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อาชีวอนามัย ความปลอดภัยและสิ่งแวดล้อม

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**ECO ORIENT ENERGY (THAILAND) LIMITED**  
**ECO ORIENT RESOURCES (THAILAND) LIMITED**

**EMERGENCY RESPONSE MANUAL**

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Rev	Date	Description	Originator	Approved
0	25 July 2013	First Working Version	HSE Manager	General Manager

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All BKK Staff	Bangkok Server	03	
All WB Staff	Wichian Buri Server	04	

## FOREWORD

ECO Orient Energy (Thailand) Limited and ECO Orient Resources (Thailand) Limited ("The Company") recognizes that effective health, safety and environmental management contributes significantly to its long-term business success.

This document sets out The Company's Emergency Response Procedures. It emphasizes the systematic approach in the way we manage incidents and emergencies at our upcountry sites. The integration of health, safety and environmental protection into our day-to-day activities is the key to successful health and safety management.

The application and success of this system requires the participation and commitment of management, employees and contractors at all levels.

These procedures have the Board's full support but we require your commitment through a personal understanding of this document and full participation as required in the effective implementation of the procedures, should they be required.

It is imperative that everyone involved in the business of The Company familiarize themselves with their roles and responsibilities in this document. Only by total commitment by everyone can we ensure the best possible protection of our personnel, contractors, the public, our assets and the environment.


Signed

General Manager

Date: 25 July 2013

## Area of Application

These Emergency Response Procedures apply to all ECO Orient activities in Thailand.

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## 1 INTRODUCTION

It is the Company's intention to properly manage any emergency situation so as to minimise the impact it may have upon all personnel, the environment, the Company's financial position and the Company's reputation.

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 manual details the procedures to be followed by the Thailand Emergency Management Group from the Emergency Co-ordination Centre in the Company's Head Office in the Bangkok, Rasa Tower Office Building to ensure a prompt and efficient Company response to emergency situations at any of the Company's sites where ever in the Country they are located.

## 1.1 Policy &amp; Principles

This manual is issued under the authority of the General Manager. Recommendations for any change should be addressed to the General Manager who is responsible for reviewing this document. The HSE manager 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 ECO Orient Energy (Thailand) personnel charged with emergency management responsibilities within this manual is maintained. The database will include name, job title, office, and mobile and home telephone numbers.
- The Emergency Co-ordination Centre (ECC) and associated systems and equipment to support these procedures are maintained in a state of readiness and tested regularly.
- 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.

## 1.2 Purpose &amp; Scope

The purpose of this document is to ensure that Country Head Office personnel based in the Bangkok, who are appointed to the Emergency Response Group (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 Company's assets including office and remote site activities (Production, Seismic and Drilling) or locations under the management of this Head Office.

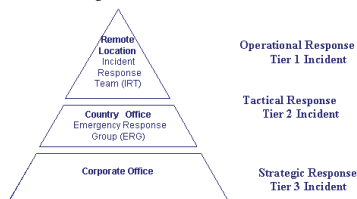
The Emergency Response Group as shown in Table 2.1 is made up of Managers, Supervisors and Support Staff. Personnel who form the Emergency Response Group will be notified of their role. If an emergency situation develops the Emergency Response Group will be mobilised and as the situation develops other personnel may be called to provide assistance to the Emergency Response Group.

Copies of this manual 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 manual, and the manner in which these procedures interface with the remote location emergency response plan for the Company's operations.

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## 1.3 ECO Orient Energy (Thailand) Emergency Response Organisation

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



The **Incident Response Team (IRT)**, based at the remote locations (Wichianburi), is trained and responsible for dealing with all envisaged incidents and emergency situations which may occur at the location. Where additional support, in the way of resources and advice, may be required by the IRT at a remote location this will be requested through and provided by the Country Emergency Response Group. On all occasions that a remote location IRT is mobilised due to an incident or emergency situation the Emergency Response Group Manager must be notified immediately.


The **Emergency Response Group (ERG)** is based in the Bangkok Office. The ERG is responsible for providing tactical response, support, assistance and advice to all incident and emergency situations at any of the sites or locations within the Country and for providing operational response to any emergency situation which may occur in the or affecting the Bangkok Office.

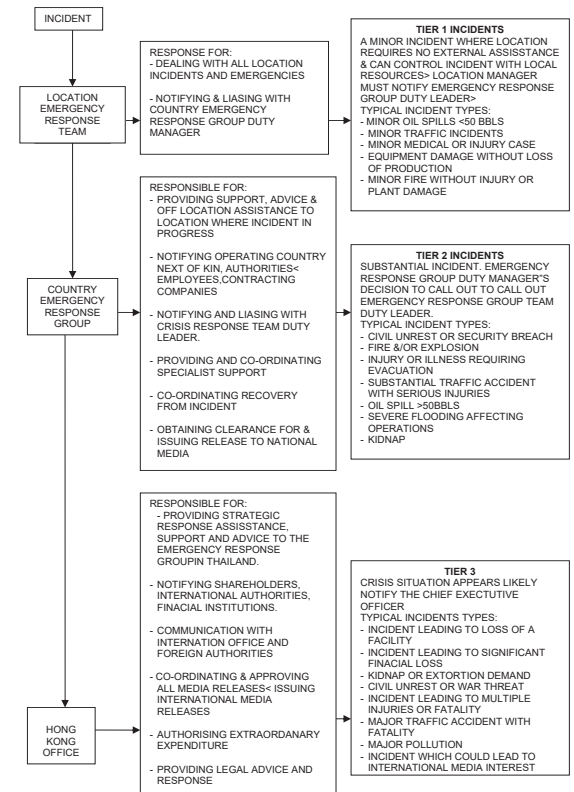
This Emergency Response Manual describes how the ERG should handle both the "technical" crises e.g. fire, explosion, oil spill, and "social" crises e.g. illness, injury, kidnap, civil unrest.

On all occasions that the Country ERG is mobilised due to a major incident or emergency situation the Corporate Office must be notified immediately.


## 1.4 Response Group Interfaces

The relationship between the Corporate Office, the Country ERG and Remote Location IRT and a classification of emergencies is illustrated below:

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## 2 EMERGENCY RESPONSE ORGANISATION

The key to effective emergency response is to have a pre-established organisation on-call and capable of mobilising and responding quickly and appropriately to all envisaged emergency situations. This organisation should be staffed by personnel with appropriate experience, organised into a team, with allocated and defined roles, responsibilities and practised in dealing with emergency situations.


The composition and organisation of the emergency response organisation is formalised to meet operational requirements. The emergency organisation at each location is similar to the normal day-to-day organisation. It is the Country Emergency Response Group's responsibility to respond to and control the immediate response to all emergencies, which occur within the Country in which it is based.

The Country emergency response organisation, called the Emergency Response Group (ERG), the roles and responsibilities of its members and the procedures for dealing with emergency situations are described as follows in this document.

### 2.1 Country Emergency Response Group (ERG) Overall Responsibilities

The primary responsibilities of the ERG are:

- To manage all emergency situations within the Country.
- To provide emergency support, advice and assistance to all the remote locations, assets and operations within the Country.
- To manage any emergency situation which may occur in or affect the Country Office
- To notify the General Manager and keep him/her informed of the situation.
- To notify the Corporate Office within 2 hours of the Emergency Response Group being mobilised and to keep them informed of the situation.
- To notify and liaison with Government and local authorities in accordance with legal and legislative requirements.
- To prepare and release media holding statement.
- To prepare national media releases and obtain authority from the Corporate Office to release media statements. To notify and provide assistance to the next of kin of all ECO Orient Energy (Thailand) nationals involved at the emergency site.
- To inform the Corporate Office of the names and conditions of all personnel involved at the emergency location.
- To communicate with all national Companies, with employees or equipment at the emergency location and notify them of the names and condition of their employees.
- To arrange the reception and treatment for all personnel evacuated from the emergency site.
- A designated ERG Leader will be available at all times, who will be of Senior Manager level. In all situations, which have resulted in the mobilisation of the ERG, it is the ERG Leader's responsibility to report the situation to the General Manager and to the Corporate Office.
- The actions of the ERG will vary depending on the nature of the emergency and it is the ERG Leader's responsibility to determine the extent of the response required. The ERG

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may call on additional staff to assist them in responding to any emergency or incident situation.


All ERG 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. ERG members should ensure that they have access to this document at all times.

