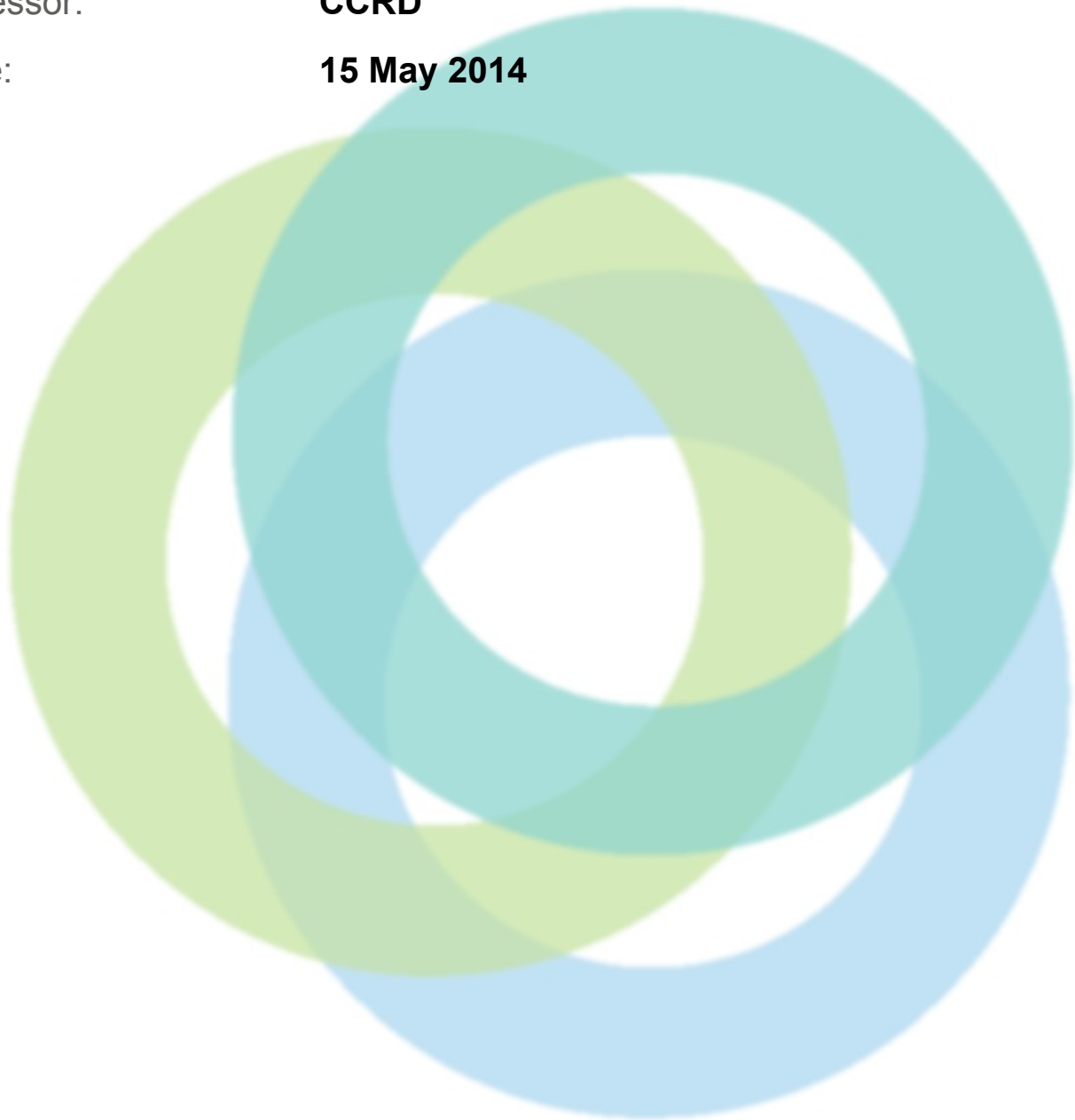


# INITIAL FIRE ASSESSMENT REPORT (FAR)

Factory Name: **CROWN WEARS (PVT.) LIMITED**  
Address: **Zamirdia, Habirbari Union, Bhaluka, Mymensingh  
Mymensingh Dhaka Bangladesh**  
Assessor: **CCRD**  
Date: **15 May 2014**



