

Bhutan Power Corporation Limited



SAFETY MANAGEMENT SYSTEM

**Safety & Quality Division
HR & Corporate Services**

**May 2021
(First Edition)**



FOREWORD

Bhutan Power Corporation Limited (BPC) is pleased to bring out the 2021 edition of the Safety Management System for systematically managing safety in all the workplaces. With this system, we are actively committed to provide the highest practical standards of safety for our employees and contractors and to protect the general public from potential hazards arising out of unsafe working practices.

BPC would provide protective equipment, mechanical safeguards, operating procedures and necessary training to ensure that the work place is safe. These safeguards alone, however, are not enough; there is need of proper safety management system in place for efficient implementation of safety in all work areas. Safety is essential in any job function specially while working with electricity.

This safety management system would guide the employees of BPC in practicing safety in all the operations, maintenance and construction works. The system may not cover every situation and aspects of safety but the system is implementable and can be amended from time to time. Each and every one of us must be committed to work safely in order to protect ourselves, our families and others from the consequences of occupational injuries and illness.

Adherence to the corporate safety rules and the safety management system is mandatory for every employee and contractor. It is the responsibility of each of us to know, understand and comply the procedures prescribed in this system when carrying out our work. A personal commitment to working safely will help to avoid the painful consequences of workplaces injuries.

This Safety Management System shall take effect immediately.

Tashi Delek!

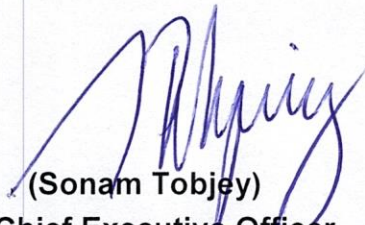

(Sonam Tobjey)
Chief Executive Officer



Table of Contents

1.	DEFINITIONS OR ABBREVIATION	5
2.	INTRODUCTION	6
2.1	Safety Management System	6
2.2	Purpose of SMS	7
2.3	Benefits of SMS	7
2.4	Background	8
3.	OBJECTIVES OF THE SMS	8
3.1	Policy	8
3.2	Objectives	9
4.	GUIDING PRINCIPLES FOR SAFETY MANAGEMENT SYSTEM.....	9
4.1	Compliance with electrical safety legislation	9
4.2	Commitment to a preventative approach	10
4.3	Commitment to a risk management approach.....	10
4.4	Promoting workforce commitment	11
4.5	Accountability for outcomes	11
5.	SCOPE AND LIMITATIONS	11
6.	SAFETY RESPONSIBILITIES AND ACCOUNTABILITIES	11
6.1	Chief Executive Officer (CEO).....	12
6.2	Head of Services (HOS)	12
6.3	HOD/Manager (SQD)	13
6.4	Divisional Heads	14
6.5	All other employees	14
7.	SAFETY INDUCTION AND TRAINING	15
7.1	Safety Induction	15
7.1.1	For new Recruits	15



7.1.2	For contractors	16
7.2	Safety Training	17
7.3	Safety Training Management	17
8.	ACCIDENTS.....	17
9.	FIRST AIDS.....	18
10.	NON COMPLIANCE OF SAFETY	18
11.	REGULAR INSPECTION AND TESTING	18
12.	REPORTING AND INVESTIGATIONS	19
12.1	Need for safety reports	19
12.2	Reporting system.....	19
12.3	Safety incident information sharing	22
12.4	Handling Safety Reports	22
12.5	Investigations.....	22
13.	SAFETY AUDITING.....	23
13.1	Safety audits	23
13.2	Safety audit process	25
13.3	Safety audit checklist	26
14.	SAFETY COMMUNICATIONS.....	27
14.1	Dissemination of Safety Information/Safety Bulletin	27
14.2	Safety Promotion.....	27
15.	OCCUPATIONAL HEALTH & SAFETY COMMITTEE (OHS COMMITTEE)	27
Appendix 1: Simple Process of Safety Management System		31
Appendix 2: BPC OHS Committee for 20 Dzongkhags		32



1. DEFINITIONS OR ABBREVIATION

1. **Authority** means the Bhutan Electricity Authority
2. **Employer** refers to Bhutan Power Corporation Limited
3. **BPC** refers to Bhutan Power Corporation Limited
4. **PMS** means Performance Management System/**EAS** means Employee Appraisal System of BPC.
5. **PBIS** means Performance Based Incentive Scheme/**TAS** means Team Appraisal System of BPC.
6. **Employee** means all regular and casual workers employed by the Department regardless of their position.
7. **Contractor's representative** means a person who is representing firm or company undertaking the work of BPC and has the authority to supervise the work with full accountability at a project site.
8. **Electrical Infrastructure** refers to all the equipment including lines, substations pertaining to the generation, transmission and distribution.
9. **Safety Equipment** means equipment used to safe guard the workers from electrical risk such as hand gloves, helmet, belt, metering equipment etc.
10. **Accountability** means an employee responsible for his decisions and actions and must be accountable to whatever scrutiny is appropriate to his Office
11. **Board** in relation to BPC shall mean directors collectively acting as the Board of directors of
BPC.
12. **DH** means head of division to whom other employees of that division reports to.
13. **CEO** means Chief Executive Officer
14. **HOS** means Head of Services
15. **HOD** means Head of Department



16. **Management** means the executive body involved in making Management decisions and refers to the CEO or any other officers designated to be a part of this decision making body.
17. **Work place** refers to all the work areas including office, substations, lines and power houses
18. **Supervisor** refers to the person in charge of the work and/or working crew.
19. **Hazard** is any unsafe act or unsafe condition that may lead to injury of persons or damage to property.
20. **Shall** means mandatory; **Should** means recommended.
21. **Work** means any construction, operation, maintenance or repair activity performed in the course of employment.
22. **A Competent Person** means a person who in the opinion of the person appointing him has sufficient technical knowledge or experience to carry out safety and competently the duties assigned to him.
23. **Contractor** means any firm, corporation, company, organization or other person or persons contracting to perform work for the Bhutan Power Corporation.
24. **Safety Code** is the Safety Code formulated by Bhutan Electricity Authority
25. **Safety Equipment** means tools or other equipment specially designed to protect persons from potential hazards
26. **Safety Regulation** is the Safety Regulation formulated by Bhutan Electricity Authority
27. **Test Report** is the report containing details of the testing equipment, lines, substations or other equipment.
28. **Inspection Report** is the report carried out to inspect the sites on safety issues and to check the compliance on electrical standards including safety equipment.

