INITIAL FIRE ASSESSMENT REPORT (FAR)

Factory Name:	**Orchid Garments Ltd**
Address:	**Degerchala Road, Choidana, National University, Gazipur Gazipur Dhaka Bangladesh**
Assessor:	**Emkay Enterprises LTD**
Date:	**21 Jul 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.

GENERAL INFORMATION

General Information	
Factory Name:	Orchid Garments Ltd
Address:	Degerchala Road, Choidana, National University, Gazipur Gazipur Dhaka Bangladesh
Country:	Bangladesh
Province:	Dhaka
City:	Gazipur
Zip Code:	1704
Audit Duration:	
Re-Audit:	Re-Audit After 0 Months
Draft Report Date:	11 March 2014
Final Report Date:	To be filled out by the “Alliance QA” representative
Are all Action Items From Previous Assessment Completed?:	N/A
Buildings in Complex:	Main Building = 01 no.
Is the building(s) owned or rented by the Factory:	Owned
Number of Building Levels (Stories):	10 storied + 1 Basement (Designed for 12 storied + 1 basement)
Approximate Building Area (SF):	261,201 sft (Approx.)
Date of Building Construction:	Building construction started in 2011 and completed (only frame structure) July 2013.
Date of Last Building Renovation/Addition:	No renovation work found during the assessment. Finishing work still ongoing from floor 7th to 10th.
Ancillary Structures in Complex:	0
Approximate Ancillary Structures Area (SF):	Not Applicable
Number of Occupants:	1900

Number of Ancillary Levels (Stories):	Not Applicable

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:	Not in compliance with Alliance Standards Part 4 Section 4.6 Opening Protective's and Section 4.7 Penetrations. 1. Unprotected wall penetration was found around piping at basement storage area during assessment. 2. Opening found in generator room without fire protection towards exit excess. 3. Opening found in boiler room without fire protection towards exit excess. 4. Hose cabinets were installed in the stairwells wall of NE stair penetrating the wall in all floors.
Source of Findings:	Photograph: 1.Wall penetration, 2.Opening at generator room, 3.Opening at Boiler Room, 4. Hose cabinet in NE stair wall
Suggested Plan of Action:	
Suggested Deadline Date:	
Standard:	Includes doors, windows, ducts, piping, etc. Reference Alliance Standards Part 4 Section 4.6 Opening Protectives and Section 4.7 Penetrations

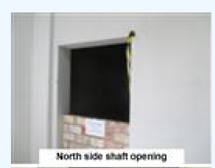
Wall Penetration


Opening at generator room


Opening at Boiler Room


Hose cabinet in NE stair wall

Question:	Are shafts provided with the minimum fire-resistance rating?
Priority Level:	High
Non-Compliance Level:	3
Description:	Not in compliance as per Alliance Standards Part 4 Section 4.5.7.1 through 4.5.7.3. Elevator shafts were found open at each floor.
Source of Findings:	Photograph: Shaft opening
Suggested Plan of	


North side shaft opening


South side shaft opening

Action:		
Suggested Deadline Date:		
Standard:	Reference Alliance Standards Part 4 Section 4.5.7.1 through 4.5.7.3	
Question:	Are separations between hazards provided with fire-resistive rated construction barriers.	  
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	Not in compliance as per Alliance Standards Part 4 Section 4.5 Separation; Part 3 Section 3.4.2.1.3 Generator; 3.4.2.1.4 oil filled transformer. Generator room was located at ground floor of main building. Opening found in generator room towards exit excess. Oil filled transformer was located at ground floor of main building. The outer wall of this room was 10” brick wall having unprotected openings (including doors & windows) on this wall. Generator & electrical switchgear also placed in this room without fire separation with transformer section. Fire barriers were not provided to separate oil-filled transformer rooms.	
Source of Findings:	Photograph: Opening in Generator Room ,Oil filled transformer, Fire Barrier of Transformer Room	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference Alliance Standards Part 4 Section 4.5 Separation	
Question:	Certificates of Occupancy for each building have been issued and are on file.	
Priority Level:	Low	
Non-Compliance Level:	1	
Description:	Not in compliance. No occupancy certificate was available during assessment.	
Source of Findings:	Document Review: No occupancy certificate has been shown.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Are certificates of occupancy provided for each building or ancillary structure?	
Question:	Occupancy Type	
Priority Level:		

