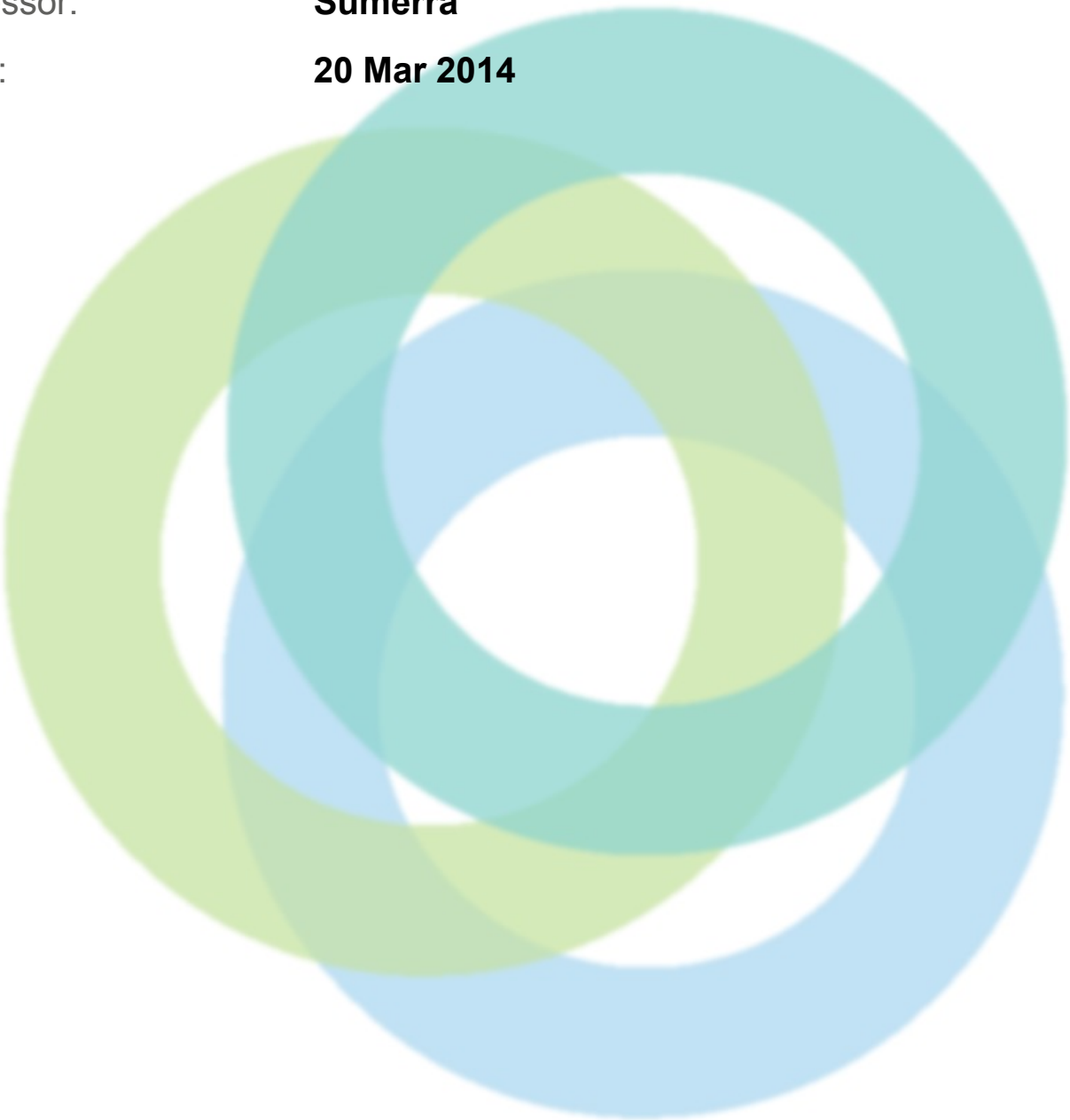


INITIAL FIRE ASSESSMENT REPORT (FAR)