2. INTRODUCTION

2.1 Safety Management System

Safety Management System (SMS) is a set of plans, actions and procedures to systematically manage safety in the workplace that is actively endorsed by the employer (BPC) to achieve the following targets:



- Provision of a safe workplace and the prevention/reduction of illness and injury for employees and contractors.
- Identification of workplace hazards, assessment and control of all risks.
- Active involvement in safety matters by managers, supervisors and employees and their representatives.
- Provision of information and training for employees and contractors at all levels so that they can work safely.
- Audit and review of the Safety Rules. Refer Appendix 1 to get the basic function of Safety Management system.

2.2 Purpose of SMS

The purpose of SMS is to systematically eliminate the possibility of accident, illness, injury or fatality in the workplace by ensuring that the hazards in the workplace are eliminated or controlled in a systematic manner, rather than waiting for a crisis to occur. BPC have legal responsibilities to provide a safe workplace and systems of work, to consult with the employees and to keep them informed about safety matters as per the Labour and Employment Act of Bhutan 2007. It is also reflected in Safety Regulations and Safety Code 2008 of Bhutan Electricity Authority.

2.3 Benefits of SMS

The primary benefit in implementing the SMS is the assistance it can provide in meeting the moral and legal responsibilities of BPC. The benefits include:

- Prevention of occupational injury and fatality.
- Reduced loss of working days due to injury and accidents.
- Lowered incidence of employee's compensation claims.
- Minimized work stoppages due to safety disputes.
- Improved work methods and worker morale thus leading to improved productivity.



- A framework for meeting legal responsibilities.
- A process to review and update Safety Rules.

2.4 Background

Bhutan Power Corporation Limited, as an employer, has a legal obligation under section 5.2 of the Safety Code (2008), Bhutan Electricity Authority, Royal Government of Bhutan, to ensure the workplace health and safety of each of its workers at the workplace. The Safety Code States that the SMS shall include as a minimum requirement of the following features:

- A process by which employees and the contractors are trained in the need for electrical safety and in the requirements of the Safety Rules that relate to the work to be performed;
- A means by which compliance with Safety Rules is monitored by the Licensee on a regular basis;
- A process for disciplining employees and contractors who fail to comply with the Safety Rules where the non-compliance is a serious breach;
- A process for the regular inspection and testing for Safety Equipment; and
- A process by which Safety Rules are regularly reviewed and updated

Further, BPC has been directed to comply with all Safety Regulations and Safety Codes as per the decision of the 20th Commission meeting of the Bhutan Electricity Authority. All these regulations coming into force from July 1, 2008 and the directions from BEA have led to the emergence of Safety Management System in BPC.

3. OBJECTIVES OF THE SMS

3.1 Policy

Safety is of paramount importance to BPC and is committed in providing a safe and healthy working environment for its employees, contractors and other persons at the worksites. Both management and the employees of BPC are responsible for adhering to safe work practices and have individual responsibility to work and act safely at all times.

To achieve this, management and each employee of BPC has a responsibility to minimize hazards and perform all work practices in a safe manner. The Safety Management System will aid all the employees



of BPC by providing systems including policy, procedures and training to manage risks. Every safety incident or accident will be reported and investigated in accordance with the BPC's Safety Rules and Safety Manual.

3.2 Objectives

The objective of SMS is to manage the potential of risk and danger to the lives of all employees, contractors or any other people involved in the worksites. It also includes prevention of damage to property and others as follows:

- Provide a high degree of confidence that the BPC has the capability to identify and manage risk in compliance with the Safety Regulation and Safety Code (2008) of Bhutan Electricity Authority
- Provide HODs/DHs with a comprehensive framework for identifying and managing hazards and risk within their areas of responsibility;
- Detail the BPC's approach towards identifying and managing hazards at its sites for maintenance personnel, supervisors, contractors, construction workers and others;
- Provide a system that is complementary to and integrated with the existing Safety Rules of BPC's workplace health and safety policies and procedures;
- Clearly define the obligations of all stakeholders for safety under the Safety Regulation and Safety Code 2008;
- Provide a basis from which management and supervisors are able to develop complying systems for identifying and managing electrical risk within their areas of responsibility;
- Ensure a rigorous and ongoing monitoring of electrical safety performance.

4. GUIDING PRINCIPLES FOR SAFETY MANAGEMENT SYSTEM

Following principles are taken into account in developing the safety management system.

4.1 Compliance with electrical safety legislation

A safety management system must ensure compliance with the Act and Regulations. This means the system must comply with:



- all requirements for safety management systems;
- all relevant electrical safety obligations;
- all relevant safety and technical requirements for works on electricity; and
- all relevant safety, technical and licensing requirements for performing electrical work.

4.2 Commitment to a preventative approach

Safer environments are provided by adopting preventative approaches that:

- engages all safety stakeholders through communication and consultation; and
- measures progress of activities that contribute to the elimination or reduction of the effects of hazards before an injury or incident occurs

This may gain organizational commitment where it is supported by the overall integrated system management approach which provides foundations for allocating accountabilities, responsibilities and resources from senior management through to all employees to enable decisions to be made on electrical safety matters.

4.3 Commitment to a risk management approach

A safety management system should apply an appropriate risk management process to

- identify the hazards
- assess the risks
- decide on control measures
- implement the control measures
- monitor and review



4.4 Promoting workforce commitment

Senior executive management should effectively lead and foster an organizational commitment and culture towards safety which is supported by the safety management system. BPC's workforce, including designers, operators, supervisors, contractors and field staff should have a clear safety direction which can be, and is practically implemented. This can be achieved through exercising organizational practices and processes which are documented in the safety management system.

The system and the organization should promote and reflect a conscious management decision to comply by devising, documenting, implementing, auditing and reviewing these processes for effectiveness.

4.5 Accountability for outcomes

It is recommended that the safety performance should be included in the performance management system (PMS)/Employee Appraisal System (EAS) and performance based incentive scheme (PBIS)/Team Appraisal System (TAS) of BPC.

5. SCOPE AND LIMITATIONS

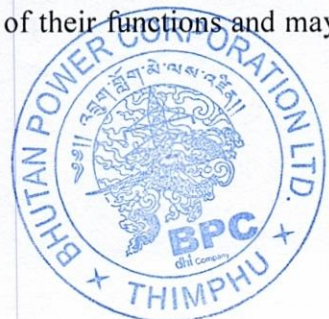
This document has been developed specifically for BPC and applies only to BPC owned and leased property. It has been developed to manage and minimize work-related health risks to personnel working in BPC. These include:

- hazards and risks associated with the design, construction, operation and maintenance of all BPC works;
- to manage work related hazards and risks by ensuring safe work places; and
- to ensure employees, contractors or third parties to comply with all the requirements of the Safety Rules and Regulation.

