1. **Scope:** Applies to whole of Power Grid Company of Bangladesh Ltd. to control potential emergency situations that could adverse environmental impact and impact on OH&S.
2. **Purpose:**

This procedure is designed to ensure the identification of the potential for emergency situations, response to such emergency situations and prevent or mitigate associated adverse Environmental and OH&S consequences.

To ensure safe, suitable work place by implementing emergency preparedness for different types of emergency situation

Sl No.	Activity (including Check Points)	Ref. Doc.	Responsibility	Freq./ Time	Output
1.0	**GOALS**				
1.1	Make employees aware of the OHS policies and any procedures necessary to conduct their work.				
1.2	Proper emergency planning and response are important elements of every health and Safety program.				
1.3	Following emergency response plan is implemented to handle possible emergencies such as fire, hazardous spills, severe weather conditions, and emergency evacuation. This plan is intended for the safety and well being of the employees of PGCB. Education and training are to be provided, so that all employees understand this plan.				
1.4	**SECURITY** PGCB sub stations are manned continuously, 7 days a week, 24 hours a day. The sub stations are secured by wall boundary and deployed security personnel on site. Substation/ office lighting is adequate to prevent spills occurring during hours of darkness and to deter potential vandal.				
1.5	In developing emergency response procedure(s) existence and/or capability of the following was considered: — types of electrical accidents and location of critical equipment — inventory and location of hazardous materials storage, — numbers and locations of people, — critical systems that can impact on OH&S, — the provision of emergency training, — detection and emergency control measures, — medical equipment, first aid kits, etc., — control systems, and any supporting secondary or parallel/multiple control systems — monitoring systems for important electrical equipment, hazardous materials,				

Sl No.	Activity (including Check Points)	Ref. Doc.	Responsibility	Freq./ Time	Output
1.5 (contd)	— fire detection and suppression systems, — emergency power sources, — availability of local emergency services and details of any emergency response arrangements currently in place, — legal and other requirements,				
2.0	**Emergency response plan**				
2.1	The discovery phase begins with the initial actions taken by the individual(s) discovering an incident. The types of incidents include the following: • Electric shock (3.0) • Fire and/or explosion (4.0) • Hazardous material and / or gas release (5.0) • Earth Quake Response (6.0) • Bomb Threat (7.0) • Severe weather response (8.0) • Medical Emergency response (9.0) • Accident (10.0)				
2.2	Following actions are taken upon discovery of an incident: • Immediately notify the Control Room that an incident has occurred • Prevent others from entering the area • Cease any hot work in the area in the event of a release of a flammable material • If possible, remain on the scene until help arrives. If not, safely evacuate the area.				
2.3	**Initial response** begins with the notification of the Control Room regarding the incident. During this internal notification procedure, information collected during the incident discovery will be relayed to the Shift Engineer. Shift in charge will assess the incident and activate the emergency response system.				
2.4	**CONTACTING KEY PERSONNEL** Upon notification that an emergency situation exists, Control Room personnel will sound the substation wide audible alarm. The Shift in charge will notify all key personnel. This notification may be accomplished using the substaion's public address system, or horn system. Response teams will be activated, as needed, and will proceed to the incident area.				
2.5	**EMPLOYEE NOTIFICATION** The Shift in charge will notify personnel in the incident area or areas that may potentially be affected via the emergency alarm and the plant public address system and/or radios.				

Sl No.	Activity (including Check Points)	Ref. Doc.	Responsibility	Freq./ Time	Output
2.6	**EXTERNAL NOTIFICATION** Substation in charge is responsible for making all external notifications. Because of the time it takes to make notifications, the first external call should be to any needed emergency responder. Agency notifications shall be made as soon as possible following an initial assessment and notification of first responders. Refer to page 28 of this document for emergency contacts. This contact list will be post in different place in plant site and will update at least bi-annually.				
2.7	**AGENCY NOTIFICATIONS** Local Management will be responsible for notifying the appropriate regulatory agencies.				
2.8	**SUSTAINED ACTIONS (EVACUATION PROCEDURE)** In the event of an emergency the plant alarm will sound. During emergency, Control Room will be used as emergency control centre. All activities like evacuation, rescue, fire fighting etc will be controlled from here. At every substation, open space in front of the control room is identified as assembly point. Assembly point is marked by suitable and easily visible posters or labels.				
2.9	Assembly point coordinators will do the headcount and inform Emergency Response Coordinator who will check if there is any person missing. The total number of people inside the substation will be obtained from the headcount. If an employee is found to be missing, his name and last known location will be given to the shift in charge.				
2.10	No body is allowed to return to the area until the all clear signal has been sounded and it is safe to do so.				