Non-Compliance Level:	
Description:	As per running operation of RMG factory, occupancy Type-G2 except 1st floor. Occupancy Type-F1 for 1st floor
Source of Findings:	
Suggested Plan of Action:	
Suggested Deadline Date:	
Standard:	Provide Occupancy Type for each building and structure. Reference Alliance Standards Part 3 Use and Occupancy
Question:	Construction Type
Priority Level:	
Non-Compliance Level:	
Description:	Type-1
Source of Findings:	
Suggested Plan of Action:	
Suggested Deadline Date:	
Standard:	Provide construction type for each building and ancillary structure. Reference Alliance Standards Table 3.3.1
Question:	Height of Highest Occupied Floor Level Above Grade
Priority Level:	
Non-Compliance Level:	
Description:	The total height of the building above grade was 40.6 m (133.17 ft) and the height of highest occupiable floor level was 31.69 m (103.94 ft)
Source of Findings:	
Suggested Plan of Action:	
Suggested Deadline Date:	
Standard:	Provide maximum height of highest occupied floor level above grade for each type of building and ancillary structure.

Fire Protection Systems

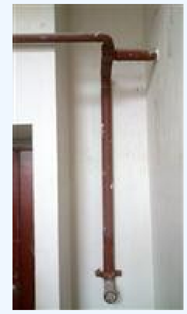
Question:	Is the building protected by an automatic sprinkler system?
Priority Level:	High
Non-Compliance Level:	3
Description:	Not in compliance as per Alliance Standards Part 5 Section 5.3 Automatic Sprinkler Systems. The height of highest occupiable floor level (from grade level to 9th floor) was 31.69 m (103.94 ft). Hence Automatic sprinkler is required but sprinkler covered partial area of building such as storage area, CT pad area and some portion of staircase.
Source of Findings:	Photograph: Sprinkler
Suggested Plan of Action:	
Suggested Deadline Date:	
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

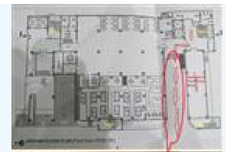
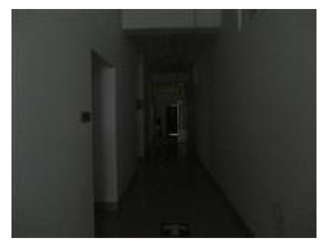
Question:	Are hangers, bracing, and restraints properly installed and supporting the system piping?
Priority Level:	Medium
Non-Compliance Level:	2
Description:	Not in compliance with NFPA 13 chapter 9 Hanging, Bracing and Restraint of sprinkler system piping. Sprinkler system piping only fitted with vertical J-Hook & T-Hook hanger, no angular or sway bracing were fitted during the assessment.
Source of Findings:	Photograph: No bracing of sprinkler system
Suggested Plan of Action:	
Suggested Deadline Date:	
Standard:	Reference NFPA 13 Chapter 9 Hanging, Bracing, and Restraint of System Piping.

Question:	All valves controlling the automatic sprinkler systems are electrically supervised by a listed fire alarm system control unit.
Priority Level:	Medium
Non-Compliance Level:	2
Description:	Not in compliance with Alliance Standard Part 5 Section 5.3.5 Supervision and

