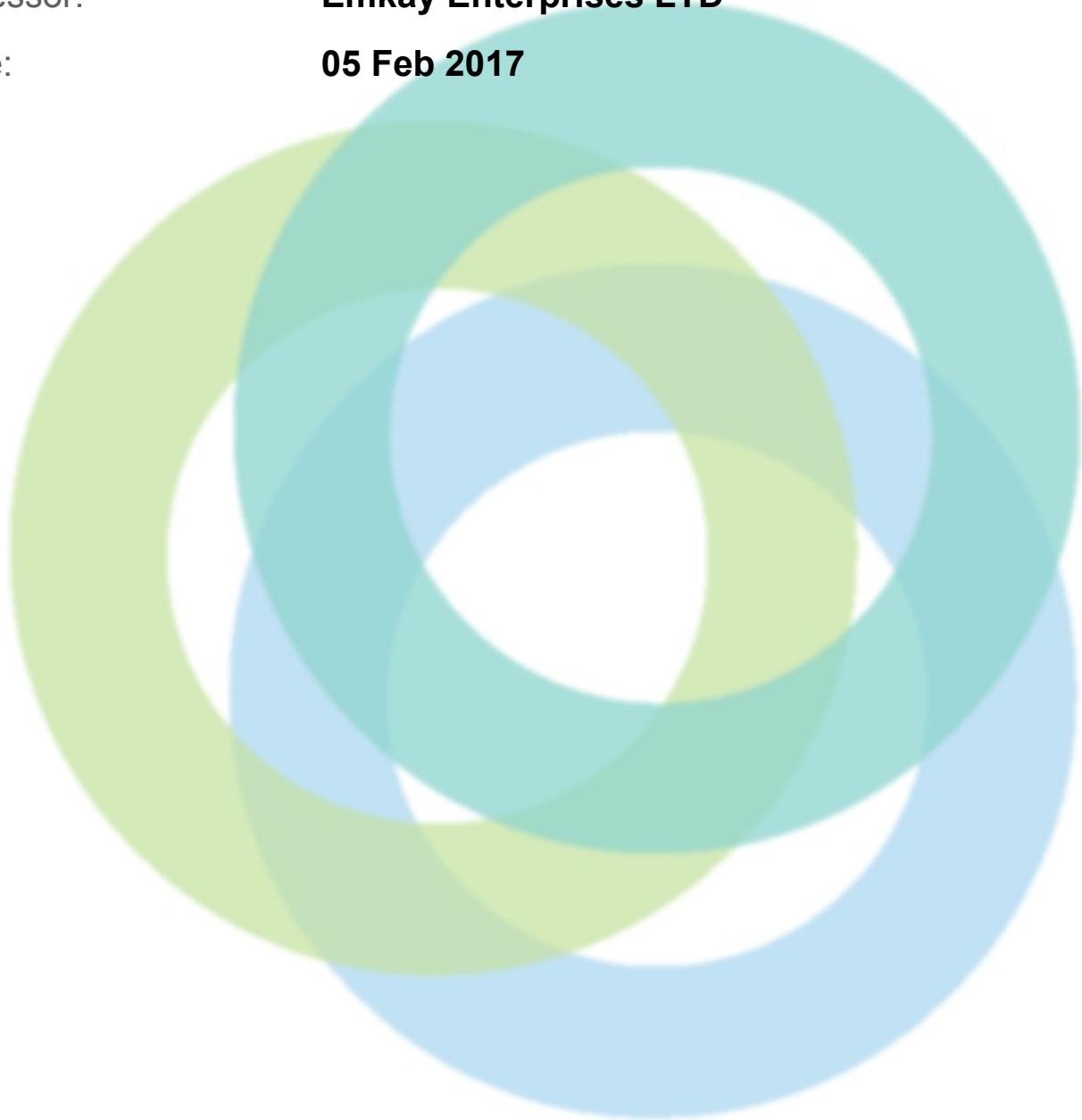




# INITIAL FIRE SAFETY ASSESSMENT

Factory Name: **Alpha Clothing Ltd. (New Location)**  
Address: **TENGURI, BKSP, ASHULIA, SAVAR, DHAKA,  
BANGLADESH Dhaka Bangladesh**  
Assessor: **Emkay Enterprises LTD**  
Date: **05 Feb 2017**





