

Assessment of Safety Measures in RMG Sector of Bangladesh

by

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RECOMMENDATION OF THE BOARD OF EXAMINERS

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DEDICATION

I like to dedicate this project paper to my father, wife and especially my mother.

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LIST OF ABBREVIATIONS

AHJ	Authorities Having Jurisdiction
BEF	Bangladesh Employers ' Federation
BGMEA	Bangladesh Garment Manufacturers and Exporters Association
BILS	Bangladesh Institute for Labor Studies
BKMEA	Bangladesh Knitwear Manufacturers and Exporters Association
BLA	Bangladesh Labour Act
BUET	Bangladesh University of Engineering and Technology
BWB	Better Work Bangladesh
CAP	Corrective Action Plan
CAPS	Corrective Action Plans
CBA	Collective Bargaining Agent
CCC	Clean Clothes Campaign
DEA	Detailed Engineering Assessments
DIFE	Department of Inspection for Factories and Establishments
DL	Labor Department
FSCD	Fire Service and Civil Defense
GOB	Government of Bangladesh
IA	Implementation Agreement
IFC	International Finance Corporation
IKMS	Integration Knowledge Modules System - IKMS
ILO	International Labor Organization
IWD	International Women's Day
LIMA	Labor Inspection Management Application
LPS	Lightening Protection System
MDB	Main Distribution Board
MNC	Multi National Company
MoLE	Ministry of Labor and Employment
MSN	Maquila Solidarity Network
NAP	National Action Plan
NCS	National Steering Committee
NGO	Non-Governmental Organization

NTPA	National Tripartite Action Plan
OECD	Organization for Economic Co-operation and Development
OSH	Occupational Safety and Health
PC	Participation Committees
RCC	Remediation Coordination Cell
RMG	Ready Made Garments
SDB	Sub Distribution Board
SHP	Sexual Harassment Prevent
ToR	Term of Reference
UK	United Kingdom
USA	United States of America
WEP	Worker Empowerment Programme
WPC	Worker Participation Committees

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ABSTRACT

Bangladesh's Ready Made Garment (RMG) sector has experienced rapid growth over the past 20 years, reaching a point where it is now the largest export earner in the country and employs over 3.5 million workers. In the region of four million workers, about 55-60% of whom are women, the Bangladesh RMG industry runs around 3,600 active factories. At present, it is also the world's second largest exporter of ready-made garments. However, Fast and unregulated growth creates serious problem. There are significant problems with Occupational Safety and Health (OSH), working conditions, wage rates, union rights, and lack of effective human resource management in many factories. However, shortcomings in national labor policy, industrial relations and mechanisms of public dialog intensify and prolong non-compliance with national laws and regulations. Such challenges and vulnerabilities are at the core of the RMG sector's recent series of industrial tragedies. Two factory fires and a collapse of a building that housed five RMG factories took over 1,200 people's lives and wounded many more.

This study highlights the work on the safety systems that being done in the RMG factories and their effect on the lives of the worker. The whole process contains inspections, design, installation and checks of systems that aid building, fire and electrical safety standards of the factories. This study put lights on all the initiatives both national and international that has been taken in response of recent tragedies in the RMG sector and analyses their effect on the factories. This study tires to identify the management practice that is being followed by factory, inspection bodies and others to ensure these systems are working effectively and serving the life safety requirements.

Findings of this study show that good progress has been achieved on remediation of fire, electrical and building safety issues identified in the inspections made by international and national initiatives. Factories has done lot of work in the overall infrastructure of the factory to develop health and safety condition which in turn has affected workers understanding of the health and safety concerns of their factory in a positive way.

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

Over the past 20 years, the readymade garment sector in Bangladesh has experienced rapid growth. Now the largest export earner in the country, the sector employs more than 3.5 million workers, 80 percent of whom are women, in 3,500 factories. Bangladesh is currently ranked as the world's second largest readymade garment exporter. Exports of apparel are estimated to have reached US\$ 21 billion in 2013, a major leap from US\$ 19 billion in 2012 (Bangladesh Apparel Export Statistics, fiscal year 2010-11). Such rapid and unchecked development has also created serious problems for staff, employers and the community on health and safety issues. Many factories were set up in buildings that were unsuitable for industrial purposes such as apartment blocks and office buildings in the rush to meet export requirements. Most factory buildings are struggling to cope with the heavy load of sewing machines, fabrics and large numbers of employees, with exit and entry points not built to be used concurrently by large numbers of workers and the need for industrial safety equipment never expected. In this sense, the industry has always concentrated on the sector's contribution to jobs and export earnings and not on the security of the factories (Ahamed, 2011). However, while child labor appears to have greatly reduced in export factories, there are still significant problems with occupational safety and health, working conditions, wage increases, and workers' rights to organize. These challenges were exacerbated in many industries by the lack of effective human resource management systems. Deficiencies in the implementation of national labor law, industrial relations and social dialog structures further intensify non-compliance with existing laws and regulations (Bangladesh Labor Act, 2006, Bangladesh Labor Act, 2010).

Following the fire at Tazreen Fashions Limited on 24 November 2012, in which 112 workers lost their lives and many others were injured, on 15 January 2013, the Tripartite Partners (government, employers and workers) adopted a Joint Statement of Commitment at a meeting jointly organized by the Ministry of Labor and Employment (MoLE) and the International Labor Organization (ILO) (Faruq, 2013). Through the Joint Statement, the Tripartite Partners committed to work together to develop by the end of February 2013 a National Tripartite Plan of Action on Fire Safety with a view to the lack of comprehensive action aimed at preventing further loss of life, limbs and property as a result of workplace

fires and fire related accidents and incidents. Fire occurred at Smart Export Garments on January 26, 2013, in which 8 workers lost their lives and others were injured, underlining the urgent need for tripartite action in this regard. The MoLE established a Tripartite Committee to ensure the timely development of a National Tripartite Plan of Action, which met four times with the assistance of the ILO. Later after some of the major incidents that took place, Accord and alliance came (Faruq, 2013).

The Accord for Fire and Building Safety in Bangladesh also known as “Bangladesh Accord” or the “Accord” was officially signed by more than 40 apparel companies, two global unions and four Bangladeshi union federations on May 23, 2013. Four labor rights NGOs were witness to this contract. Eventually more than 200 retailers signed the Accord which now has been extended for 3 more years and known as 2018 Accord or Transition Accord (Accord, 2013).

The Alliance was founded by about twenty MNCs of American apparel, including GAP Inc., Macy's, and Wal-Mart, representing a majority of Bangladesh-made garment products imported from North America. The Alliance is sponsored by several groups of American employers and is also represented by Li & Fung, a Hong Kong-based sourcing firm that does business with many Alliance members. In addition, the Alliance process involved other stakeholders, including the U.S. and Bangladesh governments, NGOs, and labor organizations (Alliance, 2014).

Health in the workplace is one of the most important issues posed by industrial accidents in the industry worldwide. Various industrial disasters have resulted in several programs globally, both nationally and internationally, to protect human life and mitigate material damage. The readymade garment (RMG) industry in Bangladesh is one of the most important export oriented business sectors facing challenges to ensure the safety of the workplace. This paper examines the progress and successes of the measures to mitigate vulnerability in the RMG industry in Bangladesh following the fatal accident. The challenge in the long run is to retain the momentum already generated to achieve stability in the Bangladesh RMG sector and to maintain compliance even after the end of external partners funding.

1.2 Objectives of the study

- a. Review the present situation of safety management in RMG sectors of Bangladesh
- b. Physical verification of the situation by conducting field visit and questionnaires

1.3 Scope of the Study

This study is important to make a comparison between present and past conditions of the RMG factories in terms of overall safety management. This study has to take into consideration multiple dimensions since overall safety aspects is not only related to infrastructure development but also deeply related with human behavior, management practice, surrounding environment and overall socio-cultural effects.

Every research area is a new world full of new problems requiring perhaps new thinking and understanding. The present study entitled. “Assessment of Safety Measures in RMG Sector of Bangladesh”, has been conducted to reveal the real scenario of the safety management in the RMG industry.

1.4 Layout of the Report

The project paper has been divided into six chapters. The other five chapters will cover the following topics after the introduction in the first chapter:

Chapter 2: Literature Review

This section explores the factors associated with security management discussed in previous studies. Important information and observations were also reported from these studies.

Chapter 3: Methodology of the study

This Chapter describes the sources of the database used in this study as well as methodology followed in analysis.

Chapter 4: Safety Measures at RMG Sectors in Bangladesh

This chapter describes the laws which implemented in the RMG sector of Bangladesh.

Chapter 5: Physical verification of the Safety Issues

This chapter includes the analysis of the field survey

Chapter 6: Conclusion & Recommendation

This chapter draws a final conclusion based on the findings of different studies in mentioned factories.

CHAPTER 2

LITERATURE REVIEW

2.1 Evolution of Garments Industry

In the 60th decade of the 19th century, the cornerstone of the textile sector was first created. The industry first exported shirts (Mercury shirt) from Karachi to the European market in 1965-66. In the latter, in 1977-78, there were 9 exporting industries available. Riaz Garments, Jewel Garments and Paris Garments were the three main industries at the time. Riaz Garments was among those at the time the most famous and oldest industry.

In the earlier stage, Mohammad Reaz Uddin's Riaz Garments began its business in the name of Riaz store with some tailoring shop. The name later became Riaz Garments from the store in Riaz in 1973 and from 1978 the company started to sell goods internationally by selling 1 million pieces of shirts in the South Korean company called "Olanda." "Desh Garments" is another pioneer in the RMG sector in Bangladesh. Desh Garments began a joint project with the South Korean firm "Daiyuu" in 1979.

At the same time, several clothes such as Stylecraft limited by Shamsur Rahman, Aristocraft Limited by AM Subid Ali, Azim Group by Engineer Mohammad Fazlul Azim, and Major (Retd.) Abdul Mannan's Sunman Group were launched.

Some other discreet and hardworking entrepreneurs began their RMG business in the country by pursuing the RMG sector's beginners. From there, Bangladesh's RMG sector grew day by day and didn't need to look back. Although this sector had gone through various critical stages, they have successfully overcome all of them. One of them was the quota system.

Quota system was a great blessing to set up the garment industry in Bangladesh. By using that, they were massively gained. As a result, today they are able to see a mature garment industry. But while the quota system came to an end in 2004, so many were upset about the Bangladesh RMG sector. But it cannot be influenced in the latter as it seemed to be the experts. They faced the challenges of the post quota and made it a positive story.

2.2 Present Situation of RMG Sector in Bangladesh

There are currently over 5,500 garment factories (private statistics) in Bangladesh's RMG sector, employing more than 12 lakh laborers, where 85% of the labor force is

female. Yet, according to BGMEA, there are around 4500 garment factories in Bangladesh. Currently, in the last financial year, RMG industry is the country's largest export earner with a price of over \$36.67 billion in exports. It's great news for us that in terms of capacity of the readymade garment industry, Bangladesh is clearly ahead of other South Asian suppliers.

Although there are different types of clothing being manufactured in Bangladesh, all readymade clothing is grouped into two broad categories, one being woven products and the other being knitted products. There are shirts, skirts and trousers in woven materials. On the other hand, t-shirts, polo shirts, undergarments, socks, stockings and sweaters are included in the knitted product. Woven clothing still dominates the country's export earnings.

2.3 Contribution of RMG Sector to the National Economy

The RMG sector's role in the economy of Bangladesh is remarkable. It has been seen that the RMG sector has been contributing considerably to the national economy since the last decade. The RMG business accounts for about 83.49 percent of total export earnings. Bangladesh's RMG sector received US\$ 5,686.06 million in FY 2003-04, US\$ 6,417.67.67 million in FY 2004-05, US\$ 7,900.80 million in FY 2005-06, US\$ 9,211.23 million in FY 2006-07, US\$ 10,699.80 million in FY 2007-08, US\$ 12.35 billion in FY 2008-09 and US\$ 24.49 billion in FY 2013-14. The estimate of FY 2017-18 is \$30.61 billion. In 2018-2019 exports hit US\$40.53 Billion and it is 3.94 % higher than the target value of US\$ 39 Billion (Hossain and Moon, 2014).

2.4 Opportunity of RMG Sector in Bangladesh

Bangladesh's RMG sector has some key factors that have inspired this sector's steady growth. While for so many it is a matter of great surprise that how Bangladesh's RMG sector continues to demonstrate its robust success in the world.

The main factors influencing Bangladesh's RMG sector are as follows:

- Large workforce,
- Competent human capital,
- Upgrades in Technology,
- Government supports for textile and clothing,
- Special economic/export processing zones,
- Creation of textile and clothing villages,
- Incentive for use of local inputs,

- Duty reduction for the import of inputs/machines,
- Income tax reduction,
- And international supports like GSP, GSP+, duty free access etc.