Sl No.	Activity (including Check Points)	Ref. Doc.	Responsibility	Freq./ Time	Output
2.11	**COMMUNITY EVACUATION** In a serious emergency some residents in the vicinity (if applicable) of the substation may be required to evacuate their homes. Potential incidents that could result in evacuation orders include a gas release, fire, or an explosion. Evacuation will be carried out with the help of local people, police and fire service. Executive engineer of respective division will arrange an annual meeting with local people (representative committee of community people), Fire service Department representative (if possible) and police department representative (if possible) to discuss issues related to community emergency response. Minutes of this meeting will be recorded and maintained in file for at least three years.				
2.12	**TERMINATION**				
2.12.1	Termination of any emergency response includes the successful containment of the emergency (fire, spill, etc.), and restoration of the affected area to a point where it can be safely inhabited again. The determination that safe re-entry will be made by the Incident Commander and will be announced through the public address system. Before leading employees back into the affected area, supervisors will confirm the area status with the Incident Commander.				
2.12.2	With respect to fires, safe to inhabit means the fire is out and the threat of re-ignition has been eliminated. For medical emergencies, bodily fluids must be removed and the area disinfected. If a piece of equipment or other circumstance led to the medical emergency, that situation must be corrected prior to resumption of occupation. For chemical spills, the spilled material must be containerized, and the spill area decontaminated such that the potential for dermal or inhalation exposure does not exist beyond what is normal for the area.				

3.0	**ELECTRIC SHOCK**				
3.1	If anyone found affected by electric shock following steps are followed - Do not touch the victim if he/she is still in contact with the conductor. - Free the victim by switching off or cutting off the lines by tools with insulated handles. - Alternatively, Free the victim by dragging his clothes (if dry) or use dry bamboo, wood, paper, blanket, hessian, rubber gloves etc. Wear rubber shoes for freeing the victim. - If the victim is unable to take normal breath, try the following method for artificial respiration. Lay the patient on his belly, keep one of his/her arms straight and bent the other arm and put his/her head on the bent arm. Kneel so as to keep his/her body in-between your knees and grasp two sides of his/her lower ribs with your hands and gently press his/her body with your weight. Relax pressure and your weight. Repeat the procedure fifteen times in a minute. - In the meantime, either call in a doctor or transfer the victim to a nearby hospital. - Never give a drink to the unconscious patient. - Accident report shall have be submitted to the DMR & Superintending Engineer				
4.0	**FIRE AND EXPLOSION**				
4.1	Detect the source of heat and isolate it from the source of heat.				
4.2	Initial response to fire or any other emergency is to notify the Control Room as quickly as possible and provide the initial assessment information.				
4.3	The following steps should be followed when responding to incipient stage fire: ▪ Sound the fire alarm and call the fire department, if appropriate. ▪ Identify a safe evacuation path before approaching the fire. Do not allow the fire, heat, or smoke to come between you and your evacuation path. ▪ Select the appropriate type of fire extinguisher. ▪ Discharge the extinguisher within its effective range using the P.A.S.S. technique (pull, aim, squeeze, sweep). ▪ Back away from an extinguished fire in case it flames up again. ▪ Evacuate immediately if the extinguisher is empty and the fire is not out. ▪ Evacuate immediately if the fire progresses beyond the incipient stage.				

Sl No.	Activity (including Check Points)	Ref. Doc.	Responsibility	Freq./ Time	Output
4.4	It is the responsibility of all of employees to identify and eliminate fire risks and reduce them to the maximum extent possible.				
4.5	In the eventuality of fire, the fire steps of coping with them must be known and do what you can do safely to control is to contain the Fire. Extinguish the Fire yourself with the help of your colleagues.				
4.6	Inform Security, PERSON DISCOVERING THE FIRE must carry out this without any time lag. If possible with details location and Volume of Fire and Cause of Fire.				
4.7	Please inform: Shift in charge in case of any eventuality.				
4.8	Switch off all Machines / Energy Sources if required				
4.9	Fire Fighting Squad, First Aid, Doctor & Ambulance if necessary should be contacted.				
4.10	A structural fire will result in a complete evacuation of the plant facility. Control Room personnel will inform the local fire department.				
4.11	In the event of a structural fire or an incipient fire that spreads, the local fire department will be contacted by the Control Room and will assume command of the response upon arrival. Based on the incident specifics, the Incident Commander will designate an employee to meet and direct the responding fire fighters to the appropriate location. The coordinating employee will receive the fire department at the main gate				
4.12	In case one got burnt / caught fire - Do not run, lie down and roll. This will save you from extra burns.				