## 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).



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**ALLIANCE**  
 FOR BANGLADESH WORKER SAFETY

## GENERAL INFORMATION

General Information	
Factory Name:	Alpha Clothing Ltd. (New Location)
Address:	TENGURI, BKSP, ASHULIA, SAVAR, DHAKA, BANGLADESH Dhaka Bangladesh
Country:	Bangladesh
Province:	Dhaka
City:	
Zip Code:	
Audit Duration:	1 Days 0 Hours
Re-Audit:	Re-Audit After 0 Months
Draft Report Date:	11 February 2017
Final Report Date:	28 February 2017
Are all Action Items From Previous Assessment Completed?:	N/A
Buildings in Complex:	There are 05 buildings (01 main buildings and 04 ancillary buildings)
Is the building(s) owned or rented by the Factory:	Owned
Number of Building Levels (Stories):	Main building: Six stories (G+5). 3rd, 4th & 5th floor is under construction.
Approximate Building Area (SF):	Total: 45,000.00 SF. [Main Building: G.F: 15,000.00, 1st: 15,000.00, 2nd: 15,000.00)
Date of Building Construction:	2014-17
Date of Last Building Renovation/Addition:	Building construction in progress.
Ancillary Structures in Complex:	There are four (04) ancillary structures.
Approximate Ancillary Structures Area (SF):	Total: 6,600.00 SF. [01) Dining & Office: 3,200.00, 02) Security room: 300.00, 03) Child care & Medical: 1,975.00, 04) Utility building: 1,125.00)
Number of Occupants:	Total Occupant: 321. [01) Main Building: G.F: 25, 1st: 25, 2nd: 250, 02) Dining & Office Shed: 05, 03) Security

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	room: 04, 04) Child care & Medical Shed: 10, 05) Utility building: 02]
Number of Ancillary Levels (Stories):	All are single story.
Occupancy Type:	01) Main Building: F1, H2, G2, 02) Dining & Office Shed: E4 & F1, 03) Security room: K, 04) Child care & Medical Shed: B2, D1, F1, 05) Utility building: K.
Construction Type:	01) Main Building: Type-1 (RCC Frame), 02) Dining & Office Shed: Non-rated (Steel Shed), 03) Security room: Non-rated (Steel Shed), 04) Child care & Medical Shed: Non-rated (Steel Shed), 05) Utility building: Type-1 (RCC Frame).
Height of Highest Occupied Floor Level Above Grade:	Main building: Building Height: 14.33 m (47 ft), Highest Occupied Floor Height: 7.47 m (24.5 ft) and highest occupied floor of all others building are at grade.



## ASSESSMENT FINDINGS

### Fire Protection Construction

Question:	Are exit enclosures provided with fire-resistive rated construction barriers?	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	Exits were not fully protected by continuous fire rated assemblies. The building was 6 stories, walls of all stairwells were 5" and 10" and fire rated doors were used in most of the exits leading to the stairwells. But no fire door certificate was available during the inspection.	
Source of Findings:	Photograph: Fire rated door in exit enclosure.	
Suggested Plan of Action:	Review the fire door certificate by Alliance. If not found acceptable, provide 1.5-hour fire-rated opening protection (Door, window, etc.). The new fire rated door shall be side-hinging, swinging, with auto closure and without locking arrangement. Minimum width of new fire rated door will 1.0 m (39 in.). Consult a qualified fire protection engineer to design the required rated construction barriers with opening protection.	
Suggested Deadline Date:	23 May 2017	
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:	Gypsum board is used for the separation wall of finished goods store at 1st floor of main building. But the certificate was not reviewed by Alliance.	
Source of Findings:	Visual Assessment: Gypsum board is used for the separation wall of finished goods store at 1st floor of main building.	
Suggested Plan of Action:	Review the fire rated certificate of gypsum board by Alliance. If not found acceptable, provide fire-resistive rated construction barriers between hazard types in accordance with Alliance Standard Sections 3.4 and 4.5. Consult a qualified fire protection engineer to design the required rated construction barrier.	
Suggested Deadline Date:	23 May 2017	
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:	Occupancy certificates for buildings were not available during this inspection.
Source of Findings:	Document Review: No occupancy certificate was found during this inspection.
Suggested Plan of Action:	Apply to appropriate authority in an expeditious manner for issuance of the certificates of Occupancy for the building according to building use.
Suggested Deadline Date:	11 Apr 2017
Standard:	Are certificates of occupancy provided for each building or ancillary structure?

