Egress | Occupiable roof is not provided with an adequate parapet / guard rail. | All occupiable roofs shall be provided with parapets or guards with a minimum height of 1067 mm (42 in.) | Within 3 months |
|------|--------|------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-----------------|





F-17 Egress

Storage was located in the all exit stairs.

Remove all storage from exit stairs.

Immediately



F-18 Egress

Fire evacuation maps is not posted at the entrance of the exits stairs of the building.

Fire evacuation maps shall be posted at the entrance to each exits and exit stairs.

Within 1 month



|      |        |                                                                        |                                                                                                 |             |
|------|--------|------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------|
| F-19 | Egress | Egress aisles and egress paths were blocked and obstructed by storage. | Remove all storage from egress aisles and paths. Keep egress paths and stairs clear of storage. | Immediately |
|------|--------|------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------|



|      |        |                                                                          |                                                        |                |
|------|--------|--------------------------------------------------------------------------|--------------------------------------------------------|----------------|
| F-20 | Egress | Electrical panels are located inside the exit stairwell on ground floor. | Remove all electrical panels from the exit stairwells. | Within 1 month |
|------|--------|--------------------------------------------------------------------------|--------------------------------------------------------|----------------|



|      |                 |                                                          |                                                                                                                                                                                                                                                                                                                                                                         |                |
|------|-----------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| F-21 | Egress Lighting | Exit signage not illuminated (burned out, broken, etc.). | Regularly inspect all exit signage and replace/install lights as needed to illuminate signs. The source of illumination shall provide not less than 50 lux at the illuminated surface with a contrast of not less than 0.5. Approved self-luminous signs which provide evenly illuminated letters having a minimum luminance of 0.2 cd/m <sup>2</sup> may also be used. | Within 1 month |
|------|-----------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|



|      |                 |                                                                                                       |                                                                                                                                                                                                                                                                                                                                                |                |
|------|-----------------|-------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| F-22 | Egress Lighting | Directional exit signage were provided at south exit doors which indicating exits where none existed. | <p>Provide exit signs above all building exits to the exterior, all doors to the exit stairs and along all paths of travel where a change of direction is not obvious.</p> <p>Remove directional exit signs From the exit doors and insure that lighted exit signs are only visible from the side that directs people toward an exit path.</p> | Within 1 month |
|------|-----------------|-------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|





F-23 Egress Lighting

Emergency lighting did not function in test mode (burned out, broken, etc.).

Regularly test the emergency lighting system on each floor and replace/repair lights as needed.

Within 1 month



F-24 Egress Lighting

Manual on-off switch is provided for emergency lighting and exit signage units.

Remove manual on/off switches from emergency Lighting & exit signage units to prevent them from being switched off.

Within 1 month





|      |                 |                                                                                                                    |                                                                                                                                 |                 |
|------|-----------------|--------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-----------------|
| F-25 | Egress Lighting | Inspection, testing and maintenance for the emergency lighting system was not in accordance with ACCORD standards. | Inspect, test and maintain the emergency lighting system in the accordance with ACCORD standards. Keep written records on-site. | Within 3 months |
|------|-----------------|--------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-----------------|

|      |                 |                                                                                                                                      |                                                                                                                                                                                                                                                                                                                     |                 |
|------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| F-26 | 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 supply adequate illumination along the means of egress. Provide a minimum illumination of 10 lux at the floor level within exit stairs and along exit discharge paths and a minimum 2.5 lux along exit access aisles. | Within 3 months |
|------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|



|      |        |                                                                                                             |                                                                                    |             |
|------|--------|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------|
| F-27 | Egress | Building did not have stair designation sign, occupant load sign & floor level signs at required locations. | Provide occupant load sign, stair & floor designation signs at required locations. | Immediately |
|------|--------|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------|

|      |                 |                                                                                                       |                                                                                                                          |                |
|------|-----------------|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|----------------|
| F-28 | Fire Protection | Inspection, testing and maintenance of portable fire extinguishers is not in accordance with NFPA 10. | Inspect, test and maintain the portable fire extinguishers and keep written records on-site, in accordance with NFPA 10. | Within 1 month |
|------|-----------------|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|----------------|