Sl No.	Activity (including Check Points)	Ref. Doc.	Responsibility	Freq./ Time	Output
4.13	REMEMBER TO USE THE APPROPRIATE FIRE EXTINGUISHERS a) For all type of Electrical Fires : USE -- $C0_2$, & DCP b) For liquid fires i.e. Petrol, Oil, Paint, Varnish, etc :- USE -- $C0_2$, BCF, DCP c) For Solid Fires like Wood, Papers, etc : USE -- Water Type d) For Metalic Fires : USE --DCP e) GAS Fire like LPG USE --DCP, $C0_2$ and / or BCF type f) For all type of FIRES, you can use $C0_2$, DCP and / or BCF as per availability of Fire Extinguishers.				
4.14	**FIRE PROTECTION SYSTEM**				
4.14.1	**FIRE TANK, PUMP, HYDRANTS & HOSES** In the substation yard, main supplies of water to the yard, hydrants used for the manual fire fighting throughout the substation, including indoor and outdoor areas. The hydrants are located to provide complete coverage of site areas that contain equipment or buildings.				
4.14.2	**FIRE ALARM SYSTEM** Portable fire extinguishers are provided throughout the substation area to enable substation and office personnel to extinguish small fires. These extinguishers are carbon dioxide and ABC dry powder.				
4.14.3	**FIRE ALARM SYSTEM** The fire alarm system incorporates a central Fire Alarm Control Panel (FACP) for fire alarm annunciation, and remote control panels or modules for proper surveillance of all associated alarm initiating devices and alarm annunciation appliances. Alarm initiating devices consist of components such as fire or smoke detectors, heat detectors and manual push buttons. The fire alarm system includes the fire/smoke detectors, alarms, and manual push button. The central fire detection alarm panel in the control room provides a visual and audible alarm when any of the detection and/or detection systems are activated. The panel also provides a trouble alarm visual signal whenever there is a fault in a detection system. In the event of a fire Shift Engineer is contacted, he then will make notifications by radio and phone.				

Sl No.	Activity (including Check Points)	Ref. Doc.	Responsibility	Freq./ Time	Output
4.14.4	**HOUSEKEEPING** Housekeeping will be done at the substation to control accumulation of flammable and combustible waste materials and residues will be used, such that they do not contribute to a fire emergency.				
4.14.5	**SYSTEM RESTORATION** Power and communication system to be re-stored.				
4.14.6	Repairing and re-storing of damaged equipment.				
4.14.7	Ensure re-filling of water storage tank.				
5.0	**HAZARDOUS MATERIAL AND / OR GAS RELEASE**				
5.1	**IMMEDIATE RESPONSE** In the event of a chemical, lube oil, gas or any other hazardous material release, whether apparently contained or uncontained, the observing employee is to immediately contact the Control Room and provide the information requested. The only allowable immediate response is to observe and gather facts from a safe distance. Specific equipment and training requirements apply to close approach, whether responding defensively or aggressively. The Control Room will initiate either an area- or facility wide evacuation based on the potential hazards and spread capability of the material released.				
5.2	**EXTERNAL NOTIFICATIONS** Based on the type and/or amount of material or gas released, the Control Room will contact the Local Fire Department and in case of Gas, will contact the Gas Supplier.				
5.3	**HAZARDOUS MATERIAL SPILL RESPONSE** Emergency response to hazardous material releases is limited to defensive containment. Defensive containment does not allow for close approach to stop a release where there is a potential for employee overexposure, either by inhalation or dermal contact. Material safety data sheet should be used to asses the probable danger of the material. Defensive containment procedures include evacuation and establishment of containment perimeters. Evacuation will be activated by the Control Room in response to the initial notification.				

Sl No.	Activity (including Check Points)	Ref. Doc.	Responsibility	Freq./ Time	Output
5.3 (contd)	Trained operations-level emergency responders will be dispatched to the affected area to investigate the situation, assist in evacuation procedures as needed, and establish defensive perimeters by restricting employee access to the affected area. If feasible and appropriate, responders will protect vulnerable pathways (drains, sumps, etc.) with spill containment equipment. The following materials are stored / used in significant quantities located at the substation facility: • Transformer oil • SF6 or similar compound • Hydraulic oil • Natural Gas • Engine lube oil • Hydrochloric acid • Caustic soda • Diesel fuel • Cooling water treatment (Corroshield) Refer to MSDSs located in Control Room for spill response process for these materials.				
5.3.1	**Hazardous Liquid and/ or Gas Spill**				
5.3.1.1	Pipe line: Check the entire line by walking along the line. Walk along the pipe line with a small 250-gram hammer to hear the sound, look for traces of leakage in the pipes, joints, see the supporting structures, etc. Inspection team should maintain radio contact with control room at the terminal office.			Every 24 hours once in normal condition and twice during extreme hot weather	
5.3.1.2	Minor spill may cause from gasket leakage, or any other leakage. Response team is to be equipped with spade and hoe to contain the spill with sand within a limited area on ground. Leakage to be stopped by means of steel clamp/any device kept ready. For major spill beyond the control of the emergency response team Fire dept. to be called.				
5.3.1.3	Transformer oil to be checked for leakage everyday. Condition of drums/ container to be monitored. If any drum/ container is found rusty and/ or damaged, necessary actions should be taken immediately.				
5.3.1.4	Contaminated Items: Contaminated sand, wastage, transformer oil, etc. to be properly stored in steel drums and care to be taken to avoid contamination of water from this stored items.				