Note that this SMS must be read in conjunction with the Safety Rules, Regulations and Safety Manual of BPC. All the employees at the work sites for whatever purpose are subject to the requirements of the Safety Management System.

6. SAFETY RESPONSIBILITIES AND ACCOUNTABILITIES

All staff members of BPC, including the contractors are responsible for their actions and they are also accountable to their supervisors or managers for the safe performance of their functions and may be



called on to justify their actions. Although individuals must be accountable for their actions, managers and supervisors are accountable for the overall performance of the group that reports to them. Accountability is a two way street. Managers are also accountable for ensuring that their subordinates and contractors have the resources, training, experience etc. needed for the safe completion of their assigned duties.

6.1 Chief Executive Officer (CEO)

Safety Accountability: The CEO is accountable to the Board for overall safety management of the BPC.

Safety Responsibility: In discharging this responsibility, the CEO is responsible for:

- Authorizing a Safety Policy that indicates BPC's safety objectives and its commitment to safety
- Ensuring a Safety Management System is implemented at BPC
- Assuming the leadership role to ensure commitment throughout the organization, particularly at senior management level for implementing the safety management system
- Ensuring that BPC executives and staff are aware and held accountable for their safety performance and Ensuring that BPC's safety management system and operational performance are evaluated for effectiveness on regular basis

6.2 Head of Services (HOS)

Safety Accountability: The Directors are accountable to the CEO for safe and efficient operation of SMS in BPC.

Safety Responsibility: In discharging this accountability, the directors are responsible for:

- Uppermost responsibility for Safety Management in BPC
- Investigation and assessment of resource allocation and training to all levels of employees and contractors on safety issues
- Assuming the leadership role to ensure commitment throughout the departments and divisions for implementing the safety management system
- Ensuring that all the HODs and DHs are aware of safety guidelines and are held accountable for their safety performance



- Ensuring that there are adequately trained and competent safety trainers available for training the employees and contractors
- Providing advice and assurance relating to safety issues and performance
- Maintenance of the safety policy and safety management system
- Establishing safety standards and review
- Establishing a system for safety management education and safety awareness
- Establishing a safety audit and monitoring system

6.3 HOD/Manager (SQD)

Safety Accountability: They are accountable for daily operations of the safety management in the departments and divisions.

Safety Responsibility: In discharging these accountabilities, they are responsible for:

- Ensuring that safety considerations are given the foremost priority;
- Ensuring the application of the safety management system in all the respective jurisdictions
- Overseeing the safety aspects in daily operations in the departments and divisions

Ensuring that serious safety issues are reported in a timely manner to the safety and quality division

- Ensuring that all daily operational staff are aware of, and held accountable for their safety performance
- Ensuring that all employees reporting to him are trained, qualified and competent to discharge their safety related obligations
- Ensuring that management of human resources is appropriate to facilitate safe operations



6.4 Divisional Heads

Safety Accountability: The divisional heads are accountable for integrating safety aspect and implementation of safety management in daily operations and construction activities.

Safety Responsibility: In discharging these accountabilities, DHs are responsible for:

- Ensuring that safety considerations are given priority in all operations and construction activities
- Ensuring that safety management is carried out as per the procedures and guidelines given in the safety rules, safety manual and SMS
- Ensuring that safety issues are reported in a timely manner to the department
- Ensuring that all the employees, contractors and the third parties are aware of, and accountable for their safety performance
- Ensuring that all the people involved in the daily operations and construction activities are trained and qualified to discharge their safety related obligations
- Ensuring that disputes arising out of safety issues are dealt as per the dispute resolution guidelines issued by BEA
- Making sure that the safety aspects are covered in contract documents and performance evaluations
- Checking and monitoring of safety management implementation in the divisions

6.5 All other employees

All the employees of BPC have the following safety responsibilities:

To comply with the relevant safety requirements and procedures outlined in:

- Safety Manual
Safety Rules, regulations and Safety Code
- Other duly authorized corporate manuals, instructions and notices



- To apply safety measures in all work places as required in safety rules and regulations
- To advise the supervisors for any safety occurrence or system failure and to identify and report any situation of potential risk or concern affecting system safety
- Supporting safety audits as and when required
- Supporting safety investigations as and when required; and
- Disseminating information on safety aspects to colleagues and to the customers

7. SAFETY INDUCTION AND TRAINING

BPC is committed in providing safe working environment for its entire staff at all times as well as making sure that the employees and contractors are aware of the safety aspects. It is also important to inform the general staff about safety regulations, standards and safety competency in their day to day operations. One way is to provide training and induction courses to all employees and representatives of the contractors for implementation.

7.1 Safety Induction

7.1.1 For new Recruits

Whenever the new recruitments are undertaken, a session on safety issues should be introduced in the induction courses depending upon the level of staff recruited by BPC. For the general field staff, basic safety codes and rules should be highlighted while for engineers and senior positions, broad level of topics should be covered on safety management including safety rules and regulations. Generally, following topics should be included for the safety induction:

1. Legal obligations on safety as per the Electricity Act and Labour Act of the Kingdom of Bhutan,
2. Organization and Responsibilities on Safety Management,
3. Safety Rules and Regulations
4. Safety Manuals and Safety Standards
5. Incident reporting system,



- Potential hazards and risk while working with electricity,
6. General Hazards present at the work sites: mobile equipment, working distances and height, manual handling etc.
 7. The Safe Work Methods and other measures adopted to respond to the hazards.
 8. Personal Protective Equipment (PPE) including ear plugs,
 9. Safety precaution and first aid during emergency,
 10. Fire Prevention,
 11. Location of fire extinguishers,
 12. Dress codes in the field,
 13. Hazardous materials location and control,
 14. Location of first aid kits and
 15. A reminder of the responsibility to act sensibly and care for everyone's safety.

Any other relevant safety issues which become apparent will be included during the induction.

7.1.2 For contractors

All the contractors who are involved in BPC works should nominate competent representative to attend the induction or workshop on safety. The representative should be responsible for implementing safety code and to follow all the safety rules as per the requirement of the safety manual. Some of the points mentioned above in 5.1.1 will also be introduced to the contractors as per the relevance of the contract. Besides the general safety rules, contractors shall be briefed on the following:

- a) Safety to general public to protect the environment and to minimize noise, pollution or other undesirable effects resulting from the operation of the work.
- b) Provision of safety equipment and safety working environment to all the workers at the worksite.
- c) To ensure the quality of the materials, plants and workmanship as per the standards specified in the Contract.
- d) Inspection and surprise checks to be conducted by the employer to see the compliance on safety at the work site.



