Bangladesh Power Development Board

INTEGRATED MANAGEMENT SYSTEM
(BASED ON ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018 STANDARDS)

EMERGENCY PREPAREDNESS AND RESPONSE PLAN

1 Purpose

The purpose of this document is to ensure that BPDB personnel, who are appointed to the ERG, are aware of their roles and responsibilities and the emergency response procedures. This document also details the procedures to be followed by members of the ERG to ensure a prompt and efficient management response, should an emergency situation occur at any of the unit of BPDB.

Personnel who form the ERG will be notified of their role. If an emergency situation develops the ERG will be mobilised and as the situation develops other personnel may be called to provide assistance to the ERG.

Copies of this plan will be issued to relevant personnel. Those with specific duties for dealing with an emergency must ensure that they are aware of their responsibilities and duties as contained in this plan.

This Emergency Response plan describes how ERG should handle the following emergency situations:

- Fire and Explosion
- Arc Flash, Blast and Electric Shock
- Machine Breakdown
- Emergency on Pole or Tower
- Flood
- Heart attack or Sudden Serious illness

Any additional emergency situation as identified by people at the site can be included at the site level documents.

2 Scope

These procedures shall be applied to all sites of Bangladesh Power Development Board (BPDB)

3 Terms and Definition

It is the intention of Bangladesh Power Development Board (BPDB) to properly manage any emergency situation so as to minimise the impact it may have upon all personnel, the environment, the financial position and the reputation of its sites.

The key to effective response to emergencies and incidents is having a pre-established organisation, on-call and capable of mobilising and responding to the extent required by different levels of emergency. It should be staffed with competent individuals, organised into teams, with allocated and clearly defined roles, and practised in those roles.
This plan details the procedures to be followed by the BPDB from the Emergency Co-ordination Centre in the Specific BPDB site to ensure a prompt and efficient Company response to emergency situations at Specific BPDB site.

Emergency - An unforeseen combination of circumstances that disrupts normal operating conditions and poses an actual or potential threat to human life, health, property, the

environment or Specific BPDB site business if not controlled, contained, or eliminated immediately. An emergency can escalate to a crisis.

Crisis - Any incident, series of events, or set of circumstances that threatens to fundamentally affect or alter the way BPDB power plants or other sites choose to do business.

