ELECTRICAL SAFETY INSPECTION REPORT

ABONI KNIT WEAR LTD.

Plot #169-171, Tetulzhora, Hemayetpur, Sarar, Dhaka-1304

Factory List:

1. ABONI TEXTILS LTD.
2. ABONI KNITWEAR LTD.
3. BABYLON WASHING LTD.
4. JUNIPWER EMBORDERIES LTD.

Inspected by: Hossain Al Mamun & Nazmun Huda

Report Generated by: Hossain Al Mamun

Inspected on September 06, 2014

ACCORD
on Fire and Building Safety in Bangladesh

SUMMARY

Aboni Knit Wear Ltd. factory is housed in an eight storied building with boiler shed. The building was constructed as industrial structure in 2002 and started production in 2002.Total number of workers in the factory as reported during inspection is 2966.

The Factory was surveyed for electrical safety by Woosun Energy and Construction Co., Ltd. (WEC). The purpose of the survey was to identify significant electrical safety issues and to provide recommendations for remediation based on applicable standards specified by the Accord. The scope of this initial electrical safety inspection was limited to the review and identification of major electrical safety issues. The inspection did not include identification of minor deficiencies, which will be further addressed as part of follow-up inspections.

Table below summarizes the major electrical safety issues identified during the inspection. Recommendations have been provided to address each issue.

An implementation schedule shall be developed by the factory to remediate each of the findings. The Specific timing of improvements, including any requested extensions due to design / installation constraints shall be submitted to the Accord for approval.

FINDINGS AND RECOMMENDATIONS

FINDING NO: E- 1	
CATEGORY: SERVICE LINE	
FINDING: LA is not connected in HT service line.	
RECOMMENDATION: HT service line must be surge protected by proper LA connecting.	
PRIORITY: P1	
REMEDIATION TIME FRAME: 2 WEEKS	HT service line.

FINDING NO: E- 2	
CATEGORY: SERVICE LINE	
FINDING: 1. Cable laid on concrete wall without protection. 2. Excess cable length not arranged and supported.	
RECOMMENDATION: 1. Existing cable on concrete floor must be supported in covered cable trays or laid in trenches to prevent any physical damage. Metallic cover (preferably checkered plate) should be provided on the cable trench. 2. Excess length of existing HT cables coiled near transformer or panels must be protected and laid safely.	
PRIORITY: P2	
REMEDIATION TIME FRAME: 6 WEEKS	11kV Service Line.

FINDING NO: E- 3	
CATEGORY: CABLE & CABLE SUPPORTS	
FINDING: MCCB is installed on wooden board. (Typical).	
RECOMMENDATION: Wooden boards shall be avoided in factories for mounting the MCCB.	
PRIORITY: P2	
REMEDIATION TIME FRAME: 5 WEEKS	 Breaker installation (Typical).

FINDING NO: E- 4	 Panel installation (Typical).
CATEGORY: SWITCH & PANEL BOARDS	
FINDING: Panel base plate & cable glands are not installed in bottom of the panel (Typical).	
RECOMMENDATION: Install panel base plate and make circular hole at the base plate and install cable glands according to the respective cable size for cable entry and exit.	
PRIORITY: P2	
REMEDIATION TIME FRAME: 5 WEEKS	

FINDING NO: E- 5	
CATEGORY: SWITCH & PANEL BOARDS	
FINDING: Panel doors not connected with earth bond (Typical).	
RECOMMENDATION: Provide earth connection for body and doors of metallic distribution boards using green cables preferably braid so that the metallic door remains at zero potential all the time.	
PRIORITY: P2	
REMEDIATION TIME FRAME: 4 WEEKS	

Panel installation (Typical).

FINDING NO: E- 6	
CATEGORY: CABLE & CABLE SUPPORTS	
FINDING: Cable passing through the wall hole which is not sealed.	
RECOMMENDATION: Seal the penetrations using appropriate fire rated material and the cables are not stressed while in touch of concrete. Provide cable ladder or tray to support and protect the cables.	
PRIORITY: P2	
REMEDIATION TIME FRAME: 4 WEEKS	

Cable entry & exit point (Typical)

FINDING NO: E- 7	
CATEGORY: CABLE & CABLE SUPPORTS	
FINDING: Cables are not protected & supported at generator room (Typical).	
RECOMMENDATION: Use steel or PVC conduit or cable tray with cover to ensure the mechanical protection of the cables laid on floor otherwise cable insulation may damage due to falling object or stepping of occupants onto it.	
PRIORITY: P2	
REMEDIATION TIME FRAME: 3 WEEKS	

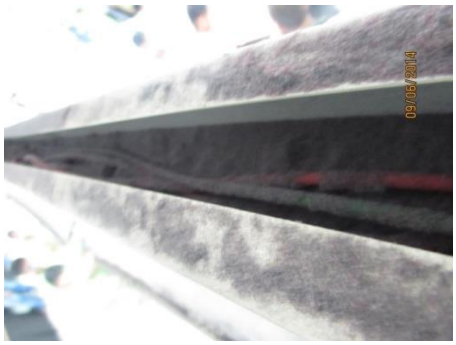
Cables at generator room (Typical).