Bangladesh will easily take place on the world's readymade garments market with the implementation of above key points.

2.5 Historical Incidents in RMG sector in Bangladesh

Different safety measures have been taken in the recent times was the consequences of few past incidents which happened at the RMG sector and cause a lot of casualties. Few of the incidents are mentioned below.

2.5.1 Macro Sweater Tragedy

The factory building called as "Macro Sweater". The building housed 4 garment companies; another factory was called "Europa Garments".



Fig. 2.1: Macro Sweater Tragedy

The tragedy took place in the Mirpur area of Dhaka on the morning of August 8, 2001. At 9 a.m., after seeing flames shooting from the electric circuit board, a worker at Macro Sweater Ltd. on the seventh floor of the building sounded the alarm. Workers from five different units converged on the stairs, but the one exit was locked and the security guard was absent. Twenty four workers died in the ensuing stampede and more than one hundred were injured (Geertjan, 2013 B).

2.5.2 Misco Complex Tragedy

An approximate 3,000 to 5,000 employees from five garment factories jam packed at the Misco Supermarket Complex in Dhaka, Bangladesh, began May 3rd, 2004 as any normal working day. A few hours later, a transformer near the building exploded and in all directions, sparks could be seen flying. A fire broke out in the busy street outside the factory where there was a religious program. Workers thought the factory had a fire and ran for the

narrow stairway, while some workers walked through the emergency exits behind the building.



The gate was locked by volunteers' of a religious group that held a programme in the adjacent ally.

Fig. 2.2: Misco Supermarket complex

Most of them rushed through the main stairway where they found the gate locked. This caused the death of nine young women who were trampled to death in the ensuing stampede. Fifty others were injured (Geertjan, 2013 A).

2.5.3 Spectra Sweater Tragedy

On April 12, 2005, a 9 story sweater factory building owned by Spectra Sweaters Ltd., located in Palashbari Village under Savar Thana of Gazipur District, collapsed in the early hours (1.15 am) killing more than 60 people and injuring more than 100 workers. The 5 story Shahriar Garments Factory building is located on the east side of the KaliakoirNabinagar Highway.



Fig. 2.3: Spectra Sweater



Fig. 2.4: Spectra Sweater

The collapsed nine story building is located east of the Shahriar Garments Factory and is further east adjacent to a ditch. The same owner belongs to both the factories. The fall took place without warning in a sudden failure.

Soon after the collapse of the Fire Brigade, Bangladesh Army Engineers Corps and other agencies started the rescue operation, which continued for 8 days (up to April 19, 2005) until all the debris over the fallen building was cleared / all the victims were rescued and the dead bodies recovered (Geertjan, 2013 C).

2.5.4 KTS Textile Tragedy

23 February 2006, when the four story KTS Textile Industries in Bangladesh's port city of Chittagong was destroyed by a fire, possibly caused by an electrical short circuit. Initial reports suggested that 54 have been killed and at least 60 have been injured, but other sources peg the death toll to several hundred in what advocates for local clothing workers' rights term the worst disaster in Bangladesh clothing industry history. It is estimated that more than 1,000 employees were in the factory at 7 p.m. The exits have been closed, according to the staff. In 2005, at the same facility situated in the Kalurghat Industrial Area, two electricians allegedly died when they were electrocuted. Uni Hosiery, Mermaid International, ATT Enterprise, and VIDA Enterprise Corp. reportedly produced this facility for U.S. companies. Meanwhile, authorities have apparently sealed off three other factories linked to this facility (Vintex Fashion, Cardinal Fashion and Arena Fashion) citing unplanned construction and inadequate safety measures as life threatening for their more than 6,000 workers (Skeers, 2006).

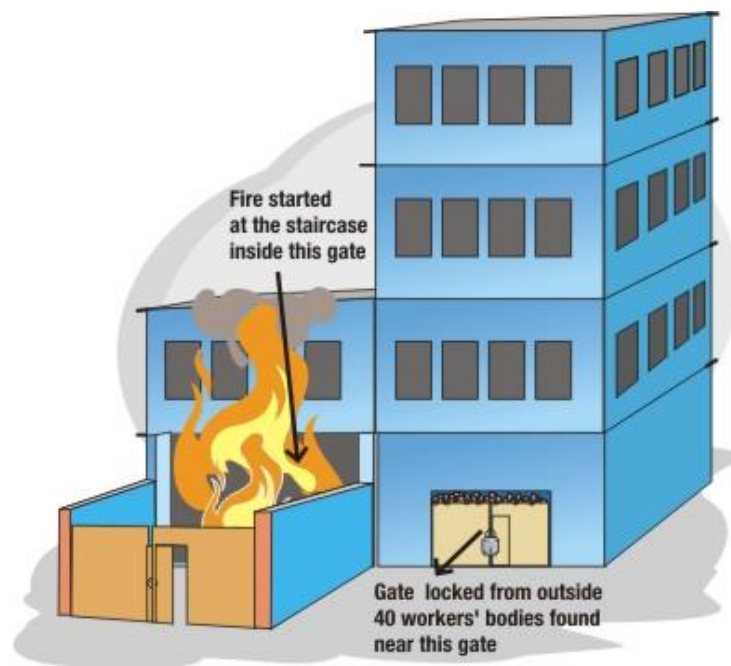


Fig. 2.5: KTS Textile

2.5.5 Phoenix Building Tragedy

On February 24, 2006, after unauthorized renovations, the Phoenix Building in the industrial area of Tejgaon collapsed to convert the upper floors of the building that housed various offices and factories, including a garment factory, into a private hospital of 500 beds. A hundred and fifty construction workers and an unreported number of garment workers were reportedly in the building when it collapsed on Saturday morning. Phoenix Garments exports clothing mainly to Europe (Correspondent, 2013).



Fig. 2.6: Phoenix Building

2.5.6 Hameem Group Tragedy

Dozens of staff jumped to death and more than 100 were wounded when a fire swept through a factory in Bangladesh on December 14, 2010, making clothes for high street retailer Gap. There are at least 27 deaths and more than 100 fire injuries.

Witnesses said the blaze engulfed the multi-story building at the factory just outside Dhaka, forcing some of those trapped inside to jump out of the windows. The fire comes at factories making clothes for western retailers despite repeated warnings about fire safety. Authorities said that the fire initially broke out on the building's 10th floor, where trousers were stored for shipment, and then spread up to the 11th floor where there was a canteen and



Fig. 2.7: Hameem Group

a production facility. At least 27 people died in the blaze while one witness said he saw between 50 and 60 people jumping to escape from the 10th floor. Local business giant Hameem Group owned the factory in the industrial zone of Ashulia, 18 km away from Dhaka. The Hameem Group has two on-site manufacturing facilities employing around 12,000 workers. The fire broke out in a building that employs about 6,000 people (Sarkar and Mollah, 2010).

2.5.7 Tazreen Tragedy

The fire at the Tazreen Factory (part of the Tuba Group) outside Dhaka on November 24, 2012 resulted in the deaths of at least 120 employees. The precise death toll is unknown as some employees have actually disappeared, possibly burnt beyond recognition.

When the fire began in a part of the factory downstairs, the management of the company ordered locked exit doors. This is not a rare practice in Bangladesh, as managers worry in an

emergency situation about theft of products. There also seemed to be a belief that while workers continued to work, the fire could be contained—garment factories work on low margins and tight turnaround times demanded by Western brands.

When the fire came out of the workers' control, they could not escape. As a result, when jumping from the upper floors, many were burned or suffocated in the factory, or killed or injured. It was not possible even to escape from the upper floors as the doors were barred. Most employees are forced to break and leap through the blades of giant extractor fans.



Fig.2.8: Tazreen Factory (part of Tuba Group)



Fig. 2.9: No fire escape provision

When the fire came out of the workers ' reach, they could not escape. As a result, when jumping from the upper floors, many were burned or suffocated in the factory, or killed or injured. It was not easy even to escape from the upper floors as the windows were barred. Most employees are forced to break and leap through the blades of giant extractor fans.

Many workers have been unable to work since the fire—many are so injured or traumatized that they are never going to work again. Many have not been paid the promised compensation, and it is pitiful for those with the amounts. The ultimate indignity is granted to families of missing loved ones in Bangladesh (Wikipedia 2012).

2.5.8 Rana Plaza Tragedy

The collapse of Bangladesh's Rana Plaza factory building is the worst industrial accident ever to strike the fashion industry. The Rana Plaza building crashed on 24 April 2013, killing 1,134 people and injuring thousands more.

People around the world are watching in shock and horror as media reports poured through revealing the true nature of the human toll.



Fig. 2.10: Rana Plaza



Fig. 2.11: Rana Plaza Tragedy

Rana Plaza's collapse brought worldwide attention to workplaces in the garment industry in the death trap. Public interest and media attention have resulted in more political pressure than ever before to bring about change and have resulted in significant ground breaking approaches to prevention and redress, with the creation in Bangladesh of the binding Fire and Building Safety Agreement and the Rana Plaza Agreement involving all major players to reimburse victims and families (Wikipedia 2013).

The Arrangement provides a single method to assessing the amount of financial compensation and the extent of medical care to be given to disaster victims, in compliance with international labor standards relating to work injury insurance (ILO Convention No.121). It is in the form of a formal agreement, signed by all major stakeholders, setting out measures to develop and implement such an approach. It was signed by the Bangladesh Ministry of Labor, Bangladesh Employers Federation (BEF), Bangladesh Garment Manufacturers and Exporters Association (BGMEA), Industrial Bangladesh National Council, Bangladesh Institute for Labor Studies (BILS), Industrial Global Union and Clean Clothes Campaign.

Based on their individual circumstances and needs, each recipient will receive payments. That argument will be independently evaluated and measured on the basis of a formula established by actuarial experts in compliance with ILO Convention No. 121 requirements. The assessment must take into account both financial and medical requirements, which will be reflected in the final award.

The claims process has been designed to make it easily accessible and ensure that payments are measured to beneficiaries in a manner that is consistent, straightforward and fair. The plan will include an evaluation of each family's costs, assessment of injured workers' medical needs, and ensuring appropriate medical care where possible. Families who wish to make a claim will be provided with advice and support so that they can understand the process and raise any questions and concerns they may have. The Coordination Committee must supervise the process and execute it with the assistance of independent commissions and externally contracted resources.

2.6 Summary and Conclusion:

After summarizing the above incidents we can construct the below table

Table 2.1 Past accidents of the RMG sector of Bangladesh

Date	Factory	Death Toll	Reason
August, 2001	Macro Sweater Tragedy	24	Fire, Locked exit
May, 2004	Misco Complex	9	Narrow exit
April, 2005	Spectra Sweater	60	Building Collapse
February, 2006	KTS Textile	54	Fire
February, 2006	Phoenix Garments	100	Building Collapse
December, 2010	Hameem Group	27	Fire
November, 2012	Tazreen	120	Fire, Locked exit
April, 2013	Rana Plaza	1134	Building Collapse

Table 2.1 shows that, the incidents happened were directly or indirectly created by the negligence of the concern bodies which clearly reflected from the reasons of the accidents. Safety measures were enforced inadequately. Recent changes at the sector took place as a consequence of those incidents which has significant impact on resolving the underlying issues.

CHAPTER 3

METHODOLOGY OF THE STUDY

3.1 Introduction

This chapter explains the chronological steps that have been performed to conclude the project report. The present study is an exploratory sample survey. Data has been collected through worker interview and discussion with factory management and officials of various safety initiatives. Worker intervention implemented to figure out the public perception regarding the safety measures taken place. This project paper is conducted in a holistic manner, by correlating information gathered through interview & field visits and data published by safety initiatives.

3.2 Sources of data

To carry out the proposed study, data has been collected from workers interview & discussion with factory management and conducting safety field visits. Another key source of data is websites of Bangladesh Accord and Alliance for worker safety. In this website inspection reports of visited factories and remediation reports are made available publicly. Sampled factory reports are analyzed. Data has been collected from two sources

- Primary Data
- Secondary Data

3.2.1 Primary Data

Since this is a qualitative project paper, data was collected using an interview questionnaire developed to suit this study and a safety checklist developed to figure out the safety status of the sampled factories. The questionnaire and the checklist are given in Appendix A and Appendix B respectively. The questionnaire was developed considering the level of understanding and education of the target study group. The safety checklist constructed based on the Accord standard.

