11 EMERGENCY RESPONSE PLAN

11.1 Introduction

The Emergency Response Plan specifies the general responsibilities and duties of the personnel of PEC during Emergency and potential Emergency. The purpose of the plan is to ensure that a system is available to summon, and direct emergency services and personnel in order to minimize the risks to people on site, the local community, the environment and assets in the event of an emergency, and to ensure that sufficient resources are maintained in a state of readiness to give adequate response for the control of emergency situations.

11.2 Scope

This plan is for the use of the personnel of PEC during an emergency to:

- Care for the injured or serious illnesses of employees.
- Take necessary action to prevent any further injury, damage to property, or harm to the environment.
- Preserve evidence needed to determine the cause of Emergency.
- Continue or resume production.
- Maintain favourable community relations.

All employees are expected to be familiar with the general instructions of this plan due to specific job responsibilities stated.

11.2.1 Training

Communication, exercises and drills will be conducted as often as necessary to ensure that employees understand the specific expectations and responsibilities during emergencies.

11.2.1.1 Emergency Response Training

The Emergency Response Team and all employees will be trained routinely in the proper response to the potential Emergency conditions.

11.2.1.2 Site Emergency Training

A site emergency drill will be conducted quarterly to simulate an actual major Emergency. Additional drills may also be conducted.

11.2.1.3 Contractor Safety Briefing

All contractors and contract workers have to attend safety briefing prior to being allowed in the plant site. The briefing will provide training on action to be taken during an emergency.

11.2.1.4 Visitor

All visitors on site must be accompanied at all times with an employee. Any unescorted visitor must have received safety briefing on how to respond to an emergency while at the site.

11.2.1.5 ERP Management

The ERP is reviewed at regular intervals to ensure its continued suitability and effectiveness. Reviews are also initiated by the following:

- Changes in legislation
- Advances in technology and equipment
- Changes in organisational direction

- Changes in products and activities
- Lessons from incidents, drill, and findings of drill audits

11.3 Definitions

11.3.1 Definition of Emergency

Emergency is defined as non-routine incidents that do or could result in damage to property or the environment, serious injury or illness to personnel, evacuations, or extensive disruptions to production.

Examples of emergencies include: fires, explosions, bomb threats, gas leaks, spills, serious employee illness or injury requiring transport to a medical facility, and disruption of critical utilities.

11.3.2 Emergency Classification

Emergencies are to be classified as either “major” or “minor” depending upon the degree of property or environment damage, personal injuries and extent of production loss.

Authorised personnel for classifying the emergencies are;

- Director/Site Manager
- Incident Commander (IC).

11.3.3 Incident Command Centre (ICC)

The Incident Command Centre is the location where the IMT operates during response operations. It shall be located in the Main Control Building. The ICC is equipped but not limited to the following equipment / facilities:

- Incident Command Centre (ICC) Telephone Number & Fax Number;
- Incident Management Team Roles & Responsibilities;
- Site Plans;
- Area Maps;
- PEC Contact List;
- External Resource Contact List;
- Safety Datasheet;
- Guidelines interfacing with Press; and
- Incident Status form.

11.3.4 Incident Management Team (IMT)

The primary roles of the IMT are to provide strategic direction to incident response operations; support tactical responders; address tasks best handled at the management level and interface with and provide information to external parties.

11.3.5 Staging Area

A staging area shall be established for the receiving and delivery of emergency support services including food, water, shelter, PPE, sanitation services for the on-scene tactical team and fuel, lubricants, water for response equipment. Additional emergency response resources e.g. back-up responders, fire trucks, ambulances; etc. shall also assemble at the staging area pending deployment instruction from the IC. A Staging Area Manager shall be assigned by the IC at the respective site as necessary.

11.4 Emergency Response Organisation

An Emergency Response Team (ERT) is assigned by the facility management to handle any emergency which may occur during the plant operation. The ERT shall provide assistance at the scene of the accident/ emergency.