FINDING NO: E- 8	
CATEGORY: SWITCH & PANEL BOARDS	
FINDING: Multiple cables terminate at same point of panel MCCB (Typical).	
RECOMMENDATION: Remove all the multiple connections made at a single point of bus-bar in panel and connect individual branch cables to individual point of bus-bar in panel providing individual lug according to the respective cable size. Mixing of branch circuit is not allowed.	Termination at MCCB (Typical).
PRIORITY: P2	
REMEDIATION TIME FRAME: 5 WEEKS	

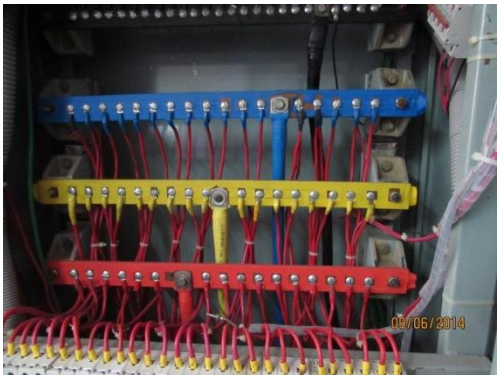
FINDING NO: E- 9	
CATEGORY: SWITCH & PANEL BOARDS	
FINDING: Cables are not protected & supported beside panel (Typical).	
RECOMMENDATION: Use steel or PVC conduit or cable tray with cover to ensure the mechanical protection of the cables laid beside panel otherwise cable insulation may damage due to falling object or stepping of occupants onto it.	
PRIORITY: P2	
REMEDIATION TIME FRAME: 5 WEEKS	Cabling at production floor.

FINDING NO: E- 10	
CATEGORY: SWITCH & PANEL BOARDS	
FINDING: Hot spots are found in panel termination.	
RECOMMENDATION: Arrange periodic inspection & thermal scan to identify the overloading, loose connection, unbalanced load which may cause the excessive heat-rise and take action accordingly.	
PRIORITY: P2	Panel termination (Typical).
REMEDIATION TIMEFRAME: 5 WEEKS	

FINDING NO: E- 11	
CATEGORY: CABLE & CABLE SUPPORTS	
FINDING: Flexible conduit for power cable is not routed and supported properly (Typical)	
RECOMMENDATION: Exposed flexible conduit must be run either horizontally or vertically and not at an angle.	
PRIORITY: P2	
REMEDIATION TIME FRAME: 5 WEEKS	Cabling at store (Typical).

FINDING NO: E- 12	
CATEGORY: CABLE & CABLE SUPPORTS	
FINDING: Excessive lint/dust deposit in wiring duct.(Typical).	
RECOMMENDATION: Disconnect the power source of the cable laid into channel and clean dust and debris of all interior components. Establish a periodic cleaning program and maintain records of the activities. Provide cover made of noncombustible material on the channel for preventing ingress of dust and debris in future.	
PRIORITY: P3	
REMEDIATION TIME FRAME: 3 WEEKS	Dust & lint in cable duct (Typical).

FINDING NO: E- 13	
CATEGORY: CABLE & CABLE SUPPORTS	
FINDING: Aluminum cable duck is supported by wire (Typical).	
RECOMMENDATION: It must be used proper material to support the aluminum cable duct instead of wire.	
PRIORITY: P2	
REMEDIATION TIME FRAME: 3 WEEKS	Aluminum cable duck installation (Typical).

FINDING NO: E- 14	
CATEGORY: SWITCH & PANEL BOARDS	
FINDING: Color code of wire connected to bus bar is mismatched.	
RECOMMENDATION: Color code should be maintained as per standard i.e. Red, Yellow and Blue colors for phases; Black for neutral and Green for earthing. Panels including its door should be earthed with better earth continuity.	
PRIORITY: P2	Cable termination.
REMEDIATION TIME FRAME: 5 WEEKS	

FINDING NO: E- 15	
CATEGORY: CABLE & CABLE SUPPORTS	
FINDING: Cables are not protected & supported below working table (Typical).	
RECOMMENDATION: Install steel or PVC conduit to ensure the mechanical protection of the cables laid below working table otherwise cable insulation may damage.	
PRIORITY: P2	Cabling below working table (Typical)
REMEDIATION TIME FRAME: 5 WEEKS	

FINDING NO: E- 16	
CATEGORY: SWITCH & PANEL BOARDS	
FINDING: Inadequate working space around panels. (Typical).	
RECOMMENDATION: IPS system may be relocated, to other location, to provide adequate and safe working space (1 meter preferably).	
PRIORITY: P2	Panel installation (Typical).
REMEDIATION TIME FRAME: 3 WEEKS	

FINDING NO: E- 17	N/A
CATEGORY: OPERATION & MAINTENANCE	
FINDING: Following programs and test results are not conducted and kept. 1.Maintenance program (periodic inspection and testing program) 2.Thermographic scanning inspection report of electrical equipment (tri-annual base) 3.Electric safety program (training on electrical safety)	
RECOMMENDATION: Set up the above program and keep the test result	
PRIORITY: P3	
REMEDIATION TIMEFRAME: 5 WEEKS	