7.2 Safety Training

Safety instructions and training are essential for educating the employees to think, act and work safely. It will provide knowledge on safe work practices, personal safety and remedial measures to prevent accidents. Safety trainings will also keep up-to-date knowledge of the employees on new methods and technologies on better safety practices. Besides the normal safety practices as described in Safety rules and manuals, it will develop safety consciousness as follows:

- Display of safety posters to remind workers of particular hazards
- Providing simple and convenient safety devices
- Give due respect and recognition to safe workers and create in employees a feeling of pride in safe work
- Can stimulate and get more safety conscious
- Report safety activities to all employees
- Welcome all safety considerations
- Conduct safety trainings periodically

Note: Each person attending the training or workshop is required to be obliged to sign the attendance record as proof that they have attended the training or induction briefing.

7.3 Safety Training Management

Safety training/workshop/induction courses can be conducted whenever required in coordination with the concerned departments and the Safety and Quality Division. Trainers can be either from in-house (those competent and well experienced employees) or external resource person.

8. ACCIDENTS

Even though safety can be taken up as a top priority in all operations, accidents cannot be avoided but the frequency of occurrence can be minimized. So in the case of accidents, following process shall be applicable.

During normal accidents, the report of the incident should be submitted to the immediate supervisors and will be dealt as per the BPC service rules and regulations. If the cases are severe, then the compensation benefits will be paid as laid down in section 14.4 of the BPC SRR.

Accidents in the field including those in the substations, power houses and lines will be reported to the immediate supervisor as soon as possible as per Safety & Quality's Framework. Then the incidents shall be investigated and reported to the head of the unit or division concerned. Depending



upon the severity and nature of the incident, the matter will be dealt accordingly. In some cases, the authority might intervene to resolve the cases.

9. FIRST AIDS

Wherever possible first aids should be placed in all the work places, so that immediate proper treatments can be provided to employees in need. First aids are also necessary in all the service vehicles for treating the workers during emergency. The first aid should consist of minimum items required for minor injuries. If the need arises, then some of the employees should be trained in first aid in order to provide services in case of minor cuts, burns or electric shocks. Depending upon the situation, he can refer the victims to the hospital for further examinations and treatments.

10. NON COMPLIANCE OF SAFETY

Non-compliance of safety is a serious breach and will have serious impact on individual performance. This will be reflected in performance evaluations as well as the performance based incentive scheme of the respective divisions and departments.

Incidents or hazards resulting from employees not complying with the safety rules shall be held responsible and would be called for explanations by the management. In severe cases, situation can be dealt on case by case basis by the management.

For the contractors, the terms and conditions specified in the contract document will apply if the safety is not complied as per the rules and regulations. In the accident cases such as injury, death and other hazards, contractors will be liable for compensation or to resolve the cases accordingly.

11. REGULAR INSPECTION AND TESTING

The safety equipment at the work place shall be regularly inspected and tested for its proper functioning and accuracy. The inspection can be carried out by the concerned supervisors or the inspection team formed in coordination with the safety and quality division. All the field offices should have the record of regular inspection and testing carried out for all the electrical equipment.

- List of safety equipment and date tested for each of the equipment
- Accuracy level of all the equipment including the meters
- Annual maintenance carried out for all the electrical equipment in the substations and switchyards including transformers, breakers, relays etc.



- Test reports and inspection reports for new lines and substations
- Inspection reports of lines such as conductor size, clearance etc.
- Test and inspection reports for new service releases
- Safety and environmental clearances for new projects

12. REPORTING AND INVESTIGATIONS

Safety management systems involve the reactive and proactive identification of safety hazards. In the past, BPC has carried out few accident investigations through the customer complaints related to damage of property and fire hazards. Unfortunately, these incidents are not known clearly, their causes and impacts to those responsible for reducing or eliminating the associated risk. This may be due to the unavailability of proper reporting systems or people not being sufficiently motivated to report the incidents.

12.1 Need for safety reports

Knowledge derived from incidents can provide significant insights into safety hazards. Safety incident reports contain a large quantity of detailed information which can be useful for analysis and data from such reports facilitates an understanding of the causes of incidents, helps to define intervention strategies and helps to verify the effectiveness of interventions. Incident reports can also help in obtaining the first hand evidence on the factors associated with mishaps which can be use in improving operating procedures and control design.

Safety reporting is also required to be submitted to the Authority on safety operations on regular basis as per the clause 12.0 of Safety Regulations.

12.2 Reporting system

Licensees shall report to the Authority on Serious Safety Incidents as per Section 11.1 of the Safety Regulation, 2008 using the reporting format below:

1) Licensee details

Name of Licensee:

Office of the Licensee:

Name of the Manager:

Phone No. & Email ID:



2) Victim(s) details

Full Name: Age: Sex:

CID No.: Designation:

Date of appointment: Date of last Transfer:

Name of Spouse:

No. of Children:

Address:-

Village:

Gewog:

Dzongkhag/Dungkhag:

3) Incident/Accident details

Date of accident: Time: Date Reported:

Name of the Supervisor: Phone No.:

Name of the Reporting Officer: Designation:

Phone No. & Email Address:

Location:

4) Nature of accident

a) Fatal: ☐

b) Non-fatal: ☐

5) Describe the events leading up to the incident and how the incident occurred.

What caused the accident.	1. Ineffective guarding	2. Inadequate protective equipment	3. Weather
	4. Lack of maintenance	5. Misconduct	6. Inexperience



7. Unsafe work environment	8. Miscommunication	9. Other (Please specify)
Elaborate.		

Part of body injured	1. Head	2. Nose	3. Multiple (Injured more than one part)
	4. Eyes	5. Arm	6. Skin burn
	7. Neck	8. Leg	9. Other (Please specify)

6) Copies of reports necessary to be attached

- a) Police Report (*As per the request of Authority*)
- b) Medical Report

7) Victim(s) or Witness(s) statement.

8) Work permit and test permit.

(The work permit/test permit should be attached along with the details of the person who is issuing the Work/Test Permit and the person who is receiving the Work/Test Permit.)

The report should be submitted immediately after the inspection and assessment of the incident. The unit or the division head in turn will report the matter to the respective HODs depending upon the seriousness of the incident. The incident report shall also be forwarded to the Safety and Quality Division through the Divisions according to the nature of the incident.

All serious safety incidents shall be reported to the Authority no later than the end of the next business day following the occurrence of the incident as per clause 11.1 of Safety Regulations 2008.



12.3 Safety incident information sharing

Each departmental head/divisions are expected to share information on safety incidents through the web, accident bulletin or consultative meetings if possible. The purpose is to ensure that even the minor incidents which have an implication on safe working environment and which may otherwise go unreported are reported and acted upon. This system helps to promote a positive and non-punitive safety culture.

Also accident incidences have to be compiled and reported to the BEA every quarter.