3.2.2 Secondary Data

The major sources of secondary data are

- Relevant books, research papers, newspapers and journals
- Accord, Alliance, ILO websites
- Internet

- Annual reports of the studied factories

3.3 Sample factory visit

Factories are visited to collect the primary data

3.3.1 List of factory visited

Five RMG factories are selected, taking into account the practical constraints and limitations regarding funding and sustainability of some other issues such as the geographical location of the garment industry. These factories are,

- MNR Sweater
- Well done Fashion
- Hypoid Composite Ltd
- Sumi Apparels
- Crown Fashion

3.3.2 Checklist for factory visit

Safety checklist developed based on the Accord standard as the selected factories are under the Accord factory pool. Safety checklist attached in Appendix A.

3.4 Questionnaire Survey

Questionnaire survey performed to collect the secondary data.

3.4.1 Sample Size

From each factory 10 random workers are interviewed to identify their understanding of safety measures put in place. Although it would have been great to have a bigger sample size but it was not possible due to resource constraints.

3.4.2 Structured Questionnaire

Questionnaire constructed considering the level of understanding and education of the target study group. Questionnaire attached in Appendix A.

3.5 Tools for data collection

The major tools for data collection are the questionnaire that includes simple, straightforward, open & close ended questions and the safety checklist. Questionnaire used for the respondent and safety checklist used for the field visit.

3.6 Data analysis

After collecting the data, it is edited purposively. Data is the classified according to relevance. Tables are generated to make comparison of data from various sources.

CHAPTER 4

SAFETY MEASURES AT RMG SECTORS IN BANGLADESH

4.1 Safety Measures

Accidents/ incidents including the ones highlighted in background study chapter inflicted several reforms in Bangladesh labor law, safety management and infrastructure. Most of these reforms have been done due to passive pressure from media, people abroad who buy clothes made by Bangladesh and realization of Bangladesh government. Brands sourcing from Bangladesh, international and national labor unions, ILO and government played key roles in these reforms.

4.2 Bangladesh Labor Law

Bangladesh's labor law deals primarily with jobs in the organized industries. A vast majority of informal sector workers remain outside the control of the country's labor laws. There were more or less thirty separate laws on labor issues in the country up to 2006. In order to simplify labor laws and to establish a comprehensive single labor code, the government set up a commission, namely the 1992 Labor Law Commission, with members from employers and workers, as well as representatives of government and legal experts. Based on the report submitted by the commission on 31st March, 1994 and followed by long discussions with the Employers and Workers, GOB passed the LABOUR ACT, 2006 on the 11th October, 2006 repealing the existing 25 laws of the country. This Bangladesh Labour Act, 2006 deals with the employment of labour, relations between workers and employers, determination of minimum wages, payment of wages and compensation for injuries to workers, formation of trade unions, raising and settlement of industrial disputes, health, safety, welfare and working conditions of workers, and apprenticeship and matters ancillary thereto. Although, the Act was passed in 2006, no rules under this law have yet been made, the consequence of which the proper implementation of the law is being hampered. Although the rules made under the previous abrogated laws remain in force, they are deemed inadequate to properly implement the Bangladesh Labor Act, 2006. In 2009, Bangladesh's government initiated a process to amend the 2006 Bangladesh Labor Act following the demands of the labor unions to make it consistent with the ILO Conventions ratified by Bangladesh. In particular, the labor unions demanded that workers be allowed to exercise

their right to organize themselves and to negotiate collectively in line with ILO Conventions 87 and 98.

Later on few amendments have been proposed in the Bangladesh Labour Act in the year of 2006 which explains below.

4.2.1 Amendment in Bangladesh Labour Act, 2006

On 13 May 2013, the Cabinet approved a bill by the Ministry of Labor and Employment (MoLE) to amend the Bangladesh Labour Act (BLA). According to the Government of Bangladesh (GoB), the BLA 2006 amendment proposal would ensure the health, freedoms and protection of workers; workplace safety and business expansion; fairness in the registration and payment process of trade unions; and promotion of trade unionism and collective bargaining. The amendment increased the BLA's compliance with international labor standards in 2006. It is the government's hope that this amended law enhanced the business level working conditions through public dialog and better understanding between workers and employers.

76 articles (out of 354 articles of the BLA, 2006) are amended under the amendment proposal and 7 new articles are included. Some of the key features of modifications are:

- a. Employment through Outsourcing Company: What's more, the series of deadly industrial accidents have left Bangladesh's government with no choice but to step in a faster pace to pass the amendments.
- b. Bar in engaging temporary worker in permanent work: An establishment shall not be entitled to employ a temporary worker (i.e. casual or regular worker or contract worker) in any permanent work and shall not be entitled to contract any work with any other establishment or individual where that work is generally permanent in nature for that establishment.
- c. Gratuity to Workers: For each completed year, all workers who have worked in a factory for up to 12 years will earn the basic salary for 30 days as free. For those employees who have been employed in a factory for more than 12 years, the gratuity money will be raised to the basic salary of 45 days.
- d. Formation of Trade Unions: In the registration process, the amendment removes the requirement that the Labor Director, upon receipt of the application for registration, send a copy of it to the employer concerned along with the list of union officials for information. This was the unions ' long-standing demand.

- e. Participation Committee: Workers' members shall be chosen by the workers in the participation committee. In the absence of a trade union in an institution, members of employees in an establishment's membership committee shall act as CBA until such time as a trade union is established in that establishment.
- f. Welfare Board and Welfare Fund: RMG sector will be exempt from Chapter XV of the Act being applied. As a result, the employers of RMG are no longer required to distribute 5% of the profits to their establishment's workers. Instead of profit sharing, a new provision has been incorporated into the proposed amendment to create a welfare fund for the workers.
- g. Workers' Safety: By supplying all personal protective equipment, the factory owners can ensure workers ' health. We will need to maintain a secure power grid, ensure that the escape paths are opened, and keep the staircases / paths in the factories open for any emergency during the working hours. The amendment also included a new requirement to maintain consistency between the architectural design of the building and the factory layout. It will be compulsory for each factory to keep its employees up-to-date with work-related risks in order to ensure the health and safety of the workers in the occupation.
- h. Safety Committees: Security committees in factories with more than 50 workers will have to be created. Fire safety instruction must be given to the security staff working at the establishment (Subject to rules framing)
- i. Group insurance: Group insurance will have to be made in factories where at least 100 employees have been employed. The factory will ensure that insurance money is paid within 90 days after the money has been claimed.
- j. Health Centre(s)/Clinic: In the factory where 5,000 or more workers are employed, owners will have to set up a permanent health center / clinic.

Amendment in Bangladesh Labour Act highly appreciated by the foreign buyers and they become more comfortable to work with the Bangladesh readymade garments industry.

4.2.2 Impact of the proposed Amendment on the RMG sector

The new amendments may have considered a positive step towards making the labor law fair and timely, but in fact, the enforcement of some of the provisions remains contingent on the government's subsequent framing of laws. It is frustrating to note that no BLA rules have yet been framed, even after the passing of an excessively long seven year cycle of BLA

enactment. The amendments have still failed to meet the terms set by the ILO with the most basic standards, particularly with regard to a fundamental issue such as the right of workers to form a union in the establishment. The union's registration will still be at the discretion of the Labor Department (the "DL"). The proposed amendment will not weaken the huge discretionary powers of the DL while at the same time the unions are registered. The DL still has the room to be guided in the disposal of the union registration request by its whims and caprices. In the amendment, the proposal to increase "free" will curve no niche in improving the worker lot. Without making corresponding changes in other relevant sections of the law, the amendment will not benefit the workers; rather it will be made of almost no use. It is either an unhappy or not well thoughtout draft, or it could be a deliberate attempt to mislead the staff.

A close scrutiny will also show that employers are granted unfair advantages over workers ' interests in many important areas. The amendment to the legislation would rather erase some of the rights of workers that had even existed in the law of 2006. Some of these examples are-

- a. Generally, an employee who is fired for wrongdoing is entitled to compensation (@ 14-day wages for each completed year of service. Furthermore, a worker is not entitled to compensation if he is terminated for committing theft, fraud or dishonesty in connection with the company or assets of the employer. The fear is that the employer will now have the broader ability to deny employees of their end of service compensation by saying the abuse were "disorderly behavior."
- b. Now, the BLA allows RMG to set up a Workers ' Participation Fund and a Workers ' Welfare Fund and pay five percent of its net profits to the workers to each of the Participation Fund and the Welfare Fund. In fact, since 1968, this has been prevalent and continued under the 1968 Company Profits (Workers ' Participation) Act of the former. The employers of RMG refused to comply with these requirements while the unions requested that this legislation be enforced. Brands / Buyers have also started to demand that this law be implemented. GOB is now proposing to exempt the RMG from its application instead of being implemented.
- c. This amendment eliminates the existing scope of labor courts for union leaders to represent workers in conducting their cases. This will force employees to rely solely on professional lawyers, who are usually very expensive.

4.3 National Tripartite Plan of Action

Following the fire at Tazreen Fashions Limited on 24 November 2012, in which 112 workers lost their lives and many others were injured, on 15 January 2013, the Tripartite Partners (Government, employers and workers) adopted a Joint Statement of Commitment at a meeting jointly organized by the Ministry of Labor and Employment (MoLE) and the International Labor Organization (ILO). Through the Joint Statement, the Tripartite Partners committed to work together to develop by the end of February 2013 a National Tripartite Plan of Action on Fire Safety with a view to the lack of comprehensive action aimed at preventing further loss of life, limbs and property as a result of workplace fires and fire-related accidents and incidents. An additional factory fire at Smart Export Garments on January 26, 2013 in which 8 workers lost their lives and others were injured underlined the urgent need for tripartite action in this regard. The MoLE formed a Tripartite Committee to ensure the timely implementation of a National Tripartite Plan of Action, which met four times with the assistance of the ILO.

The Action Plan's goals are:

- a. To identify activities agreed by the tripartite partners fall within their individual and/or collective responsibility and need to be implemented in order to ensure an integrated approach to fire safety in Bangladesh, particularly in the readymade garment (RMG) sector; and
- b. Providing entry points for other stakeholders (buyers / brands, international development organizations, donors, etc.) wishing to support the implementation of the Action Plan, as well as providing a coordination platform for stakeholders wishing to initiate additional activities to promote fire safety.

Activities and Monitoring

In order to ensure an integrated approach to fire safety, the action plan provides for three level activities:

- a. Legislation and policy;
- b. Administrative; and
- c. Practical activities.

The action plan also describes the relevant community partners responsible for carrying out the tasks, as well as a timeline for executing them.

There will be a High Level Tripartite Committee with a mandate to ensure the execution of the activities in the Action Plan:

- a. Track progress in the action plan's execution of activities;
- b. Review and review the action plan as needed, including for 2014 and 2015 activities; and
- c. Develop ways in which other stakeholders can support and coordinate the implementation of the Action Plan.

The Tripartite Committee will be chaired by the Ministry of Labor and Employment Secretary and reported on February 7, 2013 to the Government's Cabinet Committee on the Ready-Made Garment Industry. The Committee may meet on a quarterly basis. All partners who have committed to carrying out any activity in the Action Plan will report on progress made in implementation to the Committee on a quarterly basis and once the activity has been completed. Nonetheless, it should be emphasized that the Action Plan is not intended to be an exclusive document, and the Tripartite Partners welcome the development and implementation of any other activities by any stakeholder that would constitute a significant contribution to improving fire safety in Bangladesh. The Committee will use the good offices of its leaders and their organizations to support and assist stakeholders in carrying out the tasks in the action plan. The Committee then came into a decision to make Accord and Alliance to ensure workplace safety.

4.4 Accord on Fire and Building Safety in Bangladesh

On May 23, 2013, more than 40 apparel companies, two international unions and four Bangladeshi labor federations officially signed the Accord, also known as the "Bangladesh Accord". This contract has been witnessed by four labor rights NGOs. More than 200 retailers eventually signed the agreement, which has now been extended for a further 3 years, known as the 2018 Accord or Transition Accord.

The Accord consists of comprehensive audits, education in health and safety, a prompt and financially supported remediation plan and plant responsibilities that refuse to comply.

Among others, the agreement was endorsed by the United Nations Secretary-General, the International Labor Organization, and the Organization for Economic Cooperation and Development.

The Agreement is the result of years of work by trade union and labor rights groups to establish and achieve agreement for the readymade garment industry in Bangladesh on

enforceable and acceptable safety standards. It is the outcome of comprehensive consultations and discussions involving brands, plants, representatives of staff and governments with various stakeholders both in Bangladesh and internationally. This brief account of the story behind the Bangladesh Fire and Safety Agreement was prepared by the Clean Clothes Campaign (CCC) and the Maquila Solidarity Network (MSN), two NGOs closely involved in the process of creating a solid and binding fire and building safety agreement in Bangladesh.

