

# **FIRE SAFETY INSPECTION REPORT**

**GILDAN SHAHRIYAR FABRIC IND**  
**PALASHBARI, ASHULIA, SAVAR, DHAKA-1349**  
**BANGLADESH**

**OTHER FACTORIES: NONE**



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

July 16, 2014

## **SUMMARY**

**Gildan Shahriyar Fabric Ind was surveyed for fire safety on 7/16/2014 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.**

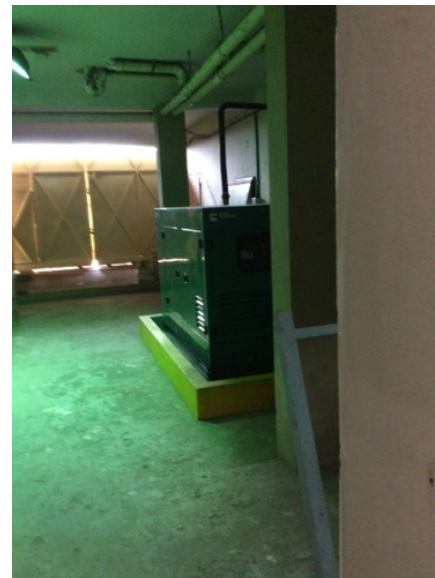
**Table 1. Findings And Recommendations - Building 1**

| No. | Category                | Finding                                                                                                                                                                                                 | Recommendation                                                                                                                                                                            | Remediation Timeframe |
|-----|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| F-1 | Fire Rated Construction | Hazardous materials and flammable liquid storage area is not separated by fire-rated construction (openings, non-rated doors, penetrations).<br>Location: Third floor in maintenance and storage rooms. | 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       |





|     |                         |                                                                                                                                                                                    |                                                                                                                                                                               |                 |
|-----|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| F-2 | Fire Rated Construction | The boiler, generator and transformers rooms are not separated by fire-rated construction (openings, non-rated doors, penetrations). Location: Building (1) shed (4) and shed (5). | Separate the boiler, generator and transformers rooms by a minimum 2-hr fire-rated construction. Seal and/or protected all openings to maintain the required fire separations | Within 3 months |
|-----|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|



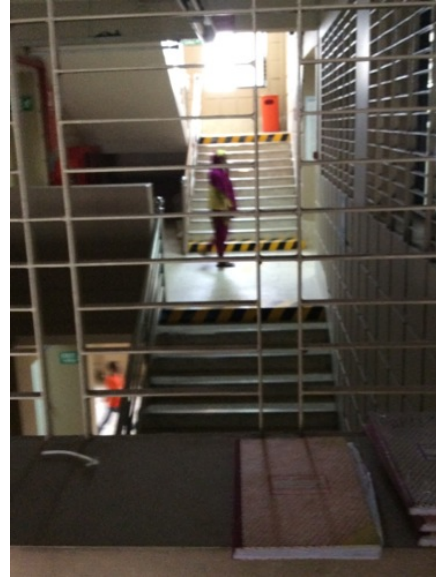


---

|     |                         |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |
|-----|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| F-3 | Fire Rated Construction | <p>The exit stairs are not separated from work areas, other spaces on each floor by fire-rated construction.</p> <p>Location: On all floors.</p> | <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 |
|-----|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|



|     |                         |                                                                                                                                                                                           |                                                                                                          |                        |
|-----|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------------------|
| F-4 | Fire Rated Construction | <p>Unsealed penetrations and openings are located in exit stair enclosures.</p> <p>Location: The three internal stairwells all had windows into the stairwell from the factory floor.</p> | <p>Seal all penetrations and openings in exit stair enclosure walls to maintain the fire separation.</p> | <p>Within 3 months</p> |
|-----|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------------------|



|     |                         |                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                 |
|-----|-------------------------|--------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| F-5 | Fire Rated Construction | Areas used for combustible storage are not separated by fire-rated construction.<br>Location: On all floors. | Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction.<br><br>Where separate storage rooms are not feasible, provide defined storage areas and limit the storage arrangement as follows:<br>- Maximum height of 2.4m and maximum area of 23m <sup>2</sup><br>- If sprinkler protected: maximum height of 3.66m and maximum area of 93m <sup>2</sup><br><br>Separate areas of unenclosed combustible storage by a minimum clear distance of 3m. | Within 3 months |
|-----|-------------------------|--------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|