12.4 Handling Safety Reports

The concerned head of the Departments or Divisions would screen the reported incidents for those required to be brought to the notice of the management and the Safety and Quality Division. In any case, a feedback would be provided to each department or division on the action taken or the reason for not taking actions on the serious incidents reported.

The safety reports received will be handled with absolute confidentiality as far as the names and identities are concerned. The reports which are mandatory to be submitted to higher authorities would be transmitted and followed up with a brief investigation report, where applicable.

In any case each report would be investigated, analyzed and recorded. A trend projection and cause effect analysis would be carried out and feedback provided to the management. Based on the analysis, the need to review or reassess any safety measure will be evaluated, documented and acted upon accordingly.

12.5 Investigations

All the safety incidents should be investigated thoroughly by all the concerned employees before submitting to the supervisors. In some cases, supervisors may order detailed investigation to be carried out by a competent employee or a team of investigators would be assigned depending upon the complexity and nature of the incident. This investigation would provide adequate information for the Authority to take up further assessments in the case of serious incidents as per the clause 11.4 of the Safety Regulation 2008.

In the event, if the case is a major issue, an investigation team would be formed with one member each from BPC, BEA and the customer. The outcome would be forwarded to the committee for hearing and resolution of the incident.



13. SAFETY AUDITING

Safety auditing is one of the principal methods for fulfilling the safety performance and monitoring functions. It is the core activity of the safety management system and is essentially a process of inspection or fact finding. Safety audits can be performed by all concerned supervisors as part of the daily activity for the purpose of monitoring and supervision on safety practices. There would be surprise safety audits from the Authority as per the section 10.0 of Safety Regulation 2008.

13.1 Safety audits

Safety audits will be conducted to ensure that:

Safety management is appropriate at all levels of staff in BPC; compliance with approved procedures and instructions; and a satisfactory level of competency and training to operate safety equipment and facilities; and to maintain their levels of performance;

- a) Equipment performance is adequate for the safety levels of the service provided;
- b) Effective arrangements exist for promoting safety, monitoring safety performance and processing safety issues;
- c) Adequate arrangements exist to handle foreseeable emergencies; and
- d) Safety audit would cover all employees working under BPC

Safety audit would be conducted regularly, following a cycle that ensures each functional area is audited as part of the safety plan for evaluating overall safety performance. Safety audit would entail a periodic detailed review of the safety performance, procedures and practices in all the workplaces. Thus each supervisor is responsible for preparing safety auditing plan for individual jurisdictions.

Safety audit is not just checking the compliance with regulatory requirements and conformity with safety standards; instead it would go beyond and assess whether the procedures in use are appropriate at the work sites or whether there are any other work practices that could have unforeseen safety consequences.

Checklist would be used to identify what is to be reviewed during the safety audit in order to ensure that all intended tasks and functions are covered. The safety audit will be based on the following principles:

- a) The objective is to gain knowledge on safety aspects
- b) Facts would be examined in an objective manner



- c) A written safety audit report describing the findings and recommendations would be shared with the unit or section
- d) Feedback would be also provided to the concerned employees and this would be reflected in performance evaluation
- e) A plan to resolve deficiencies found during the safety audit is required

Following the findings from the safety audit, a monitoring mechanism would be implemented to verify the effectiveness of the corrective actions. Follow up audits would concentrate on the aspects of the corrective actions.



Figure below: illustrates the safety, quality and ISO audit process.

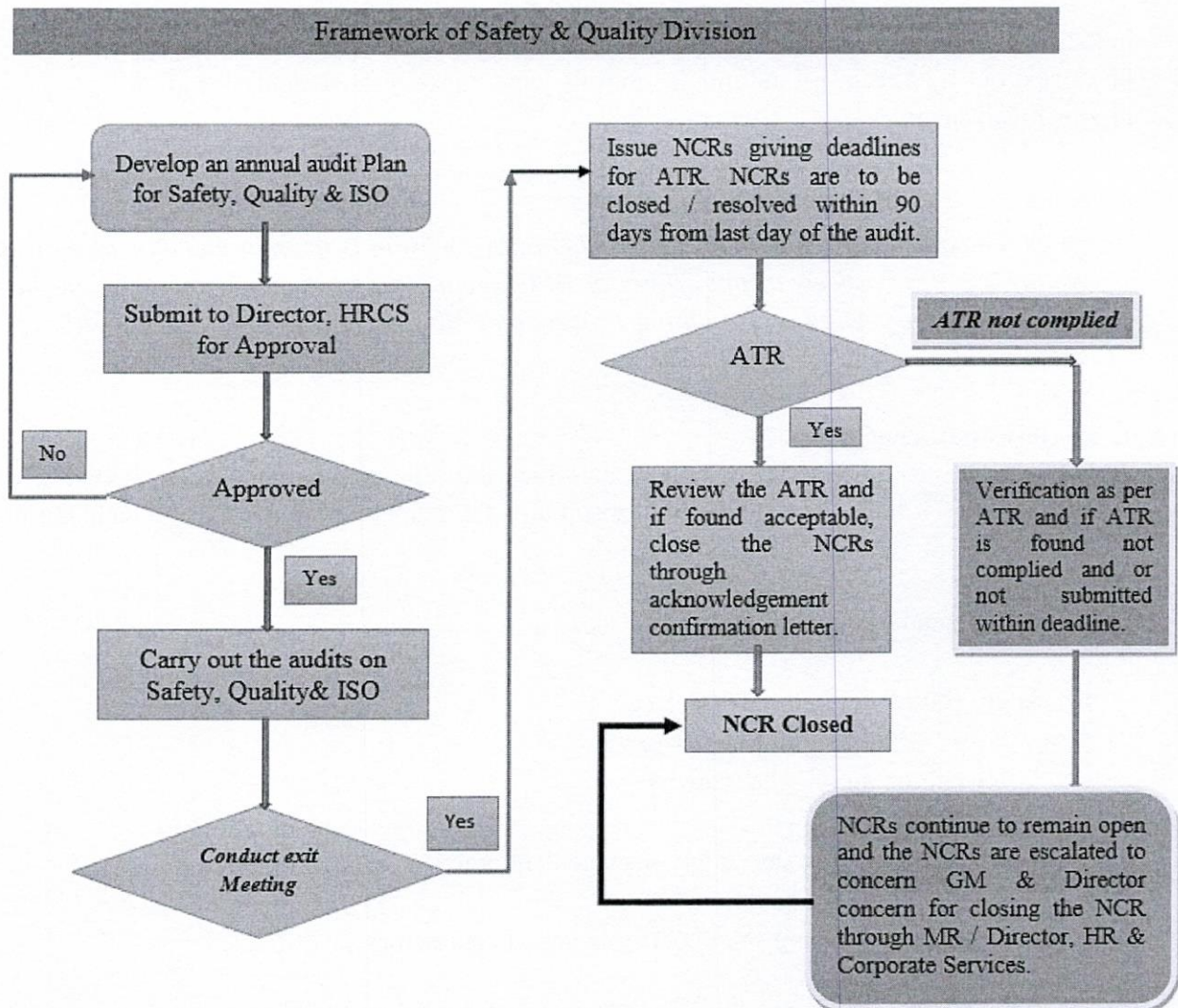


Figure 1 Inspection and Auditing Process on Safety, Quality & ISO

13.2 Safety audit process

The auditing process can be of two types:

- a) **Normal auditing:** Safety auditing carried out by the individual supervisors for monitoring and evaluation of the safety management in daily activities such as operation, maintenance and construction works.



