INITIAL FIRE ASSESSMENT REPORT (FAR)

Factory Name:	**DNV CLOTHING LTD**
Address:	**100/101, Adamjee Nagar, Adamjee EPZ, Siddirgonj, Narayangonj Siddirgonj Dhaka Bangladesh**
Assessor:	**CCRD**
Date:	**25 Mar 2013**

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.

GENERAL INFORMATION

General Information	
Factory Name:	DNV CLOTHING LTD
Address:	100/101, Adamjee Nagar, Adamjee EPZ, Siddirgonj, Narayangonj Siddirgonj Dhaka Bangladesh
Country:	Bangladesh
Province:	Dhaka
City:	Siddirgonj
Zip Code:	1431
Audit Duration:	
Re-Audit:	Re-Audit After 0 Months
Draft Report Date:	June 29, 2014
Final Report Date:	June 30, 2014
Are all Action Items From Previous Assessment Completed?:	N/A
Buildings in Complex:	1 factory
Is the building(s) owned or rented by the Factory:	Owned
Number of Building Levels (Stories):	4
Approximate Building Area (SF):	122600 SF
Date of Building Construction:	unknown
Date of Last Building Renovation/Addition:	unknown
Ancillary Structures in Complex:	0
Approximate Ancillary Structures Area (SF):	N/A
Number of Occupants:	2133

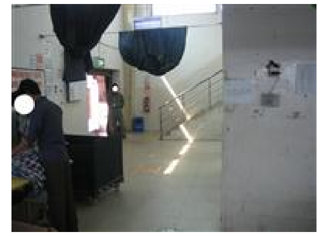
Number of Ancillary Levels (Stories):	N/A
Occupancy Type:	Sewing factory
Construction Type:	Nonrated noncombustible materials with a composition built-up roof. Plywood is used on the walls in several areas.
Height of Highest Occupied Floor Level Above Grade:	35 ft

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: Unprotected penetrations	
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: Unprotected penetrations	
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:	3
Description:	Exit stairs in the factory building are open to all levels, with no fire rated separation. The stair enclosures will need to provide a continuous 2-hr. fire rating for the full height of the stairs. During the inspection it was noted that the stair shafts have openings at the ceiling. The stair enclosure at Level 3 for Stair 1 is not properly designed and installed to prohibit smoke from entering the stair.
Source of Findings:	Photograph: (1) Stair not separated, (2) Opening above sliding gate at stair
Suggested Plan of Action:	Protect all egress stairs with a shaft enclosure including 2-hour fire-rated construction. Install fire rated doors. In order to prevent smoke migration, a new ceiling needs to be installed in stair 1 that will provide a smoke tight 2-hour fire rated ceiling assembly.
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.
Source of Findings:	Photograph: Storage areas not separated
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

Fire Protection Systems

Question:	Is the building protected by an automatic sprinkler system?
Priority Level:	High
Non-Compliance Level:	3
Description:	No sprinkler system was installed. As the floor area exceeds 22,000 sq. ft. and the building is non-rated construction more than 2 stories, automatic sprinkler protection is required throughout the building per Alliance Standard 3.5.3.1.

Source of Findings:	Visual Assessment: No sprinkler protection.	
Suggested Plan of Action:	Install automatic fire sprinkler systems throughout the facility. System shall be designed by a qualified fire protection engineer and plans shall be submitted to Alliance for review prior to installation.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Reference Alliance Standards Part 3 Section 3.5.3 Existing Buildings, Part 5 Section 5.3 Automatic Sprinkler Systems and Section 6.13 Travel Distance	
Question:	Does the building have a fire pump?	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	The facility does not have its own fire pump or water storage on site. The water supply for the building and for the fire service is provided by the industrial park. The industrial park has two water storage tanks, each located within a half mile of the facility. Facility management has been requested to verify the capacity of the water storage tanks, average level of water maintained in each of these tanks, and water pressure available at the facility. This information is required to determine whether the available water supply from the industrial park will be sufficient to meet sprinkler system hydraulic demand.	
Source of Findings:	Photograph: One of the two water tanks serving the industrial park.	
Suggested Plan of Action:	Install a listed, approved fire pump to supply the demand of sprinkler and standpipe system, per NFPA 20. If necesssary, install a water storage tank to supply the demand of the sprinkler and standpipe system, according to NFPA 22.	
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:	3	
Description:	A manual alarm system is installed, but devices are not located as required.	
Source of Findings:	Photograph: Residential smoke alarm	
Suggested Plan of Action:	Replace the existing fire alarm system. Install fire alarm system per NFPA 72. Include pull stations at all entrances to exit stairs, at ground floor exits, and at exits of storage rooms. Install strobes and horns for complete notification on all floors. Install smoke detectors that are part of the fire alarm system in locations required by Alliance standards.	