Sl No.	Activity (including Check Points)	Ref. Doc.	Responsibility	Freq./ Time	Output
5.3.1.5	**Tank spillage** Tank Spillage may happen due to failure of welding joints, severe fault in electrical transformers, etc. immediate response team to shut all outlets/ control equipment and to those closed till emergency is over and all to attend to contain the spill. If required, dykes to be reinforced by sand bags. Outside help may be sought if it is beyond control of the emergency response team. Inform top management immediately.				
5.3.1.6	All accidents to be analyzed to find the root-cause and suggest the remedy and to avoid similar accident in future				
5.3.1.7	All accidents are recorded. Recordings to be sent to head office and also to be reviewed to find the root cause to avoid further recurrence of such incident.				
5.3.1.8	**HAZARDOUS MATERIAL AND / OR GAS LEAK DRILL** Alarm to be sounded, Response team to be activated and response time to be monitored for future improvement. Evacuation: Time to be recorded and improvement must be made with each drill. Meeting Assembly Area: Response time and attendance to be recorded and head count to be made for outsiders present during the drill.			Arrange Drill Every 6 Months	
6.0	**EARTHQUAKE RESPONSE**				
6.1	**IF INSIDE DURING AN EARTHQUAKE** If you are inside during an earthquake: 1. Try to protect your head with available material. 2. Immediately take cover under a table or desk, or stand in a doorway. In areas where cover is not available, kneel at the base of an interior wall, facing the wall and with the head down. 3. Turn your body away from windows and mirrors. 4. Be alert for falling objects and stay away from overhead fixtures, filing cabinets, bookcases, and electrical equipment.				

Sl No.	Activity (including Check Points)	Ref. Doc.	Responsibility	Freq./ Time	Output
6.2	**IF OUTSIDE DURING AN EARTHQUAKE** If you are outside during an earthquake: 1. Move to an open area away from buildings, trees, and power lines. 2. If unable to move to an open area, watch for falling objects.				
6.3	**IF INSIDE AN AUTOMOBILE** If you are in an automobile during an earthquake: 1. Stop your vehicle in the nearest open area 2. Stay in the vehicle until the shaking stops.				
6.4	**AFTER AN EARTHQUAKE** After an earthquake 1. Be aware of the possibility of aftershocks. 2. If possible and it is safe to do so, evacuate the building as soon as the shaking has ceased. 3. Do not move injured persons unless they are in obvious immediate danger (from fire, building collapse, etc.) 4. Open doors carefully. Watch for falling objects. 5. Do not use matches or lighters. 6. Limit use of telephone to call for emergency services.				
6.5	**PLANT BLACK OUT RESPONSE** In case of plant black out, • Emergency generator should run with power outage, if not send some on to run it manually. • Plant wide emergency lighting system should work, if not use emergency portable light kept in Central control room or cable spreading room.				
6.6	Address about the emergency using PA system and request every body to stay calm.				
6.7	Stop the operation of machine if required and material handling at that area. If required power is cut off.				
6.8	Terminate all possible ignition sources in that area.				
6.9	Isolate that area.				
6.10	Clean the spillage as per MSDS handling instruction and waste is kept in defined container to remove to predetermined isolated space.				
6.11	Accordingly communicate to the down wind direction personnel				
6.12	Action to be taken after mitigation of emergency				
6.13	Affected area to be cordoned–off and entry of un-authorised persons to be restricted.				

Sl No.	Activity (including Check Points)	Ref. Doc.	Responsibility	Freq./ Time	Output
6.14	Information to be given to the regulatory agencies if required.				
7.0	**BOMB THREAT**				
7.1	This direction is designed to alert personnel of potential dangers and to assist in the apprehension and conviction of persons making threats against the substation/ office and its personnel. Threats may be received by telephone, mail or by a direct confrontation with an individual.				
7.2	phone threats				
7.2.1	When a threat is received by phone: • Treat it as though it were a real threat. Never disregard a threat. • Remain calm and do not challenge the caller; • Gather as much detail as possible, listening for background noises, and talking; and should also ask why the person has placed this threat, what are the motives behind the threat. • The two people who listened to the call will use the Bomb Threat Form to provide information. Only the person who answered the call will talk with the caller.				HSF-OHS-24
7.2.2	The person and the listener, who received the call are to: • Inform the Substation in charge as soon as practicably possible. • Do not disclose information until the police have arrived.				
7.2.3	The Substation in charge or his designee will inform: • The Police; and • Concerned personnel of GoB (Government of Bangladesh), PDB (Power Development Board) and Rural Electrification Board (REB). If time allows personnel will organize a search of the area identified by the caller for any evidence of a bomb. Look for • packages not normally found in the area; • door or drawers that are normally locked, but are now open or unlocked; and • any unusual activity, equipment, clothing, devices or anything which appears out of place. If a particular area has not been identified, the entire substation/ office will have to be searched.				