	Alarms. Fire alarm control unit was available but valves of automatic sprinkler systems were not connected with the control panel to supervise electronically.	
Source of Findings:	Visual Assessment: Valves not provided with supervisory monitoring devices.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference Alliance Standard Part 5 Section 5.3.5 Supervision and Alarms.	
Question:	Fire extinguishers are inspected, tested, and maintained as required.	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	Only the inspection checklist with the monthly dates on each extinguisher are being verified by the fire safety officer. Not all of the requirements of NFPA 10 are being checked. While interviewing the person responsible for this it was found that only the pressure gauges (where available) and expiration dates are being checked.	
Source of Findings:	Photograph: Maintenance of extinguisher	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	NFPA 10 Chapter 7	
Question:	Are identification signs for the sprinkler system installed at the required locations?	
Priority Level:	Low	
Non-Compliance Level:	3	
Description:	Not in compliance as per Alliance Standards Part 5 Section 5.3.3 Installation requirements. No identification signs for the required components of sprinkler system were found during assessment.	
Source of Findings:	Photograph: Identification sign of sprinkler	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference NFPA 13	

Question:	Are inspection, maintenance, and testing procedures of the sprinkler system documented and up to date?
Priority Level:	Low
Non-Compliance Level:	1
Description:	Not in compliance with Alliance Standards Part 5 Section 5.3.3 Testing and maintenance. No plan or records for inspection, maintenance, and testing of sprinkler system were found during assessment.
Source of Findings:	Document Review: No records of inspection were provided.
Suggested Plan of Action:	
Suggested Deadline Date:	
Standard:	Reference NFPA 25 Chapter 5 Sprinkler Systems Table 5.1.1.2
Question:	Does the automatic sprinkler system have an approved audible device activated by waterflow equal to the flow of one sprinkler?
Priority Level:	Low
Non-Compliance Level:	1
Description:	Not in compliance with Alliance Standards Part 5 Section 5.3.5.2 Alarms. No audible device was found connected with sprinkler system during assessment.
Source of Findings:	
Suggested Plan of Action:	
Suggested Deadline Date:	
Standard:	Reference Alliance Standards Part 5 Section 5.3.5.2 Alarms.
Question:	Are inspection, maintenance, and testing procedures of the standpipe and hose system documented and up to date? Including inspection and testing of hoses if provided.
Priority Level:	Low
Non-Compliance Level:	1
Description:	Not in compliance as per NFPA 25 Chapter 6 Standpipe and Hose Systems Table 6.1.1.2. No inspection, maintenance or testing procedures of the standpipe and hose system were available during visit.
Source of Findings:	Document Review: No document has been shown during inspection.
Suggested Plan of	

Action:		
Suggested Deadline Date:		
Standard:	Reference NFPA 25 Chapter 6 Standpipe and Hose Systems Table 6.1.1.2	
Question:	Is signage for the standpipe system installed at required locations and on required components?	
Priority Level:	Low	
Non-Compliance Level:	1	
Description:	Not in compliance as per Reference NFPA 14 Chapter 6. Signage for the standpipe system was not found.	
Source of Findings:	Photograph: No signage of standpipe	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference NFPA 14 Chapter 6	
Question:	Are inspection, maintenance, and testing procedures of the fire pump documented and up to date?	
Priority Level:	Low	
Non-Compliance Level:	1	
Description:	Not in compliance as per NFPA 25 Chapter 8 Fire Pumps. No inspection, maintenance or testing conducted for fire pump. Fire pump system is not monitored by fire alarm systems. Additionally, fire pump was not set to Auto at time of evaluation. No documented maintenance or testing procedures of the fire pump.	
Source of Findings:	Document Review: No document has been shown during inspection.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference NFPA 25 Chapter 8 Fire Pumps	
Means of Egress		