### Fire Protection Systems

Question:	Does the building have a Standpipe System?
Priority Level:	High
Non-Compliance Level:	3
Description:	Installation of Class-III standpipe hose connections (both a 40 mm connection with attached hose and a 65 mm connection) were on-going. No hydraulic calculation was available for review.
Source of Findings:	Photograph: Class-III standpipe hose connection.
Suggested Plan of Action:	Modify or install standpipe system at required locations if required. Standpipe system must comply with NFPA 14. The hydraulic calculations should be submitted and reviewed by Alliance prior to start of work. All standpipe system installation activities shall be submitted for reviewed by the Alliance prior to commencement of installation in accordance with Section 5.4.3.2.
Suggested Deadline Date:	17 May 2017
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:	3
Description:	Installation of fire pump is on-going.
Source of Findings:	Visual Assessment: Installation of fire pump is on-going.
Suggested Plan of Action:	Install the dedicated fire pump for the facility in accordance with NFPA 20 to supply the demands of the connected fire protection systems along with a





	<p>stored source of water sufficient to meet the demands in accordance with NFPA 22. Fire pump installation shall be tested for final acceptance in presence of Alliance and a final inspection of the installation shall be conducted by the Alliance prior to final acceptance of the installation by the Alliance as per clause 5.5.5. Acceptance testing of the installation shall be in accordance with NFPA 20, 22, and 25 testing requirements. Documentation of all testing shall be submitted to the Alliance for review prior to final acceptance by the Alliance. The pump shall be connected to an alternative power source such as a generator. The generator shall be configured with an automatic starter.</p>
Suggested Deadline Date:	17 May 2017
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:	Pull stations at egress points: Manual fire alarms are installed. Pull type switches are used as fire alarm call points; Detector Heads: Automatic fire alarm and addressable detection system is available in the factory premises, but covered all the buildings; Audible and Visual devices: Visual alarm and audible devices are available.
Source of Findings:	Photograph: 01. Pull switch as fire alarm call point; 02. Fire alarm control panel.
Suggested Plan of Action:	Modify and install initiating devices and notification appliances as required by the Alliance Standard and NFPA 72. This includes electrical supervision of all valves controlling fire protection systems (sprinklers, fire pumps, water supplies, etc.). Connect devices to an automatic fire alarm and detection system for the facility. All fire alarm installations or modifications shall be submitted for review by the Alliance prior to commencement of installation.
Suggested Deadline Date:	17 May 2017
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:	Are fire department connections provided and clearly identified for the Fire Protection Systems?
Priority Level:	Medium
Non-Compliance Level:	3
Description:	No fire department connection was available.
Source of Findings:	Visual Assessment: No fire department connection was found during the inspection.






Suggested Plan of Action:	Install fire department connections where required and in compliance with the Standard.
Suggested Deadline Date:	17 May 2017
Standard:	Alliance Standard Part 5 Section 5.5.4 Fire Department Connections
Question:	Fire extinguishers are inspected, tested, and maintained as required.
Priority Level:	Medium
Non-Compliance Level:	3
Description:	Only the inspection checklists with the monthly dates on each extinguisher are being verified. Not all of the requirements of NFPA 10 are being checked.
Source of Findings:	Photograph: Inspection check list of extinguisher.
Suggested Plan of Action:	Establish an inspection, testing, and maintenance program for all fire extinguishers and prepare proper documentation. Program shall comply with NFPA 10.
Suggested Deadline Date:	05 Apr 2017
Standard:	NFPA 10 Chapter 7
Question:	Are inspection, maintenance, and testing procedures of the fire pump documented and up to date?
Priority Level:	Low
Non-Compliance Level:	3
Description:	No inspection, maintenance and testing document of the fire pump was available.
Source of Findings:	Document Review: No inspection, maintenance and testing document of the fire pump was available.
Suggested Plan of Action:	Establish an inspection, maintenance, and testing program for the fire pump. Program must comply with NFPA 25.
Suggested Deadline Date:	17 May 2017
Standard:	Reference NFPA 25 Chapter 8 Fire Pumps
Question:	Is signage for the standpipe system installed at required locations and on required components?
Priority Level:	Low
Non-Compliance Level:	2