Abbreviation

BPDB – Bangladesh Power Development Board
ERG – Emergency Response Group

4 Roles and Responsibility

None

5 Procedures

5.1 General Guideline

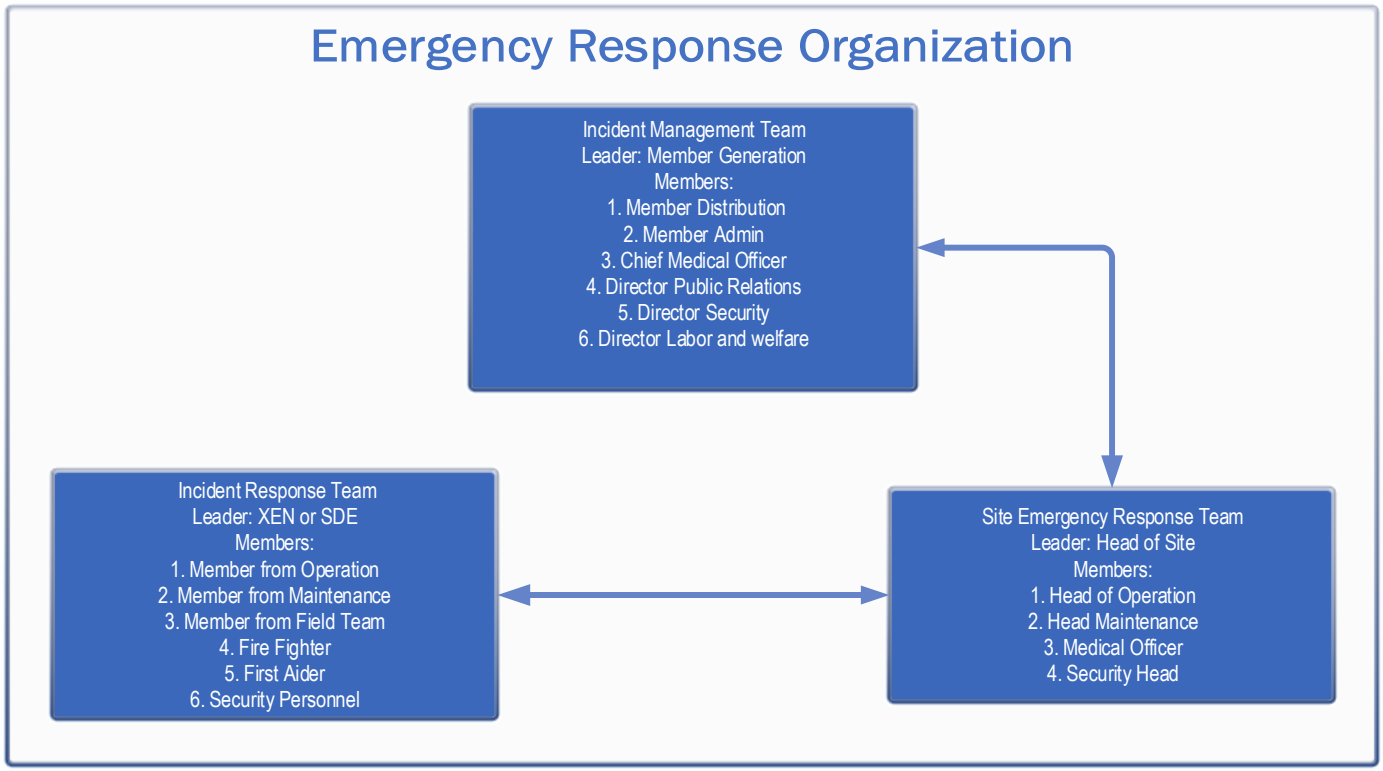
This plan is issued under the authority of the Head of Plant. Recommendations for any change should be addressed to the Site In-charge who is responsible for revising this document and he will ensure that:

- A meeting with all Emergency Response Group (ERG) Members, including all positions identified within this document, is conducted annually to review and update the procedures.
- A database of all plants and sites, personnel charged with emergency management responsibilities within this plan is maintained. The database will include name, job title, office, and mobile and home telephone numbers.
- In all the sites of BPDB, a pre-defined location is identified as Emergency Coordination Centre. Ideally control rooms are good locations.
- Regular training and exercises are conducted to test the robustness of these emergency procedures and the preparedness of all personnel to respond to an emergency situation.

5.2 Emergency Response Organisation

The emergency response management is handled through a three-tiered structure with teams for each of the following locations.

- The Incident Response Team (IRT) – this team is responsible to make the first response to any emergency. This team will be lead by a mid-level employee (SDE to XEN) with relevant number of team members. The maximum number of team members should exceed ten.
- The Emergency Response Team (ERT) is a team headed by the site In-charge with a limited number of team members. The main responsibility of ERT is to provide leadership to incident response team, maintain communication with external parties, seeking further support from external partiers (e.g., fire brigade, ambulance etc.) and liaising with Incident Management Team (IMT) located in the BPDB head office.
- The Incident Management Team (IMT) is the corporate body located in the Corporate Office in Dhaka, with the responsibility to define and control strategy for major incidents involving any units of the specific BPDB site.



5.3 Emergency Response Interface & Escalation Protocol

The relationship between the Corporate IMT, the Specific BPDB site ERT and Units IRT and a classification of emergencies is illustrated as a matrix in Table 1.1 “Emergency Response Escalation Protocol”. The matrix gives a guideline to the required emergency response.