The first aspect is all stakeholders' involvement. With respect to the Agreement, there are first and foremost the signatories of the Agreement, which are basically all sides of the industry: employers and the association of employees. More specifically, these are more than 80 (mostly European) MNCs, including H&M, C&A, V&D, Zeeman, Primark, Marks and Spencer, Mango, Benetton and Inditex; and two international union federations on the other side: Industrial and UNI. Secondly, they are actors assigned tasks under the Agreement, including trade unions active at the plant / factory level, suppliers of signatory MNCs, the International Labor Organization (ILO), NGOs—including the Clean Clothes Campaign and the Workers' Rights Consortium—and the Bangladesh Ministry of Labor and Employment, and the German Government. Thirdly, actors like the Organization for Economic Co-operation and Development (OECD) have endorsed the Agreement.

With regard to the second aspect, the implementation and compliance mechanisms (the content), the Agreement not only defines obligations for the signatories, but also pays considerable attention to the implementation of the Agreement. The Agreement also includes numerous clauses aimed at ensuring effective and rapid implementation, including initial factory audits, defining factories requiring immediate remediation, setting up a steering committee and advisory board. The Agreement is accompanied by an Implementation Team Report, which further describes the Steering Committee, Advisory Board and Chief Safety Inspector's legal aspects and responsibilities. It also specifies activities to be conducted, in particular data collection to classify supplying factories in Bangladesh and the assessment of factories in the textile industry in Bangladesh. The Accord also creates a training manager by way of preventive action, who will create a systematic fire and build safety training system to provide worker (representatives of the Accord) with safety training and to manage supplier factories on a regular basis. In addition to this implementation governance structure and preventive activities, the Agreement also provides the Safety Inspector with a complaint process that empowers workers to raise health and safety concerns in a safe and confidential manner.

With regard to the third and fourth aspects, public private policy mix and multi-level governance, the above clarifies that the Agreement seeks deliberate cooperation at all levels with all relevant stakeholders: MNCs; supplier factories; workers' organizations (transnational and local); NGOs; international organizations; and national, regional and local public institutions. Second, a combination of public private activities is included. The most prominent example of this is the agreement itself, which as a transnational private initiative builds on the national public ' Tripartite Plan of Action on Fire Safety for the Ready Made Garment Sector in Bangladesh,' adopted earlier in 2013 in response to a series of fires in garment factories in Bangladesh (Accord, 2013).

4.5 Alliance for Bangladesh worker safety action plan

The Partnership was formed by about twenty MNCs of American apparel, including GAP Inc., Macy's, and Wal-Mart, representing a majority of Bangladesh-made textile goods imported from North America. The Alliance is sponsored by several groups of American employers and is also represented by Li & Fung, a Hong Kong-based sourcing firm that does business with many Alliance members. In addition, other stakeholders involved in the process of establishing the Alliance, including the U.S. and Bangladesh governments, NGOs, and organized labor.

The Alliance's action plan seeks to ' provide accelerated implementation, employee empowerment, and long-term support needed to advance sustainable change in an industry crucial to Bangladesh's economic future.' In order to oversee the execution of the action plan, it selects a board of directors consisting of nine members, including an independent (elected) president, four representatives of businesses and four representatives of shareholders with relevant qualifications in areas such as worker safety, human rights and labor. The Board of Directors has the right (not obliged!) to form a Joint Advisory Board with the Agreement's governing body. A Committee of Experts will be established to develop uniform standards of fire and safety building. These requirements form the inspection guidelines that independent third parties must track and check. The action plan further supports the education and empowerment of the workforce in addition to the creation of these governing bodies. The latter will result in a ' hotline' where staff can lodge security concerns—anonymous and with a third party—and set up Worker Participation Committees (WPCs). Training shall be provided by a Training Committee or Task Force (which will still be decided by the Alliance) based on best practices and recognized fire and building safety protocols. A standardized academic standard and curriculum will be established on the basis of this data. Third-party

organizations will be selected to provide instruction to employees, managers and management in the factory. A timetable accompanies the Alliance action plan, which shows when to take and complete steps.

The following can be noted with regard to the third and fourth aspects, multi-level governance and mixes of public private policy. Not much deliberate collaboration is pursued with public institutions or programs, such as the ILO or the tripartite action plan of Bangladesh, except for the participation of the U.S. and Bangladesh government. In addition, it expresses quite strongly the barriers of responsibility between the signing MNCs and the national factories and the Bangladesh government. It therefore remains an essentially private initiative, working with other private organizations, such as third parties, to monitor and verify inspections or provide training. Nonetheless, the draft 'Fire Safety and Structural Integrity Standard' recognizes the Bangladesh National Building Code, but aims to upgrade the standard to other internationally recognized standards. With regard to the aspect of multi-level governance, there is little evidence, at least unlike the agreement, of the composition of the governing bodies set up by the Alliance's action plan (Alliance, 2014).

4.6 ILO RMG Program Phase 1

Several fatal industrial accidents in 2012 and 2013, including the April 2013 collapse of Rana Plaza, hit the readymade garment (RMG) industry in Bangladesh. In response, Canada, the Netherlands and the United Kingdom initiated the ILO Program on Improving Working Conditions in the Ready Made Garment Sector in October 2013.

The ILO RMG program was initiated to support actions identified in the National Tripartite Action Plan (NTPA) on Fire Safety & Building Integrity, which was developed in close cooperation with the Bangladesh Government and employers ' and workers ' organizations.

- The program's first phase (October 2013 to June 2017) focused on building and fire safety assessments; labor compliance reforms; workplace safety and health education (OSH); rehabilitation and skills training for victims of Rana Plaza; and the launch of Better Work Bangladesh, collaboration between the ILO and the International Finance Corporation (IFC).
- The program began its second phase in July 2017 to build on the achievements of the first phase. The second phase covers four strategic areas that include ensuring factory safety through remediation; building governance to effectively regulate industrial safety

and support reform of labor inspection; improving OSH in both policy and practice; and expanding Better Work Bangladesh to ensure compliance in at least 400 RMG factories.

- The program is jointly funded by the Canadian, Dutch and United Kingdom Governments.

4.7 ILO RMG Program Phase II

Canada, the Netherlands and the United Kingdom fund the second phase of the Improving Working Conditions in the Ready Made Garment Sector program in Bangladesh. The program covers four strategic areas that include ensuring factory safety through remediation; building governance to effectively regulate industrial safety and support labor inspection reform; enhancing occupational health and safety (OSH) in both policy and practice; and expanding Better Work Bangladesh to ensure competitiveness and compliance in RMG factories.

Strategic Area 1: Ensuring factory safety through remediation

Operation of Remediation Coordination Cell

In May 2017, a Remediation Coordination Cell (RCC) was formed to manage the remediation of garment factories under the National Initiative of the Government of Bangladesh. The RCC offices are now fully equipped with the operation of the RCC task force and core bodies. The Task Force held 32 meetings to validate National Initiative factories Corrective Action Plans (CAPS). There were eight remediation update meetings with 443 factory owners. A maximum of 114 plants submitted Detailed Engineering Assessments (DEA) to the Department of Inspection for Factories and Establishments (DIFE), 50 of which were reviewed by the Task Force.

Of the 809 factories undergoing DIFE follow-up national initiative, 107 are reported to have been completely remediated. CAP status by March 2018 is as follows—422 factories have remediated more than 50% and 111 factories have remedied more than 80% of the compliance issues identified in CAPs. In total, as per factory reports submitted to DIFE, 29 percent of CAPS related to structural safety, 31 percent related to electrical safety and 27 percent related to fire safety were addressed.

The Remediation Coordination Cell's activities and progress are regularly captured and published on the ILO website.

Compliance Protocol

In collaboration with BGMEA and BKMEA, the ILO has drawn up a compliance protocol to ensure compliance and tackle non-cooperation from factories. This protocol was authorized by the DIFE Inspector General and presented on 9 January 2018 at the 13th meeting of the National Tripartite Committee on the National Tripartite Plan of Action (NTPA) on Fire Safety and Structural Integrity in the Ready-Made Garment Sector in Bangladesh. The ILO has requested the Ministry of Labor and Employment (MoLE) to start enforcing this policy of enforcement.

RCC Recruitment

DIFE must employ a range of engineering, communications, data management and support staff according to the existing implementation agreement between DIFE and ILO to promote the operation of the RCC.

ILO has launched the tendering process for the recruitment of 47 RCC engineers in the three disciplines (structural, fire and electrical) and is awaiting completion. This operation is carried out in compliance with the normal procurement procedures of the ILO by consultation with relevant stakeholders. At the same time, the Bangladesh government has initiated the process of recruiting 60 DIFE engineers through its own funding.

ILO also offered to recruit 10 temporary technicians for the RCC to help DIFE improve the remediation of the plant. Two of these engineers are now on board and the recruitment process is ongoing for the eight remaining engineers.

Guidance manual and knowledge transfer

Guidance manuals have been produced for delegated RCC engineers on structural, fire and electrical protection.

43 DIFE technicians and inspectors, Bangladesh Fire Service and Civil Defense (FSCD), the Bangladesh Garment Manufacturers and Exporters Association (BGMEA) and the Bangladesh Knitwear Manufacturers and Exporters Association (BKMEA) provided on the job training to develop their preliminary evaluation reporting skills and technical knowledge, CAP design, CAP testing and DEA guidance. A daylong session of knowledge sharing facilitated by Accord, Alliance and FSCD was included in training.

Remediation financing

A workshop on funding for remediation took place on September 27, 2017. The event brought together representatives from employer organizations, banks, development partners

and private companies to discuss the barriers to accessing funds needed for remediation work in ready-made garment factories (RMG). A factory remediation kit that includes all the necessary information on the remediation process is being produced.

In 2017, more than 300 factory owners and representatives attended seven remediation financing sessions to gain clarification on credit facilities, application processes, eligible criteria, and relevant business bank contacts. 10 Factory owners had one to one follow-up discussions with the Bangladesh Bank on the application process and now seven factory owners are in consultation with the Bangladesh Bank to initiate the credit facility application process.

Strategic Area 2: Governance

Remediation Strategy

A remediation plan was drafted by the Ministry of Labor and Employment (MoLE) in August 2017 with the help of the ILO. This policy has a long term goal of ensuring compliance with building security in all industries in Bangladesh.

National Steering Committee for factory safety

DIFE reviewed a Term of Reference (ToR) for the National Steering Committee (NCS) and was tabled for the NTPA meeting at the 13th National Tripartite Committee. According to the decision of the meeting, the ToR was sent for review and completion to MoLE. The NSC will serve in all sectors as a coordinating body for workplace security and will be resourced on the basis of requirements. The NSC is currently viewed as an expansion of the National Tripartite Committee with the addition of the Ministry of Industry, the Ministry of Power, Energy and Mineral Resources and the representation of buyers.

Collaboration with the labour inspectorate

Articles on the Department of Factory and Establishment Inspection Improvement (DIFE), DIFE Personnel Motivation and Retention Policy, and the Annual Inspection Reporting Process and Inspection Performance Monitoring System are drawn up and shared with DIFE for review. The program will work closely with DIFE to develop an action plan and the Labor Inspection Reform Road Map based on the program priorities and the recommendations set out in these papers.

Fire Safety Institute at BUET

With the support of ILO, Bangladesh University of Engineering and Technology (BUET) is providing a diploma program on Fire Safety Engineering. In September 2017, the

first batch of engineers successfully completed the course. To factory managers, BUET offered a similar version of the course.

Collaboration with Fire Service and Civil Defense

The ILO has reached an agreement with the Bangladesh Fire Service and Civil Defense (FSCD) to establish an Implementation Agreement (IA) to develop the certification program and awareness campaign for gender responsive regulatory bodies for internationally accredited fire professionals.

Strategic Area 3: Occupational Safety and Health

National action plan for OSH

DIFE has started to plan the National Action Plan (NAP) for Occupational Safety and Health (OSH) with a detailed description of responsibilities, positions, supervisors, budget allocations and coordination with key stakeholders. A discussion paper on preparing NAP was shared with DIFE for further review in order to support this process.

Awareness on OSH

Workers, manufacturers, trade unions, academics and other stakeholders have disseminated OSH awareness materials and OSH kits prepared in Phase 1 of the project.

OSH Day

On April 28, 2018, National Day on Occupational Safety and Health (OSH Day) was celebrated nationwide. In industrial districts, colorful parades and truck shows were organized and visibility items were displayed around Dhaka city on OSH.

On the occasion, the Bangladesh government awarded 10 clothing companies with 'OSH Good Practice' awards. The award was first introduced in Bangladesh with the support of the ILO to recognize business owners who have made proactive efforts to ensure the welfare of employees. The award was given at a high level event attended by stakeholders, press and donor representatives, the Minister and the Secretary of Labor and Jobs.