## Introduction to the Report

The following report contains a site profile and summary of non-conformities identified during an onsite assessment commissioned by the Alliance for Bangladesh Worker Safety (Alliance) and conducted by a third-party Qualified Assessment Firm (QAF). The assessment was conducted against the Alliance for Bangladesh Worker Safety Assessment Protocols (APs) and Fire Safety and Structural Integrity Standard, which is harmonized with the factory assessment guidelines developed by Bangladesh University of Engineering and Technology (BUET) for the Bangladesh National Tripartite Plan of Action (NTPA). The goal of the Alliance process is to provide clear and practical technical requirements by which Bangladeshi Ready Made Garment (RMG) Factories producing for Alliance members may be consistently and fairly evaluated for fire, structural, and electrical safety in a non-duplicative manner. Each assessment will prompt action plans that will be used by RMG factories to systematically and sustainably improve safety conditions for garment workers. Beyond tracking and reporting on action steps taken in a transparent manner, the Alliance organization and its members will seek to further support factory improvements through technical assistance, training, implementation support for functional Worker Committees, and in some cases financial assistance and wage support for workers if factories are closed for remediation.

The contents of the report do not constitute a guarantee of compliance with the applicable laws, the Alliance Standard or the absolute or continued safety against fire, electrical and/or structural integrity issues that may lead to injury or loss of life. The report is designed to provide a non-exhaustive summary of risk issues, based on a limited sampling and duration of time onsite by the named QAF. Neither the QAF nor the Alliance can certify or guarantee the quality, outcome, or effectiveness of actions taken in response to the report.

For more information and report feedback please go to: [www.bangladeshworkersafety.org](http://www.bangladeshworkersafety.org).





## GENERAL INFORMATION

General Information	
Factory Name:	CROWN WEARS (PVT.) LIMITED
Address:	Zamirdia, Habirbari Union, Bhaluka, Mymensingh Mymensingh Dhaka Bangladesh
Country:	Bangladesh
Province:	Dhaka
City:	Mymensingh
Zip Code:	2240
Audit Duration:	
Re-Audit:	Re-Audit After 0 Months
Draft Report Date:	June 23, 2014
Final Report Date:	June 30, 2014
Are all Action Items From Previous Assessment Completed?:	N/A
Buildings in Complex:	3
Is the building(s) owned or rented by the Factory:	Owned
Number of Building Levels (Stories):	Bldg 1: 4 completed & 2 more planned, Bldg 2: 4 stories, Bldg 3: 4 stories, Bldg 4: 7 stories proposed,
Approximate Building Area (SF):	Bldg 1: 235436 SF
Date of Building Construction:	Feb 2011
Date of Last Building Renovation/Addition:	Feb 2011
Ancillary Structures in Complex:	Generator/ Substation/ Boiler Shed
Approximate Ancillary Structures Area (SF):	unknown
Number of Occupants:	Bldg 1: 2780, Bldg 2: 656, Bldg 3: 25.

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Number of Ancillary Levels (Stories):	1
Occupancy Type:	Sewing Factory / Warehouse
Construction Type:	Reinforced Concrete
Height of Highest Occupied Floor Level Above Grade:	Building 1- 35 ft, Building 2- 35 ft, Building 3 - 35 ft, Building 4 - 65 ft



## ASSESSMENT FINDINGS

### Fire Protection Construction

Question:	Are openings and penetrations through rated walls and/or assemblies protected?	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	Wall penetrations are not protected with firestop systems.	
Source of Findings:	Visual Assessment: Penetrations not protected	
Suggested Plan of Action:	Install listed firestop systems at every penetration through fire rated walls and assemblies.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Includes doors, windows, ducts, piping, etc. Reference Alliance Standards Part 4 Section 4.6 Opening Protectives and Section 4.7 Penetrations	
Question:	Is each floor separated with a fire-resistive rated construction barrier?	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	Floor penetrations are not protected with firestop systems.	
Source of Findings:	Visual Assessment: Penetrations not protected	
Suggested Plan of Action:	Install listed firestop systems at every penetration through floors.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Reference Alliance Standards Part 4 Section 4.5 Separation	
Question:	Are exit enclosures provided with fire-resistive rated construction barriers?	
Priority Level:	High	
Non-Compliance Level:	1	
Description:	Steel doors in the stairs have windows. The doors are unlabeled, unlisted and unapproved. Doors were not equipped with required closers.	
Source of Findings:	Photograph: This steel door has a window. The door is unlabeled, unlisted and unapproved. It was not equipped with a closer.	