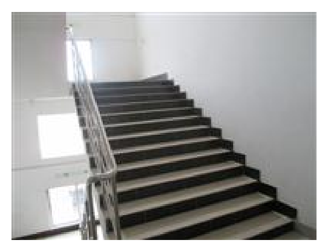
Question:	Exit discharge is directly to the exterior of the building, unless the requirements of 6.17.2 are met, at grade or provides direct access to grade. Exit discharge shall not reenter a building.	 
Priority Level:	High	
Non-Compliance Level:	3	
Description:	Not in compliance as per Alliance Standard Part 6 Section 6.17 Exit Discharge. Exit discharge from stair-2 was directly to the front of generator & transformer room where opening of generator room was not fire rated. Also the exit passageway from stair-2 was not fire rated.	
Source of Findings:	Photograph: Exit discharge not directly to the exterior of the building	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 6 Section 6.17 Exit Discharge. See Section 16.7.2 and 16.7.3 for exceptions.	
Question:	Exit access corridors serving an occupant load exceeding 30 are separated by walls having a fire-resistance rating of 1 hr.	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	Not in compliance as per Alliance Standard Part 6 Section 6.3.1.1. The exit access corridor of 1st floor was served more than 30 persons. Walls of corridor were protected but openings were not protected.(1st floor child care, ground floor in front of generator room)	
Source of Findings:	Photograph: 1st floor corridor	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 6 Section 6.3 and Part 4 Section 4.5. Does not apply if an automatic sprinkler system is installed throughout the building.	
Question:	Interior exit stairways and ramps terminate at an exit discharge except where terminating at a rated exit passageway.	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	Not in compliance as per Alliance Standard Part 6 Section 6.14 Exit Enclosures. SE corner stair discharges in front of generator room &	

	transformer room where opening of generator room was not fire rated. Also the exit passageway from SE corner stair was not fire rated.	
Source of Findings:	Photograph: Exit discharge from SE corner stair	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 6 Section 6.14 Exit Enclosures	
Question:	Every door in a stair enclosure serving more than 5 stories is provided with re-entry unless it meets the requirements of Alliance Standards Part 6 Section 6.8.3.1.	
Priority Level:	Medium	
Non-Compliance Level:	3	
Description:	Not in compliance with Alliance Standards Part 6 Section 6.8.3.1. Re-entry provision was not provided in fire door.	
Source of Findings:	Visual Assessment: Re-entry provision not provided.	
Suggested Plan of Action:		
Suggested Deadline Date:		
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:	2	
Description:	Not in compliance as per Alliance Standards Part 6 Section 6.4.4 Posting of Occupant Load. Occupant loads were not posted in assembly or production floor.	
Source of Findings:	Photograph: Occupant loads not posted	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standards Part 6 Section 6.4.4 Posting of Occupant Load	

Question:	All paths of egress are provided with compliant means of illumination.
Priority Level:	Medium
Non-Compliance Level:	2
Description:	Not in compliance as per Alliance Standards Part 6 Section 6.7 Egress Illumination and Part 10 Section 10.12 Illumination of Exit Signs and Means Of Escape. Emergency lights are available but lux could not be verified during assessment because of sunlight. Also no test report or certification of illumination was found from factory end during assessment.
Source of Findings:	Photograph: Emergency Light
Suggested Plan of Action:	
Suggested Deadline Date:	
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:	Emergency power for means of egress illumination is verified at least once per year. If battery operated lights are used, these lights are tested on a monthly basis. Functional testing of battery powered lights is provided for a minimum 90 min once per year.
Priority Level:	Medium
Non-Compliance Level:	2
Description:	Not in compliance with Alliance standard part 10 section 10.12.1.4. No testing plan or records were available during visit.
Source of Findings:	Document Review: No document was shown during inspection.
Suggested Plan of Action:	
Suggested Deadline Date:	
Standard:	Alliance Standards Part 10 Section 10.12 Illumination of Exit Signs and Means Of Escape Lighting