|     |                         |                                                                                                              |                                                                                    |                 |
|-----|-------------------------|--------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------|
| F-6 | Fire Rated Construction | Rooms used for combustible storage are not separated by fire-rated construction.<br>Location: On all floors. | Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction. | Within 3 months |
|-----|-------------------------|--------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------|





|     |        |                                                                                                                                                                                                                       |                                                                                                                                                                          |           |
|-----|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| F-7 | Egress | Egress doors / gates with locking features are provided at building exits, exit stairs, along egress routes, exit discharge.<br>Location: On all floors all gates/doors were open and unlocked during the inspection. | Remove locking features from all egress doors / gates.<br><br>If locks are required for security reasons, utilize special door locking features complying with NFPA 101. | Immediate |
|-----|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|





---

|     |        |                                                                                                                                                                                                             |                                                                         |           |
|-----|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-----------|
| F-8 | Egress | <p>Storage was located under stairs. and on stairs.</p> <p>Location: Ground floor and basement storage under-stairs and workers and in basement their was storage of boxes on one of the egress stairs.</p> | <p>Keep storage from under stairs and keep stairs clear of storage.</p> | Immediate |
|-----|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-----------|





---

|     |        |                                                                     |                                                |           |
|-----|--------|---------------------------------------------------------------------|------------------------------------------------|-----------|
| F-9 | Egress | Storage was located in the egress path.<br>Location: On all floors. | Keep egress paths and stairs clear of storage. | Immediate |
|-----|--------|---------------------------------------------------------------------|------------------------------------------------|-----------|





|      |        |                                                                                                                                                            |                                                                                                                                                                                                                               |                       |
|------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| F-10 | Egress | <p>Collapsible gates / sliding doors are provided at building exits, exit stairs, along egress routes, exit discharge.</p> <p>Location: On all floors.</p> | <p>Replace all gates / 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> | <p>Within 1 month</p> |
|------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|





---

|      |        |                                                                                                        |                                        |                 |
|------|--------|--------------------------------------------------------------------------------------------------------|----------------------------------------|-----------------|
| F-11 | Egress | The width of egress aisles is less than 36-in.<br>Location: On first, second, third and fourth floors. | Provide minimum aisle widths of 36-in. | Within 3 months |
|------|--------|--------------------------------------------------------------------------------------------------------|----------------------------------------|-----------------|

---





|      |                 |                                                                                                                                                                                  |                                                                                                                                                                                        |                                                 |
|------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| F-12 | 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 |
| F-13 | Fire Protection | Activation of the fire alarm system by a manual fire alarm station provides automatic occupant notification only on the floor of alarm and not throughout the building.          | Configure the fire alarm system to initiate automatic occupant notification on all floor levels to facilitate whole-building evacuation upon any manual fire alarm station activation. | Within 1 months                                 |
| F-14 | 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 with NFPA 72.                            | Within 6 months                                 |

|      |                 |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                              |                 |
|------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| F-15 | 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 |
| F-16 | Egress Lighting | Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes.<br>Location: On all floors lights not marked. | 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 |



**Table 2. Findings And Recommendations - Building 2**

| No. | Category                | Finding                                                                                                                                                                 | Recommendation                                                                                                                                                                               | Remediation Timeframe |
|-----|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| F-1 | Fire Rated Construction | Hazardous materials and flammable liquid storage area is not separated by fire-rated construction (openings, non-rated doors, penetrations).<br>Location: Ground floor. | Separate the hazardous materials and flammable liquid storage rooms by a minimum 2-hr fire-rated construction. Seal and/or protected all openings to maintain the required fire separations. | Within 3 months       |





|     |                         |                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |
|-----|-------------------------|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| F-2 | Fire Rated Construction | <p>Areas used for combustible storage are not separated by fire-rated construction.</p> <p>Location: 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 |
|-----|-------------------------|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|



|     |                         |                                                                                                             |                                                                                    |                 |
|-----|-------------------------|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------|
| F-3 | Fire Rated Construction | Rooms used for combustible storage are not separated by fire-rated construction.<br>Location: Ground floor. | Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction. | Within 3 months |
|-----|-------------------------|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------|