Table 1.1 Emergency Response Escalation Protocol

Impact/ Consequence	Health & Safety	Natural Environment	Reputation Government Community Media	Civil Unrest Hartals		Definition	Country Threat Level	Escalation ➔				Site specific IRT Members
Tier 1	Minor injury – First Aid treatment.	Negligible impact on fauna/flora, habitat, aquatic ecosystem or water resources. Incident reporting according to routine protocols.	Minimal impact to reputation.	-		Incidents that are containable by the Unit Operations' Site Incident Response Team (IRT)	**Insignificant Low**	Unit Operation Sites	XEN Operation Control room	**IRT**	ERT Leader	XEN Operation Control room other **IRT** members **ERT - as required**
Tier 2	Moderate injury- Medical Treatment , Lost Time injury Emergency hospitalization	Impact on fauna, flora and/or habitat but no negative effects on ecosystem, may require immediate regulator notification.	Moderate to small impact on business reputation.	Security unrest appears to escalate to regular outburst - but authorities appear to be capable of maintaining control		Incidents that require ERG, governmental and regulatory support	**Medium High**	**ERT**	ERT Leader	Chief Engineer	**Member-Generation**	ERT Leader **ERT - activated**

Tier 3	Permanent disabling injury and or long term off work and fatality.	Long term impact of regional significance on sensitive environmental features, likely to result in regulatory intervention/action	Significant impact on business reputation/ or international media exposure.	Confirmed direct threat to foreign business interest or against expatriates Situation certain to escalate further beyond Government control		Incidents when there are multiple injuries or fatalities requiring IMT support, regulatory and public relations assistance.	**High Extreme**	**ERT**	Chief Engineer **calls Member-Generation & activates IMT**	**Member-Generation**	**Chairman-BPDB**	**IMT** Duty Manager - Team Leader other **IMT** members **IMT - activated**

5.4 Incident Response Team (IRT) Procedure

Incident response team is the first line of defence in emergencies and will consist of the members as per the organogram. The selection of people will depend on available population and a site in-charge is responsible for putting people in this team who are competent, confident and reliable as this team is responsible for 1st response.

Identity of the team members will be available in visible areas.

Incident Response team leader will lead the Emergency response with the assistance of available team members. The role of the IRT to take necessary action to meet the emergency according to this procedure for different types of situation.

Table 3.1 Emergency duties of Incident Response Team (IRT)

Responsible Person	Reports to	Emergency Duties	Emergency Location
Team Leader IRT	ERG Leader	• Direction of activities associated with minimising plant related hazards and maintaining essential services. • Appraising/ Supports Emergency Controller of situation. • Immediate Notifying to ERG Leader of the incident and get further advice • Assigns tasks to others • Maintains a log of events • Ensure information shown is consistent and accurate	Control room
IRT Team Members	IRT Team Leader	• Making plant safe and maintaining essential services to Production Supervisor's instructions. • Back up Initial Response and support team as directed by ERG Team Leader • Accounting for personnel (Muster counts). • Incident Mapping. • Coordinating information flow at unit.	On plant/On site

Responsible Person	Reports to	Emergency Duties	Emergency Location
Fire Fighter	IRT Leader	• Directing and controlling activities of fire team in terms of conducting search, rescue and fire fighting, casualty handling under XEN, Operation instructions.	On site
First Aider	IRT Leader	• Medical and casualty handling support at site and at the time of Medivac	Control room

5.5 Emergency Response Team (ERT) Procedures

The following is the procedure to be followed by the ERT Leader, when the Incident Response Team Leader, as a result of an incident in unit location, has contacted him and the ERT Leader decides that the incident requires the activation of the ERT.

5.5.1 Notification and Activation of the ERT

In the event of a unit activating the Incident Response Team (IRT), the Incident Response team leader will contact the duty ERT Leader and inform him/her of the situation. The ERT Leader must be informed within 30 minutes of the activation of an IRT.

The ERG Leader is the central point of contact for the initial incident notification. Once the ERG Leader has made contact with the Incident Response team leader and has details of the incident he/she will decide whether there is a requirement for the ERG to be activated, and what the initial composition of the ERG is to be. The ERG Leader is responsible for initiating the activation and call out of the duty ERG.