DIFE released a souvenir book this year including an essay on the theme of this year's international OSH Day – OSH for Young Workers.

Strategic Area 4: Better Work Bangladesh improving working conditions and productivity

Factory registration

As of May 2018, Better Work Bangladesh (BWB) employs 158 factories, employing 351,436 workers, 54% of whom are women.

Advisory visits

As of March 2018, there were 579 advisory visits to Better Work factories aimed at effectively influencing compliance with national and international labor standards.

Factory assessments

In total, 264 workplace evaluations have been carried out in Better Work factories since the program started. These evaluations provide an overview of factory performance in compliance with national laws and international labor standards and in the use of efficient management systems. So far, a total of 256 documents have been published, and external stakeholders are available for review.

Training services

Better Work Bangladesh continues to conduct a series of training to develop factory capacity to tackle non-compliance issues effectively and implement best practices. These training activities are aimed at workers, supervisors and managers, including supervisory skills sessions, life skills, workplace cooperation, people management, roles and responsibilities of the Participation Committee, as well as prevention of sexual harassment. There were 26 industry conferences and 23 training sessions with 823 participants (28 percent women) from October 2017 to March 2018.

Formation of Participation Committees (PC) and Safety Committees

By March 2017, 35 safety committees and 61 elected PCs were formed. A total of 105507 (58 percent female) workers cast votes and elected representatives of 621 workers, 42 percent of whom are female.

'Healthy Mother Healthy Child'

Under its campaign 'Healthy Mother Healthy Baby,' BWB encourages factory management to provide healthy food / snacks during daily factory visits. To date, 14 BWB-affiliated factories have begun supplying 89 pregnant women and 203 lactating mothers with energy-boosting foods such as bananas, milk, eggs, biscuits and cakes.

In July 2017, BWB developed an action plan on the basis of which it would work to devise policies and procedures to protect the rights of lactating mothers, ultimately having an impact on increasing levels of maternal and infant mortality across the world.

Twenty five factories have signed up to the BWB and UNICEF Joint Initiative Mothers@Work Programme. Mothers@Work seeks to encourage garment producers to ensure better enforcement of maternal rights and to help mothers who are lactating to follow best practices in breastfeeding.

Training on Emergency Preparedness and Accident Investigation

Following request from the Inspector General of DIFE, BWB carried out training on Emergency Preparedness and Accident Investigation for 47 DIFE Labour Inspectors (RCC engineers and doctors).

Brand Partner Sexual Harassment Prevent (SHP) Training

A training session for BWB brand partners on sexual harassment prevention—Li & Fung, American Eagle, Puma, Nike, Kmart Australia, Esprit, Target Debenhams, Carters, Quick Retailing, PVH, Levis—was held to disseminate lessons learned from factories on SHP, explore the high court ruling on sexual harassment, and coordinate approaches to tackle sexual harassment in factories. During the learning product partners agreed to assist distributors in developing a harassment free workplace.

Worker Empowerment Programme (WEP)

With the collaboration of the product partner, PUMA, BWB has launched the ' Women Empowerment Programme' in two factories. To date, 151 administrators have received sexual harassment prevention (SHP) awareness training and 57 staff (PC members, SC members, First Aiders) has received organizational interaction training.

ILO and UN Women launched a study to identify factors responsible for the apparent reduction of the workforce of women in the RMG sector. In addition to female RMG employees who have left the industry, a total of 216 RMG factories are being surveyed during the field study.

On 7 March 2018, the International Women's Day (IWD) 2018 announced a photo exhibition called "Beyond the Sewing Machine: A Road to Gender Equality in the Bangladesh Garment Industry." The exhibition included photos of female garment workers, managers, union leaders, labor inspectors and members of the participation committee.

Information and Knowledge Management

As of 1 January 2018, the Labor Inspection Management Application (LIMA) program established for the Department of Factory and Establishment Inspections (DIFE) became

operational and is now in use by all DIFE field offices. Labor inspectors will use the system, which was officially launched on 6 March 2018, to schedule and carry out inspections with information stored in a central database.

A DIFE IT committee of 10 members, headed by the Deputy Inspector General (Safety), will oversee and support LIMA's operationalization in all DIFE offices. In the Narayanganj, Gazipur and Chittagong district offices of DIFE, instruction sessions on the service of LIMA are arranged for the DIFE IT Committee and labor inspectors.

To promote factory level inspection and other field level data collection, Android tablets and internet SIMs are distributed to Labor Inspectors.

The Bangladesh Fire Safety and Civil Defense (FSCD) were issued with an additional 25 tablets for use with its fire licensing system. As of 15 September 2017, FSCD started using its Fire licensing and inspection program and on 1 January 2018 made the use of the system mandatory for all of its offices.

Communication

On the occasion of OSH Day 2018, newspaper advertising and media reporting was arranged to raise public awareness about OSH. A photo exhibition featuring women's empowerment in the garment sector was organized in collaboration with the Dutch embassy to mark International Women's Day 2018. A news story about the case was written by the Daily Star. Bilingual fact sheets and visibility items on LIMA were produced; media coverage was coordinated for the LIMA launch event on February 8, 2018. ILO Bangladesh office's first newsletter was released in May 2018. It covered news and stories about Bangladesh's world of work and was shared to members, collaborators and donors of the ILO.

Short videos on DIFE's Change, Gender Inclusion, LIMA App, IKMS and DIFE Foundational Learning were created to highlight the RMG program's activities and achievements. An animation video was produced which helps to raise awareness of DIFE's role and work.

4.8 Remediation Coordination Cell

Help for RMG factories require considerable resources and expertise to carry out remediation. For this reason, the ILO has been working with government and other stakeholders to establish a Coordination Cell for Remediation (RCC). The RCC will oversee the remediation process for 1,293 non Accord and Alliance plants, supported by members of

the main regulators as well as by professional engineers. The RCC activity marks a significant step towards improving the security of the workplace in the RMG market. It is a tangible example of efforts to institutionalize security changes that eventually would help all sectors. It will also help build national capacity and collaboration among regulators. Most of the remediation is planned to be completed by 2018. Agreement on the RCC's conversion into an industrial safety body should also be achieved by the end of 2018. This will ensure a coordinated, long term approach to safety inspections and provide a one-stop service for all factory licenses and permits.

4.9 Conclusion

From the chapter stated above we can arrive at the conclusion that, though the documented laws for ensuring safety in the RMG sector was available from the very beginning of this sector but was not implemented adequately. After being shaken by the major life taking accidents happened in this very sector, every stakeholder became even more concerned and aligned to strictly maintain the safety laws with a view to make the working place safe for the worker. To facilitate this gradual process of ensuring law effectiveness many amendments had been done along with new agreements. Structured and strategic implementation of ILO, RCC, Accord and Alliance contributed a lot. Among them, Accord and Alliance was played the most important role in ensuring the safety in the workplace of the RMG sector overall.

CHAPTER 5

PHYSICAL VERIFICATION OF THE SAFETY ISSUES

5.1 Introduction

Workplace safety means taking the time to recognize the hazard(s) and taking the appropriate steps to protect the lives. It is one of the most important issues in the industries worldwide, which is endangered by industrial accidents. To mitigate such accidents safety audits introduced in Bangladesh RMG sector. To review progresses and achievements of the safety initiatives to reduce vulnerability in Bangladesh RMG industry, field visits have been conducted to five different factories.

5.2 MNR Sweater

MNR Sweater is a sweater factory located at Sreepur, Gazipur. Google coordination is 24.195370, 90.420453.

This factory comprises 2 production buildings (Buildings 1& 2), a utility building and adjacent ancillary buildings. Building 1 is the main production building. It is a 2-storey steel portal structure dating from June 2014, with pad foundations. Building 2 is also a production building. It is a 2-storey steel portal structure dating from 2013. There is a 2-storey RC frame Utility Building with 2 Diesel generators, a sub-station and boilers.

The buyers of Germany, UK and other countries are work here. Total 1350 workers work at this factory. They started business on 2013 and since then exporting garments with tremendous success. They have an elected worker participation committee comprising of 14 members.



Fig. 5.1: MNR Sweater

Main role of this PC committee is to forward grievance and complaints of workers to the management and ensure vertical communication between management and workers. Accord first visited this factory in 2015 and since then they have made several follow-ups to assess progress of the factory on the identified issues. Accord conducts inspections covering building safety, fire safety and electrical safety. This inspection is done by professional engineers trained by international experts.

5.3 Well done Fashion

Well done Fashion is also a sweater factory located at Baraiderchala, Sreepur, Gazipur. Google coordination is 24.199662, 90.480907.

This factory comprises one production building (Buildings 1) and small adjacent ancillary sheds. Building 1 is the main production building. It is a 4-storey steel portal structure. Construction work started from June 2009.

Buyers of Germany, UK and other countries work in this factory. Total 1203 workers work at this factory. They started business on 2009. They have an elected worker participation committee comprising of 14 members.

Accord first visited this factory in 2014 and since then they have made several follow-ups to assess progress of the factory on the identified issues.



Fig. 5.2: Well done Fashion

5.4 Hypoid Composite Ltd

Hypoid Composite Ltd. is a composite factory meaning they have all garment making processing in-house from fabric cutting to finish garment packing. This factory located at Birulia Road, Akran Bazar, Savar. Google coordination is 23.851870, 90.287734.

In the factory premises there are nine houses, three of which are primary buildings and six are ancillary buildings. The buildings are named as:1) prefab single story production shed 1,2) single story prefab production shed 2,3) single story prefab production shed 3,4) single story idle machine shed,5) single story service shed,6) single story chemical shed,7) single story dining shed,8) single story doctor room and child care shed,9) single story safety shed.

This is a These processes include cutting, sewing, dyeing, printing, ironing, packing etc.

This factory exports garments to USA, UK, Germany, Italy etc. Total 1120 workers work at this factory. They started business on 2005. They have an elected worker participation committee comprising of 12 members.

Accord first visited this factory in 2014



Fig. 5.3: Hypoid Composite Ltd

5.5 Sumi Apparels

Sumi Apparels is a denim producing factory located at BSCIC, Tongi, Bangladesh. Google coordination is 23.894980, 90.414657.

The factory building is a 5-story reinforced concrete building. Sumi Apparels occupy 3 floors and other 2 floors are occupied by another factory but owned by the same owner. The factory building is used for garment manufacturing throughout. Operations included sewing, printing, washing, finishing, and storage.

Buyers from USA, UK, Germany, Italy etc. purchased product from this factory. Total 1510 workers work at this factory. They started business on 2005. They have an elected worker participation committee comprising of 18 members.

Accord first visited this factory in 2014.



Fig. 5.4: Sumi Apparels

5.6 Crown Fashion

Crown fashion is another composite garments factory located at Dhaka - Mymensingh Highway, Bangladesh. Google coordination is 23.983253, 90.381355.

The building is a maximum of seven stores in total with access to the roof. The roof is used for the storage of water in concrete tanks which are supported on plinths directly off columns. There is also a storage room over an adjacent to the core at roof level. It is constructed in masonry and has a lightweight steel roof.

The building was completed in 2003. Permit for the building dated in the year 2000. The building has a single transverse movement joint and abuts Buildings 1 and 4 with movement joints between buildings. Building 3 is used for factory operations including offices, knitting, linking, finishing and storage.

This factory produces garments for the buyers of USA, UK, Germany, Italy etc. Total 3110 workers work at this factory. They started business on 2003. They have an elected worker participation committee comprising of 18 members.

Accord first visited this factory in 2014.



Fig. 5.5: Crown Fashion

5.7 Remediation Analysis of the factories according to Accord standard

5.7.1 Structural Safety

Structural safety is characterized as the probability of failure or of not exceeding a stated criterion. Study for structural protection undertaken by field survey and retrofitting. The factory layout is the main pillar for ensuring safety. Every other safety department comes after the factory building's protection is assured.

Table 5.1 Remediation of Structural Issues of the Sampled Factories

Name of RMG industry	Identified Structural Safety Issues (as per the Accord report)	Corrected Structural Safety Issues (as per the Accord report)	Structural Remediation Progress	Major Issues (Identified by field survey)
MNR Sweater	7	3	43%	DEA
Well done Fashion	12	7	58%	Retrofitting
Hypoid Composite Ltd	11	2	18%	DEA
Sumi Apparels	12	11	92%	DEA
Crown Fashion	44	19	43%	Retrofitting

From table 5.1, we can see that all the factories other than Sumi Apparels are struggling in structural remediation. From the Corrective action plan of the factories we can see that there are issues like overstressed columns, overloading, undocumented extensions of the buildings, missing as-built information, Detail Engineering Assessment (DEA) requirement, etc. Analysis the CAP it was observed that most of the factories struggled to get the DEA approved from Accord and after approval most of the factories required retrofitting work. During the retrofitting work, total project is planned considering production pressure, disturbance of work due to retrofitting work, safety during retrofitting, shifting of work station etc. A typical Gantt chart is prepared to divide the whole project in phases. This whole management process is implemented the site engineer, compliance team, worker participation committee etc.