Sl No.	Activity (including Check Points)	Ref. Doc.	Responsibility	Freq./ Time	Output
7.2.3 (contd)	If any suspicious package is found: • It is not to be touched or distributed in any manner. • Evacuate the substation/ office following Evacuation Procedure • Inform the police or military of the location or locations of any suspicious devices.				
7.3	**LETTER-PACKAGE BOMBS**				
7.3.1	**When receiving mail, personnel should be alerted to any mail with:** • No postage or postage due indicated • Addressed to a specific person rather than the company name and title of the person. • Strange penmanship or markings on the envelops; and • Suspicious activities of the mail deliverer.				
7.3.2	**Actions to take if a suspicious letter or package is received:** • Do not open it • Lay it on the desk and warn other people in the area. • Vacate the area, closing all doors; and • Contact the Substation in charge immediately. • Call the police for assistance.				
7.4	**DIRECT THREATS** **In the event a person is in the substation/ office and threatens to detonate a bomb:** • Evacuate the substation/ office. • Call the police for assistance • Work with the police to resolve the situation.				
7.5	**OTHER THREATS** Threats may be received against the lives of individual substation/ office personnel or members of their immediate families unless money is paid or a specific action is taken by PGCB. The receiver of this type of threat will use the Extortion / Threat Form (reference is made to resource list) to gather information: • At all times remain calm. Ask questions outlined in the form. If possible, flag another person to listen in on the call. • The second person will listen only and offer no comment or remarks.				

Sl No.	Activity (including Check Points)	Ref. Doc.	Responsibility	Freq./ Time	Output
7.5 (contd)	• After the call, contact the police. Do not talk with outsiders. • Assist the police as necessary to secure the release of the person involved.				
7.6	**BOMB EVACUATION** **The following must be followed in the event that there is a bomb threat to the plant:** • Evacuation must commence immediately or as soon as practically possible once the bomb threat has been declared. The Substation in charge and/or his/her designee will make the announcement for all personnel to evacuate the Substation. • Evacuation procedures will be followed considering Main gate as the only available assembly point. • Keep all personnel and contractors out of the substation/ office for at least 75 minutes after the announced bomb detention time. A second or third device may have been planted in the area. • If a bomb does detonate, do not allow any personnel or contractors to return to work for another 75 minutes in case a second or third device has been placed with in the substation/ office.				
7.7	**POST BOMB THREAT** Follow the directions of the police and/or military officials. Plant Mangers, Managers and plant personnel will assist as need in the collection or evidence and related information.				
8.0	**SEVERE WEATHER PLAN**				
8.1	**GENERAL GUIDELINES** The Severe weather plan provides a general guideline for actions to be taken in preparation for and during severe weather conditions. The objective of this plan is to provide early notification of impending weather and provide for the safety and welfare of employees.				

Sl No.	Activity (including Check Points)	Ref. Doc.	Responsibility	Freq./ Time	Output
8.2	**RESPONSIBILITIES** Supervision responsibilities during severe weather conditions will be consistent with normal line supervision functions. Decisions as to the plan to be followed, timing, curtailment, shutdown, etc. will be made by the Incident Commander. Shift in Charge will notify Incident Commander of impending weather conditions. The customer should be informed before shut down of the plant. When the weather become normal, the system should be checked and the plant before starting the plant.				
9.0	**MEDICAL EMERGENCY RESPONSE AND EVACUATION**				
9.1	**MEDICAL EMERGENCIES** Take the following actions upon discovery of an incident: • Immediately notify the Control Room that a medical emergency has occurred. Give specific information concerning the incident, (location, number injured & types of injuries) • Do not move the injured person, except to the extent necessary to rescue & stabilize the victim. • Remain with the victim until help arrives, if safely possible. If not, safely evacuate the area. Once the control room has been notified, it is the Shift in Charge responsibility to perform the following: • Notify the Substation in charge regarding the incident. • Assess incident & activate the appropriate emergency response system. • Attend to the welfare of any injured party. Begin first aid treatment. • Evacuate all personnel from the accident scene, except for trained & properly equipped first aid. • Notify all other key personnel regarding the incident. • Have personnel meet the responding agency at the main gate & escort them to the scene.				

Sl No.	Activity (including Check Points)	Ref. Doc.	Responsibility	Freq./ Time	Output
9.2	**FACILITY EVACUATIONS** Except for trained and properly equipped first aid responders, employees in the immediate area of the medical emergency will be evacuated to a place of safe refuge. The presence of bystanders only hinders medical response.				
10.0	**ACCIDENT**				
10.1	**An accident is unplanned event that results in personal injury and damage to property.** All accidents must be reported appropriately, according to accident reporting process, these accidents include but not limited to: ▪ fatalities (to anybody); ▪ a major injury (to employees); ▪ a person not at work (e.g. a member of the public) being taken immediately from the scene of an accident to hospital for treatment; ▪ employees having more than three days off work; ▪ employees contracting certain diseases; ▪ A specified dangerous occurrence. An accident book is kept by PGCB. It is important that employers make arrangements for ensuring that incidents are investigated in order to help prevent a recurrence and to provide information which can assist in improving the safety management of the company. The level of detail to which they should be investigated will vary; depending primarily upon what the consequences could have been and how likely it is that the incident will recur, rather than just upon what the consequences actually were. It is essential that a system for reporting accidents in the workplace is established so that: ▪ An investigation can take place to prevent a recurrence; ▪ Statutory duties for reporting are complied with; ▪ Management commitment to providing a safe working environment can be demonstrated. The accident is reported to Substation in charge in a timely manner.				