### 2.2 ERG and Support Team Individual Roles and Responsibilities

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

Table 2-1 Bangkok Emergency Response Group

Emergency Response Group Leader	<ul style="list-style-type: none"> <li>Responsible for managing and co-ordinating the overall response of the ERG to the emergency situation. Reports to the General Manager and the Corporate Office.</li> <li>Responsible for mobilising the ERG and Support personnel.</li> <li>Responsible for informing and updating the Corporate Office.</li> <li>Responsible for compliance with the actions and procedures laid down in this document for dealing with emergency situations.</li> <li>Responsible for obtaining authority from the General Manager and the Corporate Office for the release of information to the Media.</li> </ul>
Drilling Operations Technical Co-ordinator	<ul style="list-style-type: none"> <li>Reports to the ERG Leader and responsible to him/her for providing operational and technical drilling related information.</li> <li>Responsible for providing operational and technical advice, including production, drilling and subsurface, to the emergency site</li> <li>Responsible for all communications with the IRT Leader at the emergency site.</li> </ul>
Production Operations Technical Co-ordinator	<ul style="list-style-type: none"> <li>Reports to the ERG Leader and responsible to him/her for providing operational and technical Well Production/Testing information.</li> <li>Responsible for providing operational and technical advice, including production, drilling and subsurface, to the emergency site</li> <li>Responsible for all communications with the IRT Leader at the emergency site.</li> </ul>


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Health Safety & Environmental (HSE) Co-ordinator

- Reports to the ERG Leader and responsible to him/her for providing risk, health, safety and environmental information.
- Responsible for compliance with legislation and appropriately informing and liaising with National Government and Regulatory authorities.
- Responsible for providing HSE advice & support and information to the ERG and the IRT at the emergency site.
- Responsible for co-ordinating office security.
- Responsible for advising and maintaining the emergency responses in line with the Company emergency response procedures.
- Responsible for maintaining the information on the status boards.

Administration Co-ordinator Bangkok


- Reports to the ERG Leader and responsible to him/her for providing information and managing all human resources matters.
- Responsible for providing welfare support and advice to employees and their families if required.
- Responsible for co-ordinating with the Logistics Co-ordinator onward travel for personnel being evacuated.
- Responsible for communication with and notifying the next of kin of national Company employees in collaboration with ERG Leader.
- Responsible for providing information about all expatriate personnel at the emergency site to the ERG Team.
- Responsible for providing information to Contractor Companies about their personnel at the emergency site.
- Responsible for co-ordinating the arrangements for the disposal of fatalities.
- Responsible for providing IT support to the ERG.
- Responsible for co-ordinating the office switchboard and reception services.

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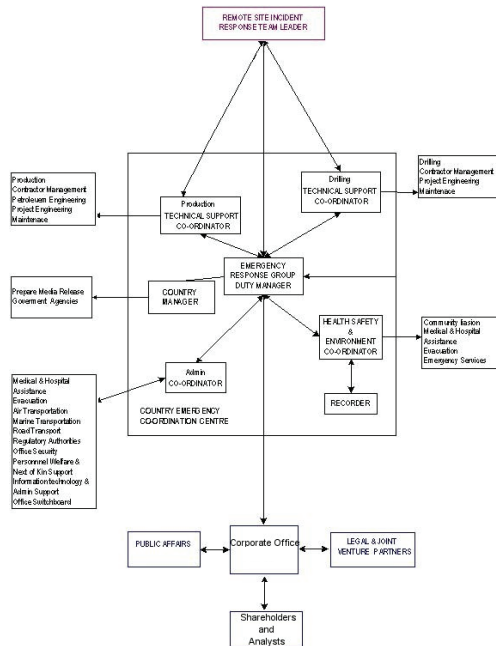
Wichian Buri Administration


- Reports to the IRT Leader and responsible to him/her for providing information and managing all human resources matters upcountry.
- Responsible for arranging temporary accommodation, transportation and assistance for personnel being evacuated from emergency site if required.
- Responsible for co-ordinating with the IRT Leader regarding onward travel for personnel being evacuated.
- Responsible for communication with and notifying the next of kin of national Company employees as directed by IRT/ERG.
- Responsible for providing information about all expatriate personnel at the emergency site to the IRT Co-ordinator.
- Responsible for co-ordinating the arrangements for the disposal of fatalities.
- Responsible for co-ordinating the office switchboard and reception.

Additional personnel may be mobilised by the ERG Co-ordinators to provide support and assistance. The personnel mobilised to provide support would, so far as possible, be from the appropriate department or have the necessary skill to provide the required support.

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The relationship between the ERG, IRT, Corporate Office, and external parties is shown schematically in the diagram below:



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### 2.3 Location of Emergency Response and Support Personnel


When the Emergency Response Group 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 floor plan showing the layout of the Emergency Co-ordination Centre located at is shown in Attachment 9.

The main Meeting Room at Rasa Tower 2 is designated as this Centre. The General Manager, in consultation with the Emergency Response Group (ERG) will declare if an Emergency has escalated to a crisis, or has the potential to do so and advises the Corporate Office.

### 2.4 Office Incident Response

In the event of an emergency in the Office, the Administration Manager is responsible for the evacuation of all personnel from the office and the Emergency Response Group is responsible for the Recovery Process. This procedure is more fully described in Section 5.0.

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## 3 EMERGENCY RESPONSE GROUP (ERG) PROCEDURES

The following is the procedure to be followed by the ERG Leader, when the Incident Response Team (IRT), the Incident Response Controller will contact the duty ERG Leader and inform him/her of the situation. The ERG Leader must be informed within 30 minutes of the activation of an Incident Response Team.

### 3.1 Notification and Activation of the ERG

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

The ERG Leader is the principal point of contact in Bangkok. The IRT Leader will contact the duty ERG Leader if a Remote Location operation contacts them with information regarding an incident.

The call originator will need to provide:

- Persons name;
- Originator's location and contact telephone number;
- Nature of the Incident;
- Local time of report.

Further details of the Emergency should not be transmitted.

Once the ERG Leader has made contact with the Incident Response Controller and has details of the incident he/she will decide whether there is a requirement for the Emergency Response Group 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.

On any occasion that the ERG is activated, due to an emergency situation, the ERG Leader will notify the Corporate Office and inform the General Manager within 30 minutes.

### 3.2 Contact Details

The duty ERG 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 weekly contact list, the policy is to contact ERG 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 one of their listed numbers, during the whole period they are on call.

ERG 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 ERG 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 ERG members are also responsible for briefing activated support personnel about the incident and giving them direction.

### 3.3 Call Out and Delegation of Authority

It is the responsibility of individual members of the ERG to ensure that their emergency response function is delegated to another from the same nominated group, see Attachment 10, 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.

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

### 3.4 Emergency Co-ordination Centre (ECC) Initial Actions

On the activation of the ERG, 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 ERG Leader until the duty Leader arrives. A copy of this manual is 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 Incident Response Leader.
- They identify the facts of the incident and ensure that they are written up on the status boards.

These actions, see Attachment 7, should not be delayed until the ERG Leader's arrival. The layout of the Emergency Co-ordination Centre and the equipment for use during the management of an Emergency situation is shown in Attachment 9.

### 3.5 Formal Updates of Information to ERG

The ERG Leader should conduct updates to the whole ERG Group at frequent intervals throughout the duration of an incident, at least every hour in the early stages of the incident.

All available ERG members should attend updates. The individual ERG member should report and update any relevant information to Support personnel as soon, as is practicable.

A checklist for holding a Formal Update of Information is contained in Attachment 1.

### 3.6 Media Response

The ERG Leader, in consultation with the General Manager is responsible for the preparation and early release of the Media Holding Statement see Attachment 5.

The Corporate Office must approve all further information for release to national and international media groups. The ERG Leader is responsible for obtaining any approvals before release.


Once approval for release of information to the national Media is received the ERG Leader, in consultation with the General Manager, is responsible for arranging for the release of such information. All personnel must be instructed to direct external telephone calls requesting media comment on any incident to the nominated ERG spokesperson.

### 3.7 External Notifications

There may be a requirement during an incident to notify and liaise with a number of national companies, authorities and agencies. It is important that the ERG maintains a record of all these external communications and liaises effectively to ensure overall co-ordination and to ensure they speak with one voice.

The HSE Co-ordinator is responsible for advising the ERG Leader of the requirement, and for making the relevant contact and or notify to national Government and Regulatory authorities.

The HR Co-ordinator is responsible for making contact with the next of kin of national staff and the employing Company of national contractors. He/she is also responsible for providing the CRT HR

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Co-ordinator with information regarding expatriate personnel. The HR Co-ordinator is also responsible for notifying the appropriate national authority regarding any fatalities.

In general, existing business channels of communication should be retained during an incident, but the ERG 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.

A checklist of contacts is contained in **Attachment 2**. This list should be developed further at the time of the incident, where appropriate.

### 3.8 Kidnap and/or Extortion

While the basic ERG procedures remain much the same, kidnap and/or extortion require some different methods to address them. In some cases the information may need to be retained by a very small core team and the negotiations may take place over a protracted period of time.

The ERG are to gather and records the information available regarding the kidnap/extortion situation in line with checklist see **Attachment 3**.

Due to the extreme sensitive nature of a kidnap and/or extortion negotiation it is imperative that the ERG Leader makes immediate contact with the Corporate Office. The Corporate Office will either take over the responsibility for the negotiations or will provide guidance to the ERG Leader.

### 3.9 Civil Unrest or War Threat

If civil unrest or war threat occurs or appears likely either in operating area or close to an area where operations are in progress the ERG will be required to consider and discuss the threat with the General Manager and the Corporate Office.

The primary objective must be to safeguard and evacuate all personnel from the danger area. A plan will be drawn up identifying actions to be taken in order to safeguard personnel, their families and Company assets if the situation continues to deteriorate.

The plan of action should state what the Company considers to be the trigger points which, when reached, will require actions to commence. Once the action plan has been developed it should be clearly communicated to those who require to know.