Suggested Plan of Action:	Protect all egress stairs with a shaft enclosure including 2-hour fire-rated construction. Install approved, listed, labeled fire rated doors that include the approved closing hardware and sequencers. Install electromagnetic hold open devices connected to the fire alarm system or keep the doors normally closed.
Suggested Deadline Date:	31 Dec 2014
Standard:	Reference Alliance Standards Part 4 Section 4.5 Separation
Question:	Are separations between hazards provided with fire-resistive rated construction barriers.
Priority Level:	Medium
Non-Compliance Level:	3
Description:	Storage areas and hazardous areas are open to rest of building. Building 2 laundry is open to the boiler/generator area.
Source of Findings:	Visual Assessment: No separation of hazard areas
Suggested Plan of Action:	Provide fire-resistive rated construction barriers between hazard types in accordance with Alliance Standard Sections 3.4.2 and 4.5. Consult a qualified fire protection engineer to design the required rated construction barrier.
Suggested Deadline Date:	31 Dec 2014
Standard:	Reference Alliance Standards Part 4 Section 4.5 Separation
<b>Fire Protection Systems</b>	
Question:	Does the building have a Standpipe System?
Priority Level:	High
Non-Compliance Level:	2
Description:	Hose stations were installed on each floor for use by building occupants.
Source of Findings:	Visual Assessment: Small hose stations
Suggested Plan of Action:	Install a Class III standpipe system at required locations. Standpipe system must comply with NFPA 14.
Suggested Deadline Date:	31 Dec 2014
Standard:	Does the building have a standpipe system installed where required. Alliance Standard Part 5 Section 5.4.2
Question:	Does the building have a fire pump?
Priority Level:	High



Non-Compliance Level:	2	
Description:	A 5 hp, 5 bar pump is installed.	
Source of Findings:	Visual Assessment: Non-listed fire pump installed.	
Suggested Plan of Action:	Install a listed, approved fire pump to supply the calculated demand of the required standpipe system, per NFPA 20.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Alliance Standard Part 5 Fire Protection Systems	
Question:	Are notification and initiation devices for the fire alarm system installed at required locations based on occupancy type?	
Priority Level:	High	
Non-Compliance Level:	2	
Description:	There is a manual fire alarm system in the building. Fire alarm buttons are installed near the entrances to the exit stairs. Battery powered smoke alarms are not connected to the fire alarm system. Smoke detectors are planned. Horns and beacons are installed for notification.	
Source of Findings:	Visual Assessment: Non automatic fire alarm system	
Suggested Plan of Action:	Add strobes for improved visual notification. Add smoke detectors. All systems, devices and installation shall comply with NFPA 72. Submit plans for approval.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Pull stations at egress points, smoke detectors in air handling equipment, visual and audible devices spaced appropriately based on occupancy type. Reference NFPA 72	
Question:	Is the fire alarm and detection system monitored by a central station monitoring service or directly connected to the Fire Service and Civil Defense?	
Priority Level:	Medium	
Non-Compliance Level:	3	
Description:	No central reporting system was installed.	
Source of Findings:	Visual Assessment: No central fire alarm reporting	
Suggested Plan of Action:	Arrange for direct connection of the fire alarm and detection system to a central station monitoring service or the Fire Service and Civil Defense. Assign a person to contact the fire department in the event of fire alarm activation until this connection is set up. Locate an annunciator to alert this person in a constantly attended location (such as a fire control room).	





Suggested Deadline Date:	31 Dec 2014	
Standard:	Alliance Standard Part 5 Section 5.7.5 Monitoring	
<b>Means of Egress</b>		
Question:	Occupant loads on each level (floor) do not exceed the capacity of the available means of egress.	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	Gnd load= 276 capacity=673, 1st load= 739 capacity=673, 2nd load=1216 capacity=673, 3rd load= 549 capacity=673. Stair 5 is not suitable for egress and is only a convenience stair.	
Source of Findings:	Visual Assessment: Inadequate exit capacity	
Suggested Plan of Action:	Install additional egress stairs to accommodate the floor occupant load of 1216. Alternately, reduce the maximum number of occupants at any time to 673 persons.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Alliance Standard Part 6 Section 6.4 Occupant Load	
Question:	Exit discharge is directly to the exterior of the building, unless the requirements of 6.17.2 are met, at grade or provides direct access to grade. Exit discharge shall not reenter a building.	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	Building 2 stair 3 discharged into the laundry on the ground floor. The laundry included an exit into the boiler/generator shed.	
Source of Findings:	Photograph: The laundry included an exit into the boiler/generator shed.	
Suggested Plan of Action:	Reroute exit discharge directly to the exterior. Construct rated egress corridors to connect stair discharge to an exterior discharge.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Alliance Standard Part 6 Section 6.17 Exit Discharge. See Section 16.7.2 and 16.7.3 for exceptions.	
Question:	Doors along the path of egress have a minimum width of 0.8 m (32 in) and have required ratings.	
Priority Level:	High	