Sl No.	Activity (including Check Points)	Ref. Doc.	Responsibility	Freq./ Time	Output
10.1 (contd)	This information serves as guidance to establishing such a procedure although the finer details of the procedure that is adopted will depend upon the size of the organization.				
10.2	Any accidents connected with work that results in: - A fatality (whether or not the person involved is an employee); - A major injury to an employee (see examples listed below); - Any person not at work (eg a member of the public) being taken from the scene of the accident to a hospital for treatment. Examples of reportable injuries The following are typical examples of reportable injuries that are common in the regulations of the country. - Fracture of any bone, other than those in the fingers, thumbs or toes. - Any amputation. - Dislocation of the shoulder, hip, knee or spine. - Loss of sight (even if only temporary). - A penetrating injury to an eye, or a chemical or hot metal burn to an eye. - Injury resulting from an electric shock or electric burn leading to unconsciousness or requiring resuscitation or admittance to hospital. - Any other injury that leads to hypothermia, heat-induced illness or unconsciousness, requires resuscitation or requires admittance to hospital for more than 24 hours. - Loss of consciousness due to lack of oxygen or by exposure to a harmful substance or biological agent. - Acute illness requiring medical treatment or loss of consciousness which result from the absorption of any substance into the body. - Acute illness requiring medical treatment which is believed to be the result of exposure to a biological agent or its toxins or infected material.				
10.3	**Dangerous Occurrences** Any specified dangerous occurrences that have taken place (see samples of dangerous occurrences below) should be reported and investigated. In addition, if a notification has to be made directly to the enforcing authority; a written report is usually required to be sent to the enforcing authority within a specified period of time.				

Sl No.	Activity (including Check Points)	Ref. Doc.	Responsibility	Freq./ Time	Output
10.3 (contd)	Examples of Dangerous Occurrences: The following are examples of reportable dangerous occurrences that are common to Substation in charge regulations. The list is not comprehensive as national and local variations may exist. - Lifting machinery etc: - The collapse, overturning or failure of a load bearing part of a lift, hoist, crane, derrick, mobile-powered - Access platform, excavator, fork-lift truck, or a pile-driving frame with an operating height of over 7 m. ▪ Pressure vessels: - The failure of any closed vessel or of any associated pipe work where the internal pressure was above or below atmospheric pressure and the failure has the potential to cause death. ▪ Electric Shock: - In case of an electric shock, if the victim is in contact with live apparatus the electric power source must be isolated before attempting to attend the victim. - The site is to be secured to prevent injury to other persons. - The victim to be assessed and rendered the necessary first aid treatment. - Arrange transport to the nearest medical facility. ▪ Overhead electric lines: - Any incident in which plant or equipment comes into contact with overhead power lines exceeding 200 volts, or causes an electrical discharge by being in close proximity to such a line. ▪ Electrical short circuit: - Electrical short circuit or overload causing fire or explosion resulting in the stoppage of the plant involved for 24 hours or which has the potential to cause death. ▪ Collapse of scaffolding: The collapse or partial collapse of: - Any scaffold above 5 meters in height; - Any scaffold erected over or adjacent to water which presents a risk of drowning; - The suspension arrangements of any slung or suspended scaffold which causes a working platform or cradle to fall.				

Sl No.	Activity (including Check Points)	Ref. Doc.	Responsibility	Freq./ Time	Output
10.3 (contd)	▪ Collapse of building or structure: - Any unintended collapse or partial collapse of: - Any building or structure under construction, alteration or demolition involving a fall of more than 5 tones of material; - A wall or floor in a place of work. ▪ Explosion or fire: Any explosion or fire resulting in the stoppage of plant or the suspension of normal work for more than 24 hours. ▪ Reportable Diseases. The enforcing authority often has to be notified as soon as possible (e.g. by express post or fax) of any occupational illness or diseases if contracted by employees as a result of their work.				
11.0	**Accident Reporting**				
11.1	Fatality work-related and non work-related: Substation reports any fatality (death of employees) to Respective Executive Engineer immediately and report to Superintending Engineer by phone, fax or email immediately after the accident. Substation Investigation - Use Accident report - Take photos if appropriate - Interview as appropriate with the following 1. Employees 2. Colleagues 3. Relatives 4. Medical Personnel Forward to Superintending Engineer - Updated relevant information to Superintending Engineer by email/phone or fax - Submit completed Incident/Accident report Within 3 working days of death while received accident investigation report from judicial organ. - Compensation settlements Corrective Action Create action plan to prevent recurrence				
11.2	Here below detail possible steps for accident reporting				