### 3.10 Bomb Threat


Bomb threats have become increasingly commonplace in recent years and used by various groups that want to cause disruption of business. Although 99% of the bomb threats are hoaxes all should be treated seriously. In all circumstances the first thing that must be done is to determine the nature of the threats to the organisation.

The ERG is to gather and record the information available regarding the Bomb Threat in line with checklist see **Attachment 19A**.

The ERG are to assess the credibility of the threat and possible consequences and devise an evacuation plan of the premises. See **Attachment 19**

### 3.11 Installation Loss or Significant Business Loss

A situation may occur, for example a loss of key equipment, which could result in a significant delay in bringing a field into operation, or the shutdown of a field or installation as the result of an incident. Such a situation will inevitably result in a significant loss of business and therefore loss of revenue to the Company unless it is addressed immediately.

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Such a situation will require the ERG to consider what actions have to be taken immediately, and by whom, in order to avoid or minimise loss to the Company.

### 3.12 Pollution Incident

A pollution incident can refer to a number of different types of pollution. They can be broadly categorised as:

- Oil spill
- Chemical spill
- Smoke or fumes into the atmosphere.

It is the responsibility of the ERG to ensure that:

- The spill plans are activated immediately any pollution situation is detected or reported
- The source of the pollution is quickly identified and stopped
- That specialist clean up contractors is mobilised as quickly as possible
- That the appropriate authorities and agencies are notified.

The ERG has to also consider that any pollution type wherever it may occur can result in significant media and environmental group interest. The ERG Leader must be prepared to consider and address the issues that the media or environmental groups may raise with the Company. Failure to take this seriously can result in public concern, loss of shareholder confidence, and possible disruption to business and the associated loss of revenue.

### 3.13 Extended Emergencies

Some emergencies may extend over a long period of time. When this is the case the relief of ERG members and Support personnel should be considered in order to avoid fatigue.


In the event that the ERG is likely to be required to sit for longer than 8 - 12 hours the following procedures should be observed:

- Alert alternates for each group member, giving them the time that they will be required to start their take-over
- Change over times of individual team members should be spread out over a reasonable period of time
- The hand over is to include a complete brief on the incident. The departing team member must sit with the alternate until he/she is satisfied that the alternate is fully conversant with the situation and his/ her duties
- Relieved group members must ensure they get adequate rest and sustenance, in case they are required further.

Responsibility for managing the arrangements for alternates to ensure group efficiency lies with ERG Leader.

### 3.14 Supporting Information

Individual ERG members must ensure that information that they may be required to support their specific function is readily available.

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## 4 CHECKLISTS FOR EMERGENCY RESPONSE GROUP


Checklists are provided to facilitate swift, organised and comprehensive action and should be used by ERG members to assist them to carry out their functions. In general checklists should be used to confirm that appropriate actions have been taken and to check if any actions have been missed.

Checklists are available at the Emergency Co-ordination Centre (ECC) and made available to the group members concerned as part of the setting up process. However group members are advised to maintain and improve their own checklists to be used when their group is activated. All group members should examine the checklists as part of their preparedness and propose improvements to the General Manager. Checklists are to be reviewed following any exercise or incident in common with other procedures. Responsibility for updating checklists lies with individual functions rather than the General Manager.


### 4.1 Emergency Response Group (ERG) Leader

Upon being informed of an emergency situation, follow the steps and the checklist given below:


- Establish communications with the emergency site IRT Leader and establish the facts of the situation, support and assistance required at the scene.
- Decide whether the ERG should be activated.
- Issue instruction to mobilise ERG members and decide the requirement for and mobilise Support personnel.
- Proceed to the Emergency Co-ordination Centre (ECC).
- Inform the General Manager and keep him/her updated at regular intervals.
- Review the facts of the emergency situation and determine whether the incident is contained or escalating.
- Ensure that the ECC has been set up and that all incident and status boards are positioned, and that data is being recorded.
- Ensure that the emergency site IRT has ERG/Corporate Office contact telephone numbers.
- Notify the Corporate Office, as information becomes available.
- Confirm that the ERG has arrived and brief them; see **Attachment 16** ERG and Support Group Status Board.
- Brief all ERG members on arrival, state plan and delegate actions.
- Ensure that Support personnel are briefed and that the Reception is manned.
- Ensure clear lines of communication with the emergency site and IRT are established and continue to monitor situation and provide appropriate support and assistance.
- Ensure that next of kin are being notified.
- Ensure that appropriate Authorities are notified.
- After approval from General Manager Issue Media Holding Statement - **Attachment 5**.
- After approval from General Manager Issue Statement to Staff - **Attachment 6**.

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- Agree the media strategy with General Manager, including the management of the media release process.
- Monitor and maintain the up-to-date picture of the emergency situation.
- Prepare information for national media release.
- Provide Corporate Office and General Manager with information for release to international media groups.
- Organise media briefings.
- Ensure that the Receptionist is aware of the situation and have a copy of the holding statement to be read out to callers.
- Ensure that media enquiry numbers have been released and brief the Receptionist that the Media Response telephone line is available.
- List who should receive the media statements and issue e.g.:
  - Media agencies
  - Internal office staff
  - Operating Companies in other Countries
  - Partners
  - Contractors
- Update information frequently and issue statements at regularly intervals.
- Brief Reception on the handling of any media persons arriving at the office.
- Brief the IRT Leader at the incident site on what information to release in the event of receiving media enquiries.
- Arrange media monitoring, and playback of any appropriate broadcasts to ERG.
- Prepare; obtain authorisation and issue of an incident update report to all employees.
- Arrange for distribution of press packs to media.
- Update ERG at regular intervals on actions taken and media releases.
- Identify the need for and mobilise additional Support personnel
- Identify if a representative from senior management is required at the incident site.
- Identify and obtain authorisation for extraordinary expenditure.
- Confirm that the IRT is coping. Consider if extra support is required.
- Confirm that the ERG is satisfactorily supporting the IRT.
- Hold ERG updates on a regular basis see **Attachment 1**
- Consider the following local aspects of the incident:
  - Local Government
  - Local population

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- Environmental
  - Ensure that office personnel are being kept informed of the incident.
  - Confirm that interfaces with external bodies are being managed effectively.
  - Monitor the level of stress in the ERG, IRT and Support personnel.
  - Identify if the emergency likely to be extended. Implement rotation of ERG members

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INCIDENT CHECKLIST – STATUS BOARD	
Detail	Comment/Notes
Incident <ul style="list-style-type: none"> <li>• Where?</li> <li>• What facilities/vehicles are involved?</li> <li>• When?</li> <li>• What is happening?</li> </ul> (Fire, Explosion, Collision, Gas Leak, Toxic Gas Leak, Oil Spill, Well Control problem, Blowouts, Person Missing, Structural Failure, Equipment Failure, Storm, Transport Incident, Medical Emergency, Criminal Act, Terrorism, Bomb Threat, Kidnapping, Extortion, Industrial Dispute, Natural Disaster).	
Current State of Incident <ul style="list-style-type: none"> <li>• Contained?</li> <li>• Potential to escalate?</li> <li>• Escalating?</li> <li>• Who is handling the response?</li> <li>• How is it going?</li> <li>• Who has legal control of the incident?</li> </ul>	
Accuracy and timeliness of information <ul style="list-style-type: none"> <li>• How good is information?</li> <li>• Is it complete</li> <li>• Is it coming from the right sources?</li> <li>• How can it be improved?</li> </ul>	
Damage/ Loss <ul style="list-style-type: none"> <li>• Installation</li> <li>• Equipment</li> <li>• Third Parties</li> <li>• Major</li> <li>• Minor</li> </ul>	
Drilling <ul style="list-style-type: none"> <li>• Stopped</li> <li>• Delayed</li> <li>• Continuing</li> </ul>	
Company Involvement <ul style="list-style-type: none"> <li>• Operator/ Non-operator</li> </ul>	
Casualties <ul style="list-style-type: none"> <li>• Deaths</li> <li>• Injuries</li> <li>• Missing</li> </ul>	
Environmental	

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INCIDENT CHECKLIST – STATUS BOARD	
Detail	Comment/Notes
<ul style="list-style-type: none"> <li>• Oil Spill</li> <li>• Chemical Spill</li> <li>• Air Pollution</li> <li>• Quantity</li> <li>• Sensitivity of area</li> </ul>	
Production <ul style="list-style-type: none"> <li>• Stopped</li> <li>• Delayed</li> <li>• Lost</li> <li>• Continuing</li> </ul>	
Parties involved at Incident <ul style="list-style-type: none"> <li>• Company</li> <li>• Partners</li> <li>• Contractors</li> <li>• Neighbours</li> <li>• Other Third Parties</li> </ul>	
Is everyone being kept informed? <ul style="list-style-type: none"> <li>- Emergency Services</li> <li>- General Manager</li> <li>- Corporate Office</li> <li>- Next of Kin</li> <li>- Company Employees</li> <li>- Contractors</li> <li>- Partners</li> <li>- Environmental Agencies</li> <li>- Local Government</li> <li>- National Government</li> <li>- Media</li> <li>- Other Oil Companies</li> <li>- Pressure Groups</li> <li>- Neighbours</li> <li>- Unions</li> </ul>	
What Media Activity and Coverage <ul style="list-style-type: none"> <li>• Tone of media</li> </ul>	