The roles of the ERT include:

- To control or limit any effect of an on-site emergency;
- To facilitate emergency response and to provide such assistance as is appropriate to the event;
- To provide a communication channel with external emergency response departments/ agencies;
- To ensure timely communication of all vital information;
- To facilitate post-emergency response activities so that normal operation can resume; and
- To identify improvement areas for updating the emergency procedures.

11.4.1 Head of Incident Management Team (IMT)

- The Head of IMT is responsible for the overall management of incident response operations
- Provide an initial briefing either to IMT as a whole or to individual members of IMT:
  - Describe the incident
  - Describe nature and statues of response operations
  - Review initial issues and concerns
- Establish and maintain communication with the IC.
- Ensure that personnel safety is accorded to the highest priority during conduct of incident response operations.
- Coordinate internal and external resources as requested by IC.
- Establish Strategic Objectives and response priorities and ensure IMT and tactical response personnel are carrying out incident response operations in a manner consistent with objectives and priorities.
- Initiate, coordinate and approve any release of information to local agencies, media and public.
- Report any major emergency to the Plant Manager immediately.
- Notify the local community of emergency status, cause and public information when necessary based on the approved release information.
- Initiate and lead the investigation on “Major emergency” accidents.

11.4.2 Incident Commander (IC)

The Incident Commander is the overall director of activities for control of the emergency. Responsibilities during the emergency include:

- Determine a safe and logical approach to respond to the nature of the emergency.
- Assemble the ERT and communicate the strategy.
- Establish and announce another safe Command Post if required.
- Update the Head of IMT regularly with the status of the emergency, the resource needs, and communication with employees or outside resources/ agencies.
- Make decision to evacuate plant personnel as needed.
- Confirm headcount with the Safety Officer and update the IMT.

- Make decision to obtain outside resources/outside agencies to respond to the emergency during off hours e.g. Fire and Rescue Department (Bomba) or ambulance.

11.4.3 On Scene Commander (OSC)

The OSC is responsible for organizing and managing at the-scene tactical response operations in a safe and effective fashion and for keeping the IMT informed on the nature and status of the incident and tactical response operations.

11.4.4 Liaison and Human Resource Officer

- The Liaison & Human Resource (HR) Officer shall assist the Head of IMT to arrange and coordinate company resources (call back off duty personnel or other area personnel).
- Organizing and managing all government and community affairs activities associated with incident response operations.
- Provide other information on employees as required.
- Arranging grief counselling for response personnel adversely impacted by incident and/or response-related injuries and fatalities and for arranging humanitarian assistance to the families of individuals injured or killed by the incident or during response operations.
- Ensure that all required and appropriate notifications are made to families of injured personnel.
- Ensure that names of injured personnel are protected until notifications of next of kin are completed.
- All telephone calls will be managed and control tactically and for authority calls, the HR Officer is expected to take question and answer after consultation with the IC or HSES Manager.

11.4.5 Safety Officer

- The Safety Officer shall brief IC on the hazards present at the incident scene and measure being instituted to protect response personnel against hazards
- Assist the Head of IMT to coordinate any site emergency evacuations.
- Exercise emergency authority to prevent or stop unsafe acts
- Conduct total headcount during emergency

11.4.6 Maintenance Crew

Maintenance personnel on normal hours will also provide support to the Emergency Response Team for emergencies requiring such resources. The maintenance personnel on normal hours will also be responsible for the following:

- Immediate response to mechanical and electrical services the shift personnel cannot complete.
- Serve as additional ERT members as requested through the IMT.

11.4.7 Other Employees

Employees not directly involved in the Emergency Response Plan will provide assistant as directed by IMT if it is deemed necessary. Based on the location of major Emergency, all personnel should take the safest route to assembly areas.

