

# **FIRE SAFETY INSPECTION REPORT**

**AST KNITWEAR LTD.**  
**EAST CHANDANA, PLOT NO. 3/1, JOYDEVPUR**

**OTHER FACTORIES: NONE.**



**ACCORD**  
on Fire and Building Safety in Bangladesh

July 20, 2014

## **SUMMARY**

**AST Knitwear Ltd. was surveyed for fire safety on 7/20/2014 by Hughes Associates, Inc. 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.**

**Tables 1 - 2 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 - Building # 1.**

| No. | Category                | Finding                                                                                                                                   | Recommendation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Remediation Timeframe |
|-----|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| F-1 | Fire Rated Construction | <p>Areas used for combustible storage are not separated by fire-rated construction.</p> <p>Locations: 4th, 3rd, 2nd and ground floor.</p> | <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"> <li>- Maximum height of 2.4m and maximum area of 23m<sup>2</sup></li> <li>- If sprinkler protected: maximum height of 3.66m and maximum area of 93m<sup>2</sup></li> </ul> <p>Separate areas of unenclosed combustible storage by a minimum clear distance of 3m.</p> | Within 3 months       |





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| F-2 | Fire Rated Construction | The exit stairs are not separated from work areas, other spaces on each floor by fire-rated construction. | <p>Provide minimum 1.5-hr fire rated doors and seal all unprotected openings to separate the exit stairs from work areas and other building spaces on all floor levels. 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.</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 |
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| F-3 | Fire Rated Construction | <p>The boiler and generator rooms are not separated by fire-rated construction (openings, non-rated doors, penetrations).<br/>Locations: Boiler in 5th floor and generator in ground floor.</p> | <p>Separate the boiler and generator rooms by a minimum 2-hr fire-rated construction. Seal and/or protected all openings to maintain the required fire separations</p> | Within 3 months |
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| F-4 | Fire Rated Construction | Hazardous materials and flammable liquid storage area in ground floor is not separated by fire-rated construction (openings, non-rated doors). | Separate the hazardous materials / flammable liquid storage room by a minimum 2-hr fire-rated construction. Seal and/or protected all openings to maintain the required fire separations. | Within 3 months |
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| F-5 | Egress | <p>Egress doors with locking features are provided at building exits, exit stairs and along egress route.</p> <p>All doors were open and unlocked during the inspection.</p> | <p>Remove locking features from all egress doors.</p> <p>If locks are required for security reasons, utilize special door locking features complying with NFPA 101.</p> | Immediate |
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| F-6 | Egress | Sliding doors are provided at building exits, exit stairs and along egress routes. | Replace all sliding doors along the means of egress with side-hinged, swinging egress doors.               | Within 1 month |
|     |        |                                                                                    | If locks are required for security reasons, utilize special door locking features complying with NFPA 101. |                |



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| F-7 | Egress | Handrails are not provided in the east exit stair. | Provide handrails on at least one side of exit stair. | Within 3 months |
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| F-8 | Egress | Exit stairs discharge inside the building and has opening door going to storage room. | Provide 2-hr fire-rated exit passageway leading directly outside (vestibules to separate any storage areas). | Within 6 months |
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| F-9 | Egress | The exits are not remotely located from each other such that a single fire event could compromise both exits. (1st floor storage room). | Modify exit arrangement.<br>Or<br>Provide additional exits. | Within 6 months |
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| F-10 | 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 addressable fire alarm system in accordance with NFPA 72. | Design within 4 months, install within 9 months |
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| F-11 | Fire Protection | Inspection, testing, and maintenance of 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 3 months |
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| F-12 | Egress Lighting | During testing it was observe that manual on-off switch is provided for several emergency lighting units. | Remove manual on/off switches from emergency lighting units to prevent them from being switched off. | Within 1 month |
| F-13 | Egress Lighting | Several exit signage not illuminated (burned out, broken, etc.).                                          | Regularly inspect all exit signage and replace/install lights as needed to illuminate signs.         | Within 1 month |



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| F-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 accordance with The ACCORD standard. Keep written records on-site. | Within 3 months |
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**Table 2. Findings And Recommendations - Building # 2.**

| No. | Category                | Finding                                                                                          | Recommendation                                                                     | Remediation Timeframe |
|-----|-------------------------|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------------|
| F-1 | Fire Rated Construction | Rooms used for combustible storage in ground floor are not separated by fire-rated construction. | Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction. | Within 3 months       |



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| F-2 | Fire Rated Construction | The exit stairs are not separated from work areas, other spaces on each floor by fire-rated construction. | <p>Provide minimum 1.5-hr fire rated doors and seal all unprotected openings to separate the exit stairs from work areas and other building spaces on all floor levels. 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.</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 |
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|-----|-------------------------|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| F-3 | Fire Rated Construction | The boiler and generator rooms are not separated by fire-rated construction (openings, non-rated doors, penetrations). | Separate the boiler and generator rooms by a minimum 2-hr fire-rated construction. Seal and/or protected all openings to maintain the required fire separations | Within 3 months |
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| F-4 | Egress | <p>Egress doors with locking features are provided at building exits, exit stairs and along egress route.</p> <p>All doors were open and unlocked during the inspection.</p> | <p>Remove locking features from all egress doors.</p> <p>If locks are required for security reasons, utilize special door locking features complying with NFPA 101.</p> | Immediate |
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| F-5 | Egress | <p>No emergency evacuation plan was provided.</p>                                         | <p>Provide emergency evacuation plan posted at the entrances in every floor.</p>                                                                                                                                      | Immediate      |
| F-6 | Egress | <p>Sliding doors are provided at building exits, exit stairs and along egress routes.</p> | <p>Replace all sliding doors along the means of egress with side-hinged, swinging egress doors.</p> <p>If locks are required for security reasons, utilize special door locking features complying with NFPA 101.</p> | Within 1 month |



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| F-7 | Egress | Handrails are not provided in the west exit stair. | Provide handrails on at least one side of exit stair. | Within 3 months |
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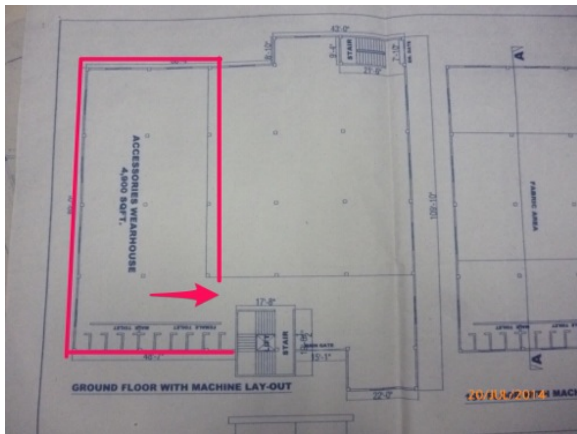
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| F-8 | Egress | A single means of egress is provided at the storage in ground floor resulting to common path of travel. | Provide additional means of egress. | Within 3 months |
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| F-9 | Egress | Both exit stairs discharge inside the building and has opening door going to storage room. | Provide 2-hr fire-rated exit passageway leading directly outside (vestibules to separate any storage areas). | Within 6 months |
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|------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| F-10 | 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 addressable fire alarm system in accordance with NFPA 72. | Design within 4 months, install within 9 months |
|------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|-------------------------------------------------|



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| F-11 | Egress Lighting | Emergency lights are not yet complete during inspection. | 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 1 month |
| F-12 | Egress Lighting | Exit signage are not yet complete during inspection.     | Provide exit signs above all exits to the exterior and all doors to the exit stairs.                                                                                                                           | Within 1 month |