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ERG LEADER - PUBLIC AFFAIRS STRATEGIC CHECKLIST	
EFFECTS /IMPAIRMENTS	ACTIONS
Current / likely public perception of the incident/ Company?	Confirm media strategy Establish media monitoring Review media coverage and tone. What is the media saying? Ensure Q & As and Media Releases are available, read and understood by spokesperson Identify spokesperson
Government at home or abroad concerned?	What are the Authorities saying? How are they reacting? Establish policy for lobbying Consider Government/ Partner briefings
International perception of the incident?	Inform Company offices abroad
Likely effects on the Company's reputation? • At home/Abroad	Monitor and advise the General Manager regarding image considerations.
Will this affect/ influence planned/ future Company operations in country and abroad?	
Likely impacts on/ responses from: <ul style="list-style-type: none"> <li>• National governments</li> <li>• Local government</li> <li>• Regulators/ legislators</li> <li>• Pressure Groups</li> <li>• Environmental agencies</li> <li>• Neighbours at this and other sites</li> <li>• Community PR near site</li> </ul>	Consider regulatory repercussions Consider Community PR near site Counsel and reassure neighbours at affected site <ul style="list-style-type: none"> <li>- Information on incident</li> <li>- Decisions on future operations</li> <li>- Establish enquiry centre.</li> </ul>
Other industry companies and agencies <ul style="list-style-type: none"> <li>• Customers</li> <li>• Suppliers</li> <li>• Partners</li> <li>• General Public</li> <li>• Third parties affected by the incident</li> </ul>	Communicate with customers

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#### 4.2 Drilling Operations Co-ordinator

In the event of an emergency and being mobilised follow the steps and the checklist given below:

- Proceed to the Emergency Co-ordination Centre and obtain a full briefing from the ERG Leader.
- Establish and take over communications with the IRT Leader and request an update on the situation, identify support and assistance required.
- Brief ERG on the current situation and support requirements
- Maintain a close liaison with the IRT and regularly update ERG.
- Confirm ERG/ECC telephone numbers/fax numbers with IRT. Consider communications security.
- Start logging messages. Pass message sheets to the Recorder and ensure that the Status Boards reflect the latest situation.
- Ensure that appropriate site and operational documents, diagrams and plans are available to the ERG.
- Ensure that the ERG is aware of the IRT actions, decisions and concerns.
- Advise ERG on the operational and technical aspects and impacts of the incident.
- Assess the requirements for specialist or technical support at the site.
- Keep the IRT advised on actions being taken to support them.
- Establish the morale and effectiveness of the IRT. Are they coping?
- Remind the ERG Leader, if necessary, that an update is required.
- Advise ERG Leader if external contacts are required to be made to:
  - Local and/or central government authorities;
  - Contractors concerned;
  - Joint Venture Partners;
  - Others
- Where appropriate arrange cover for normal job.
- Keep a personal log of all communications and actions taken.

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DRILLING TECHNICAL CO-ORDINATOR STRATEGIC CHECKLIST	
EFFECTS / IMPACTS	ACTIONS
Own equipment/ property? Denial of use? Consequential loss? Loss of output? Inability to meet commitments?	Arrange for site survey
Impact on customers?	
Inability to supply customers? • Short Term • Long Term Impact on suppliers? Inability to accept supplies? • Short Term • Long Term	Examine alternative sources of product supply  Arrange stoppage/ diversion of supply
Other direct business interruption? Impact on contractors/ consultants?	
Effects on other Companies/ businesses? Any indirect constraints on other businesses?	Keep other Companies/ businesses informed
Need to shut down similar operations? Consider threat to new/planned operations and opportunities?	Consider revised business plan Decide on whether to continue operations
How long for repair/ replacement?	
Potential ban on product/ operations?	
Any regulatory impacts? • Local • National • International	Ensure regulators are kept well informed Manage regulators proactively
Overall effect likely on the industry? Additional loads placed on management? • Managing incident • Managing recovery	Consider disclosing information to other operators

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#### 4.3 Production Operations Co-ordinator

In the event of an emergency and being mobilised follow the steps and the checklist given below:

- Proceed to the Emergency Co-ordination Centre and obtain a full briefing from the ERG Leader.
- Establish and take over communications with the IRT Leader and request an update on the situation, identify support and assistance required.
- Brief ERG on the current situation and support requirements
- Maintain a close liaison with the IRT and regularly update ERG.
- Confirm ERG/ECC telephone numbers/fax numbers with IRT. Consider communications security.
- Start logging messages. Pass message sheets to the Recorder and ensure that the Status Boards reflect the latest situation.
- Ensure that appropriate site and operational documents, diagrams and plans are available to the ERG.
- Ensure that the ERG is aware of the IRT actions, decisions and concerns.
- Advise ERG on the operational and technical aspects and impacts of the incident.
- Assess the requirements for specialist or technical support at the site.
- Keep the IRT advised on actions being taken to support them.
- Establish the morale and effectiveness of the IRT. Are they coping?
- Remind the ERG Leader, if necessary, that an update is required.
- Advise ERG Leader if external contacts are required to be made to:
  - Local and/or central government authorities;
  - Contractors concerned
  - Joint Venture Partners
  - Others
- Where appropriate arrange cover for normal job.
- Keep a personal log of all communications and actions taken.

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PRODUCTION TECHNICAL CO-ORDINATOR STRATEGIC CHECKLIST	
EFFECTS / IMPACTS	ACTIONS
Own equipment/ property? Denial of use? Consequential loss? Loss of output? Inability to meet commitments?	Arrange for site survey
Impact on customers?	
Inability to supply customers? • Short Term • Long Term Impact on suppliers? Inability to accept supplies? • Short Term • Long Term	Examine alternative sources of product supply  Arrange stoppage/ diversion of supply
Other direct business interruption? Impact on contractors/ consultants?	
Effects on other Companies/ businesses? Any indirect constraints on other businesses?	Keep other Companies/ businesses informed
Need to shut down similar operations? Consider threat to new/planned operations and opportunities?	Consider revised business plan Decide on whether to continue operations
How long for repair/ replacement?	
Potential ban on product/ operations?	
Any regulatory impacts? • Local • National • International	Ensure regulators are kept well informed Manage regulators proactively
Overall effect likely on the industry? Additional loads placed on management? • Managing incident • Managing recovery	Consider disclosing information to other operators

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#### 4.4 HSE Co-ordinator

In the event of an emergency and being mobilised follow the steps and the checklist given below:

- When directed by the ERG Leader, activate the call out the ERG and Support personnel in accordance with the ERG duty list.
- Proceed to the Emergency Co-ordination Centre and obtain a full briefing from the ERG Leader.
- Commence logging information onto the Status Boards, and ensure that they are kept up-to-date throughout the incident.
- Advise the ERG Leader of the safety, environmental, and regulatory aspects of the incident.
- Assess damage and potential damage to environmental and sensitive areas, which might be affected by the incident.
- Obtain total personnel numbers, names, company and nationality at incident site.
- Identify and mobilise Support persons required to assist with:
  - Next of Kin notification and assistance
  - Emergency travel arrangements
  - Medical and Casualty treatment
  - Reception and handling of evacuees from incident site
  - Personnel enquiry information
  - Office Reception
- Obtain accurate information on person's casualties at incident site with their status, location and intended movements.
- Obtain Next of Kin data for national staff members and contractor personnel at incident site.
- Maintain up-to-date movement and status list of all personnel evacuated from the site.
- Ensure that casualties being evacuated from incident site are being attended to correctly.
- Advise ERG what actions should be taken to minimise the effects on the environment.
- Mobilise Oil Spill Response specialist contractor to spill site if required.
- Ensure that the General Manager is aware of the Company's safety and environmental record.
- Keep a personal log of all communications and actions taken.

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HSE CO-ORDINATOR STRATEGIC CHECKLIST	
EFFECTS / IMPACTS	ACTIONS
Has there been any environmental impact from? <ul style="list-style-type: none"> <li>Oil spill</li> <li>Gas release</li> <li>Smoke</li> <li>Chemical spill</li> <li>Radio Active material</li> <li>Other substance</li> </ul>	
What are the likely effects on people? <ul style="list-style-type: none"> <li>At the site</li> <li>Surrounding community</li> </ul>	
What are likely to be the effects on the environment? <ul style="list-style-type: none"> <li>Land</li> <li>Air</li> <li>Shorter Term</li> <li>Longer Term</li> </ul>	
What are the short and long term effects of pollution? <ul style="list-style-type: none"> <li>What quantity has been released?</li> </ul>	Implement short term response to pollution  Decide on longer term response to pollution  Effect rapid containment and clean-up  Implement immediate monitoring of perimeter and as yet unaffected areas  Consider and implement long term clean-up and monitoring plan
How is the clean up progressing?	What quantities have been released?
Which Agencies have been notified?  Have all appropriate environmental bodies and agencies been notified?	