- b) **Formal auditing:** Safety auditing carried out by external auditors from the authority or auditors from the department or safety and quality division.

In the case of formal auditing, it is essential to inform the unit or the division that safety auditing will be carried out by a team of auditors, so that they can make arrangements for all the resources and reports in advance.

Note:

Since the core function of the Safety and Quality Division is to ensure compliance on safety, quality and ISO aspects of the offices in BPC, the auditing process is same for all the three aspects. The Inspection and Auditing Process on Safety therefore, shall be followed as per the approved Framework of SQD.

13.3 Safety audit checklist

The checklist consists of series of criteria on which the safety assessment would be based while conducting safety audit. The following are some of the points which need to be included in the checklist:

- a) Safety standards as per safety rules
- b) Safety equipment at the work place
- c) Safety culture among the workers
- d) Hazard identification and safety management practices at the worksite
- e) Provisions for assuring safety performance of contractors
- f) Safety documentation such as safety rules, safety manual, safety records and operational documentation including safety instructions
- g) Follow safety rules as specified
- h) Competency and training on safety issues



14. SAFETY COMMUNICATIONS

14.1 Dissemination of Safety Information/Safety Bulletin

Safety and Quality Division (SQD) is the focal point for safety related information to all the employees, contractors and third parties. The division will collect hazard reports, investigation reports, meeting minutes, conference proceedings etc. which will be further analyzed and assessed for applicability to the general staff. The information would be made available to all the employees of BPC through mail in the form of Bulletin, hereby known as Safety Bulletin in order to create safety awareness. Change in policies, rules and regulations would be also shared with all the employees.

14.2 Safety Promotion

Safety promotion is linked with safety training and dissemination of safety information. It refers to activities carried out by BPC to ensure that the employees understand safety management system, the need of safety and the actions taken on safety aspects. It would also provide the mechanism through which the lessons learned from safety occurrence investigations and other safety related activities are made available to the general staff.

The customers of BPC would be also made aware of the safe practices on electrical safety and the precautions to consider while handling electricity. These promotions can be undertaken through the media such as television, radio or the newspapers. For such advertisements, the concerned departments or divisions must consult the safety and quality division for suggestions and appropriateness of information in the context of BPC.

15. OCCUPATIONAL HEALTH & SAFETY COMMITTEE (OHS COMMITTEE)

The purpose of the Occupational Health & Safety Committee is to bring workers together in a non-adversarial, cooperative effort to promote safety and health in each workplace. The OHS Committee shall be responsible for reviewing, analyzing and assessing the hazards that had occurred or likely to occur and institute ways and means of controlling such hazards in future by pointing out the lapses and introduce systems that would make each and every employee aware and responsible for their mistakes.

The Composition of OHS Committee and its Terms of Reference (TOR)/Functions is detailed below:



Terms of Reference (ToR) / Functions of a Health and Safety Committee (OHS Committee)

As per Clause 32 of the Regulation on Occupational Health, Safety and Welfare, Department of Labour, Ministry of Labour and Human Resources (MoLHR), 2012, the health and safety committee shall be comprised of equal number of representatives from the employers and employees. The employer's representative shall include:

- a. a senior officer who by virtue of his position in the organization can contribute effectively and who shall also lead as the Chairperson of the Committee;*
- b. Safety Officer who shall also act as the secretary of the committee;*
- c. a representative each from, operation, maintenance, stores, production and purchase department.*

The Terms of Reference (ToR) & Functions and duties of the Occupational Health and Safety (OHS) committee shall include:

1. The term of the committee shall be two (2) years. Each member shall be eligible for reappointment.
2. The committee shall report to the Chairperson as required and meet as often as *necessary but at least once in a quarter.*
3. The members of the committee shall be given a reasonable notice of meeting along with a copy of agenda for the meeting.
4. The employer shall provide suitable place for holding the meeting and permit every member of the committee to attend such meeting.
5. The minutes of the meeting shall be recorded in the "minutes book" which shall be produced on demand to the inspector for inspection.
6. The health and safety committee shall have right to be adequately and suitably informed of:
 - a. potential safety and health hazards to which people may be exposed at work place;
 - b. data on accident and surveillance including medical examination which would be used by the committee only for the sake of guidance and advice for the improvement of work environment and would be kept confidential
7. *assisting and cooperating with the management & Safety & Quality Division(SQD) in achieving the aims and objectives outlined in the Safety Regulation 2008, Safety Code 2008, Safety Management System, Safety Rules, Safety Manual & "Health and Safety Policy" of the BPC;*
8. *Pursuant to the BPC Management Directives the OHS Committee under the respective Chairperson should report the first hand information of any work site accidents that occur in one's respective Dzongkhag/District to CEO/SQD/concern Director/GM either through phone calls/email or mobile Short Messaging Services (SMS). Subsequent to the submission of the*



first-hand information the offices concern must submit the report of the accident / Incident to SQD (within 12hours) as per BEA's reporting format.

Subsequently, the OHS Committee under the chairperson shall facilitate the investigation team from Safety & Quality Division to investigate every accident and dangerous occurrence which took place within the workplace and any occupational disease contracted in the workplace as per the approved Framework of Safety & Quality Division, HR & CS;

9. prepare a health and safety program for prevention of accidents and diseases in the workplace;
10. *As part of a health and safety program for prevention of accidents in the workplace the OHS committee shall ensure that a dedicated "safety observer", wherever possible, is deployed to oversee and ensure that all the overall safety standards and protocols related to work safety are compiled and followed during the execution of works.*
11. dealing with all matters concerning health, safety and environment and to arrive at practicable solutions to problems encountered;
12. **creating safety awareness amongst all workers and general public at least one (01) time in a year;**
13. understanding educational, training and promotional activities;
14. reviewing the implementation of the recommendation made by it;
15. to study the accident statistics and trends relating to the company, prepare reports on unsafe and unhealthy conditions and practices, and make recommendations for corrective action;
16. to develop and assist in the implementation of a safety and health education and training program, including the conduct of information sessions, for persons employed in the workplace.