5.5.2 Emergency Response Team (ERT) Overall Responsibilities

The primary responsibilities of the ERT are:

- To provide emergency support and manage all emergency situations within the Specific BPDB site.
- To notify the Chief Engineer and keep him/her informed of the situation.
- To notify the Incident Management Team Leader (Member- Generation, Duty Manager) within 30 minutes of the Emergency Response Group being mobilised and to keep them informed of the situation.
- Ensure liaison with Government, key stakeholders and local authorities in accordance with legal and legislative requirements through Chief Engineer.

- To inform the Incident Management Team (Duty Manager) of the names and conditions of all persons involved at the emergency location.
- To arrange the reception and treatment for all personnel evacuated from the emergency site.
- A designated ERT Leader will be available at all times. In all situations, which have resulted in the mobilisation of the ERT, it is the ERT Leader's responsibility to report the situation to the Chief Engineer and to the Incident Management Team (Duty Manager).

The actions of the ERT will vary depending on the nature of the emergency and it is the ERT Leader's responsibility to determine the extent of the response required. The ERT may call on additional staff to assist them in responding to any emergency or incident situation.

All ERT members are required to read and familiarise themselves with this document, in particular their own respective functions, for which checklists are provided on the following sections. ERT members should ensure that they have access to this document at all times.

5.5.3 ERT and Support Team Individual Roles and Responsibilities

The primary roles and responsibilities of the Emergency Response Team members are outlined below:

Role	Responsibility
Head of Site	• Regular report/update to the Incident Management Team Leader (Member-Generation, Duty Manager) • Leadership of the emergency response and support for the operation of the Emergency Co-ordination Centre ECC. • Effectively managing the functional response to the Crisis situation. • Providing the necessary support to the affected site. • Establishing and maintaining effective communication with all appropriate internal and external parties. • Control and coordinate information for release to Government, key stakeholders and to the Media through appropriate BPDB focal point.
ERT Leader	• Responsible for managing and co-ordinating the overall response of the ERT to the emergency situation. Reports to the Chief Engineer • Responsible for mobilising the ERT and support personnel. • Responsible for informing & liaising with the Chief Engineer. • Responsible for compliance with the actions and procedures laid

Role	Responsibility
	down in this document for dealing with emergency situations. • Responsible for obtaining authority from the Chief Engineer and the IMT Leader for the release of information to Government, key Stakeholders and Media.
Operations & Technical Co-ordinator	• Reports to the ERT Leader and responsible to him/her for providing operational and technical information. • Responsible for providing operational and technical advice, to the emergency site • Responsible for all communications with the Incident Response Team Leader at the emergency site. • Responsible for maintaining the information on the status boards.
Admin and Security Co-ordinator	• Liaison with BPDB as directed by the ERT Leader • Deal with external telephone calls during emergency • Manage the liaison with the next of kin of any injured • Ensuring availability of vehicles and drivers for evacuation and casualty transport • Ensuring water, fuel, food at site to facilitate prolonged stay of contingency team at site • Security of offices, bases, homes • Liaise with local security/police/military • Information and intelligence • Ensure escorts throughout evacuation routes
Health Safety and Environmental (HSE) Co-ordinator	• Reports to the ERT Leader and responsible for providing risk, health, safety and environmental information. • Responsible for compliance with legislation and obtaining authority from Chief Engineer to inform and liaise with National Government and Regulatory authorities. • Responsible for providing HSE advice & support and information to the ERT and the IRT at the emergency site. • Responsible for advising and maintaining the emergency responses in line with the emergency response procedures.
Recorder	• Reports to the Operations & Technical Coordinator and responsible for providing administrative support to the ERG. • Responsible for recording incident information on the status boards.
Reception	• Reports to the HSE Co-ordinator and responsible for managing the reception of all personnel arriving and leaving the office. • Responsible for meeting, holding and directing people that arrive at the office to the appropriate location as advised by the HSE Co-ordinator

Role	Responsibility
Office Building Security	• Reports to the HSE Co-ordinator and responsible for office security. • Secure access to the office except for persons approved by the HSE Co-ordinator. • Responsible for ensuring only those people with authority from the HSE Co-ordinator are allowed into the office area.