Non-Compliance Level:	3
Description:	All doors were unrated. Existing steel doors were not labeled, listed or approved, and did not include the required hardware.
Source of Findings:	Visual Assessment: Unrated doors
Suggested Plan of Action:	Remove all existing gates and doors. Install fire doors at the stairs that and are listed, approved, swinging, automatic-closing, in compatible fire rated frames with latching panic hardware.
Suggested Deadline Date:	31 Dec 2014
Standard:	Alliance Standard Part 6 Section 6.5.6 Minimum Widths. Increased occupant loads will require a door width greater than 0.8 m.
Question:	Landings are provided with the same width in the direction of egress travel as the stair clear width provided at each level and at intermediate landings. Existing landings that are less than the stair width, shall reduce the overall available capacity of the stair.
Priority Level:	High
Non-Compliance Level:	3
Description:	Stair landings are narrower than the stairs.
Source of Findings:	Visual Assessment: Reduced width landings
Suggested Plan of Action:	The calculated stair width has been reduced to the landing width. Alternately, stair capacity can be increased by reworking the stair landings to match the stair widths.
Suggested Deadline Date:	31 Dec 2014
Standard:	Alliance Standard Part 6 Section 6.9 Stairs and Section 6.5
Question:	Exterior exit stairs are separated from the building with the required rating. The rating of the exterior wall shall extend 3.05 m (10 ft) beyond the ends of the stair structure.
Priority Level:	High
Non-Compliance Level:	3
Description:	Building 2 emergency stair is open and is exposed to the generator and boiler and travels through the generator exhaust.
Source of Findings:	Photograph: Building 2 emergency stair travels through the boiler/generator shed.
Suggested Plan of Action:	Separated the emergency stair from the building with 2-hour rated construction. The separation shall extend 10 feet from the emergency stair in each direction.





Suggested Deadline Date:	31 Dec 2014	
Standard:	Alliance Standard Part 6 Section 6.3.1.2. Three stories or less 1-hr rating. Four stories of more 2-hr rating	
Question:	The path of egress along the means of egress is not reduced at any point along the path of travel and is sufficient for the occupant load.	
Priority Level:	High	
Non-Compliance Level:	2	
Description:	Building 2 stair 2 is 4'-4" wide but discharges through a 3'-11" gate.	
Source of Findings:	Photograph: Gate reduces egress width.	
Suggested Plan of Action:	Remove gates and install required fire doors.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Alliance Standard Part 6 Section 6.5 Egress Width and BNBC Table 4.3.2	
Question:	Doors are not locked in the direction of egress under any conditions. All hasps, locks, slide bolts, and other locking devices have been removed where required.	
Priority Level:	High	
Non-Compliance Level:	2	
Description:	Sliding gates and roll up doors are equipped with hasps and locks. Doors and gates are normally open.	
Source of Findings:	Visual Assessment: Locking devices installed	
Suggested Plan of Action:	Remove all locking devices from all egress doors and means of egress components.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Alliance Standards Part 6 Section 6.8 Doors and Gates	
Question:	All doors in a means of egress are of the side-hinged swinging type.	
Priority Level:	High	
Non-Compliance Level:	2	
Description:	Sliding gates and roll-up doors are installed.	
Source of Findings:	Photograph: Roll up doors installed over swinging doors.	