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:	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 occupants.	
Source of Findings:	Visual Assessment: Small hose stations installed	
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:	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	
Means of Egress		
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:	Based on the current occupant load of the 3rd floor (1,120) and the available exit stair width of 192 in (4876 mm), there is insufficient exit capacity for the occupant load using the 8 mm/person occupant load factor (BNBC) for an unsprinklered building. If automatic sprinkler protection is provided, then the exit capacity factor for the stair width is 5 mm/person and capacity is 975.	
Source of Findings:	Visual Assessment: Insufficient exit capacity	
Suggested Plan of Action:	An additional stair shall be provided in order to provide adequate capacity for the occupants of the 3rd floor.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Alliance Standard Part 6 Section 6.4 Occupant Load	
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.	
Source of Findings:	Visual Assessment: Unrated doors	
Suggested Plan of Action:	Remove all existing gates and doors in the means of egress. 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:	All doors in a means of egress are of the side-hinged swinging type.	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	Sliding gates were installed.	
Source of Findings:	Photograph: Sliding gate at stair	
Suggested Plan of Action:	Remove all existing doors and gates in the means of egress. Install side-hinged doors with approved hardware that swing in the direction of egress. The stair doors may be held open using electromagnetic door holders connected to an approved fire alarm system.	
Suggested Deadline Date:	31 Dec 2014	

Standard:	Alliance Standards Part 6 Section 6.8 Doors and Gates	
Question:	Travel distance to reach an exit does not exceed the maximum distance allowed by Occupancy Type.	
Priority Level:	High	
Non-Compliance Level:	1	
Description:	Cross aisles were not in place on floors 1 and 2.	
Source of Findings:	Visual Assessment: Travel distance exceeded	
Suggested Plan of Action:	Cross aisles need to be added on the production floors (Floors 1 – 2) to afford better access to an exit.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Alliance Standard Part 6 Section 13 Travel Distance and BNBC Part 4 Section 3.15.1	
Question:	Means of egress are free from impediments, obstructions, and stored materials.	
Priority Level:	High	
Non-Compliance Level:	1	
Description:	Ash trays were located in the egress stairs. These are a potential tripping hazard in an evacuation.	
Source of Findings:	Photograph: Barrels are stored along the side of the stair 3 egress path.	
Suggested Plan of Action:	Remove ash trays from exit stair enclosures. Keep stairs clear of all foreign material, equipment and storage.	
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:	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:	1	
Description:	Padlocks were present.	
Source of Findings:	Visual Assessment: Locking devices on doors	

Suggested Plan of Action:	Remove all existing gates and doors in the means of egress including all locking devices. Install approved fire doors with compliant panic hardware that cannot be locked in the direction of egress under any conditions.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Alliance Standards Part 6 Section 6.8 Doors and Gates	
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:	13 Dec 2014	
Standard:	Alliance Standards Part 6 Section 6.4.4 Posting of Occupant Load	
Question:	Changes in elevation of walking surfaces do not exceed 6.35 mm (1/4 in) unless provided with a beveled slope of 1 in 2 that does not exceed 12.7 mm (1/2 in).	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	Abrupt change in elevation at door to stair creates tripping hazard.	
Source of Findings:	Photograph: Extreme sloped floor surface at stairs	
Suggested Plan of Action:	Resurface the change in elevation to provide a slope that is less than 1 in 48 in.	
Suggested Deadline Date:	14 Dec 2014	
Standard:	Alliance Standard Part 6 Section 6.3.4 Walking Surfaces	
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:	2	

Description:	Handrails were installed on one side of stairs.
Source of Findings:	Photograph: Handrails absent from one side of egress stairs.
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 installed.
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 2014
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 at the exits only.
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 were not posted.
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

Fire Safety Programs

Question:	Storage areas underneath the cutting tables are clear of combustibles.
Priority Level:	Medium
Non-Compliance Level:	1
Description:	Combustibles were stored under the tables
Source of Findings:	Visual Assessment: Storage under tables
Suggested Plan of Action:	Remove all storage from under cutting tables and similar obstructions.
Suggested Deadline Date:	31 Dec 2014
Standard:	Alliance Standard Part 17 Section 13.7.2 Cutting tables.

Question:	A written housekeeping policy is established and enforced.
Priority Level:	Low
Non-Compliance Level:	1
Description:	Housekeeping in the facility was found to be generally good. There were only a few instances observed where waste was not readily picked up. Combustible liquids (Acetone drum and bottles of cleaning solution) were found sitting on the floor near a wall on the 3rd floor.
Source of Findings:	Photograph: Finished goods are stored in steel racks to the ceiling.
Suggested Plan of Action:	Remove combustible liquids from factory areas and relocate to rated hazardous storage rooms. Remove ash trays from exit stair enclosures.
Suggested Deadline Date:	31 Dec 2014

Standard:	Alliance Standards Part 13 Section 13.6 Housekeeping	