5.5.4 Location of Emergency Response and Support Personnel

When the ERT and Support Personnel are mobilised, they will proceed immediately to the Emergency Response Co-ordination Centre (ECC) in order to carry out the tasks and actions required.

The Head of Site, in consultation with the Emergency Response Team (ERT) Leader and in reference to the Emergency Response Escalation Protocol declares that an Emergency has escalated to a strategic level, or has the potential to do so, and calls out the Incident Management Team (IMT) duty manager in Dhaka.

5.5.5 Contact Details

The Site In-charge maintains and updates the emergency contact directory and distribute to the ERT members. It is the responsibility of those Managers and Senior Supervisors who are appointed to be members of the Emergency Response Team to notify the Site In-charge which of them is on duty each month and who replaces them the following month. The latest contact directory includes Emergency Management Team and Emergency services also will be available in the ECC and BPDB intranet site.

The duty ERT and Support Personnel are on 24-hour call out for the duration of their duty period.

Although office, home and mobile telephone numbers are given in the monthly contact list, the policy is to contact ERT and Support members via their mobile number first.

It is essential that people on duty fully understand their responsibilities and can be contacted 24 hours per day, on at least one of their listed numbers, during the whole period they are on call.

ERT members are responsible for maintaining a list of contact details of the personnel they would call out to support them in the event of the ERT requiring assistance. It is their responsibility to activate, inform, and direct any support personnel they consider necessary to provide them with the appropriate level of assistance. The respective ERT members are also responsible for briefing activated support personnel about the incident and giving them direction.

5.5.6 Call Out and Delegation of Authority

It is the responsibility of individual members of the ERT to ensure that their emergency response function is delegated to another from the same nominated group, as of Table 4.1, when they are unavailable (i.e. unable to reach the ECC within 60 minutes). They must ensure their alternate is appropriately briefed and the alternate remains within contact. The duty ERT member is responsible for advising of this change to the Recorder, who will update and reissue the duty ERT call out list.

The Recorder will keep a record of the duty person and produce a monthly listing that will be sent to all ERT members and to the IMT Leader.

At the end of the duty period, the ERT member must handover their duty in person thus ensuring the next on duty has acknowledged the responsibility.

5.5.7 Emergency Co-ordination Centre (ECC) Initial Actions

On the activation of the ERT, all the team members should immediately proceed to the Emergency Co-ordination Centre (ECC). The first to arrive must assume the role and duties of the ERT Leader until the duty Leader arrives. A copy of this manual is to be available in the Emergency Co-ordination Centre.

The most important early action for the first persons to arrive in the Emergency Co-ordination Centre is to ensure that:

- Telephones are set up to establish and establish communications with the affected emergency location and the IRT.
- They identify the facts of the incident and ensure that they are written up on the status boards.
- Plant premises security staff to ascertain tight security in all entry/exit points and visitor should be strictly restricted to enter the main gate.

5.5.8 Formal Updates of Information to ERT

The ERT Leader should conduct updates to the whole ERT Group at frequent intervals throughout the duration of an incident, at least every hour in the early stages of the incident. All available ERT members should attend updates. The individual ERT members should report and update any relevant information to Support personnel as soon, as is practicable.

All personnel must be instructed to direct external telephone calls requesting media comment on any incident to the nominated ERG spokesperson.

The Admin and Security Co-ordinator is responsible for making contact with the next of kin of all staff including contractors.

In general, existing business channels of communication should be retained during an incident, but the ERT must retain overall responsibility and control for this communication. The range of contacts will inevitably vary greatly depending on the location of the affected site. External contact details is updated in the contact directory.