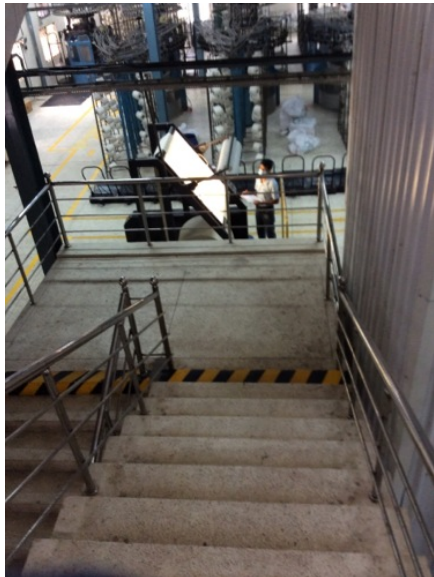
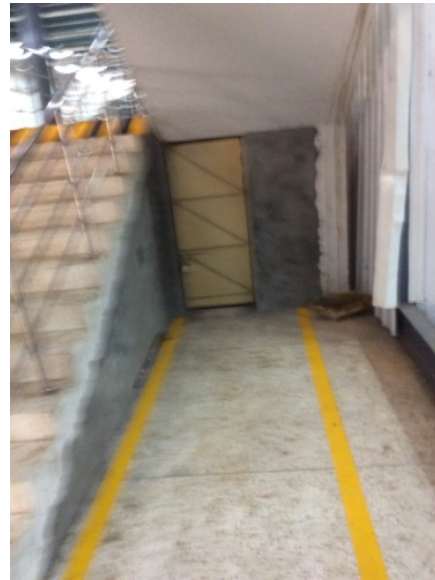
|     |        |                                                                                                                                                                                                                      |                                                                                                                                                                          |           |
|-----|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| F-4 | Egress | Egress doors / gates with locking features are provided at building exits, exit stairs, along egress routes, exit discharge.<br>Location: Ground floor all gates/doors were open and unlocked during the inspection. | Remove locking features from all egress doors / gates.<br><br>If locks are required for security reasons, utilize special door locking features complying with NFPA 101. | Immediate |
|-----|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|



|     |        |                                                                                                                                                           |                                                                                                                                                                                                                               |                       |
|-----|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| F-5 | Egress | <p>Collapsible gates / sliding doors are provided at building exits, exit stairs, along egress routes, exit discharge.</p> <p>Location: Ground floor.</p> | <p>Replace all gates / 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> | <p>Within 1 month</p> |
|-----|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|



|     |        |                                                                                                      |                                                                              |                 |
|-----|--------|------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-----------------|
| F-6 | Egress | Exit stairs discharge inside the building.<br>Location: The stair discharges to factory ground floor | Provide sprinkler protection for discharge floor in accordance with NFPA 13. | Within 6 months |
|-----|--------|------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-----------------|



|     |                 |                                                                                                                                                      |                                                                                                            |                                                 |
|-----|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| F-7 | 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 |
|-----|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|-------------------------------------------------|

|     |                 |                                                                                                                          |                                                                                                 |                |
|-----|-----------------|--------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------|
| F-8 | Egress Lighting | Emergency lighting did not function in test mode (burned out, broken, etc.).<br>Location: second floor training section. | Regularly test the emergency lighting system on each floor and replace/repair lights as needed. | Within 1 month |
|-----|-----------------|--------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------|



|     |                 |                                                                                                                        |                                                                                                                                |                 |
|-----|-----------------|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|-----------------|
| F-9 | 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 |
|-----|-----------------|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|-----------------|

---

|      |                 |                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                              |                 |
|------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| F-10 | Egress Lighting | Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes.<br>Location: Ground and first floor. | 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 |
|------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|