Description:	No signage was available for the standpipe system.
Source of Findings:	Visual Assessment: No signage was found for the standpipe system during the inspection.
Suggested Plan of Action:	Install required identification signs with required components at required locations. Signage must comply with NFPA 14.
Suggested Deadline Date:	17 May 2017
Standard:	Reference NFPA 14 Chapter 6
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:	No inspection, testing and maintenance procedures of standpipe and hose system was found during the inspection.
Source of Findings:	Document Review: No inspection, testing and maintenance procedures of standpipe and hose system was noticed during the inspection.
Suggested Plan of Action:	Establish an inspection, testing and maintenance program for the standpipe system. Program shall comply with NFPA 25. Any newly installed standpipe system shall be evaluated for compliance with the design pressure and flow demands of NFPA 14 or BNBC Section 5.4.3.
Suggested Deadline Date:	17 May 2017
Standard:	Reference NFPA 25 Chapter 6 Standpipe and Hose Systems Table 6.1.1.2
<b>Means of Egress</b>	
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:	3
Description:	No testing and maintenance record for emergency power for emergency lights were available.
Source of Findings:	Document Review: No documents was found during the inspection.
Suggested Plan of Action:	Develop a testing and maintenance program that ensures the emergency power for all egress lighting is verified at least once per year. If battery operated lights are used, these lights shall be tested on a monthly basis.



	Functional testing of battery powered lights shall be provided for a minimum 30 min once per year.	
Suggested Deadline Date:	11 Apr 2017	
Standard:	Alliance Standards Part 10 Section 10.12 Illumination of Exit Signs and Means Of Escape Lighting	
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:	3	
Description:	Exit signs were placed at entrances to exits but all the exits were not illuminated.	
Source of Findings:	Photograph: Non-illuminated exit sign.	
Suggested Plan of Action:	Install Illuminated exit signs 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.	
Suggested Deadline Date:	23 May 2017	
Standard:	Alliance Standard Part 6 Section 6.11 Exit Signs	
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:	3	
Description:	No testing and maintenance record for emergency power for exit signs were available.	
Source of Findings:	Document Review: No documents were available during the inspection.	
Suggested Plan of Action:	Develop a testing and maintenance program that ensures the emergency power for exit signs is verified at least once per year. If battery-operated signs are used, these signs shall be tested on a monthly basis. Functional testing of battery powered signs shall be provided for a minimum 90 min once per year.	
Suggested Deadline Date:	11 Apr 2017	
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:	3
Description:	Handrails were provided on both side of the stairs but not covered all through the all stairs.
Source of Findings:	Photograph: 01. Handrail on both side of stair; 02. Handrail on open side of stair.
Suggested Plan of Action:	Install handrails on the both side of the stairs. A minimum height of 865 mm (34 in.) and a maximum height of 965 mm (38 in.) as measured from the leading edge of the tread need to be maintained when installing new handrails. The spacing between vertical members will not exceed 200 mm (8 inch).
Suggested Deadline Date:	15 Aug 2017
Standard:	Alliance Standard Part 6 Section 6.9 Stairs and 6.12 Handrails and Guards
Question:	Exit signs have appropriate illumination levels and contrasting graphics.
Priority Level:	Low
Non-Compliance Level:	3
Description:	The illumination levels and contrasting graphics of some exit signs were noticed not as per Alliance standard.
Source of Findings:	Visual Assessment: Non-illuminated exit sign was found during the inspection.
Suggested Plan of Action:	Exit signs may be illuminated either by lamps external to the sign or by lamps contained within the sign. The source of illumination shall provide not less than 50 lux at the illuminated surface with a contrast of not less than 0.5. Approved self-luminous signs which provide evenly illuminated letters having a minimum luminance of 0.2cd/m <sup>2</sup> may also be used.
Suggested Deadline Date:	23 May 2017
Standard:	Alliance Standard Part 10 Section 10.12.1 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:	1
Description:	No stair designation sign was found. Only stair number was found during the inspection.