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:	Not in compliance as per Alliance Standard Part 6 Section 6.3.4 Walking Surfaces. Changes in elevation were found at door opening of basement floor and maximum doors of other floor.	
Source of Findings:	Photograph: Changes in elevation at Basement, Changes in elevation at other floor	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 6 Section 6.3.4 Walking Surfaces	
Question:	Emergency power for exit signs is tested at least once per year. If battery operated, these lights are tested on a monthly basis. Functional testing of battery powered signs is provided for a minimum 90 min once per year.	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	Not in compliance with Alliance standard part 10 sections 10.12.1.4. No testing plan or records were available during visit.	
Source of Findings:	Document Review: No record of testing and maintenance of emergency power of exit sign has been shown.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 10 Section 10.12 Illumination of Exit Signs and Means Of Escape.	
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:	Not in compliance as per Alliance Standard Part 6 Section 6.9 Stairs and 6.12 Handrails and Guards. Handrails were provided on one side of each stairway. Intermediate handrail is not required as per stair width.	
Source of Findings:	Photograph: One side handrail	
Suggested Plan of Action:		
Suggested Deadline		

Date:		
Standard:	Alliance Standard Part 6 Section 6.9 Stairs and 6.12 Handrails and Guards	
Question:	Ramps do not have a running slope greater than 1 in 8 (12.5 percent) and have handrails on both sides of the ramp.	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	Not in compliance with Alliance Standard Part 6 Section 10 Ramps. Required slope was found but no handrail was found at ramp.	
Source of Findings:	Photograph: Ramp	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 6 Section 10 Ramps	
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:	1	
Description:	Not in compliance as per Alliance standard Alliance Standard Part 6 Section 6.9.3.1 signs. Stair designation sign was not found properly placed in each location.	
Source of Findings:	Photograph: Stair sign	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 6 Section 6.9 Stairs	
Fire Safety Programs		
Question:	Are there additional areas of non-compliance to report?	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	Daycare was located at 1st floor of building and not directly connected to an exit enclosure	

Source of Findings:	Photograph: Daycare
Suggested Plan of Action:	
Suggested Deadline Date:	
Standard:	Not Applicable
Question:	Training programs are implemented and documented in accordance with the Alliance Safety Training Curriculum.
Priority Level:	Medium
Non-Compliance Level:	1
Description:	The factory has not received the Alliance Safety Training Curriculum from Alliance at the date of this assessment.
Source of Findings:	Document Review: The factory has not received the Alliance Safety Training Curriculum from Alliance
Suggested Plan of Action:	
Suggested Deadline Date:	
Standard:	Alliance Standards Part 13
Question:	Fire Department pre-planning has been completed.
Priority Level:	Low
Non-Compliance Level:	1
Description:	Fire Department pre-planning has not been completed which is not in compliance with Alliance Standards Part 13 Section 13.1 Fire Safety Director.
Source of Findings:	Document Review: No pre-plan has been developed.
Suggested Plan of Action:	
Suggested Deadline Date:	
Standard:	Alliance Standards Part 13 Section 13.1 Fire Safety Director
Question:	A written housekeeping policy is established and enforced.
Priority Level:	Low
Non-Compliance Level:	1

Description:	No written housekeeping policy has established and enforced which is not in compliance with Alliance Standards Part 13 Section 13.6 Housekeeping	
Source of Findings:	Document Review: No document was shown during inspection.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standards Part 13 Section 13.6 Housekeeping	
Question:	A hot-work permit program has been established.	
Priority Level:	Low	
Non-Compliance Level:	1	
Description:	No hot-work permit program has been established, which is not in compliance with Alliance Standards Part 13 Section 13.4 Hot Work Permit and NFPA 51B. During visit no hot-work operation was ongoing in the facility.	
Source of Findings:	Document Review: No document was shown during inspection	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standards Part 13 Section 13.4 Hot Work Permit and NFPA 51B	
Question:	Are all applicable permits up to date including Fire License & Boiler License.	 
Priority Level:	Low	
Non-Compliance Level:	1	
Description:	Not in compliance. Fire license valid up to 30 June 2014 but Boiler license expired on 18 February 2014. Also BERC license was not found (Generator Capacity-1270 KVA) but Waiver certificate found for 1270 KVA that is not reliable.	
Source of Findings:	Photograph: Fire license, Boiler license, BERC Waiver certificate	
Suggested Plan of Action:		
Suggested Deadline		

Date:		
Standard:	Alliance Standard Part 13 Human Element Programs	