Factory Name: **Daeyu Bangladesh Ltd.**
Address: **731, Bhannara, Mouchak, Kaliakoir, Gazipur Gazipur
Dhaka Bangladesh**
Assessor: **Sumerra**
Date: **20 Mar 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:	Daeyu Bangladesh Ltd.
Address:	731, Bhannara, Mouchak, Kaliakoir, Gazipur Gazipur Dhaka Bangladesh
Country:	Bangladesh
Province:	Dhaka
City:	Gazipur
Zip Code:	1751
Audit Duration:	1 Days
Re-Audit:	Re-Audit After 0 Months
Draft Report Date:	30 March, 2014
Final Report Date:	
Are all Action Items From Previous Assessment Completed?:	N/A
Buildings in Complex:	One 2 story Building.
Is the building(s) owned or rented by the Factory:	Owned
Number of Building Levels (Stories):	One 2 story Building.
Approximate Building Area (SF):	71000 SF
Date of Building Construction:	1998
Date of Last Building Renovation/Addition:	2013
Ancillary Structures in Complex:	Four Ancillary Structures in complex.
Approximate Ancillary Structures Area (SF):	Unknown
Number of Occupants:	600 (max) per floor.

Factory Name: **Daeyu Bangladesh Ltd.**
Address: **731, Bhannara, Mouchak, Kaliakoir, Gazipur Gazipur Dhaka Bangladesh**

Assessor: **Sumerra**
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ALLIANCE
FOR BANGLADESH WORKER SAFETY

Number of Ancillary Levels (Stories):

1 Stories.



ASSESSMENT FINDINGS

Fire Protection Construction

Question:	Are exit enclosures provided with fire-resistive rated construction barriers?
Priority Level:	High
Non-Compliance Level:	3
Description:	There are no fire rated door assemblies creating a continuous fire resistive barrier at the exit as per Alliance Standards Part 4 Section 4.5 Separation
Source of Findings:	Photograph: No fire door in exit
Suggested Plan of Action:	Provide fire-resistive rated construction barriers at exit enclosures. 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. If fire doors are required to be held open for functional reasons, provide automatic-closing devices tied to the fire alarm system. Fire doors assemblies shall conform to NFPA 252, BS 476 Part 22, EN 1364-1, GB 12955-2008, or IS 3614. Part II. Consult a qualified fire protection engineer to design the required rated construction barriers.
Suggested Deadline Date:	05 Aug 2014
Standard:	Reference Alliance Standards Part 4 Section 4.5 Separation
Question:	Are shafts provided with the minimum fire-resistance rating?
Priority Level:	High
Non-Compliance Level:	3
Description:	Shafts are not protected by fire rated doors/walls. As per Reference Alliance Standards Part 4 Section 4.5.7.1 through 4.5.7.3
Source of Findings:	Visual Assessment: Shafts are not protected by fire rated doors/walls.
Suggested Plan of Action:	Shafts should be enclosed by fire rated walls/doors.
Suggested Deadline Date:	20 May 2014
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:	Boiler room does not have required separation per 3.4.2.1.2 (no fire rated door assembly).	
Source of Findings:	Photograph:	
Suggested Plan of Action:	Any room or space housing boilers or other heat producing equipment shall be separated from other occupancies by a minimum 1 hour construction. Install 1 hour fire rated door assembly as required.	
Suggested Deadline Date:	20 Jun 2014	
Standard:	Reference Alliance Standards Part 4 Section 4.5 Separation	
Question:	Occupancy Type	
Priority Level:		
Non-Compliance Level:		
Description:		
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:		
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:		
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:	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:	Fire detection system is not automatic other than ground floor office room. Single point battery operated smoke detectors are used. Battery operated smoke detectors were observed 'chirping' indicating a fault.	
Source of Findings:	Visual Assessment: Automatic fire detection system no observed.	
Suggested Plan of Action:	An automatic fire alarm and detection system shall be provided throughout the building. Replace the single-station smoke alarms with automatic smoke detectors tied into the fire alarm system. Configure the fire alarm system to initiate occupant notification automatically upon activation of detectors in addition to the manual fire alarm stations. Initiating devices shall include either smoke or fire detection devices spaced in accordance with NFPA 72.	
Suggested Deadline Date:	20 Apr 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:	The fire alarm and detection system is not monitored by a central station	