11.5 General Instruction on Reporting and Emergency

11.5.1 How to Report

Personnel that observe the condition that requires Emergency responses are advised to not panic and process immediately to the nearest safe area and contact the Control Room and report the Emergency via phone or radio. Allow time for the phone or radio to be answered, and then provide the following information:

- State your name.
- State the nature of the Emergency (fire, injury, gas leak, spill, bomb threat)
- Provide the location of the Emergency (building number, floor, etc.)
- Report if anyone is injured

Do not hang up or break communication until the control room operator clearly understands the information that has been given.

11.5.2 Actions after Reporting the Emergency

- Alert any personnel in the area that are in danger,
- Use emergency equipment in the area (sprinkler system, fire extinguisher, activate call point, etc.) until emergency response team (ERT) arrives.
- Assist (if necessary and only safe to do so) as directed by emergency response team until relieved by the Incident Commander.

11.5.3 Emergency Involving Fire

The plant is designed with heat sensors & flame detections system which may automatically activate the sprinkler or deluge system in the event of fire. The sprinkler will also activate the fire alarm. Each building is equipped with a fire alarm panel and bell.

11.6 Emergency Preparedness and Response

Prior to construction, the PEC and its EPC contractor will identify project-specific potential accident and emergency situations and determine appropriate responses, including the mitigation of any EHS impacts which might result if the accidents/emergencies actually occurred.

The EPC contractor will prepare an Emergency Preparedness and Response Plan for construction, prior to the start of any construction activities, normally integrated with the Construction Environmental Control Plan and/or Environmental, Health, Safety and Welfare Plan. For operation, the Project Company will prepare a similar Emergency Preparedness and Response Plan prior to the start of commercial operation, which will be incorporated into the operational EHS Management System.

The construction and operational emergency response plans will include the following elements:

- evaluation of local EHS legislation and regulations;
- listing of relevant permits, approvals and notifications;
- assessment of potential accident/emergency events
- response strategies to potential accident/emergency events;
- alarm signals;
- availability and use of emergency equipment, e.g. fire extinguishers;
- mustering and accounting for people;
- investigation and reporting - near-miss and accident/emergency events;
- communications strategy in the event of an accident/emergency;

- drill and simulation schedule.

The emergency preparedness and response procedures will include provisions for the following events:

- fire;
- explosion;
- releases of toxic or otherwise harmful substances (to air, water or land);
- road accident;
- terrorism/violent attack or threats;
- accidental fatality;
- accidental injury;
- medical emergencies;
- first aid;
- emergency medical evacuation;
- natural disaster (eg flooding, landslide, hurricane);
- any of the above caused by a third party.

The emergency preparedness and response plans will consider the appropriate course of action for accidents/incidents involving site workers, sub-contractors, site visitors, third parties and members of the public.

The provisions within emergency preparedness and response plans will be reviewed at regular intervals not exceeding 6 months.

In all cases, the planned procedures will be co-ordinated with the activities and plans of the local emergency services, i.e. fire service, rescue service, police, military and ambulance/hospital service.

11.7 Emergency Response

11.7.1 Emergency Notification

- The Control Room Technician / Boardman will take the following actions upon receiving notification.
  - Record the emergency information from the caller in the logbook to ensure facts are captured.
  - Sound the emergency siren/alarm.
  - Check and confirm operation of sprinkler systems, firewater pumps, and other equipment needed in response to the emergency at the Control Room.
- Activation of any automatic fire detection system.
- Manual activation of 'Pull Station'.

11.7.2 Incident Management Team (IMT)

When mobilised, the IMT shall proceed to the Incident Command Centre at the site experiencing the Emergency.

11.7.3 Emergency Response Team (ERT)

- Upon hearing the emergency alarm or being notified of an emergency, the OSC shall proceed with respirator, a gas detector, radio, torch light (at night) or with other PPE or equipment deemed necessary to the incident location to carry out a quick assessment.