Sl No.	Activity (including Check Points)	Ref. Doc.	Responsibility	Freq./ Time	Output
11.2.1	Employees: · Should be made responsible for reporting incidents they are involved in to their immediate or departmental supervisor (encouragement should be given by employees/management to ensure that all accidents and as many near misses as possible are reported).				
11.2.2	Shift in charge: · Should then report the incident to the Substation in charge and respective Executive Engineer				
11.2.3	Executive Engineer Should then: 1. Ensure that the accident is reported to the appropriate enforcing authority, if required; 2. Notify the relevant insurance company and safety representatives (where appropriate); 3. Initiate an investigation into the circumstances of the accident.				
11.2.4	**Timescales:** · This will depend on the type of accident Substation in charge should also report accidents to enforcing authorities according to statutory requirements and to other persons as soon as practicable.				
11.2.5	**Incident/Accident Log Book** Responsibilities should be allocated for ensuring that the details of an accident are entered into the accident book.				
11.2.6	**First aid:** The procedure must ensure that appropriate first aid treatment is given to an injured person, and that the emergency services are contacted where necessary				
11.2.7	**Peripatetic Workers:** It is ensured that, where applicable, incidents involving peripatetic employees are reported				
11.2.8	**Serious Accidents:** If the enforcing authority and/or the police become involved, they may require an accident scene to be left undisturbed until their investigations are complete (this is normally only the case where the accident is serious or potentially serious)				

Sl No.	Activity (including Check Points)	Ref. Doc.	Responsibility	Freq./ Time	Output
11.2.9	**Reporting Accidents** Regulations' relating to the reporting of injuries, diseases and dangerous occurrences usually require that certain accidents be reported to the enforcing authority (the national or local authority or in some cases the police) if they arise out of or are in connection with work activities. The reporting procedures that you may need to follow can vary according to the type of incident, national laws, local (district) regulations, etc.				
11.2.10	Lost Time Accident (LTA) Medical Treatment (MT)/ Restricted Work Case (RWC) (work related only): Sectional in charge immediately reports any lost time accident to executive engineer by phone/fax or e-mail within 24 hours of the time of accident LTA /MT/RWC are defined as more than 24 hours of hospitalization, permanent disfigurement, loss of any member of the body, loss of consciousness, or loss of sight, unavailability back work after treatment, etc.				
11.2.11	Investigation - Use Accident report - Take photos if appropriate - Interview as appropriate 1. Employees 2. Colleagues 3. Union reps 4. Relatives 5. Medical Personnel - Forward to DMR & Superintending engineer - Completed Accident report Within 5 working days after occurrence - Submit Injury/Illness log for Superintending engineer review Where applicable for compensation settlements Corrective Action Create action plan to prevent recurrence				

11.2.12	First Aid/Injury/Illness Sections keep on file for DMR review of all records. First Aid/ Injury/Illness are defined as medical treatment beyond first aid including restriction of work or motion or which requires transfer to another job Factory Investigation - Use Accident report - Take photos if appropriate - Take photos if appropriate - Interview as appropriate 1. Employees 2. Colleagues 3. Union reps 4. Relatives 5. Medical Personnel Forward to DMR and Superintending Engineer Sum up and submit the monthly accident report to DMR and Superintending Engineer - Where applicable, keep compensation settlement record in the log Corrective Action Create action plan to prevent recurrence				SF-OHS-15,
12.0	**Accident Investigation**				
12.1	As well as setting up a system to report accidents it is to ensure that arrangements are put into place to investigate their causes and take corrective action where necessary. The benefits from investigating accidents include: - Reduced likelihood of a similar incident occurring; - Fulfillment of statutory obligations to report the incident, where applicable; - Development of effective monitoring procedures and assistance in decision-making, planning and future resource allocation; - Provision of feedback in the development of safe systems of work. The company policy should, therefore, be to investigate: - All accidents and dangerous occurrences (an accident that resulted in a minor injury could often have easily caused a more serious injury); - All cases of reportable diseases; - As many near misses as possible (a near miss incident could have been an accident and should therefore be investigated). This will allow the plant to: - Establish the circumstances surrounding the incident; - Draw conclusions as to the causes; - Consider appropriate action to prevent a recurrence.				

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12.2	Recording information (establishing the circumstances) Gather as much factual information as possible early on in the investigation. This typically should include: - the names of persons involved, including witnesses; - the personal details of the injured person (and/or details of ill-health or damage to plant) and the extent of the injuries/damage/ill-health; - the type of work being performed; - the exact location of the incident: photographs, sketches and/or plans may prove useful; - the time and date of the incident; - the working conditions at the time of the incident (e.g. weather, ground conditions, lighting, etc); - interviews with the injured persons and witnesses: it is important that interviews are carried out as soon as possible to ensure accuracy; - how the incident occurred, including probable causes.				

Sl No.	Activity (including Check Points)	Ref. Doc.	Responsibility	Freq./ Time	Output
12.2 (contd)	The investigation of notifiable accidents should always be carried out right after the occurrence of the accidents. Supporting material such as sketches, photographs and written statements should be attached into the accident investigation report. While accident investigation can be a long, time-consuming procedure, in some cases a full investigation may be unnecessary, particularly where the potential for serious injury was small. It is important, therefore, that the investigator, at an early stage, obtains an indication of how detailed the investigation will need to be. This can be achieved by carrying out an assessment of the incident, which should be based on the criteria used to determine risks. This would include: - what was the most likely severity of injury/ill-health. For example, if a person fell from a considerable height but received only minor injuries, the investigator should conclude that the likely injury was nevertheless at least a major injury; - the likelihood of a recurrence of the accident; - the number of people who could potentially have been injured or suffered ill-health in a similar way to the affected individual or individuals. Completing such an assessment can help you to ensure that appropriate time and resources are devoted to the investigation, and will indicate the time-limit within which any necessary corrective actions should be completed. In addition to this specific assessment any existing risk assessments relevant to the particular activity should also be reviewed to determine whether it is still valid and that the control measures specified are adequate.				