	monitoring service or directly connected to the Fire Service and Civil Defense as per Alliance Standard Part 5 Section 5.7.5 Monitoring. Annunciation panel for only office room automatic smoke detector is located outside ground floor entrance/lobby. This is still not in full operation.	
Source of Findings:	Visual Assessment: No automatic fire alarm system observed.	
Suggested Plan of Action:	Install automatic fire alarm and detection system (as noted elsewhere). Arrange for direct connection of the fire alarm and detection system to a central station monitoring service or the Fire Service and Civil Defense as per Alliance Standard Part 5 Section 5.7.5 Monitoring. Until that time that a central station monitoring service or direct connection to the Fire Service and Civil Defense can be set up, a person shall be assigned to contact the fire department in the event of fire alarm activation. An annunciator shall be located in a constantly attended location to alert this person.	
Suggested Deadline Date:	20 Apr 2014	
Standard:	Alliance Standard Part 5 Section 5.7.5 Monitoring	
Means of Egress		
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:	3	
Description:	All doors have locks/hasps which are not in compliance with Alliance Standards Part 6 Section 6.8 Doors and Gates	
Source of Findings:	Photograph: Lock	
Suggested Plan of Action:	Remove all hasps, locks, slide bolts, or other locking devices all doors to exits / means of egress. If locks are required for security reasons, utilize special door locking features complying with NFPA 101.	
Suggested Deadline Date:	20 May 2014	
Standard:	Alliance Standards Part 6 Section 6.8 Doors and Gates	
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:	2	
Description:	East side exit egress court is less than 10 feet in width (3' 9") passes by east exit door which is not fire rated and therefore does not provide with a fire resistance rated enclosure the same as the exit enclosure as per Alliance Standard 6.17.2.	



Source of Findings:	Visual Assessment: East side exit egress court is less than 10 feet in width (3' 9") passes by east exit door which is not fire rated	
Suggested Plan of Action:	Egress courts less than 3050 mm (10 ft) in width (as measured from the building and the adjacent property line) shall be provided with walls having a 1-hr fire resistance rated construction for a distance of 3050 mm (10 ft) above the floor of the court. Fire rated door assembly must be installed at east door with at least 1-hr fire rating. Fire doors assemblies shall conform to NFPA 252, BS 476 Part 22, EN 1364-1, GB 12955-2008, or IS 3614 Part II	
Suggested Deadline Date:	20 May 2014	
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:	Means of egress are free from impediments, obstructions, and stored materials.	
Priority Level:	High	
Non-Compliance Level:	2	
Description:	Means of egress are not free from impediments, obstructions, and stored materials as per Alliance Standard Part 6 Section 6.3.8 Impediments to means of egress and Section 6.3.9 Reliability. Materials are being stored in egress pathways.	
Source of Findings:	Photograph: Stored material in egress	
Suggested Plan of Action:	All aisles, escape routes and emergency exits must be kept free from obstruction. Inspect all aisles, escape routes and emergency exits and clear any possible obstructions. This may be part of the regular documented inspection provided by the fire safety team.	
Suggested Deadline Date:	20 Jun 2014	
Standard:	Alliance Standard Part 6 Section 6.3.8 Impediments to means of egress and Section 6.3.9 Reliability	
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:	2	
Description:	Exterior exit stairs are not compliance with Alliance Standard Part 6 Section 6.3.1.2 as the east exit stair (external) is not separated with a minimum 2-hour fire-resistance rating as there is no fire rated door assembly at exit and windows on separation wall to stairs are not fire rated.	
Source of Findings:	Visual Assessment: East exit stair (external) is not separated with a minimum 2-hour fire-resistance rating as there is no fire rated door assembly at exit and	