- OSC must always ensure his own safety is safe guarded, including wind direction, distance from the scene, PPE required and other measure or protection deemed necessary.
- OSC shall then report back to IC and the following factors shall be considered for response.
    - Type of incident Fire, Spill, Gas release or false alarm.
    - Material involves in the incident or releases in that location to determine Gas release, explosion, flammable material etc.
    - Consider number of ERT member available or needed for assign task (e.g. Hose handling 4 members, spill control, etc.)
    - The number of personnel presence in the affected area
    - The number of personnel injured and require assistance in the affected area
    - Wind direction
    - Identify the alternate route to escape.
    - Evaluate to get necessary help from outside agency.
    - Type of hazards which might put the ERT members at risk.
    - Consider minimum number of ERT member for rescue operation i.e. handling stretcher etc.
    - Communication must be clear and precise if necessary, silence the alarm.
    - Gas release – OSC shall return to Control room to equip with SCBA and other PPE required.
    - Spill release – OSC shall return to ERT room to wear proper PPE such as boots, google, etc.
    - Fire - OSC shall return to ERT room for adequate PPE such as bunker coat, SCBA, etc.
- All ERT members shall assemble at their respective site ERT assembly area, gear-up and standby for instructions from OSC/IC.
- One Emergency Responder from the non-affected site Operations team shall proceed to the ERT assembly area of the affected site.
- On-shift Maintenance personnel (I/E & Mech.) shall also assemble at the affected site ERT assembly area and will perform their role as trained depending on the nature of the emergency to control the situation and bring operations back to normal provided that it is safe to do so and will follow the instructions from OSC/IC.
- In the event of fire, the Utility Technician shall proceed to the firewater pump house to confirm the operation of the firewater pump.
- The IC shall mobilise the ERT or IMT as required.
- The minimum ERT members shall consist of 1 OSC, 2 field technicians from affected site, 1 field technician each from non-affected site, 2 on-shift Maintenance personnel (I/E & Mech), 2 first aiders, 1 headcount coordinator (Security) & 1 Communication coordinator (Security).

11.7.4 Normal Working Hours

- Operations Manager will assume the Incident Commander's responsibilities.
- Boardman / Control Room Technician are responsible to safely shutting down the plant.
- OSC shall lead the team and under the control of IC will react as trained depending on the nature of the emergency to control the situation and bring operations back to normal.
- Emergency Response Team (ERT) will proceed to the ERT Room either upon hearing the relevant alarm or after being directed by the IC.
- If gas release alarm is activated all ERT members are required to gather in Main Control Building and wait for further instruction from IC.

- All actions from ERT will be managed by OSC on scene until his responsibilities taken over by the external Emergency Service Officers if they are called to attend the incident.
- ERT administrator will coordinate with IC on movement of ERT members as per instructed by IC as follows:-
    - Headcount for ERT members.
    - Manage the ERT member and equipment needed.
    - Record movement of ERT (In and out of the scene).
- OSC shall assign one or more ERT member to stay and monitor the situation and update the IC before the "All Clear" is declared. He shall also assign ERT to barricade, preserve evidence and to ensure no smoke or fire re-ignite.

11.7.5 Off-Hours

- Production Team Supervisor will assume the Incident Commander's responsibility.
- Boardman shall assist the IC to shut down the plant safety if necessary.
- Additional members of the ERT or outside agency (Fire and Rescue Department) will be called in by the Communication Coordinator (Security) as instructed by the IC.
- Notifications to local authorities (other than Fire and Rescue Department) will be authorized by the IC.

11.7.6 Specific Response to Spill

11.7.6.1 Major Spill

- OSC will assess the spillage area and update IC in Incident Command Center. ERT team will take necessary action to minimise the leak and the amount of spill material that enters the drainage or effluent systems provided it is safe to do so.
- If spill material has entered the drainage or effluent system then appropriate action to stop discharge into the public drainage system must be taken.
- Spill material should not be washed down to drain, and as much as possible must be cleaned up, and placed in suitable containers for disposal. If possible, an estimate should be made of the amount of material spill and the quantity which has entered any drainage or effluent system.
- OSC shall advise the ERT member on adequate PPE such as Boots, Respirator, chemical gloves etc.
- Spill kit should be used for controlling spillage as containment, absorbent, limit the dispersion or spreading to other area if necessary.