Suggested Plan of Action:	Remove all existing gates and roll up doors. All doors shall be side-hinged doors that swing in the direction of egress.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Alliance Standards Part 6 Section 6.8 Doors and Gates	
Question:	Means of egress are free from impediments, obstructions, and stored materials.	
Priority Level:	High	
Non-Compliance Level:	1	
Description:	Sliding gate tracks create tripping hazards. Stools, sand buckets and others items are stored in the stairs. Thresholds are installed.	
Source of Findings:	Photograph: Thresholds are installed. Sand buckets and others items are stored in the stairs.	
Suggested Plan of Action:	Remove all impediments, obstructions, and stored materials from the means of egress. Keep all elements of the means of egress (exit path, aisles, stairs, corridors, etc.) continuously free and clear of all obstructions. Remove thresholds and replace with compliant ramps.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Alliance Standard Part 6 Section 6.3.8 Impediments to means of egress and Section 6.3.9 Reliability	
Question:	Occupant loads are posted for every assembly and production floor in a conspicuous space near the main point of egress.	
Priority Level:	Medium	
Non-Compliance Level:	3	
Description:	No occupant load signs are posted.	
Source of Findings:	Visual Assessment: No signage provided	
Suggested Plan of Action:	Post the occupant load for all assembly and production floor areas in a conspicuous space near the main exit or exit access doorway for the space.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Alliance Standards Part 6 Section 6.4.4 Posting of Occupant Load	



Question:	Handrails are provided on both sides of each stairway. Intermediate handrails are provided when the stair width exceeds 2.2 m (87 in.). Handrails are not mounted lower than 760 mm (30 in.) or higher than 1100 mm (44 in.).
Priority Level:	Medium
Non-Compliance Level:	3
Description:	No handrails are provided in some stairs.
Source of Findings:	Photograph: No handrails are provided in the stair.
Suggested Plan of Action:	Provide handrails on both sides of each stairway. Mount handrails at a height between 30 in. and 44 in.
Suggested Deadline Date:	31 Dec 2014
Standard:	Alliance Standard Part 6 Section 6.9 Stairs and 6.12 Handrails and Guards
Question:	All paths of egress are provided with compliant means of illumination.
Priority Level:	Medium
Non-Compliance Level:	1
Description:	Some emergency lights were present and installed on emergency power.
Source of Findings:	Visual Assessment: Insufficient emergency exit lighting
Suggested Plan of Action:	Install emergency lighting for all paths of egress. Illumination needs to be a minimum of 10 lux for all corridors, exit doors and stairways. Illumination for aisles needs to be a minimum of 2.5 lux.
Suggested Deadline Date:	31 Dec 2015
Standard:	Alliance Standards Part 6 Section 6.7 Egress Illumination and Part 10 Section 10.12 Illumination of Exit Signs and Means Of Escape
Question:	Illuminated exit signs are placed at entrances to exits and along the path of egress anywhere the continuation of egress is not obvious or there is a change in the direction of the path of travel.
Priority Level:	Medium
Non-Compliance Level:	1
Description:	Lighted exit signs were installed only at the exits.
Source of Findings:	Visual Assessment: Insufficient exit signage
Suggested Plan of Action:	Provide continuously illuminated exit signs. Signs shall be placed at all required exits and along egress paths, especially where there is a change in direction for the path of travel.





Suggested Deadline Date:	31 Dec 2014	
Standard:	Alliance Standard Part 6 Section 6.11 Exit Signs	
Question:	Stair designation signs are provided at each floor entrance from the stair to the floor in English and Bengali. Signs indicate the name of the stair and the floor level. Signs are posted adjacent to the door.	
Priority Level:	Low	
Non-Compliance Level:	3	
Description:	Stair designation signs are not provided.	
Source of Findings:	Visual Assessment: No signage provided	
Suggested Plan of Action:	Install signage adjacent to each stair door indicating the stair name and the floor level in both English and Bengali.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Alliance Standard Part 6 Section 6.9 Stairs	
<b>Fire Safety Programs</b>		
Question:	Storage areas underneath the cutting tables are clear of combustibles.	
Priority Level:	Medium	
Non-Compliance Level:	3	
Description:	Combustibles were stored under the cutting tables.	
Source of Findings:	Visual Assessment: Storage under cutting tables	
Suggested Plan of Action:	Remove all storage underneath the cutting tables and similar obstructions.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Alliance Standard Part 17 Section 13.7.2 Cutting tables.	
Question:	A hot-work permit program has been established.	
Priority Level:	Low	
Non-Compliance Level:	3	
Description:	No hot work program was in place.	
Source of Findings:	Document Review: No documented program	
Suggested Plan of	Implement a hot work permit program. Comply with the requirements of NFPA	

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Action:	51B.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Alliance Standards Part 13 Section 13.4 Hot Work Permit and NFPA 51B	