	windows on separation wall to stairs are not fire rated.	
Suggested Plan of Action:	Exterior exit stairs shall be separated from the building with a fire rated door assembly. Fire door must be installed at exit door with at least 1-hr fire rating. Fire doors assemblies shall conform to NFPA 252, BS 476 Part 22, EN 1364-1, GB 12955-2008, or IS 3614 Part II. Window penetrations in the stairway path must be either filled in with fire rated materials or fire rated windows must be installed. The rating of the exterior wall shall extend 3.05 m (10 ft) beyond the ends of the stair structure.	
Suggested Deadline Date:	20 May 2014	
Standard:	Alliance Standard Part 6 Section 6.3.1.2. Three stories or less 1-hr rating. Four stories or more 2-hr rating	
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:	2	
Description:	West exit stair discharges into unprotected interior area in ground floor and therefore interior exit stairways and ramps are not compliance with Alliance Standard Part 6 Section 6.14 Exit Enclosures	
Source of Findings:	Visual Assessment: West exit stair discharges into unprotected interior area	
Suggested Plan of Action:	Interior exit stairways and ramps shall terminate at an exit discharge except where terminating at an exit passageway constructed in accordance with Exit passageways shall have walls, ceilings, and floors that meet the same rating requirement as the exit that is being served and shall not be less than 1 hr fire-resistance rated construction. Provide required fire separation between the exit stair discharge and all groundfloor areas. (NOTE: if sprinklers are installed as noted above, this installation will not be necessary per exemption of code)	
Suggested Deadline Date:	20 May 2014	
Standard:	Alliance Standard Part 6 Section 6.14 Exit Enclosures	
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:	1	
Description:	The path of egress width is not as per Alliance Standard Part 6 Section 6.5 Egress Width and BNBC Table 4.3.2. The outside exit (east) egress corridor has some obstruction due to protrusion of exit stair. Due to this reason, this route shrinks at that point (less than 3 feet).	
Source of Findings:	Visual Assessment: The outside exit (east) egress corridor has some obstruction due to protrusion of exit stair.	



Suggested Plan of Action:	Adjust egress corridor so as means of egress is not reduced at any point along the path of travel.	
Suggested Deadline Date:	20 Jun 2014	
Standard:	Alliance Standard Part 6 Section 6.5 Egress Width and BNBC Table 4.3.2	
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:	1	
Description:	West exit stair discharges into unprotected interior area in ground floor. Exit discharge is not separated as per Alliance Standard Part 6 Section 6.17 Exit Discharge.	
Source of Findings:	Visual Assessment: West exit stair discharges into unprotected interior area in ground floor	
Suggested Plan of Action:	Interior exit stairways and ramps shall terminate at an exit discharge except where terminating at an exit passageway and exit passageways shall have walls, ceilings, and floors that meet the same rating requirement as the exit that is being served and shall not be less than 1 hr fire-resistance rated construction. Provide required fire separation between the exit stair discharge of west exit stair and all groundfloor areas. (NOTE: if sprinklers are installed throughout the facility, this installation will not be necessary per exemption of code)	
Suggested Deadline Date:	20 Jun 2014	
Standard:	Alliance Standard Part 6 Section 6.17 Exit Discharge. See Section 16.7.2 and 16.7.3 for exceptions.	
Question:	All doors in a means of egress are of the side-hinged swinging type.	
Priority Level:	High	
Non-Compliance Level:	1	
Description:	Doors and gates are metallic sliding doors and therefore not in compliance with Alliance Standards Part 6 Section 6.8 Doors and Gates. .	
Source of Findings:	Photograph: Open place no door.	
Suggested Plan of Action:	All doors in a means of egress shall be of the side-hinged swinging type. Remove all sliding doors and shutters in the path of egress.	
Suggested Deadline Date:	20 Jun 2014	
Standard:	Alliance Standards Part 6 Section 6.8 Doors and Gates	