The duties of the Safety Officer, specifically, shall include:

The duties of a Safety Officer shall be to advise and assist the Safety & Quality Division management in the fulfilment of the obligations, statutory or otherwise concerning prevention of personal injuries and maintaining a safe working environment.

Their duties shall include the following:

1. **Report to Chairperson and act as secretary to the health and safety committee;**
2. to advise the concerned Divisions/ sub divisions / Office / units in respective Dzongkhags in planning and organizing measures necessary for effective control of workplace accident and personal injuries;
3. to advise and carry out plant safety inspection in order to observe the physical condition of work practices and procedure followed by the worker and to render advise on measures to be adopted for removing unsafe action by the workers;



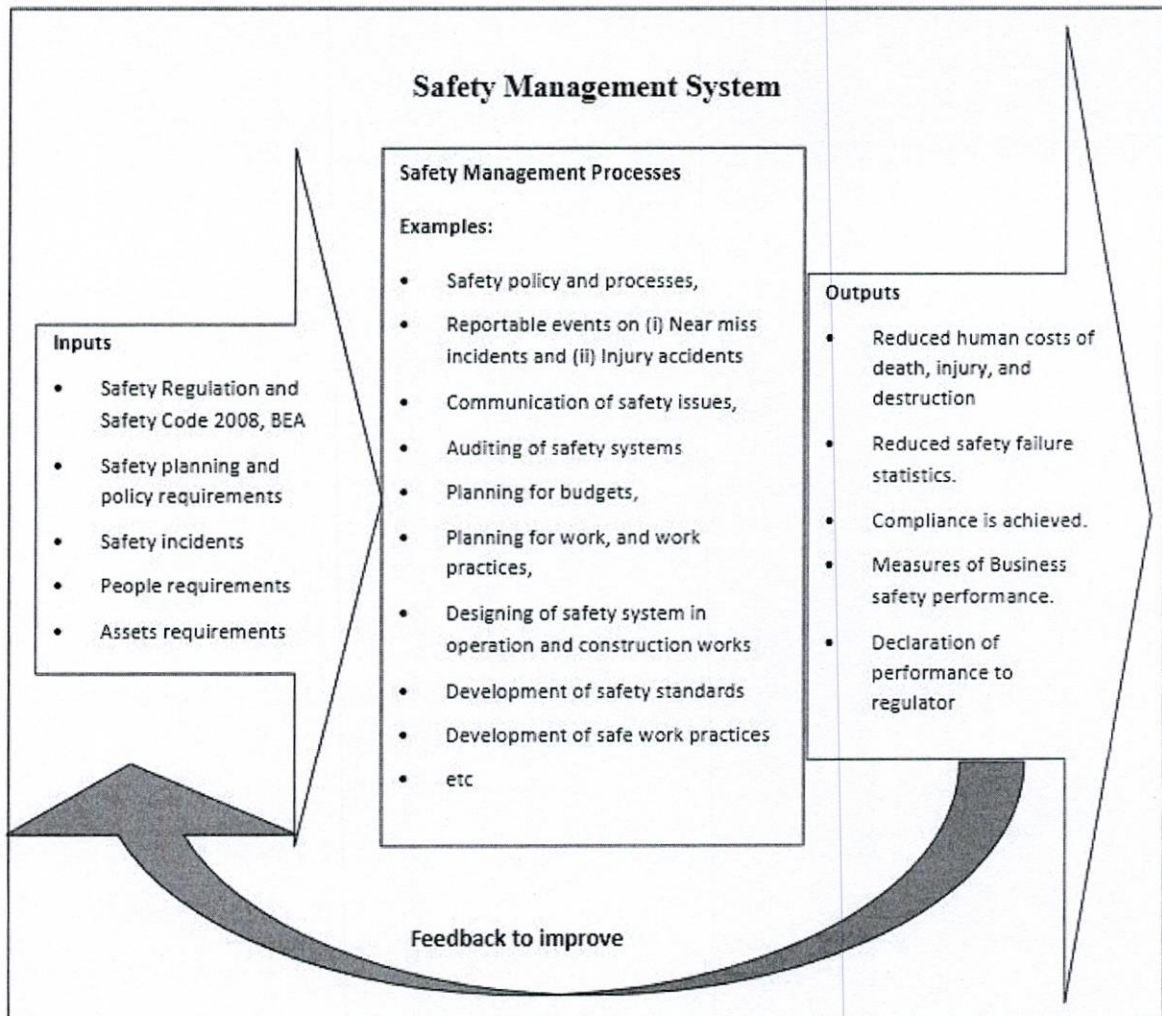
4. to render advice on matter pertaining to reporting and investigations of work place accidents and diseases;
5. to advise on maintenance of such records as are necessary relating to accident, dangerous occurrences and industrial diseases, under the Labour and Employment Act, 2007 and related regulations;
6. organize campaigns, training courses, competitions, contests and other activities, in respective Dzongkhags, which will develop and maintain the interests of the persons employed in the workplace in establishing and maintaining safe and healthy working conditions;
7. advise the employer on the specifications:
 - i. for any repair or alteration to be made to the workplace or any extension thereof;
 - ii. of any new machinery, plant, equipment or appliance to be installed or used in the workplace.
8. co-operate with and facilitate Bhutan Electricity Authority (BEA) to carry out Electrical Safety Audits, investigations, etc. as required by BEA and arising from serious safety incidents in the workplace;
9. *The Chairperson and Safety Officer / Secretary shall be a focal contacts for respective Dzongkhag / District to Department of Labour and Bhutan Electricity Authority (BEA) in relation to matters related to Occupational Health and Safety and serious accident matters.*

Note:

The first lot of Safety Committees instituted/formed under respective Dzongkhags have duly been approved by the Management in April, 2021. Their term as members would be for a period of 2 (two) years but can be reappointed depending on the requirement. The need to change/replace the members before the term expires may happen in the event of transfer, EOL, deputation, superannuation, death etc.