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#### 4.5 Administration Co-ordinator Bangkok


In the event of an emergency and being mobilised follow the steps and the checklist given below:

- Proceed to the Emergency Co-ordination Centre and obtain a full briefing from the ERG Leader.
- Inform Crisis Response Team of details of all expatriate personnel at the incident site and give details of any casualties.
- Arrange travel and accommodation for evacuees, including reception of expatriates in own country.
- Ensure that personnel and casualty information is accurately recorded on the Status Boards.
- Ensure that enquiry numbers have been released and inform Reception when and where to divert calls.
- Establish contact with Contracting Companies give them information regarding their personnel at the incident site and disposition of casualties and evacuees. Confirm that they will notify next of kin of their employees.
- Consider and arrange for the provision of translators.
- Support the evacuation of casualties or others.
- Arrange travel and accommodation for Next-of Kin to visit casualties.
- Ensure that the next of kin of all personnel at the affected site are notified.
- Ensure that arrangements are being made to support families.
- Ensure that liaison with hospitals is undertaken.
- Ensure Next of Kin of casualties or fatalities are notified.
- Ensure procedure for the disposal of fatalities being followed.
- Arrange for Government and Environmental personnel to go to the site.
- Implement notification of relevant Government and Environmental agencies.
- Keep a personal log of all communications and actions taken
- Obtain appropriate financial authorities for advances and travel.

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ADMINISTRATION CO-ORDINATOR BKK STRATEGIC CHECKLIST	
EFFECTS / IMPACTS	ACTIONS
Consider long term welfare of casualties	Make arrangements for specialist and follow up medical treatment of all casualties  Follow up on persons in hospital and recuperating at home.  Consider moral and financial support.
Consider the morale of all personnel.  What are the impacts on <ul style="list-style-type: none"> <li>Site workforce</li> <li>Families</li> </ul> <ul style="list-style-type: none"> <li>Other company employees (concern at loss of employment, guilt)</li> <li>Contractors/ consultants</li> <li>Neighbours (fear of recurrence, casualties, property damage, loss of business)</li> </ul>	Provide compassionate assistance to injured/ evacuated employees and support to the families, to include: <ul style="list-style-type: none"> <li>Medical checks</li> <li>Counselling</li> <li>Travel assistance/ accommodation</li> <li>Loans</li> <li>Cash</li> </ul> Keep all employees informed on personnel issues Reaffirm positive aspects of Company actions.  Counsel and reassure neighbours affected by site and similar company locations Disclosures about incident
What effect on morale of Company personnel?	Reinforce Company morale
What are the likely effects of the incident on the workforce and its relationship with the Company?	Reaffirm positive aspects of Company to all
Stress. Who might be affected? <ul style="list-style-type: none"> <li>Site personnel</li> <li>Response/ telephone teams</li> <li>Families</li> <li>Third party witnesses</li> </ul>	Reaffirm positive aspects of Company to all  Monitor for stress at site and in teams  Arrange for stress counsellors  Arrange for relief's where signs of serious stress are detected  Put in place a stress counselling programme




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#### 4.6 Administration Co-ordinator Wichian Buri

In the event of an emergency and being mobilised follow the steps and the checklist given below:

- Proceed to the IRT meeting and obtain a full briefing from the IRT Leader.
- Identify and assist with:
  - Arranging transportation of evacuees
  - Transporting materials and equipment
  - Local Hospital reception arrangements.
  - Locating and mobilising land transport.
- Identify and arrange mobilisation of Local emergency support such as Fire Service, Police, Military Services, Ambulance, Hospitals.
- Co-ordinate together with the IRT Leader:
  - Evacuation actions
  - All transport movements.
- Locate and mobilise materials and equipment required at the incident site.
- Co-ordinate transportation of casualties to hospitals once left incident site.
- Update ERG at regular intervals on actions taken.
- Keep a personal log of all communications and actions taken

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WB ADMINISTRATION CO-ORDINATOR STRATEGIC CHECKLIST	
EFFECTS / IMPACTS	ACTIONS
What are the impacts on Incident location, Vehicles, Facilities and inability to meet the requirements?	Keep identify
Impact on Emergency Services and Equipment	Arrange to send required Emergency Services
Available resources status	Mobilise resources when and where needed
What are the likely effects of the incident and need repair/replacements	Provide assistance
Inability to supply/arrange	Arrange alternate source
Additional supports and services	Keep ready

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#### 4.7 Support Positions

The following are the procedures for Support personnel who will or may be mobilised to support the Emergency Response Group in the event of an incident or emergency situation.

##### 4.7.1 Recorder


In the event of an emergency and being mobilised follow the steps below:

- Proceed to the Emergency Co-ordination Centre and obtain a full briefing from the HSE Co-ordinator.
- Check off all ERG members against Call-out and Arrival Checklist
- Record and maintain the incident information on the Status Boards.
- Support the ERG by providing maps, plans, diagrams, stationary
- Summarise the main points from the Status Boards for the ERG.
- Where appropriate arrange cover for normal job.
- Keep a personal log of all communications and actions taken.

##### 4.7.2 Reception

In the event of an emergency and being mobilised follow the steps below:

- On arrival in the office advise the Admin Co-ordinator Bangkok who will give a briefing on what to do and how to handle callers.
- Receive instruction from Admin Co-ordinator Bangkok on how to respond to visitors and callers such as:
  - Media
  - Next of Kin
  - VIPs
  - General Public
  - Normal business
- Direct visitors and callers as instructed.
- Inform Admin Co-ordinator Bangkok when visitors are at Reception.
- Request assistance from Security if required to control visitors.
- Keep a log of all calls that come through to reception.
- Contact the Admin Co-ordinator Bangkok for additional advice and support.

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#### 5 OFFICE EMERGENCY RESPONSE

The Company's Emergency Response objectives require that the Company is effectively and efficiently prepared to address any foreseeable emergency situation, which involves any of its assets wherever they are located in Thailand.

In order to comply with this the Bangkok Office has two levels of emergency response:

- **Emergency Response** for dealing with any incident or emergency situation that could occur at any of the Company's assets over which the Bangkok Office has responsibility or interest. The operation of the Emergency Response Group is described in the previous sections of this manual.
- **Office Incident Response** for dealing with any incident which may affect the people or operation of the Bangkok Office.

The Emergency Response Group shall also respond to any Office Incident and co-ordinate the actions and activities required in order to deal with the office incident.

In order to ensure that the Emergency Response Group (ERG) can carry out both Emergency response and Office Incident response actions in an efficient and effective manner the ERG is required to carry out exercises and drills at regular intervals. These exercises and drills will be carried out in accordance with the plan shown in **Section 5.5**.

In order to test the effectiveness of the office emergency procedures and to ensure that all personnel based in the office are conversant with the office fire and emergency procedures there will be regular drills as shown in **Section 5.5** which will involve everyone in the office.

The Bangkok Office emergency and incident response procedures are contained in the following sections and the details require to be completed by the Administration Manager.

##### 5.1 IDB Office Emergency Alarms and Actions

Fire and Evacuation Alarms for Rasa Tower II are: **Ringing Bells!!** or **'Whistle Blowing' preceded by Shouting 'Fire', 'Fire', 'Fire'.**

##### 5.2 Evacuation Procedure

All personnel shall follow the following procedure on hearing the alarm. All personnel will be trained and exercised in the procedures to follow in the event of an incident in the office require the office to be evacuated.


##### 5.2.1 General

All personnel are to observe emergency alarm and proceed immediately to the Muster Point at the SCB side of the building at Road Level.

See Attachment 18 – RASA TOWER II FIRE / EVACUATION

In the event of a person discovering a fire or smoke they must activate the fire alarm by alerting the Reception or the Administration manager.

The Company occupies the 12<sup>th</sup> Floor in the Rasa Tower II building. Fire Wardens have been appointed. All personnel must follow the instruction issued by a Fire Warden.

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## 5.2.2 Fire Wardens and Duties

	Name	Duty
Fire Warden	Khun Monsicha	Administration Manager
Alternate Fire Warden	Khun Kannika	Administration

## 5.2.3 Fire Warden – Roles and Responsibilities

The Fire Warden is responsible to the Emergency Response Group Leader for implementing the office emergency procedures. His/her duties are as follows:


- Ensure the safe evacuation of and accounting for all personnel from Rasa Tower II office.
- In the event of an emergency in the Office, the Fire Warden is responsible for the management of the incident/emergency. Alternate Fire Warden will carry the duties of Fire Warden in his/her absence.
- To ensure that all Employees, Contractors and visitors are familiar with the aspect of Office Emergency Procedure.
- To ensure that emergency drills are conducted in accordance with Section 5.5 and personnel are trained to a level of competence as appropriate to their emergency responsibilities.
- Interface with Emergency Response Group for assistance and support and to co-ordinate the office emergency response with Emergency Response Group Leader.
- To mobilise external assistance from the local Emergency Services.
- To co-ordinate office response with that of the Emergency Services and provide them with information and assistance.
- To identify missing persons and make arrangements to locate any missing person or persons.
- In the case of an emergency, the Fire Warden should confirm the location and nature of the emergency.
- Confirm that it is safe for people to re-enter and resume duties in the office, arrange for "All Clear" signal, terminating the emergency.