Question:	Landings are provided on both sides of doors used along the path of egress. Doors do not swing out over stairs.
Priority Level:	High
Non-Compliance Level:	1
Description:	The door on Southside metal stair landing does not open onto landing as required by Alliance Standards Part 6 Section 6.8 Doors and Gates. In this case there is a 4 inch drop down to landing.
Source of Findings:	Photograph: South landing 4 inch down from floor.
Suggested Plan of Action:	Landing should be made to be generally level with the floor.
Suggested Deadline Date:	20 May 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 loads are posted as per Alliance Standards Part 6 Section 6.4.4 Posting of Occupant Load
Source of Findings:	Visual Assessment: No max. occupancy load postings observed.
Suggested Plan of Action:	Post maximum occupant load for all areas (near exit)
Suggested Deadline Date:	20 Jun 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:	2
Description:	Handrails are not provided on both sides of stairway in majority of exit stairs as per alliance Standard Part 6 Section 6.9 Stairs and 6.12 Handrails and Guards
Source of Findings:	Photograph: Handrails missing both side.
Suggested Plan of Action:	Handrails shall be provided on both sides of each stairway. New handrails shall have 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.	
Suggested Deadline Date:	20 Jun 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:	Emergency lighting is provided in most paths of egress, however, no testing or certifying means for conformance to lighting standard (10 lux).	
Source of Findings:	Document Review: No testing records for illumination available.	
Suggested Plan of Action:	Confirm through testing (light meter) or other certification that means of egress will have illumination of 10 lux for all corridors, exit doors, and stairways for no less than 30 min in the event of failure of normal lighting.	
Suggested Deadline Date:	20 Jun 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:	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:	Stair designation signs are not provided as per Alliance Standard Part 6 Section 6.9 Stairs. Signs indicating floor level are posted adjacent to the door, however, stairs have not been designated. In many places, signs are confusing.	
Source of Findings:	Visual Assessment: No stair designation observed.	
Suggested Plan of Action:	Designate each stairwell by a name (e.g. Stair 1, or NE Stair). Post stair designation signs at each floor entrance from the stair to the floor in English and Bengali. Signs should indicate the name of the stair and the floor level.	
Suggested Deadline Date:	20 Jun 2014	
Standard:	Alliance Standard Part 6 Section 6.9 Stairs	
Fire Safety Programs		



Question:	Chemicals and other flammable materials are stored within approved enclosures.	
Priority Level:	Medium	
Non-Compliance Level:	3	
Description:	Chemicals are stored in same area at other combustibles (e.g. finished goods, fabrics, etc). Storage of combustible materials shall be separated from the surrounding occupancy with a minimum 1 hour construction. If there are flammable chemicals these must be stored in separate 1-hour fire rated room/enclosure.	
Source of Findings:	Photograph: Chemical in open place.	
Suggested Plan of Action:	Occupancies such as chemical storage and other storage should be separated by 1-hour fire rated construction. Move combustible materials to a new location meeting this requirement or construct a chemical storage room with sufficient fire rating (1-hr).	
Suggested Deadline Date:	20 Jun 2014	
Standard:		
Question:	A hot-work permit program has been established.	
Priority Level:	Low	
Non-Compliance Level:	2	
Description:	No hot work permit program has established as per Alliance Standards Part 13 Section 13.4 Hot Work Permit and NFPA 51B	
Source of Findings:	Document Review: No hot work program available for review.	
Suggested Plan of Action:	Develop a hot work permit program. The program must comply with the requirements of NFPA 51B	
Suggested Deadline Date:	20 Jun 2014	
Standard:	Alliance Standards Part 13 Section 13.4 Hot Work Permit and NFPA 51B	