Below few pictures are taken when the retrofitting work was on going.



Fig. 5.6: Column Retrofitting



Fig. 5.7: Foundation Retrofitting



Fig. 5.8: Grade Beam Retrofitting

WORK SCHEDULE

Activity	Week											
	1	2	3	4	5	6	7	8	9	10	11	12
Props												
Earth Excavation												
Props below GB												
Work Below GB												
GF Work												
1st Floor Work												
2nd Floor Work												
3rdFloor Work												
SW												

Total 20 nos column at below G.B

Total 20 nos column at G.F

Total 18 nos column at 1st Floor

Total 13 nos column at 2nd Floor

Total 3 nos column at 3rd Floor

Fig. 5.9: Typical Retrofitting Gantt chart

Field visit has been conducted to the five sampled factories to figure out the latest update of the structural safety concerns as per the checklist attached in Appendix B. In Accord standard there are a lot of issues mentioned regarding structural safety measures. As per the standard, a structural safety checklist has been constructed. Issues mentioned in the checklist were taken care from the Accord standard based on the applicability of those issues in the factory.

Table 5.2 Assessment of Structural Safety in factory

Issues	Ref. Code	MNR Sweater	Well Done Fashion	Hypoid Composite Ltd	Sumi Apparels	Crown Fashion
Preliminary assessment done at all the buildings of the factory premises?	Accord Standard 8	Yes	Yes	Yes	Yes	No
DEA required or not?	Accord Standard 8.5	Yes	No	Yes	Yes	Yes
EA required or not?	Accord Standard 8.6	Yes	Yes	Yes	Yes	Yes
Retrofitting required or not?	Accord Standard 8.29	Yes	No	Yes	Yes	Yes
Retrofitting work approved by the AHJ?	Accord Standard 8.30	Yes	Yes	No	Yes	Yes

Soil test report available?	Accord Standard 8.31	Yes	Yes	Yes	Yes	Yes
Is there any load manager assigned for floors?	Accord Standard 8.9	Yes	Yes	No	No	No
Is the structural load plans available on each floor?	Accord Standard 8.10	Yes	Yes	No	No	Yes
Material Test Certificates available?	Accord Standard 8.16	Yes	Yes	No	No	Yes
All drawing available?	Accord Standard 10.3.7	Yes	Yes	No	Yes	Yes
Water proofing membrane applied on roof top?	Accord Standard 8.26.1.1	NA	NA	NA	Yes	Yes
Any visible cracks observed?	Accord Standard 8.29.4	No	No	Yes	No	Yes
Drawing mismatched with the actual site condition?	Accord Standard 10.3.7	No	No	Yes	No	No

5.7.2 Fire Safety

Fire safety is the set of practices intended to reduce the destruction caused by fire. Fire safety measures include those that are intended to prevent ignition of an uncontrolled fire, and those that are used to limit the development and effects of a fire after it starts.

Table 5.3 Remediation of Fire Issues of the Sampled Factories

Name of RMG industry	Identified Fire Safety Issues (as per the Accord report)	Corrected Fire Safety Issues (as per the Accord report)	Fire Remediation Progress	Major Issues (Identified by field survey)
MNR Sweater	33	26	79%	Fire Alarm System, Fire Separation
Well done Fashion	20	14	70%	Fire Alarm System, Fire Separation

Hypoid Composite Ltd	32	21	66%	Fire Alarm System, Fire Separation
Sumi Apparels	31	23	74%	Hydrant System, Fire Alarm System, Fire Separation
Crown Fashion	23	21	91%	Hydrant System

From Table 5.3 it is visible that almost all factories except Crown Fashion are unable to complete or reach near completion state for fire safety remediation. During interview with factory management, main cause of slow remediation seems to be new findings from inspection authority, lack of knowledge of consultants and factory management, shortage of certified products in the local market and financial cost. It is also notable that installing this system takes lot of time and most of the factory maintenance team is unable to maintain these systems due to lack of knowledge. For this reason, factory managements are arranging training for relevant people form consultants, inspection bodies, fire service and civil defense etc.

Few pictures of different component of the fire safety, captured during the field visit are given below.



Fig. 5.10: Fire Pump set up



Fig. 5.11: Fire Door



Fig. 5.12: Fire Hydrant System



Fig. 5.13: Fire Hydrant System pipe connection



Fig. 5.14: Fire alarm control panel



Fig. 5.15: Firefighting system valve

Field visit has been conducted to the five sampled factories to figure out the latest update of the Fire safety concerns as per the checklist attached in Appendix B. In Accord standard there are a lot of issues mentioned regarding fire safety measures. As per the standard, a fire safety checklist has been constructed. Issues mentioned in the checklist were taken care from the Accord standard based on the applicability of those issues in the factory.

Table 5.4 Assessment of Fire Safety in factory

Issues	Ref. Code	MNR Sweater	Well Done Fashion	Hypoid Composite Ltd	Sumi Apparels	Crown Fashion
Are the widths of all exits adequate as per standard?	Accord Standard 6.5.6.2	Yes	Yes	No	Yes	Yes

Are all exit stairs separated from other occupancies by Fire Rated Construction as per standard?	Accord Standard Table 3.3.1	Yes	Yes	No	Yes	No
Are the exterior exit stairs separated?	Accord Standard 6.3.1.3	NA	NA	No	NA	Yes
Are all exit stairs exit directly outside the building?	Accord Standard 6.17	Yes	Yes	Yes	No	No
Is the utility room properly separated with fire rated construction as per standard?	Accord Standard 10.5.2	Yes	Yes	NA	Yes	Yes
Is there any warehouse, store within the premise and are they being properly separated by Fire rated construction as per standard?	Accord Standard 3.4.2.1	Yes	Yes	No	Yes	Yes
Is there any in process storage in the floor area and are they being maintained with proper separation as per standard?	Accord Standard 3.4.2.1	No	Yes	Yes	No	No
Is the Dining separated from other occupancies with proper fire rated construction as per standard?	Accord Standard 3.4.2.1	Yes	Yes	Yes	Yes	Yes
Is there any exit access corridor in the floors or in the egress and is it properly separated by fire rated construction as per standard?	Accord Standard 3.4.2.1	NA	NA	NA	No	Yes

Is there any lift core opens to the floor area, vertical shaft or any floor to floor penetration inside the floor of any of the building?	Accord Standard 4.5.7	NA	NA	NA	NA	Yes
Are the numbers of exits adequate for the factory compared to the number of workers as per standard?	Accord Standard 6.4	Yes	Yes	Yes	Yes	Yes
Are the aisles and intermediate aisles adequate at all floors of the factory?	Accord Standard 6.5.1	Yes	Yes	No	Yes	Yes
Are the travel distances (TD), Common path of travel (CPT) meeting the standard at all floors?	Accord Standard Table 6.6.2	Yes	Yes	Yes	Yes	Yes
Are the handrails being installed at both sides of the stairs?	Accord Standard 6.9.2.4	Yes	Yes	No	Yes	Yes
Are the parapets/guardrails having the adequate height as per standard?	Accord Standard 6.12	NA	NA	No	Yes	Yes
Are all the doors compliant and without locking features?	Accord Standard 6.8.2	Yes	Yes	No	No	Yes
Are all the doors compliant, side hinged and outward swinging?	Accord Standard 6.8	Yes	Yes	No	Yes	Yes
Is the evacuation map available and posted at all the entrances of all floors?	Accord Standard 13.3	Yes	Yes	No	Yes	Yes
Is the stair designation sign posted at all floors of all the stairs?	Accord Standard 6.9.3	Yes	Yes	Yes	Yes	Yes

Is the occupant load sign posted at all floors of all stairs?	Accord Standard 6.4.4	Yes	Yes	Yes	Yes	Yes
Have all the floors enriched with adequate illumination level? Aisles: 2.5 lx, Staircase: 10 lx.	Accord Standard 10.12	Yes	Yes	No	Yes	Yes
Is there adequate number of exit signs at all the exits?	Accord Standard 10.12.1	Yes	Yes	Yes	Yes	Yes
Are all the emergency lights and exit signs functional?	Accord Standard 10.12.1	Yes	Yes	No	No	No
Is there any on/off switch at any of the emergency light/exit signs?	Accord Standard 10.12	No	No	Yes	Yes	No
Do the emergency lights and exit signs have capacity of lasting at least 30 minutes?	Accord Standard 10.12.2.3	Yes	Yes	No	No	No
Is there any fire alarm system installed in the factory?	Accord Standard 5.7	Yes	Yes	Yes	Yes	Yes
Are all the devices, cables in the fire alarm system approved/listed by any recognised third party certification body?	Accord Standard 5.7	Yes	Yes	No	Yes	Yes
Is the fire alarm system installed as per standard?	Accord Standard 5.7	Yes	Yes	No	No	No
Has the fire alarm system been approved by any Authority Having Jurisdiction (AHJ)?	Accord Standard 5.7	Yes	Yes	No	No	No
Does the fire alarm system have any approved drawing from the AHJ?	Accord Standard 5.7	Yes	Yes	Yes	Yes	Yes

Is the audio and visual notification appliance adequate with audio and visual level notification?	Accord Standard 5.7	Yes	Yes	No	No	No
Is the right type of fire extinguishers installed at appropriate places in accordance with the occupancy type?	Accord Standard 13.10.3	Yes	Yes	Yes	Yes	Yes
Are there adequate number of Fire extinguishers throughout all the floors and other open areas?	Accord Standard 13.10.3	Yes	Yes	Yes	Yes	Yes
Is there any requirement for sprinkler system throughout the factory premise?	Accord Standard 5.2	No	No	No	No	Yes
Is there any sprinkler system installed throughout the factory?	Accord Standard 5.2	No	No	No	No	Yes
Is the sprinkler system installed being approved by any AHJ?	Accord Standard 5.2	NA	NA	NA	NA	No
Is there any requirement for the standpipe system?	Accord Standard 5.4	No	No	No	Yes	Yes
Has the standpipe system being installed in the factory?	Accord Standard 5.4	NA	NA	NA	Yes	Yes
Has the installed standpipe system been approved by any AHJ?	Accord Standard 5.4	NA	NA	NA	No	No
Is there any drawing of the installed standpipe system approved by AHJ?	Accord Standard 5.4	NA	NA	NA	Yes	Yes
Is there any Fire Pump available in the factory?	Accord Standard 5.5	Yes	Yes	Yes	Yes	Yes

Does the Fire pump meet the capacity of the system installed? Is it a listed Fire pump with proper certification?	Accord Standard 5.5	NA	NA	NA	Yes	Yes
Has the fire pump been installed as per standard?	Accord Standard 5.5	NA	NA	NA	Yes	No
Is there any document available for the fire drill?	Accord Standard 13.2	Yes	Yes	Yes	Yes	Yes

5.7.3 Electrical Safety

Electrical safety is a system of organizational measures and technical means to prevent harmful and dangerous effects on workers from electric current, electric arc, electromagnetic field and static electricity.

Table 5.5 Remediation of Electrical Issues of the Sampled Factories

Name of RMG industry	Identified Electrical Safety Issues (as per the Accord report)	Corrected Electrical Safety Issues (as per the Accord report)	Electrical Remediation Progress	Major Issues (Identified by field survey)
MNR Sweater	54	47	87%	Circuit breaker adjustment
Well done Fashion	68	43	63%	Single Line Diagram, Lightning Protection System
Hypoid Composite Ltd	46	43	93%	Earthing Connections, Hot Spots
Sumi Apparels	79	66	84%	Single Line Diagram
Crown Fashion	43	41	95%	Earth Pit

As we can see most of the factories are progressing well in electrical safety. From interview of factory management root cause for good progress in electrical safety seems to be low cost requirement. Adding to that most of the issues in electrical safety is easy to solve and, in most cases, it is not needed to hire experts to solve the issue. Analyzing the corrective action plan of the factories it seems that most of the factories are struggling to solve Single Line Diagram issue

due to the fact that, layout of the garment factories changes a lot and change often for this reason electrical layout is also changing. Since this is a continuous process, factories are updating the SLD all the time. Almost all the factories now have Lighting Protection System which was rare before 2014; this system protects factories from power surge during lightning.



