

ELECTRICAL SAFETY INSPECTION REPORT

TAQWA FABRICS LTD.

Kewa, Boherarchala, Gila Beraeed, Sreepur, Gazipur, Bangladesh.



Factory List:

1. Taqwa Fabrics Ltd.

Inspected on April 26, 2014



SUMMARY

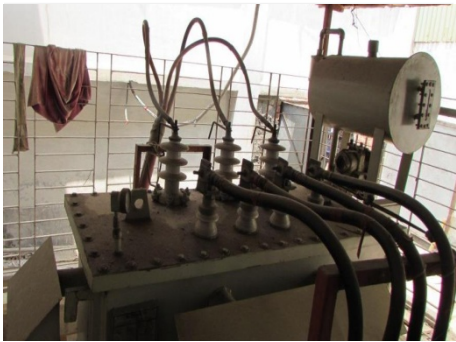
The Taqwa Fabrics Ltd. factory is established in a 6-storied main building and 2 utility buildings including 4 sheds.

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 #: E- 1	
Category: TRANSFORMER ROOM	
Finding: Excessive lint and dust found o transformer top.	
Recommendation: Establish a routine cleaning program to keep neat and clean the transformer room. Shut down the power of the transformer and clean the exterior of the transformer at scheduled period.	
Remediation Timeframe: Within 1 month	Power transformer.

Finding #: E- 2	
Category: TRANSFORMER ROOM	
Finding: Conservator tank oil level is low.	
Recommendation: Required oil level must be maintained as per the instruction of the manufacturer.	
Remediation Timeframe: Within 1 month	Conservator tank

Finding #: E- 3	
Category: TRANSFORMER ROOM	
Finding: Silica gel is discolored.	
Recommendation: Shut down the transformer and replace the silica gel or perform maintenance to remove moisture from it. Consult with transformer servicing company before performing the task. Establish a routine maintenance & inspection program for transformer to ensure any future repetition of the occurrence.	
Remediation Timeframe: Within 1 month	Breather silica gel

Finding #: E- 4	
Category: TRANSFORMER ROOM	
Finding: Breather oil cup is empty.	
Recommendation: Fill the Breather oil cup with transformer oil up to the required level as instructed by the manufacturer.	
Remediation Timeframe: Within 1 month	Breather oil cup

Finding #: E- 5	
Category: TRANSFORMER ROOM	
Finding: HT cable trench is filled with debris.	
Recommendation: Provide trench cover(slab) and clean it in regular interval.	
Remediation Timeframe: 3 months	HT cable trench

Finding #: E- 6	
Category: CABLE & CABLE SUPPORT	
Finding: Cable trench is partially covered by wood.	
Recommendation: Inflammable material must be removed and slab or checkered plate must be used to cover the trench.	
Remediation Timeframe: 3 months	Wooden cover on trench.

Finding #: E- 7	
Category: SWITCHBOARD & PANEL	
Finding: Excessive lint and dust is found in the panel.	
Recommendation: Disconnect the power source of the panel 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 opening for preventing ingress of dust and debris in future	
Remediation Timeframe: Within 1 month	Changeover switch.

Finding #: E- 8	
Category: CABLE & CABLE SUPPORT	
Finding: Cables are laid directly on the floor.	
Recommendation: Provide cable tray or cable ladder with protective cover to support the noted cables from any damage due to stepping of operator or occupants.	
Remediation Timeframe: 3 months	Power cables on the floor

Finding #: E- 9	
Category: CABLE & CABLE SUPPORT	
Finding: Cable tray size is not sufficient.	
Recommendation: Existing cable tray may be extended or one additional cable tray may be installed to accommodate all the cable. The cable tray must be continuous throughout of the length of the cable.	
Remediation Timeframe: 3 months	Insufficient cable tray.

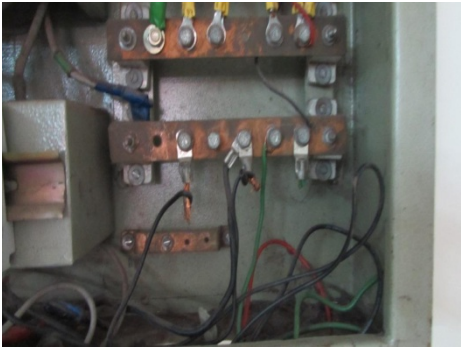
Finding #: E- 10	
Category: CABLE & CABLE SUPPORT	
Finding: Live cable is not terminated.	
Recommendation: Cable must be terminated properly. Unused cable must be removed.	
Remediation Timeframe: Within 1 month	Live cable is not terminated

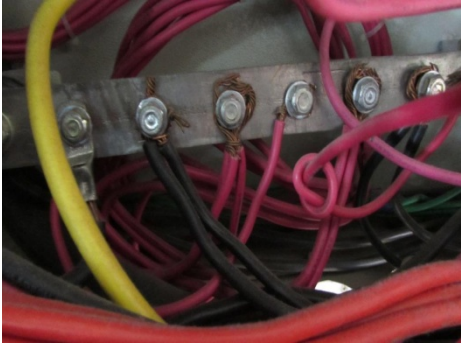
Finding #: E- 11	
Category: SWITCHBOARD & PANEL	
Finding: No phase barrier is installed in MCCB.	
Recommendation: Install separators between different phases of MCCB. Standard separators provided by the MCCB manufacturer must be used.	
Remediation Timeframe: Within 1 month	MCCBs without phase barrier.

Finding #: E- 12	
Category: CABLE & CABLE SUPPORT	
Finding: Cables passing through the wall are not protected.	
Recommendation: Cables passing through permanent walls must be protected in steel cable duct and remaining holes around the pipe must be sealed with appropriate fire rated materials. The duct shall be installed throughout the length of the cable to prevent any physical damage.	
Remediation Timeframe: 3 months	Cables are passing through the wall

Finding #: E- 13	
Category: SWITCHBOARD & PANEL	
Finding: Cables tape inside the panel deteriorated.	
Recommendation: Remove the damaged tape and heat shrinkable tube may be used after punching the socket. Arrange periodic inspection & thermal scan to identify the overloading, loose connection, unbalanced load which may cause the excessive heat-rise and take action accordingly.	
Remediation Timeframe: Within 1 month	Cables inside the panel

Finding #: E- 14	
Category: CABLE & CABLE SUPPORT	
Finding: Cables are passing through the combustible storage.	
Recommendation: Remove all combustible storage around electrical apparatus or wiring system may be installed through a safe route.	
Remediation Timeframe: Within 1 month	Combustible storage

Finding #: E- 15	
Category: WIRING	
Finding: Wires are joint twisted.	
Recommendation: Use cable socket according to the respective cable size for termination of each cable.	
Remediation Timeframe: Within 1 month	Wires are joint twisted

Finding #: E- 16	
Category: WIRING	
Finding: Wires are connected with the busbar without lug.	
Recommendation: Use cable socket according to the respective cable size for termination of each cable. Terminate each cable individually on the bus bar (providing individual lug according to the cable size). Multiple cables shall not be terminated on same point of bus bar.	
Remediation Timeframe: Within 1 month	Wire lug is missing.