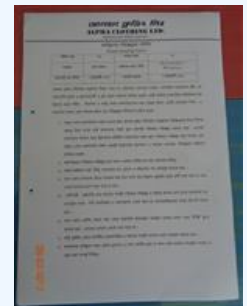
Source of Findings:	Visual Assessment: No stair designation sign was found.
Suggested Plan of Action:	Install signage adjacent to each stair door indicating the stair name and the floor level at the required locations.
Suggested Deadline Date:	23 May 2017
Standard:	Alliance Standard Part 6 Section 6.9 Stairs

### Fire Safety Programs

Question:	An emergency evacuation plan has been developed and communicated to all employees.
Priority Level:	Medium
Non-Compliance Level:	3
Description:	No emergency evacuation plan has been developed and communicated to all employees.
Source of Findings:	Document Review: No documents was found during the inspection.
Suggested Plan of Action:	Develop an emergency evacuation plan which includes all components required by the Alliance Standards and communicate the plan to all employees.
Suggested Deadline Date:	28 Mar 2017
Standard:	Alliance Standards Part 13 Section 13.1 Fire Safety Director
Question:	Fire Drills are conducted at required intervals based on building use type.
Priority Level:	Medium
Non-Compliance Level:	3
Description:	No fire drill documents was available.
Source of Findings:	Document Review: No fire drill documents was found during the inspection.
Suggested Plan of Action:	Conduct fire drills on a quarterly basis as outlined in BNBC Part 4 Appendix A. Fire drills shall be conducted under the direction of a Fire Safety Director.
Suggested Deadline Date:	28 Mar 2017
Standard:	Alliance Standards Part 13 Section 13.3 Fire Drills
Question:	Training programs are implemented and documented in accordance with the Alliance Safety Training Curriculum.
Priority Level:	Medium



Non-Compliance Level:	3	
Description:	The factory has not received the Alliance Safety Training Curriculum at the time of the assessment and has not conducted safety training curriculum per Alliance Standards Part 13.	
Source of Findings:	Document Review: No document was shown during inspection.	
Suggested Plan of Action:	Training programs need to be implemented and documented in accordance with the Alliance Safety Training Curriculum.	
Suggested Deadline Date:	15 Aug 2017	
Standard:	Alliance Standards Part 13	
Question:	Fire Department pre-planning has been completed.	
Priority Level:	Low	
Non-Compliance Level:	3	
Description:	Fire Department per-planning has not been completed.	
Source of Findings:	Document Review: No document was found during visit.	
Suggested Plan of Action:	Complete Fire Department pre-planning activities with the local Fire Service and Civil Defence in accordance with Alliance Standard Section 13.1.1(2).	
Suggested Deadline Date:	28 Mar 2017	
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:	3	
Description:	A written housekeeping policy was established but does not encompass all the requirements as per Alliance Standard.	
Source of Findings:	Photograph: Housekeeping policy.	
Suggested Plan of Action:	Establish written corporate and plant policies on housekeeping to ensure scheduled cleaning for floor, wall, ceiling, supply and return air ventilation systems. Promptly reschedule skipped cleanings. Provide a documented line of authority for authorizing a cleaning delay and rescheduling.	
Suggested Deadline Date:	28 Mar 2017	
Standard:	Alliance Standards Part 13 Section 13.6 Housekeeping	



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Question:	Are all applicable permits up to date including Fire License & Boiler License.
Priority Level:	Low
Non-Compliance Level:	3
Description:	Fire license: Valid up to 30 June 2017; Trade license: Valid up to 30 June 2017; Industry license: Valid up to 30 June 2017 but the address does not match the current location - the factory has applied to change the address; Boiler license: Valid up to 20 Dec 2017; Waiver certificate: The capacity of generator 400 KW but no Waiver certificate was available.
Source of Findings:	Photograph: 01. Fire license, 02. Trade license, 03. Industry license, 04. Boiler license.
Suggested Plan of Action:	Collect all applicable permit and license and kept up to date.
Suggested Deadline Date:	28 Mar 2017
Standard:	Alliance Standard Part 13 Human Element Programs