5.5.9 Evacuation Procedure

On the sound of general alarm all employees must leave their station and report to the muster station which is pre-defined.
One member of the IRT will take a head count to ensure everyone is safe and no one trapped during the emergency. If anyone is noted to be trapped or absent without any reasonable information, the IRT leader will organise a search and rescue operation. The location and identity of the missing person will be handed over to the external parties as soon as it is possible, e.g., Fire Brigade

5.5.10 Visitor passes

All visitors to the Specific BPDB site are given a visitors pass. The visitors pass must be worn at all times while on the premises.

The name of the visitor is recorded in the security supervisor's visitor log book along with the badge number, date and purpose of visit.

During any muster the Security Supervisor accounts for any visitors using the visitors log book.

The Incident Response team leader will secure the plant if necessary and depending on the severity of the emergency.

5.5.11 Post-Emergency Procedure

5.5.11.1 Incident Investigation

Within 3 days of resolution of an emergency incident, the Site In-charge will initiate a thorough Incident Investigation and document the findings as per Incident Reporting and Investigation Procedure (BPDB-GEN-PR-014).

5.5.11.2 Follow-up Investigation Report

Follow-up written reports will be made by Site In-charge. Following an emergency incident, an incident investigation will be conducted in accordance with incident reporting and investigation procedures as documented in procedures manual. The goal of the investigation will be to determine the root cause of the incident and develop a plan for preventing a recurrence. Areas to focus on include human error, material defects, mechanical defects, operating procedures, and maintenance procedures. Site In-charge and/or their designated personnel will assist with the investigation. In addition, a contamination assessment study

may be required to determine the extent of contamination. A history of all incidents is to be maintained as per record management procedure.

5.5.12 Specific Emergency Scenario

5.5.12.1 Fire and Explosion

5.5.12.1.1 Fire and Explosion Response

The proper initial response to fire or any other emergency is to notify the nearest respective unit Control Room as quickly as possible and provide the initial assessment information.

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.

Most fire extinguishers operate using the following P.A.S.S. technique:

- P: Pull the pin. This will break the tamper seal
- A: Aim low, pointing the extinguisher nozzle (or its horn or hose) at the base of fire.

Note: Do not touch the plastic discharge horn on CO2 extinguishers, its gets very cold and may damage skin.

- S: Squeeze the handle to release the extinguishing agent.
- S: Sweep from side to side at the base of the fire until it appears to be out. Watch the area. If the fire re-ignites, repeat steps 2 – 4

If you have the slightest doubt about your ability to fight a fire EVACUATE IMMEDIATELY!

A structural fire will result in a complete evacuation of the Specific BPDB site facility. ERG will inform the local fire department.

5.5.12.1.2 Site Access

In the event of a structural fire or an incipient fire that spreads, the local fire department will be contacted by the respective unit Control Room and will assume command of the response upon arrival. Based on the incident specifics, the Incident Response team leader 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.

5.5.13 Fire Protection System

5.5.13.1 Manual Suppression Subsystem and Equipment

The plant yard fire main supplies water to the yard hydrants used for the manual firefighting throughout the plant, including indoor and outdoor areas. The hydrants are located to provide complete coverage of site areas that contain equipment or buildings. Each hydrant may be isolated for maintenance from the yard main by an underground box valve that must be operated by a special tool provided in the hydrant hose houses. Portable fire extinguishers are provided throughout the plant buildings to enable plant personnel to extinguish small fires.

5.5.13.2 Deluge System (If available)

A deluge spray system is used for equipment protection where an engulfing water spray is required for fire control. Deluge spray systems are provided for the ST and auxiliary transformers, steam turbine lube oil console, steam turbine control oil unit and steam turbine governing valves (operating floor).

5.5.13.3 Low Pressure Carbon Dioxide System (If available)

A low-pressure carbon dioxide system is provided for equipment enclosures and enclosed spaces where alternative means of protection, other than water- based suppression, is required, due to concern for potential hazards or damage caused by water discharge. Carbon dioxide systems are provided for Gas turbine generator enclosure, local electrical & control enclosure for Gas Turbine and control room, electronic room, battery room and switchgear room in central control building. The basic system consists of a storage cylinders, control valves, distribution piping, nozzles, fire detection devices, alarms, and controls. Warning signs are provided to alert personnel of the potential life safety hazard associated with entry into the protected space, and to the need to exit immediately upon alarm. A pre discharge alarm is provided in the protected space to allow for safe evacuation of personnel in the carbon dioxide discharge area prior to the release of gas.