11.7.6.2 Minor Spill

- The incident shall be informed to the Supervisor upon the finding of the spillage.
- The Supervisor shall then take immediate action to contain the leak, stop the machine or clean up the leak.
- Measures to prevent reoccurrence must put in place or plan to resolve the issue as soon possible

11.7.6.3 Specific Response to Toxic Gas Release

- If a toxic gas is released from the any process then the Site Gas Release Alarm will be manually activated. Declaration of a Site Gas Release Alarm will be made by the IC after an initial assessment of the incident made by OSC. Upon declaration, the Boardman will manually activate the alarm and advise wind direction to IC and OSC.

- Use gas detector to monitor air contamination in Control room. Boardman shall inform IC and OSC if air in control room contaminated. The following action may be considered after IC discuss with Site Manager.
    - Consider the use of respirator.
    - Evacuate Control room personnel to a safe area.
    - Temporary use of Self Containing Breathing Apparatus (SCBA) to activate emergency shut down the plant.
    - Evacuate the premises and get as far as possible.
- Upon hearing the alarm everyone shall enter the PEC safe heaven and all doors and windows are to be closed, all ventilation and air conditioning systems must put to stopped.
- Upon hearing the Site Gas Release Alarm Security personnel will close the main entrance gate to prohibit anyone else from entering the site unless directed by the IC.
- The ERT member going out of the safe haven for whatever reason must be protected by SCBA or Full Face respirator.
- The ERT will gear up with full SCBA and PPE and provide emergency response as directed by the IC. The ERT member required to gather in Control Room and take instruction from IC via ERT administrator. Route to the incident location shall be advised by IC depending on the wind direction as communicate by OSC. ERT administrator shall record ERT member movement.

11.7.7 Control of Plant during Emergency

The Boardman will take responsibility for safe operation of the plant. Emergency Shutdown Procedures will be invoked as necessary to minimise danger to personnel and property damage as dictated by IC.

11.7.8 Management, Fire and Rescue Department and Ambulance Notification

The IC will direct the Boardman or relief to call Fire and Rescue Department to confirm that the automated call was received and communicate with them on the nature of Emergency. IC will also request to call back the Incident Management Team (IMT) or employees as needed.

11.7.9 ERT Room / Emergency Trailer

The ERT Room / Emergency Trailer will be equipped with the necessary emergency response equipment (i.e. Fire Fighting suits, additional fire hoses, SCBA set & Cylinders, etc.). The emergency equipment shall be inspected regularly. Any missing or malfunction equipment shall be communicated to the EHS Officer for immediate action.

11.7.10 Specific Response to Injury or Serious Illness

- Upon finding an injured person, the OSC shall assess the situation, do not move the person and notify the control room through the use of radio. Upon receiving the notification, IC shall instruct ERT members/first aiders to response to the injury.
- OSC must ensure that there is no or low risk for ERT member/first aider to remove the injured personnel.
- External Emergency Services shall be called upon by IC if the situation/injury/entrapment requires stabilisation of condition prior the movement of the affected personnel.
- The treatment shall be conducted First Aider if the injury can be treated on-site.
- Where transfer is required to hospital, assessment should be made by the OSC and use external Emergency Service Ambulance.

11.7.11 Evacuation and Assembly Area

- In the event of an emergency, upon hearing the siren, all personnel are to stop work and make safe any equipment in use.
- When the evacuation siren/site wide alarm is activated, all personnel, contractor and visitors are to evacuate the area to the emergency assembly area. All personnel are advised to remain calm and to not run nor attempt to re-enter any building.
- All personnel are responsible for ensuring all visitors reporting to them are guided to the nearest assembly area.
- For those who happen to be in the employee car park when an emergency alarm sounded, they may leave the site or remain there as they wish.