Fig. 5.16: Substation

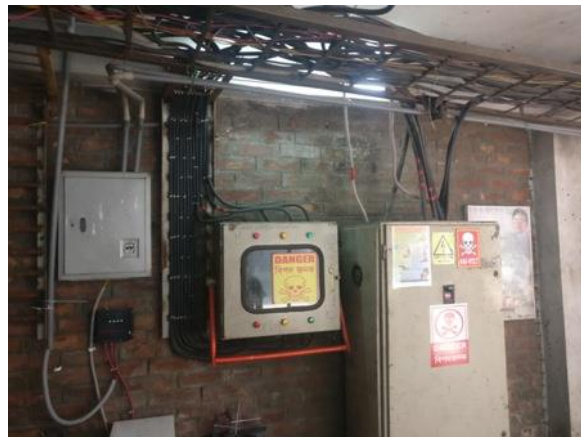


Fig. 5.17: Main Distribution Board (MDB), Sub Distribution Board (SDB)



Fig. 5.18: Electrical Bass bar



Fig. 5.19: Lightning Protection System (LPS)

Field visit has been conducted to the five sampled factories to figure out the latest update of the electrical safety concerns as per the checklist attached in Appendix B. In Accord standard there are a lot of issues mentioned regarding electrical safety measures. As per the standard, an electrical safety checklist has been constructed. Issues mentioned in the checklist were taken care from the Accord standard based on the applicability of those issues in the factory.

Table 5.6 Assessment of Electrical Safety in factory

Issues	Ref. Code	MNR Sweater	Well Done Fashion	Hypoid Composit e Ltd	Sumi Apparels	Crown Fashion
Physical location of Substation as per standard?	Accord Standard 10.5.2.7	Yes	Yes	No	Yes	No
Are as-built electrical drawings indicating information such as panel and circuit locations throughout the building(s) available for Review?	Accord Standard 10	Yes	Yes	No	Yes	No
Is a periodical Insulation Resistance Measurement Program established and recorded?	Accord Standard 10.13.4	Yes	Yes	No	Yes	Yes
Is the electrical switchgear and panel boards inspected on an annual basis to	Accord Standard 10.6	Yes	Yes	No	Yes	Yes
Have items identified in Thermographic inspection reports been addressed?	Accord Standard 10.13.2.2	Yes	Yes	No	No	Yes
Are electrical insulation mats provided in front of substation, switchboards and/or distribution boards?	Accord Standard 10.13.7.1	Yes	Yes	No	No	No

Is a lightning protection system installed on the building?	Accord Standard 10.11	Yes	Yes	No	Yes	Yes
Is a lightning protection system installed on the building as per the standard?	Accord Standard 10.11	Yes	Yes	No	Yes	No
Is the lightning protection system approved by the AHJ?	Accord Standard 10.11	Yes	Yes	No	No	No
The lightning protection ground terminals are bonded to the building or structure grounding.	Accord Standard 10.11	Yes	Yes	Yes	Yes	Yes
Cable joints are through porcelain/ PVC connectors with PIB tape wound around joint.	Accord Standard 10.3.8.4	Yes	Yes	Yes	Yes	Yes
No circuits are drawn for loads without the incorporation of an overcurrent protection device (circuit breaker).	Accord Standard 10.9	Yes	Yes	No	Yes	Yes
Are periodic safety inspections of the electrical system components completed and documented?	Accord Standard 10.13	Yes	Yes	Yes	Yes	Yes
The substation room has adequate ventilation.	Accord Standard 10.13.7.1	Yes	Yes	No	No	No

Are as-built electrical drawings indicating information such as panel and circuit locations throughout the building(s) available for review?	Accord Standard 10.3.7	Yes	Yes	No	No	No
Are thermographic scans of electrical equipment completed at least every three years?	Accord Standard 10.13.8	Yes	Yes	No	Yes	Yes
Electrical connections at equipment, fixtures etc. are properly secured.	Accord Standard 10.3.1	Yes	Yes	No	Yes	No
Stranded conductors having a nominal cross-sectional area 6mm ² or greater are provided with cable sockets. Conductors below 6 mm ² without cable sockets, all strands at the exposed ends are soldered together or are crimped using suitable sleeve or ferrules.	Accord Standard 10.3.8.3	Yes	Yes	No	Yes	Yes

5.8 Findings from Questionnaire survey

Table 5.7 indicates that 76% of respondents are women and 24% are male workers. According to the national survey, about 80% of workers in the RMG sector were women. It is clear from the table above that most RMG workers are women and they play a vital role in our national development.

Table 5.7 Sex-based distribution of respondents by RMG industry

Name of RMG industry	Sex				Total
	Female	(%)	Male	(%)	
MNR Sweater	8	21.1%	2	16.7%	10
Well done Fashion	7	18.4%	3	25.0%	10
Hypoid Composite Ltd	9	23.7%	1	8.3%	10
Sumi Apparels	6	15.8%	4	33.3%	10
Crown Fashion	8	21.1%	2	16.7%	10
Total	38	100	12	100	N=50
Percentage	76.0%	-	24.0%	-	100

Table 5.8 & 5.9 shows 32% of workers are between the ages of 24-30 and 26% of workers are between the ages of 18-24. The youngest group of workers working as assistants in the RMG sector is in the 18-24 year old age groups.

Table 5.8 Representatives by gender and occupation

Occupation	Operator				Helper				Swing			
	M	F	Total	%	M	F	Total	%	M	F	Total	%
18-24	1	3	4	33.3%	1	3	4	28.6%	0	1	1	11.1%
24-30	1	4	5	41.7%	1	2	3	21.4%	2	3	5	55.6%
30-36	1	1	2	16.7%	1	2	3	21.4%	1	2	3	33.3%
36-42	0	1	1	8.3%	0	3	3	21.4%	0	0	0	0.0%
42-46	0	0	0	0.0%	0	1	1	7.1%	0	0	0	0.0%
Total	3	9	12	100.0%	3	11	14	100.0%	3	6	9	100.0%
Percentage			24.0%				28.0%				18.0%	

Table 5.9 Representatives depending on age and occupation

Occupation	Finishing				Others (Upper Level)				Total	%
	M	F	Total	%	M	F	Total	%		
18-24	1	2	3	60.0%	0	1	1	10.0%	13	26.0%
24-30	1	1	2	40.0%	1	0	1	10.0%	16	32.0%
30-36	0	0	0	0.0%	2	1	3	30.0%	11	22.0%
36-42	0	0	0	0.0%	1	1	2	20.0%	6	12.0%
42-46	0	0	0	0.0%	1	2	3	30.0%	4	8.0%
Total	2	3	5	100.0%	5	5	10	100.0%	N=50	100.0%
Percentage			10.0%				20.0%		100.0%	

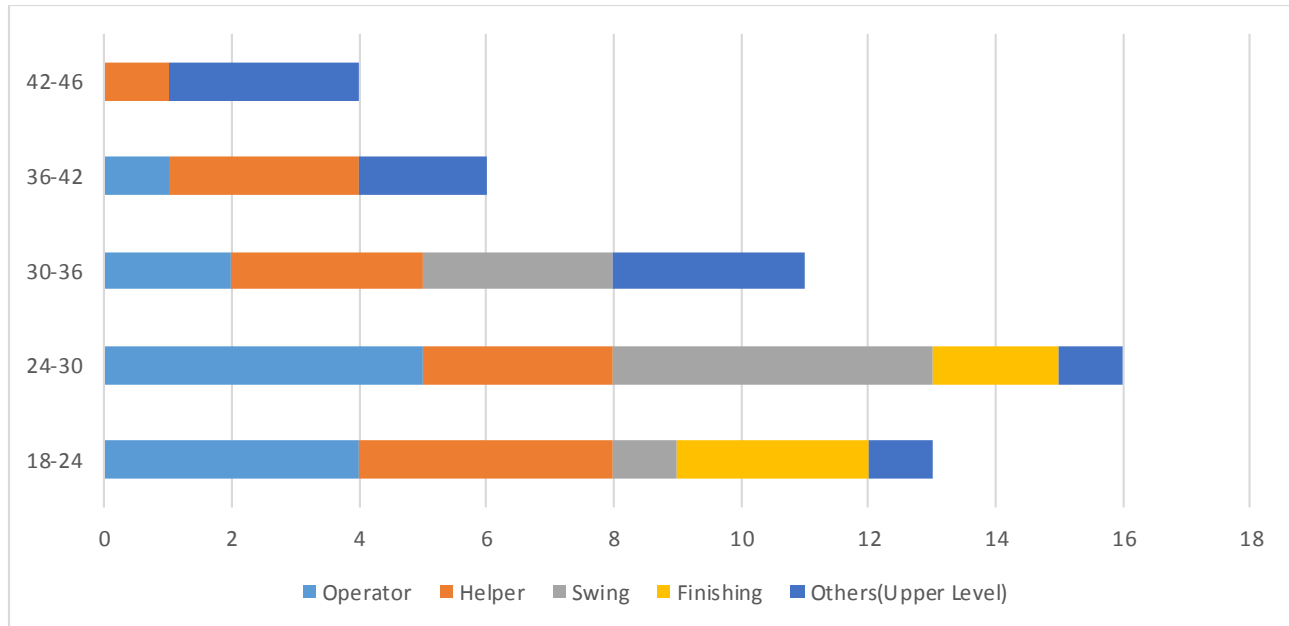


Fig. 5.20: Representatives depending on age and occupation

Table 5.10 shows that, 35 workers among 50 feels that the workplace is safe for them to continue production related work. 15 of them feel that the work place is not safe for them to continue the production work. It is to be noted that, workers of Welldone Fashion and Crown fashion mentioned their concern about work place safety due to the fact that these 2 factories were doing building retrofitting due to building safety concerns and some workers were forced to shift their workstation due to the retrofitting work. This made those workers uncomfortable.

Table 5.10 Safety status of factories from workers perspective

Status	Safe		Unsafe	
	Total	%	Total	%
Name of RMG industry				
MNR Sweater	8	80.0%	2	20.0%
Well done Fashion	6	60.0%	4	40.0%
Hypoid Composite Ltd	9	90.0%	1	10.0%
Sumi Apparels	7	70.0%	3	30.0%
Crown Fashion	5	50.0%	5	50.0%
Total	35	70.0%	15	30.0%

Table 5.11 shows that, the number of workers that were injured during the recent past. Sampled workers were asked about past history of safety incidents that have occurred in their factory. In the entire factory no major accidents have occurred. On 2 instances workers mentioned about injuries occurred during electrical maintenance work. It is to be noted that, workers were not comfortable in front of the management to disclose such information.

Table 5.11 Cases of injuries in sampled factories

Status	No. of Injured Workers		
Name of RMG industry	Structural Issue	Fire Issue	Electrical Issue
MNR Sweater			1
Well done Fashion			
Hypoid Composite Ltd			
Sumi Apparels			2
Crown Fashion			

During the interview it came up that in all instances injured electricians were given first aid in the factory medical care and afterwards taken to local hospital for further treatment. In all instances all medical treatment cost was bore by the factory.

From table 5.12 it can be noted that, the alternative stair case is available in all of the factories now. Alternate stair case was one of the major issues which costed a lot of lives. Workers were asked the question of fire safety status of the factories. During interview most of the workers said that there is adequate alternate stair case for fire hazard. These stair cases are functional. In 2 factories fire doors are found to be being installed and one factory yet to start installation. It is to be noted that fire doors are means for separating stair case from production floor.

Table 5.12 Alternate Stair Case Availability in Factories

Name of RMG industry	Alternative Stair Case	Functional?	Fire Door
MNR Sweater	Yes	Yes	Installation Ongoing
Well done Fashion	Yes	Yes	Installation Ongoing
Hypoid Composite Ltd	Yes	Yes	Not Installed
Sumi Apparels	Yes	Yes	Installed
Crown Fashion	Yes	Yes	Installed

Table 5.13 shows the management attitude towards the workers feedback. It is to be noted that, here Effective means the factory took the feedback/ concern of the worker seriously and taken action immediately. Moderate means the factory took the feedback/ concern of the worker seriously but implementation not took place. Ignorant means the factory don't take the feedback/ concern of the worker seriously and they don't implement them at all. These feedbacks from worker level are very important which leads the factory to remediate the safety concerns smoothly.

Table 5.13 Response from management Level after raising a safety concern by workers

Name of RMG industry	Effective/ Moderate/ Ignorant
MNR Sweater	Effective
Well done Fashion	Effective
Hypoid Composite Ltd	Ignorant
Sumi Apparels	Effective
Crown Fashion	Moderate

As per the table 5.14, additional training like fire drill, electrical safety, earthquake training has been provided to the worker. Here Fire drill training includes the procedure through which the workers will come out from the building to a safer place after the fire incident. Electrical safety training includes the procedure to handle the electrical equipment, what to do if electrical accident occurs in the factory. Earthquake training includes the steps that has to be taken during and after the earthquake happens.