Sl No.	Activity (including Check Points)	Ref. Doc.	Responsibility	Freq./ Time	Output
12.3	**Determining the causes of an accident** Once the necessary information has been gathered on the circumstances surrounding the incident, the investigator will then need to determine the causes. It is important to look beyond the *immediate* cause of an accident in order to identify the contributory and underlying causes. In general, the immediate or direct causes of accidents usually relate to: a) An *unsafe condition* in the workplace such as poor housekeeping, defective machinery, inadequate lighting, ineffective control measures; and/or b) *Unsafe acts* carried out by employees such as failure to use personal protective equipment or using unauthorized equipment, etc. These immediate causes often arise as a result of one or more *contributory* or underlying causes which generally relate to the working arrangements in place and the way the organization is run, usually relating to management control. Examples include unsafe systems of work, an inadequate safety policy and a lack of training. All causes of the accidents, when identified, should be entered in the report form				
12.4	**Taking appropriate corrective action** Attempts taken to identify suitable corrective actions for all the causes identified. In some cases, it may be possible to remedy the cause immediately, such as replacing a missing machine guard, disposing of a hazardous chemical, repairing defective parts etc. Contributory causes, however, are likely to require more time and effort to remedy, for example: • provision of adequate training for the injured/affected person and possibly his • colleagues; • implementation of changes in a system of work to reduce risk to an acceptable level; • Implementation of changes in the work process. When you have decided on what corrective actions are required, the details should be entered in your report form.				

Sl No.	Activity (including Check Points)	Ref. Doc.	Responsibility	Freq./ Time	Output
12.4 (contd)	The corrective actions should be completed within the time-limits recorded in the report form and when they are completed, the completion date should also be entered. It is recommended that some form of review is made of any actions taken to ensure that it has been correctly implemented and is effective.				
12.5	**Circulating the results of the investigation** To obtain the full benefits of the investigation, the results should be circulated to those persons who may need to act on them and to those who might find them of interest and of use. This could include: - Respective personnel including not only those working in the area where the incident occurred, but also those in other departments where similar work processes are carried out or similar equipment used, etc; - personnel staff including those responsible for implementing new training arrangements and changes in job descriptions, etc; - other relevant persons including safety representatives, safety committee members and safety advisers, where appointed. - PGCB substation in charge responsible for the substation. - MR, DMR				
13.0	**Training** If the accident reporting and investigation procedures are to be successful, all persons involved must be competent to carry out their roles: - employees must be informed of the reporting procedure, the location of the accident book and how entries are made in it; - Supervisors and managers must be informed of their roles and responsibilities in an investigation and, if applicable, their role in accident notification under local laws and regulations. Suitable training must then be provided to ensure that these duties will be properly carried out. For more serious or complex incidents, a member of senior management or a safety specialist may need to be involved.				

Sl No.	Activity (including Check Points)	Ref. Doc.	Responsibility	Freq./ Time	Output
13.0 (contd)	During accident investigation training it is important to emphasize that the overall purpose is to establish the circumstances surrounding an accident and to identify measures that would help prevent a recurrence, not to allocate blame.				
14.0	**MANAGEMENT REVIEW:**				
14.1	Monthly and annual reports of accidents are summerised and are analysed for taking appropriate actions on the findings of summary reports. These analyses are submitted and reviewed in the management review committee meeting		MR, DMR (OHS)		SF-OHS-19, 20, 22, 23
14.2	Procedure for Emergency Preparedness and Response is reviewed during internal audit for suitability.		MR, Functional Heads	During internal audit	Review of procedure
14.3	Review consideration will be raised in MRC Meeting for decision		MR	When necessary	
14.4	Corrective actions will be taken if any deviation in control is detected.		MR	When necessary	Improvement

Safety Signs Pasted at The Substations

- Caution, men working
- Danger, electric shock risk
- Danger sign
- Safety first sign
- Instruction for using fire extinguisher
- Safety first, use personal protective equipment as required
- Assembly point
- Please keep the door close
- Slip hazard
- Tripping hazard
- Entry restricted
- Smoking is strictly prohibited
- Caution, Maximum speed 10 km/hr
- General safety instructions
- Safety instructions for the visitors
- First aid for electric shock
- Safety instructions of the hazardous equipment

EMERGENCY CONTACTS

To call	Telephone	Mobile
Security Supervisor		
Plant in Charge		
Control Room		
Fire Station 1:		
Fire Station 2:		
Fire Station 3:		
Police Station:		
PGCB Medical Center		
PGCB Ambulance		
Hospital (nearest)		

This information must be available at the gate, control room, entrance and exit of sub stations, store, relevant offices.