Each carbon dioxide system is actuated by a fire detection system, which is installed in the protected space. Fire detection actuates a pre-discharge alarm in the protected space and a fire alarm signal to the fire protection local control panel. Shutdown actions are imitated to isolate the boundary of the enclosure (e.g., HVAC, etc.) and allow personnel to evacuate during this pre-discharge period. After the time delay, carbon dioxide is released from the CO2 storage cylinders into the piping network and out the open CO2 nozzles located in the protected space.

5.5.13.3.1 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, manual pull stations, water flow switches, and tamper switches. The fire alarm system includes the fire/smoke detectors, alarms, and

manual pull stations, as well as the central fire protection system alarm panel in the control room. Detectors are also provided to alarm a fire at the steam turbine generator bearings and to actuate automatic fire suppression subsystems that depend on detector actuation for system operation. Audible alarms are provided to alert plant personnel of suppression system actuation and fire detection. The alarms can also be activated by the manual pull stations installed near building exits. Horns in the buildings provide both a visible and audible alarm. An alarm bell is provided on the exterior wall of the control room to alert plant personnel outdoors that a fire alarm has been activated. The central fire suppression alarm panel in the control room provides a visual and audible alarm when any of the detection and/or suppression systems are activated. The panel also provides a trouble alarm visual signal whenever there is a fault in a detection or suppression system.

In the event of a fire Shift Charge Engineer is contacted, he then will make notifications by radio and phone and public address system. He/She will notify respective unit Incident Response Team Leader about the incident and if evacuation is required raise the emergency siren. After assessing the situation Incident Response Team Leader will take the necessary action plan to handle the emergency, he/she will be deployed the different team member from the available resources.

5.5.14 Housekeeping

Housekeeping will be done at the plant to control accumulation of flammable and combustible waste materials and residues will be used, such that they do not contribute to a fire emergency. For detailed please see Housekeeping procedure, GPP-SP-09.

5.5.15 Gas Fire

The proper initial response to gas fire emergency is to notify the respective unit Control Room as quickly as possible and provide the initial assessment information. The following steps should be followed when responding to incipient stage gas fire.

- Inform Control room.
- Activate the emergency siren.
- Address about the emergency using the PA system and evacuate the area.
- Gas turbine and Fuel gas compressor may require emergency shut down.
- Isolate the leaking pipe section.
- Remove all ignition sources from the area.
- Put Barrier and safety sign.

DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.

For Small Fire use Dry chemical or CO2. For Large Fire use water spray or fog or move containers from fire area if you can do it without risk.

5.5.16 Medical Emergency Response and Evacuation

5.5.16.1 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 Charge Engineer responsibility to perform the following:
- Notify the Incident Response Team Leader and ERG leader 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/CPR responders.
- Notify all other key personnel regarding the incident.
- Have personnel meet the responding agency at the main gate & escort them to the scene.

Incident Response Team leader/ERG leader will take the necessary action to handle the emergency, if required send the ambulance to the emergency point to rescue victim and send to nearest hospital after first aid given.

5.5.17 Earthquake Response

5.5.17.1 If Inside During an Earthquake

If you are inside during an earthquake:

- Try to protect your head with available material.
- 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.
- Turn your body away from windows and mirrors.
- Be alert for falling objects and stay away from overhead fixtures, filing cabinets, bookcases, and electrical equipment.

5.5.17.2 If outside during an Earthquake

If you are outside during an earthquake:

- Move to an open area away from buildings, trees, and power lines.
- If unable to move to an open area, watch for falling objects.

5.5.17.3 If Inside an Automobile

If you are in an automobile during an earthquake:

- Stop your vehicle in the nearest open area.
- Stay in the vehicle until the shaking stops.