Table 5.14 Training which provided to workers

Name of RMG industry	Fire Drill	Electrical safety training	Earthquake Training
MNR Sweater	Yes	Yes	Yes
Well done Fashion	Yes	Yes	No
Hypoid Composite Ltd	Yes	No	No
Sumi Apparels	Yes	Yes	Yes
Crown Fashion	Yes	Yes	No

Table 5.15 shows that, still a large number of workers are ignorant to the fire alarm bell. During the time of interview, some workers actually mentioned their annoyance about the fire alarm system because it gives lot of false alarms. So they remain same or act ignorant to the bell because they think it's a false alarm.

Table 5.15 Response after Fire Alarm turns on

Status	Response		Ignore	
	Name of RMG industry	Total	%	Total
MNR Sweater	9	90.0%	1	10.0%
Well done Fashion	8	80.0%	2	20.0%
Hypoid Composite Ltd	3	30.0%	7	70.0%
Sumi Apparels	6	60.0%	4	40.0%
Crown Fashion	4	40.0%	6	60.0%
Total	30	60.0%	20	40.0%

Table 5.16 shows that, all the sampled worker thinks that they are working in a safer workplace comparing to the condition of 2013.

Table 5.16 Recent workplace safety considering 2013

Name of RMG industry	Safer
MNR Sweater	Yes
Well done Fashion	Yes
Hypoid Composite Ltd	Yes
Sumi Apparels	Yes
Crown Fashion	Yes

5.9 Conclusion

This chapter can be concluded from two different perceptions come from safety aspects and from questionnaire.

From safety point of view, it is noted that the condition of the total safety in the workplace improved a lot in most of the factories. Factory already invested the money to remediate their garments building as per the Accord standard. They are working for the final installation of the safety measures.

From the questionnaire survey, it is noted that the implementation of the safety measures in the factory building affected a lot to the workers in a positive way. Workers are feeling their workplace safe than previous. Factory management also provides training to the workers for handling the critical situations in cool headed. Worker level entry to the safety measures and the

management level welcome to this matter is also mentionable. Workers are aware of the recent technological upgradation to the factory.

The scenario before the safety measures taken and the scenario after the safety measures taken differ a lot. The worker intervention to the safety status also plays a vital role. From the above analysis it clearly reflects that, the incidents happening rate is much lower than the past.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

The objectives of this project paper are to review the present scenario considering the past and the physical verification of the situation by conducting field visit and questionnaires. In order to achieve these objectives, field survey consists of safety & public perception has been conducted.

This chapter gives an overview of the important findings of this project paper.

6.2 Conclusions

Workers' fundamental right is a safe and secure working environment. From the international instruments of human rights to our domestic laws, the rights of workers are protected, but in our country these problems remain unresolved due to lack of enforcement mechanisms and the unwillingness of some people. Since it is one of Bangladesh's largest industries, this sector can employ more people, which can reduce the level of unemployment as well as the level of poverty. There are few findings that can be made from the above study. Those are:

- Lack of the safety law enforcement mechanisms and unwillingness
- Garment manufacturers continuing to build garment factories without proper infrastructure
- Workers lack understanding of the safety work that is being done
- Electrical incidents are more common in factories than building safety and fire safety issues due to lack of experienced/skilled person responsible for the job
- Some factories are doing building retrofitting work which is massive work and require lot of safety precautions which is not ensured
- Fire alarm and protection systems seem to give lot of false signals, which creates doubt among workers about real and false alarms
- Most of the workers are unaware about use of fire door and application
- In some factories exit paths were found blocked by goods

- In some factories floors were found to be filled with goods. Workers are unaware about loading requirements
- Most of the factories are lacking behind Accord/Alliance given timeline to complete remediation

Punishment for those who are responsible for accidents and accountability of the owner should be ensured. Otherwise in the near future we will be questioned for these types of gross human rights violations and may lose our foreign buyers. At the same time proper implementation of general and international standards should be made mandatory; otherwise, death traps for workers will continue to be built.

The recent steps taken by government and BGMEA showed some progress in taking safety measures in factories. The government and the owners of garments factories should be more concerned about industrial safety related rules and regulations which will minimize their expenses as well as the severe losses due to accidents. Inspection, reporting and compliance of existing national and international laws and standards must be enforced properly to minimize further incidents due to lack of occupational safety provisions.

To be an upper position holder in the world Garments Sector, there is no way except follow the below recommendations. We hope by maintaining proper management and policy strategies our country will take in the garment sector the apex position in future.

6.3 Recommendations

From the study it seems that investment made by the factories to remediate fire, building and electrical safety issues have a good impact on the workers, which is indicated in the worker interview. Workers are now less worried about workplace hazard than they were after Rana Plaza and Tazreen accident. But there is lot more to be done to reach the desired work place safety standard and to ensure sustainability of the work done. Follow things should be considered for future implementation and study.

- Better inform workers about work being done for remediating building, fire and electrical safety issues thorough training, worker management engagement etc.
- Train management staff to properly use various safety systems installed
- Introduce regular maintenance program to ensure sustainably of the installed systems

- Engage independent third party audits to check functionality of the installed systems
- Develop action plan to manage people, assets during a moment of crisis
- Develop a system to identify new hazards
- Conduct regular fire drills and other trainings to ensure that all are used to cope in emergency situation
- Maintain all machines, tools & equipment properly & regularly.
- In addition to building, fire and electrical safety, start working on other concerns like boiler safety, environmental concerns etc.
- Govt. should only permit new factories and buildings which are planned following the national building code and all other safety regulations
- BGMEA can work with the government to cancel each factory's export license and BGMEA membership that does not meet the standards until compliance has been demonstrated
- Buyers should only buy from factories that ensure safety of their workers which will in-turn force all producers of garments to follow safety regulations

6.4 Limitations

The study was conducted in the light of several limitations that are inevitable in the way such a task is carried out. The study limitations are given below.

- a. To carry out the investigation, sampling technique was applied. Workers are randomly selected
- b. All the respondents were workers in the garment. They didn't have enough time to take part in the long conversation
- c. Due to the limitations of factory management, a large number of respondents could not be selected for data collection
- d. Among the respondents there was a tendency to hide their sensitive information
- e. Management of the factory was very careful to reveal sensitive information
- f. Gathering information from the respondents was very difficult because they had no experience with the structured questionnaire
- g. Last of all, in data analysis and data interpretation, some simple statistical methods are applied. The situation did not allow the use of more advanced statistical methodological approaches

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APPENDIX A

Interview Questionnaire

Department of Civil and Environmental Engineering,

Islamic University of Technology

Assessment of Safety Measures in RMG Sector of Bangladesh

(This information used only for the Project Paper)

1. Name of the garment :
2. Production of the garment :
3. Designation of the respondent :

Demographic Information

4. Name :
5. Age :
6. Religion :
7. Sex: a) Male b) Female
8. Present Address :
9. Permanent Address :
10. Educational Qualification :
a) Illiterate b) Primary c) Secondary School d) College e) Others

Information about safety condition in Garment industry

11. Give your answer about feelings regarding safety in your factory.
a. Safe b. Unsafe

12. Answer the following if you feel insecure...

- a. Electrical faults
- b. Fire Safety
- c. Building safety
- d. Physical violence
- f. Stampede
- g. Others

13. Do you know anyone who was injured by the above problems in the factory in the last 5 years? Mention

The reason...

14. What type of medical treatment and facilities were provided to the injured worker?

15. Do you have alternative staircase in your garment? Does it open during working time?

16. What do you do when you see something that makes you feel unsafe?

17. Does the factory management take you seriously if you express a safety concern?

18. What type training provided by your garment to combat accident?

19. What do you do if the fire alarm turns on?

20. What do you do if you feel the building is shaking?

21. Compared to 2013 do you think you have a safer workplace now?

APPENDIX B

Safety Checklist

Structural Safety Checklist:

1. Preliminary assessment done at all the buildings of the factory premises?
2. DEA required or not?
3. EA required or not?
4. Retrofitting required or not?
5. Retrofitting work approved by the AHJ?
6. Soil test report available?
7. Is there any load manager assigned for floors?
8. Is the structural load plans available on each floor?
9. Material Test Certificates available?
10. All drawing available?
11. Water proofing membrane applied on roof top?
12. Any visible cracks observed?
13. Drawing mismatched with the actual site condition?

Fire Safety Checklist:

1. Are the widths of all exits adequate as per standard?
2. Are all exit stairs separated from other occupancies by Fire Rated Construction as per standard?
3. Are the exterior exit stairs separated?
4. Are all exit stairs exit directly outside the building?
5. Is the utility room properly separated with fire rated construction as per standard?
6. Is there any warehouse, store within the premise and are they being properly separated by Fire rated construction as per standard?
7. Is there any in process storage in the floor area and are they being maintained with proper separation as per standard?
8. Is the Dining separated from other occupancies with proper fire rated construction as per standard?
9. Is there any exit access corridor in the floors or in the egress and is it properly separated by fire rated construction as per standard?
10. Is there any lift core opens to the floor area, vertical shaft or any floor to floor penetration inside the floor of any of the building?
11. Are the numbers of exits adequate for the factory compared to the number of workers as per standard?

12. Are the aisles and intermediate aisles adequate at all floors of the factory?
13. Are the travel distances (TD), Common path of travel (CPT) meeting the standard at all floors?
14. Are the handrails being installed at both sides of the stairs?
15. Are the parapets/guardrails having the adequate height as per standard?
16. Are all the doors compliant and without locking features?
17. Are all the doors compliant, side hinged and outward swinging?
18. Is the evacuation map available and posted at all the entrances of all floors?
19. Is the stair designation sign posted at all floors of all the stairs?
20. Is the occupant load sign posted at all floors of all stairs?
21. Have all the floors enriched with adequate illumination level? Aisles: 2.5 lx, Staircase: 10 lx.
22. Is there adequate number of exit signs at all the exits?
23. Are all the emergency lights and exit signs functional?
24. Is there any on/off switch at any of the emergency light/exit signs?
25. Do the emergency lights and exit signs have capacity of lasting at least 30 minutes?
26. Is there any fire alarm system installed in the factory?
27. Are all the devices, cables in the fire alarm system approved/listed by any recognised third party certification body?
28. Is the fire alarm system installed as per standard?
29. Has the fire alarm system been approved by any Authority Having Jurisdiction (AHJ)?
30. Does the fire alarm system have any approved drawing from the AHJ?
31. Is the audio and visual notification appliance adequate with audio and visual level notification?
32. Is the right type of fire extinguishers installed at appropriate places in accordance with the occupancy type?
33. Are there adequate number of Fire extinguishers throughout all the floors and other open areas?
34. Is there any requirement for sprinkler system throughout the factory premise?
35. Is there any sprinkler system installed throughout the factory?
36. Is the sprinkler system installed being approved by any AHJ?
37. Is there any requirement for the standpipe system?
38. Has the standpipe system being installed in the factory?
39. Has the installed standpipe system been approved by any AHJ?
40. Is there any drawing of the installed standpipe system approved by AHJ?
41. Is there any Fire Pump available in the factory?
42. Does the Fire pump meet the capacity of the system installed? Is it a listed Fire pump with proper certification?
43. Has the fire pump been installed as per standard?
44. Is there any document available for the fire drill?

Electrical Safety Checklist:

1. Physical location of Substation as per standard?
2. Are as-built electrical drawings indicating information such as panel and circuit locations throughout the building(s) available for review?
3. Is a periodical Insulation Resistance Measurement Program established and recorded?
4. Is the electrical switchgear and panel boards inspected on an annual basis to
5. Have items identified in
6. Thermographic inspection reports been addressed?
7. Are electrical insulation mats provided in front of substation, switchboards and/or distribution boards?
8. Is a lightning protection system installed on the building?
9. Is a lightning protection system installed on the building as per the standard?
10. Is the lightning protection system approved by the AHJ?
11. The lightning protection ground terminals are bonded to the building or structure grounding.
12. Cable joints are through porcelain/PVC connectors with PIB tape wound around joint.
13. No circuits are drawn for loads without the incorporation of an overcurrent protection device (circuit breaker).
14. Are periodic safety inspections of the electrical system components completed and documented?
15. The substation room has adequate ventilation.
16. Are as-built electrical drawings indicating information such as panel and circuit locations throughout the building(s) available for review?
17. Are thermographic scans of electrical equipment completed at least every three years?
18. Electrical connections at equipment, fixtures etc. are properly secured.
19. Stranded conductors having a nominal cross-sectional area 6mm^2 or greater are provided with cable sockets. Conductors below 6mm^2 without cable sockets, all strands at the exposed ends are soldered together or are crimped using suitable sleeve or ferrules.