Appendix 1: Simple Process of Safety Management System



‘Example - A basic safety management system with feedback’

Appendix 2: BPC OHS Committee for 20 Dzongkhags

OCCUPATIONAL HEALTH & SAFETY COMMITTEE FOR BPC

(Establishment and Composition of Health and Safety Committee under Clause 31, Chapter 5 of the Regulation on Occupational Health, Safety and Welfare 2012 (MoLHR))

Sl No.	Dzongkhag	Proposed OHS Committee members	Total members
1	Thimphu	1. Chief Manager, ESD ---Chairperson.	5
		2. Sr.Manager, SMD Semtokha, --Safety Officer/Secretary.	
		3. Sr.Manager, ED--Member.	
		4. Safety Focal, ESD----1.	
		5. Competent Technician/Lineman, ESD--1.	
2	Paro	1. Sr. Manager, ESD Paro----Chairperson.	4
		2. Head, SMD Olathang ----Safety officer/Secretary.	
		3. Safety Focal, ESD Paro---1	
		4. Competent Technician/Lineman, ESD Paro.....1	
3	Haa	1. Sr. Manager, ESD Haa----Chairperson.	4
		2. Head, SMD Haa ----Safety Officer/Secretary.	
		3. Safety Focal, ESD Haa---1	
		4. Competent Technician/Lineman, ESD Haa.....1	
4	Wangdue	1. Sr.Manager, ESD Wangdue----Chairperson.	5
		2. Manager TMPO, Lobeyisa----Safety Officer/Secretary.	
		3. Head, TLMSD Lobeyisa --member	
		4. Safety Focal, ESD Wangdue---1	
		5. Competent Technician/Lineman, ESD Wangdue.....1	
5	Punakha	1. Sr.Manager, ESD Punakha----Chairperson.	4
		2. Head, SMD Lobeyisa, Safety Officer/Secretary.	
		3. Safety Focal, ESD Punakha---1	
		4. Competent Technician/Lineman, ESD Punakha.....1	
6	Gasa	1. Head, ESSD Gasa----Chairperson.	3
		2. Head, SMD Damji, Safety officer/Secretary.	
		3. Competent Technician/Lineman, ESSD Gasa.....1	



7	Chukha	1. Sr.Manager, ESD Phuentsholing----Chairperson.	5
		2. Sr.Manager,SMD P/ling---Safety Officer/Secretary.	
		3. Sr.Manager, Central Stores - Member	
		4. Safety Focal, ESD Phuentsholing---1.	
		5. Competent Technician/Lineman, ESD Phuentsholing.....1	
8	Samtse	1. Chief Manager, ESD Samtse----Chairperson.	5
		2. Head,SMD Damdum ---Safey Officer / Secretary.	
		3. Head 33/11 kV substation SibsooMember. (Sub. Divisional Manager, ESSD, Sibsoo)	
		4. Safety Focal, ESD Samtse---1.	
		5. Competent Technician/Lineman, ESD Samtse.....1	
9	Tsirang	1. Chief. Manager,TMPO Tsirang----Chairperson.	4
		2. Sr. Manager, ESD, Tsirang--Safety Officer/Secretary	
		3. Safety Focal, ESD Tsirang---1	
		4. Competent Technician/Lineman, ESD Tsirang--..1	
10	Dagana	1. Sr. Manager, ESD Dagana----Chairperson.	4
		2. Head, SMD, 220/33 KV Dagapela S/S - Safety Officer / Secretary.	
		3. Safety Focal, ESD Dagana---1	
		4. Competent Technician/Lineman, ESD Dagana.....1	
11	Sarpang	1. Chief Manager, ESD Gelephu----Chairperson.	5
		2. Sr.Manager, SMD Jigmeling --Safety Officer/Secretary.	
		3. Manager Stores RSD, Gelephu, Member	
		4. Safety Focal, ESD Gelephu---1.	
		5. Competent Technician/Lineman, ESD Gelephu.....1	
12	Zhemgang	1. Chief Manager, ESD Zhemgang---Chairperson.	4
		2. Manager, TMD Tingtibi -- Safety officer/Secretary.	
		3. Safety Focal, ESD Zhemgang---1.	
		4. Competent Technician/Lineman, ESD Zhemgang.....1	
13	Trongsa	1. Sr.Manager, ESD Trongsa---Chairperson.	5
		2. Head, SMD Yurmoo -- Safety Officer/Secretary.	
		3. Manager, TPO Trongsa - Member	
		4. Safety Focal, ESDTrongsa---1	
		5. Competent Technician/Lineman, ESD Trongsa..1	
14	Bumthang	1. Chief Manager, ESD Bumthang---Chairperson.	4
		2. Sub. Divisional Manager, Chumey --Safety Officer/Secretary.	
		3. Safety Focal, ESD Bumthang---1	
		4. Competent Technician/Lineman, ESD Bumthang..1	

15	Samdrup Jongkhar	1. Sr. Manager, SMD, Deothang---Chairperson.	5
		2. Sr. Manager, ESD Samdrup Jongkhar----Safety Officer / Secretary.	
		3 Safety Focal, ESD S/Jongkhar---1.	
		4. Technician/Lineman, ESD, SJongkhar..1	
		5. Competent Technician/SBO, SMD Deothang-----1	
16	Pemagatshel	1. Chief Manager, ESD Pemagatshel---Chairperson.	4
		2. Sr.Manager, TMD Nangkhor --Safety Officer/Secretary	
		3. Safety Focal, ESD Pemagatshel---1.	
		4. Competent Technician/Lineman, ESD, Pemagatshel..1	
17	Trashigang	1. Chief Manager, ESD Trashigang---Chairperson.	5
		2. Head, SMD Kanglung --Safety Officer/Secretary.	
		3. Chief Project Manager, TPDO-1, Kanglung-----Member	
		4. Safety Focal, ESD Trashigang---1	
		5. Competent Lineman, ESD, Trashigang----1	
18	Trashhi Yangtse	1. Sr.Manager, ESD Trashhi Yangtse---Chairperson.	4
		2. Head, SMD Corlung --Safety officer/Secretary.	
		3. Safety Focal, ESD T/Yangtse---1	
		4. Competent Technician/Lineman, ESD, T/Yangtse--1	
19	Mongar	1. Sr. Manager, ESD Mongar---Chairperson.	4
		2. Manager, TMD, Gyalpozhing----Safety Officer/Secretary	
		3. Safety Focal, ESD Mongar---1	
		4. Competent Technician/Lineman, ESD, Mongar--1	
20	Lhuentse	1. Sr. Manager, ESD Lhuentse---Chairperson.	4
		2. Sub Divisional Manager, ESSD Tangmachu --Safety Officer/Secretary.	
		3. Safety Focal, ESD Lhuentse---1	
		4. Competent Technician/Lineman, ESD, Lhuentse--1	

Important Notes:	
1	ToR/ Functions of the OHS committee enclosed.
2	Total OHS Committee – 20.
3	Employee representation is more from ESDs/SMDs.
4	Chairperson is from ESD.
5	Safety officer/Secretary is from SMD, TMD or ESSD.
6	OHS meeting to be held once every quarterly as per the Regulation of MoLHR.