5.5.17.4 After an Earthquake

After an earthquake

- Be aware of the possibility of aftershocks.
- If possible and it is safe to do so, evacuate the building as soon as the shaking has ceased.
- Do not move injured persons unless they are in obvious immediate danger (from fire, building collapse, etc.)
- Open doors carefully. Watch for falling objects.
- Do not use matches or lighters.
- Limit use of telephone to call for emergency services.

5.5.17.5 Severe Weather Plan

5.5.17.5.1 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.

5.5.17.5.2 Responsibilities

Acts of nature such as flood, storms, cyclones, earthquakes are natural disasters that are beyond human control. Incident Response Team Leader/ERG Leader will analyze the situation and take appropriate measures. In the event of earthquake, employees will come out of their work places, wear hard hats, and assemble at safe open field, & wait their for head count or for guidance act. Search & Rescue Team will start search and rescue as mentioned below.

With the close consultation, the rescue team will be directed by the Incident Response Team Leader. This team will work in close cooperation of the ERG team. The primary function of this team is to handle the smooth evacuation of personnel, supplies and personal belongings during the emergency. It is also the duty of this team to help extricate personnel who got trapped or injured in any of the rooms of the plant & buildings.

Before any heavy flood, strong storm or cyclone noticed by weather forecasting, keep all the building door close, all loose objects like waste bins, which kept out side, tide with fixed object so that it dose not fly here and there, keep outside crane mechanically locked. Employee will stay inside the building during such events. Incident Response Team Leader will give the clear directive to before and during such events. Ensure sufficient fuel for emergency generator, food, drinking water, and ambulance driver are available. ERG will keep communication with IMT about the safe Shutdown the plant. Incident Response Team Leader keeps supervision responsibilities during severe weather conditions will be consistent with normal national grid. Decisions as to the plan to be followed, timing, curtailment, shutdown, etc. will be made by the ERG Leader.

5.5.18 Mock Drills

5.5.18.1 Emergency Responder Training Requirements

Emergency response training is provided commensurate with the role each person has in the response plan. Refresher training is provided once in three years, either in the form of a single class or over a number of classes provided throughout the year. Refresher training includes at least one hands-on drill wherein an emergency is simulated and responders work as a team to resolve the issue as quickly as possible. The ERT Leader then conducts a debriefing which includes a chronological review of the incident, communication and deployment issues faced, command decisions made, and any difficulties encountered during the drill.

5.5.18.2 First Responder Awareness Level

The following criteria is required at the awareness level:

- Applicable to All Employees
- Included in New Employee Orientation
- Understanding of what hazardous substances are and the risks associated with them in an incident
- Understanding of how to recognize the presence of hazardous substances and the potential consequences of their presence
- Remote hazardous substance identification procedures Understanding of incident commands
- Notification procedures

5.5.18.3 First Responder Operational Level

The following criteria are required at the Operations Level:

- Applicable to response team members
- Selection and use of PPE
- Understanding of basic hazardous materials terms
- Basic control, containment and/or confinement operations per the emergency response plan
- Decontamination techniques

5.5.18.4 IRT and ERT Team

The following criteria are required at the Incident Commander Level:

- Applicable to designated Incident Commander and alternates
- First Responder Awareness and Operations Level requirements.
- IRT/ERT individual's role on Emergency Response Plan.
- Understanding of risks and hazards associated with work in PPE
- Understanding of local and State Emergency Response Plans and coordination with responding and regulating agencies
- Understanding of decontamination procedures

5.5.18.5 Emergency Exercise Schedule

All emergency drills will be conducted once in a year.

5.5.18.6 9.0 First Aid

In case of any electric shock, arc blast or arc flash, the victim is to administered with First Aid as soon as possible. The procedure for providing First Aid is in the Appendix 3. Trained first aider must be used for administering first aid.

6 Reference

ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018 Standards

7 Appendix

None

8 Revision History

Sl. No.	Revision Number	Section	Change Made	Date of Revision