## 5.2.4 Personnel in Office without Emergency Duties

### Pre-Emergency

- Must remain alert at all times for situations, which have the potential to escalate into an emergency.
- Must read and observe office emergency response procedures posted on the Floor Notice Board

### Emergency Actions

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- Report any unusual situation to the Fire Warden or Administration Manager immediately; provides brief details.
- If observe an emergency situation raise alarm or seek assistance urgently; speak clearly and slowly.
- Remove yourself or any injured persons from any immediate exposure or danger.
- Ensure safety of other personnel and secure/isolate area.
- If safe and trained to do so, attempt to extinguish the fire using available resources.
- If alarm is raised, make your way to the Muster Point; remain there until given further instructions.
- If civil unrest/protest occurs, avoid the disturbance area if possible; do not confront, aggravate or interfere with protestors.

### Office Personnel receiving Visitors:

- It is the responsibility of ECO office based staff to take care of their visitors at all times and not to allow them to move around the office unescorted.
- In the event of an alarm he/she must escort the visit to their Muster Point and ensure the Floor Fire Warden accounts for the visitor.


### Contractors working in the Office:

- It is the responsibility of the engaging departments to ensure that Contractors working are made familiar with the office emergency procedures and the actions they are to follow.

## 5.3 End of Emergency

Prior to demobilising the Emergency Response Group the ERG Leader must ensure that the following issues are be considered:

- Confirm that the emergency is concluded.
- What resources are required for recovery?
- Issue of final information release, notification and stand down to all those notified or involved in the emergency response.
- De-brief all personnel involved in the emergency situation and gather all logs and records.
- Close down additional security arrangements
- Continuing counselling for those involved in the emergency
- Compile and file all documents relating to the response
- Initiate investigation into the emergency.
- Initiate a review of the effectiveness of and lessons learnt from the emergency response.
- Recommend revision of Emergency Plans as required.

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## 5.4 Emergency Response Group Training and Drills

Drill/Exercise Type	Frequency	Who	Remarks
ERG & IRT Exercise	Alternate 2 monthly x 1 hour	All ERG & Support personnel.	Desktop exercise to test responses to a specific incident. Test call out system.
Combined Company wide emergency response exercise	Annually x 3-4 hours	Corporate Office, ERG and a remote location.	Scenario based real time exercise to test effectiveness of the combined Corporate Office & ERG response to a specific incident. Test all call out systems. Test effectiveness of Crisis and Emergency Response procedures.
Office Fire Drill	6 monthly x 30 minutes	All personnel & visitors in the office	All personnel proceed to muster points. Test Office emergency response procedures.

## 6 BANGKOK OFFICE INCIDENT

In the event of an incident that affects the Bangkok Office it may render the Office unavailable through, for example: -

- Evacuation of the Office Building (s)
- Denied Access
- Partial destruction/failure of business systems

In such cases the ERG function is to act as the Incident Response Team and in the short term is to manage and co-ordinate the continuation of essential business functions and in the medium term to facilitate the restoration of all elements of the business.


Call out of the ERG will follow the established procedures and the ERG Leader will decide on the location for the ERG to convene. In the event that the Bangkok Office is totally unavailable alternative facilities will be brought into use.

In the event that the Bangkok Office is evacuated the ERG Leader should be contacted and the response co-ordinated through mobile phones. The basis for communication is through observance of the preparatory actions listed in the checklists.

A summary checklist is included below.

### 6.1 Emergency Response Group (ERG) Business Recovery Actions

The principal actions for each of the ERG members are listed below; the points are included to complement the ERG Member Roles and Responsibilities listed below.

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### 6.1.1 Emergency Response Group Leader

#### Pre-planning:

- Familiarise with Alternative Business Location

#### Actions:

- Assess extent of non-availability of the Office, duration of unavailability and the need to use alternative ERG location.
- Decide if/where ERG should convene.
- Ensure that the necessary ERG members are present and identify any additional needs
- Ensure the identified critical business functions are able to function
- Ensure all department managers are contacted to establish how secondary needs are being addressed.
- Ensure communication is made with appropriate staff.
- Ensure all external parties are contacted as appropriate.
- Ensure overall business recovery strategy is in place and is being effective

### 6.1.2 Administration Co-ordinator with I.T. Manager


#### Pre-planning:

- Ensure backup and recovery IT requirements are in place (hardware, systems, data and information) for all functions.
- Align backup office facilities with requirements, monitor and implement changes.
- Ensure appropriate protection is in place against system failures (e.g. Virus protection, Firewall requirements etc).
- Ensure roles of outsource companies are defined and agreed.
- Ensure that all Bangkok Office staff are contacted and given instruction on how they are to proceed.

#### Actions:

- Establish communications systems for ERG and critical business functions
- Re-route or enable alternative, telephone numbers, holding messages, e-mail, network, and fax.
- Obtain required data, information and systems for backup as/if required.
- Liaise with staff at backup facility and/or the outsource contractors.
- Mobilise IT support personnel.
  - Establish disaster recovery requirements.
  - Provide assistance and instruction to core business functions.
  - Arrangements for hardware/software and communications links to enable home working where necessary.



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- Review re-routing of Bangkok Office e-mails.
- Identify and establish alternative contact numbers for business units.
- Assess need for additional alternative office facilities, identify contacts
- Co-ordinate provision of instruction to all staff in the event of office evacuation and provide support for transport, cash loans etc.
- Liaise with department managers to ensure on-going provision of information and instruction for staff and contact all Staff to provide basic instruction or delegate to department management.
- Establish trauma counselling if required.

### 6.1.3 Administration Co-ordinator Bangkok

#### Pre-planning:

- Liaison with authorities (City Authorities, Police, Government Departments etc.)
- Familiarise with alternative facilities.
- Conduct exercises and awareness initiatives.

#### Actions:

- Liaise with ERG Leader to call out ERG and Support personnel.
- Ensure safety and security procedures for alternative office.
- Liaise with appropriate authorities.


### 6.1.4 Country Manager

#### Pre-planning:

- Ensure contact data for external support and department staff is maintained off-site (Media contact, call-out and contact list etc.)
- Ensure necessary Legal and Contractual data and information to support the Business Recovery is backed up offsite

#### Actions:

- Review the need for a Media Release and if necessary establish general Media statement
- Liaise with IT to establish communications and external enquiry room
- If necessary establish 'Media Room' and management of Media.
- Monitor media response to the incident.
- Provide Legal Advice to Business Recovery/ERG on key actions.
- Review the statutory obligations.
- Advise on and initiate contacts with Joint Venture Partners.

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### 6.1.5 Finance Co-ordinator

#### Pre-planning:

- Arrangements for securing cash for Business Recovery work
- Ensure key contact data is kept off-site for insurers and support staff
- Ensure key policy information is available off-site.


#### Actions:

- Provide support to Business Recovery activities requiring cash transfers.
- Review insurance implications of the incident.
- Liaise with Corporate Finance Co-ordinator.
- Ensure remedial actions taken are acceptable on insurance terms.
- Ensure that appropriate records are kept for recovery of losses, increased costs of working etc.
- Support ERG to procure goods and services as part of Business Recovery

### 6.2 All ERG & Support Team Members


In the unlikely event of a concurrent Bangkok Office incident and a Remote Location incident the ERG function should be performed at the alternative office site.

The ERG Members together with the General Manager must ensure that the information required to support the ERG is backed up at the alternative office.

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### 6.3 Checklist for Business Recovery

BUSINESS RECOVERY CHECKLIST		
ACTIONS		Responsibility
1	Assess the ERG size and scope requirements for business continuation and identify an alternative address for CRT.	ERG Leader
2	Call-out ERG	ERG Leader
3	Contact the critical business functions and department representatives as per the Disaster Recovery Plan.	ERG Leader
4	Make alternative arrangements for critical business functions, CRT and other functions; if necessary involve alternative facilities as set out in the Business Recovery Plan.	Admin Co-ordinator
5	Ensure effective communications are in place for all individuals and locations.	I.T.
6	Acquire back-up CD's and files and establish the hardware/software facilities at the alternative facilities for critical business functions.	I.T.
7	As soon as the alternative facilities are operational, call-out the critical business functions.	ERG
8	Assess the duration for non-availability of the Bangkok Office and consider to rent alternative office space for all other office users.	ERG
9	Arrange hardware/software facilities for essential staff who are able to work from their home address (PC Rental)	I.T.
10	Inform all office users about the situation	Admin Co-ordinator
11	Inform all other Business Units of the situation	Operations Technical Co-ordinator(s)

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### ATTACHMENT 1 - INCIDENT SITUATION UPDATE PROCEDURE CHECKLIST

The ERG Leader should conduct formal updates on at regular intervals to all members of the ERG and Support personnel.

Updates should normally be held once a month. The ideal duration of an update should be no more than 15 minutes.


#### Procedure

- ERG Leader gives a 10-minute notice.
- All ERG and Support personnel to attend.
- All telephones in the Emergency Co-ordination Centre (except the ERG telephone line) are diverted to the Reception and instruction given to hold all calls until Update is over.
- Inform IRT of the update meeting.
- Commence update with operations brief on the latest state of incident.
- Follow with short statements from all the ERG members giving the latest situation update and actions from their own area of responsibility.
- Clarification of points of fact, if required, following each statement.
- Update completed. Individual ERG members revert to carrying out their actions.
- Telephone lines diverted back to Emergency Co-ordination Centre.
- Recorder to make a summary of the update / prepare and issue with copies to all ERG members. One copy to be retained on the central incident log.