11.7.12 Personnel Counting (Head Count)

- During emergencies, no one shall be allowed to leave or enter the site whilst the emergency situation persists without the authorisation from the IC.
- The Security Officer will conduct the headcount in the assembly areas.
- ERT Administrator will conduct headcount for ERT member,
- The head count coordinator shall utilise the most appropriate method to obtain the head count as soon as possible. This may include getting assistance from the various secretaries or re-arranging the people to ease the job of counting.
- The Safety Officer shall tally the "On-Site Personnel' list (computer printout) from the guard house with the head count total and report the findings to the IC.

11.7.13 Arrival of Fire and Rescue Department

The Security Officer will contact the IC upon the arrival of Bomba. The IC will meet Bomba at the nearest safe area to explain the nature of the emergency.

11.7.14 Announcing "All Clear"

IC will declare "All Clear" once the situation is safe for people to leave the assembly areas. The "All Clear" alarm will be manually activated by the Boardman and to announce "All Clear" over the radio/ public announcement system.

11.8 Staff training on Environment, Health and Safety

11.8.1 Construction

All Project Company and EPC contractor staff with a direct or delegated responsibility for EHS will be provided with training commensurate to their planned roles. The training needs and approaches will be determined on a case-by-case basis, depending on the qualifications and experience of the member of staff, and will include, but not necessarily be limited to, the following:

- Designated role, specific responsibilities/tasks and general requirements;
- Project Company's EHS management system;
- Project Company's construction EHS plan (construction only);
- EPC contractor's EHS plans and programmes (construction only);
- Practical EHS issues and objectives;
- Technical skills required to undertake for the designated role and responsibilities;
- Use of personal protective equipment as appropriate.

The EHS Supervisor employed during construction will be responsible for ensuring that all staff receives appropriate EHS training and general instruction and support.

11.8.2 Operation

During operation, the Project Company will ensure that all staff are trained in the following:

- General operation of the PEC facility;
- Specific job roles and procedures;
- Occupational health and safety (see below);
- Contingency plans and emergency procedures.
- Training will include:
    - Induction training on appointment;
    - Specialist training (as required for the prescribed job role);
    - Refresher training as required.

The training programme will be designed to ensure that appropriate skilled staff are used to operate the PEC facility at all times.

Occupational health and safety programmes will be supported by staff training and the appointment of an EHS Supervisor/Co-ordinator for the PEC facility. The health and safety training will include, but not be limited to, the following:

- General area safety;
- Specific job safety;
- General electrical safety;
- Handling of hazardous materials;
- Entry into confined spaces;
- Hearing conservation;
- Repetitive stress disorders;
- Code of Safe Practices;
- Use of personal protective equipment;
- First-aid.

11.9 Occupational Health and Safety

PEC will establish and integrate policies and procedures on occupational health and safety into the operation of the PEC facility. The policies and procedures will be designed to comply with all relevant Malaysia legislation and applicable safety codes and standards, as well as manufacturer's safety data sheets for chemical storage and usage, so as to provide a safe and healthy working environment at the facility.

Occupational health and safety programmes will be supported by staff training and the appointment of an EHS Supervisor/Co-ordinator for the PEC facility. Occupational health and safety procedures will be included within the operational EHS Management System Manual for the PEC facility.

The safety record at the facility will be reviewed each month at a formal meeting, where the agenda items, comments and attendance will be recorded and kept on file.

In addition, periodic safety audits will be conducted to verify compliance with safe working practices, which will comprise physical inspections, review of plant records and interviews with staff. The audits will assign responsibility for any corrective action necessary to mitigate a potential hazard and allow the tracking of the completion of the corrective measure.