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#### ATTACHMENT 2 – EXTERNAL CONTACTS CHECKLIST


Agencies to be Contacted	Date / Time Contacted
• Other Countries / Operations	
Government	
• Thailand	
• Local	
Airlines	
Contractors (i.e. Oil Spill Contractors)	
Consulate(s)	
Consultants	
Customers	
Embassies/ High Commissions	
Environmental Agencies	
Financiers	
Foreign & Commonwealth Office (FCO)	
Hospitals/ Medical Agencies	
Insurers	
Joint Venture Partners	
Lawyers	
Other Oil Companies	
Pressure Groups	
Police	
Security Consultants	
Specialists	
Suppliers	
Others	

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#### ATTACHMENT 3 - KIDNAP AND EXTORTION CHECKLIST

This checklist supplements the normal ERG checklists where Kidnap or other extortion is occurring or is possible.

Kidnap And Extortion Checklist	
	Responsibility
1. Call-out Emergency Response Team	ERG Leader
- ERG Leader	
- HSE Co-ordinator	
- Administration Co-ordinator Bangkok	
- Drilling Operations Co-ordinator	
- Production Operations Co-ordinator	
2. Establish secure communications link with IRT	ERG Leader
3. Ensure secure meeting room for ERG.	ERG Leader
4. Maintain effective logs	All
5. Establish:	ERG
- The current situation	
- The political and operational background	
- If any contacts or demands have been made by the instigators.	
- Who is aware of the incident	
• Government	
• Security Forces/Police of country	
• The Embassy/High Commission	
• Local employees	
• Relatives	
- What the country's policy is concerning negotiation with kidnappers etc.	
6. Notify General Manager	ERG Leader
7. Notify Corporate Office and pass on details	ERG Leader
8. Evaluate the situation	ERG
- Is there positive evidence of kidnap?	
- How reliable is the available information?	
- Are the instigators known to be criminals, psychopaths or terrorists?	
- What are the likely future actions of the instigators?	
- What is the risk?	
• What threats have been made? Likely to be carried out?	
• Is there a threat to life - hostage or others?	
• Are other employees/families at risk?	
• What is the business risk?	
• What is the local Government likely to do if you negotiate?	

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Kidnap And Extortion Checklist	
	Responsibility
- Need for containment of information	ERG
- Is containment of information possible, likely to last and appropriate?	
- What time scale may the Company have to work to?	
- What is likelihood rescue?	
- What attitude is local Government likely to take?	
- What are the immediate implications on operations?	
11. Confirm Company objectives	ERG Leader/ Corporate Office
- Remove threat to life	
- Display Company's determinations to show firm resolves and remain a responsible corporate citizen.	
12. Advise ERG on local laws and potential liabilities relating to communication and negotiation with kidnappers etc. and other liabilities.	Legal Counsel
13. Consider basic Company policies/strategies	Corporate Office
a. Response	
b. Control/secretcy	
c. Risk	
14. ERG Leader to take instruction from Corporate Office.	ERG Leader
15. Discuss options with the Corporate Office (remember security). Confirm roles, powers and delegated authority of both the ERG and the IRT.	ERG Leader
- Who is to be the ultimate Decision Maker?	
- Who is to conduct any negotiations?	
- Who will make up the Negotiating team locally?	
- Is additional support required in Country?	
16. Decide basic policies and initial way ahead. How much is to be pro-active, and how much sit-and-wait?	Corporate Office
17. If agreed by Corporate Office, notify national Police/Security forces if not already aware.	ERG Leader
18. Take all other actions as instructed by Corporate Office	ERG Leader


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#### ATTACHMENT 4 - EVACUATION CHECKLIST


This checklist supplements the ERG checklists in an Evacuation situation.

It is unlikely that a total or partial evacuation from a country will occur without prior knowledge of a deteriorating situation. Routine monitoring should ensure that a planned and controlled evacuation is possible. The ERG must however be prepared to respond to an evacuation at little or no notice if the unexpected should happen.


Evacuation Checklist	
	Responsibility
1. Call-out ERG. In a potential evacuation situation the ERG is likely to require conducting many of the lower level roles normally associated with the IRT.	ERG Leader
2. Establish communications with the IRT. If communications are not possible, best use must be made of alternative sources, e.g. FCO, Embassies, other companies, airlines etc.	ERG Leader
3. Establish:	ERG
- The current situation locally	
• Political	
• Security	
• Operational sites/equipment	
• And other offices	
- The current alert state	
- The expected rate of change in the situation	
- The immediate plans and intentions of the local management	
4. Confirm objectives:	ERG
- Safety of and associated personnel and their families.	
- Safety of property and operations.	
- Maintenance, where possible, of good relationships with the host government.	
5. Confirm the responsibilities of the General Manager/ERG in relation to the Corporate Office at this stage.	ERG Leader
6. Is additional professional advice required at this time? Does the ERG have the right people available to it?	ERG
7. Evaluate the situation.	
- How reliable is the available information?	
- What is the threat to personnel and their families?	
- What is the threat to contractors and their families?	
- What is the threat to operations/equipment?	
- What are the threat to and other associated offices?	
- What are the implications of Company's relationships with the host Government?	
8. What is the likely change in events	ERG

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Evacuation Checklist	
	Responsibility
<ul style="list-style-type: none"> <li>- in the next few hours.</li> <li>- over the next few days.</li> <li>- over the next two weeks and more.</li> </ul>	
9. If the decision has already been taken to evacuate all or part of the community: <ul style="list-style-type: none"> <li>- How is this to be done?</li> <li>- Who is leaving?</li> <li>- Where are they going?</li> <li>- What arrangements are being made by the IRT?</li> <li>- What arrangements need to be made by the ERG?</li> <li>- What is happening to active operations?</li> <li>- What is to happen to offices?</li> <li>- What is to happen to confidential documents?</li> </ul>	ERG
10. ERG makes necessary evacuation arrangements. If possible, keep HR ERG informed. <ul style="list-style-type: none"> <li>- Flight bookings.</li> <li>- Charter aircraft.</li> <li>- Ship bookings.</li> <li>- Other transport.</li> <li>- Reception party at local arrival point.</li> <li>- Reception party in arrival Country</li> <li>- Accommodation at local arrival area.</li> <li>- Accommodation in arrival Country</li> <li>- Clothing, cash, immediate needs.</li> <li>- Keep Next-of-Kin or Expatriate based (extended) families informed.</li> </ul>	Admin Co-ordinator
<ul style="list-style-type: none"> <li>- Make necessary arrangements for families to meet evacuees.</li> <li>- Consider safety and welfare of any employees/contractors and families remaining in country.</li> <li>- Safety and welfare of national employees.</li> <li>- Protection of residences, offices and other property.</li> </ul>	Admin Co-ordinator
11. If no decision to evacuate yet, ERG should: <ul style="list-style-type: none"> <li>- Consider arrangements that could be required</li> <li>- Conduct advance planning for transport, accommodation, greeting parties etc.</li> <li>- Keep families outside of affected country informed.</li> <li>- Keep employees updated.</li> <li>- Maintain communications with IRT.</li> </ul>	Admin Co-ordinator
12. Once evacuation has started: <ul style="list-style-type: none"> <li>- Implement agreed actions.</li> <li>- Monitor evacuation progress.</li> </ul>	ERG

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Evacuation Checklist	
	Responsibility
<ul style="list-style-type: none"> <li>- Maintain communication with ERG as long as possible</li> <li>- Keep families informed</li> </ul>	Admin Co-ordinator
<ul style="list-style-type: none"> <li>- Keep employees informed</li> <li>- Provide PR advice to employees and family</li> </ul>	ERG Leader
13. Establish Media policy. Prepare immediate defensive Press Statement for use if media enquire about the evacuation and its effects upon business.	ERG
14. Consider broader implications <ul style="list-style-type: none"> <li>- Impacts on Company's operations, image and liabilities</li> <li>- Impacts on trading, oil sales and cash flow.</li> <li>- Relationships with host government</li> </ul>	ERG
<ul style="list-style-type: none"> <li>- Likelihood of commercial or other sanctions</li> <li>- Effect on the current and longer term trading position of the Company in the affected country.</li> <li>- How entry back into the country might be effected</li> <li>- Effects on employee morale (local, national, companywide)</li> </ul>	
15. Consider legal and other potential liabilities relating to the evacuation	Legal Counsel

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## ATTACHEMNT 5 – MEDIA HOLDING STATEMENT

Date:  
Press Release No 1  
Time:

ECO Orient Energy (Thailand) Limited regrets to confirm that an incident – (describe in broadest terms) –

occurred at – (site/location) –

at – (time) –

today/yesterday – (date)–.

ECO Orient Energy (Thailand) has mobilised its Emergency Response Teams, and is working closely with the Local Emergency Services and is in contact with the relevant authorities.

Details of the incident are not yet confirmed, but every action is being taken to safeguard lives and the environment.


A further statement will be issued as soon as more information becomes available.

Direct enquiry lines have been established as follows:

Media \*\*\*\*

Relatives \*\*\*\*

Notes for Editors:

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## ATTACHMENT 6 - INITIAL STATEMENT TO STAFF

**Note:** To be sent by electronic mail to all within the Bangkok office, and to all site locations and offices.

From ERG Leader, (name of location)

Date

Time

INCIDENT REPORT

All staff should be aware that an incident has occurred at (place) at (time)

today/yesterday.

(Briefest description of incident, e.g. The Installation is on fire following an explosion).

The local Incident Response Team and the Emergency Response Group in (location name) are taking necessary action.


More information will be made communicated, as it becomes available. In the meantime any staff member approached for information by outside sources should refer them to the ERG Media Information Group in (location tel. No.xxxxx)

ERG Leader (Name/Location)







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#### ATTACHMENT 17 - BOMB THREAT RESPONSE ACTIONS

##### Response Actions - Bomb Threat

The person receiving the call will:

- Activate recording equipment if fitted and the threat is received by telephone.
- Adopt helpful attitude and be conciliatory.
- Make written notes using guidelines issued for that purpose - (see Appendix 17A).
- Report immediately to General Manager.

Management will assess the credibility of the threat and possible consequences and consider whether to:

- Do nothing, evacuate or stay and search.
- Notify law enforcement agencies/emergency services.
- Alert neighbouring business/residents.
- Implement emergency shutdown procedures.

##### Search (only if search is not a Police responsibility)

Searches may be undertaken in response to a specific warning. Attention points:

- Know the police policy and role on search and evacuation.
- Prepare search plans in advance to ensure that premises are checked as quickly and effectively as possible.
- Divide the area into manageable-sized sectors.
- Form search teams familiar with the area.
- Define search priorities.
- Search in a logical and thorough manner so that no part of the sector is left unchecked.

##### "Do not touch or move any suspicious object"

##### Suspicious Object


If a suspicious object is found:

- If possible leave a marker near the device.
- Inform the General Manager.
- Stay out of sight of the object at a safe distance (normally at least 25 metres) and report every possible detail to the General Manager.

##### Evacuation

The decision to evacuate will be taken by management on the advice of the General Manager. The police will be consulted for advice:

- Evacuate as quickly and efficiently as possible using all available exits.
- Provide alternative routes to avoid the danger of passing close to any suspicious device.
- Consult neighbouring premises and emergency services.
- Gather all people in pre-designated "Assembly Areas" taking personal belongings with them.
- Check that everyone has left the premises

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#### ATTACHMENT 17A - BOMB THREAT CHECKLIST

- SWITCH ON TAPE RECORDER (IF CONNECTED)
- TELL THE CALLER WHICH TOWN/DISTRICT YOU ARE ANSWERING FROM
- RECORD THE EXACT WORDING OF THE THREAT

##### ASK THESE QUESTIONS

- Where is the bomb right now?.....
- When is it going to explode?.....
- What does it look like?.....
- What kind of bomb is it?.....
- What will cause it to explode?.....
- Did you place the bomb?.....
- Why?.....
- What is your name?.....
- What is your address?.....
- What is your telephone number?.....

- RECORD TIME CALL COMPLETED.....
- KEEP TELEPHONE LINE OPEN
- WHERE AUTOMATIC NUMBER REVEAL EQUIPMENT IS AVAILABLE RECORD NUMBER
- INFORM THE GENERAL MANAGER

Time informed.....

THIS PART SHOULD BE COMPLETED ONCE THE CALLER HAS HUNG UP AND THE GENERAL MANAGER HAS BEEN INFORMED

Time and date of call.....  
Length of call.....  
Number at which call is received (Your extension number).....

##### ♦ ABOUT THE CALLER

Sex of caller?.....Male ☐ Female ☐  
Nationality?.....Age?

##### ♦ THREAT LANGUAGE

Well Spoken ☐ Irrational ☐ Taped ☐  
Foul ☐ Incoherent ☐


Message read by threat-maker ☐

##### ♦ CALLER'S VOICE

Calm ☐ Crying ☐ Clearing throat ☐  
Angry ☐ Nasal ☐ Slurred ☐  
Excited ☐ Stutter ☐ Disguised ☐  
Slow ☐ Lisp ☐ Accent ☐  
Rapid ☐ Deep ☐ Familiar ☐  
Laughter ☐ Hoarse ☐

If the voice sounded familiar, who did it sound like?

.....

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##### ♦ BACKGROUND SOUNDS

Street noises ☐ House noises ☐  
Animal noises ☐ Crockery ☐ Motor ☐  
Clear ☐ Voices ☐ Static ☐  
PA system ☐ Booth ☐ Music ☐


Factory machinery ☐ Office machinery ☐  
Other (specify).....

##### ♦ REMARKS

.....  
Signature.....Date.....

##### Letter and Parcel Bomb Recognition Points

- Foreign mail, air mail and special delivery
- Restrictive markings such as confidential, personal etc.
- Excessive postage
- Hand-written or poorly typed address
- Incorrect titles
- Titles but no names
- Mis-spellings of common words
- Oily stains or discolourations
- No return address
- Excessive weight
- Rigid envelope
- Lopsided or uneven envelope
- Protruding wires or tinfoil
- Excessive securing material such as making tape, string etc.
- Visual distractions


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#### ATTACHMENT 18. IRT MEDICAL EMERGENCY INFORMATION

Total number of injured persons		
Names of injured persons		
Present location of injured persons	Location	
	Crew	
	Hospital	
	Doctor/s	
	Name	
	Phone	
	Fax	
Brief medical description		
Medical treatment given so far (on site, local hospital, etc.)		


##### Other Emergency

Nature of the emergency.	
Location of the emergency.	
Assistance required	


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**ATTACHMENT 18A. IRT MAJOR EMERGENCY MEDICAL INFORMATION**  
(Form to be completed by a Doctor)

1. NAME OF CALLER a) Name: b) Telephone: c) Fax: d) Company:		
2. NAME OF PATIENT a) Name: b) First Name: c) Age: d) Sex: e) Company	F / M	
3. LOCATION OF PATIENT a) Country: b) Telephone: c) Address:		
1. Has the patient been seen by a doctor?	Yes / No	
5. Name of Doctor: Telephone Number:		
6. Medical Condition:	a) Is the patient conscious b) Is patient agitated/confused c) Breathing problems d) Significant bleeding e) Chest pain f) Burns g) Fractures h) Abdomen pain i) Trauma j) Fever k) Vomiting/diarrhea/de-hydration l) Multiple/Serious/Head injury	Yes / No Yes / No Yes / No Yes / No Yes / No Yes / No Yes / No Yes / No Yes / No Yes / No Yes / No Yes / No


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7. Comments:	
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**IN CASE OF AN ACCIDENT**


1. Date and time of accident		
2. Details of the accident (eg. Fall, traffic accident, etc)		
3. Is there any fracture?	Yes / No	
A – probable	Yes / No	
B – obvious	Yes / No	
C – confirmed by x-ray	Yes / No	
1. Localisation:		
A – skull	( )	
B – face	( )	
C – cervical column (neck).....level	( )	
D – vertebral column	( )	
E – ribs.....side.....how many	( )	
F – pelvis	( )	
G – upper limb left ( )	( )	
right ( )	( )	
H – lower limb left ( )	( )	
right ( )	( )	
I – other places	( )	
5. Wounds. Are there any? Locate them, especially the ones located in the thorax and the abdomen; indicate their size and depth:		
6. Bleeding. Has there been profuse bleeding?		

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**IN CASE OF BURN**

1. Date and time of burn?				
2. Cause of burn:				
A – Explosion	( )			
B – Fire (flames)	( )			
C – Chemical products	( )			
D – Others (specify)	( )			
3. Localisation and degree of the burn:		1 <sup>st</sup> deg	2 <sup>nd</sup> deg	3 <sup>rd</sup> deg
A Face				
B Neck				
C Thorax				
D Abdomen				
E Left arm				
F Right arm				
G Left leg				
H Right leg				
1. Time of the first treatment:				
2. When did patient last pass urine:				




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IN CASE OF ILLNESS	
1. Date of first symptoms:	_____
2. Presumed diagnosis of this illness	_____
3. Temperature	_____
4. Spontaneous respiration: If Yes: normal ( ) laboured ( )	Yes / No ( ) ( )
5. Respiratory rhythm: regular ( ) Irregular ( )	( ) ( )
6 Artificial respiration effective ( ) ineffective ( )	( ) ( )
7 Number of respiratory movements per minute:	_____
8 Colour of the nails, lips, ears: White ( ) Pink ( ) Black ( )	
9 Does the patient cough?	Yes / No
10 Does the patient cough up sputum?	Yes / No
11. Does the patient cough up blood?	Yes / No
12. Has a thorax x-ray been carried out? If so, results:	Yes / No _____
13. Blood pressure	_____
14. Pulse rate	_____
15. Has the patient urinated?	Yes / No
16. If yes, how much per 24 hour?	_____
17. Are the extremities cold? (hands, feet, ears)	Yes / No
18. Is he paralysed?	Localisation: A right arm ( ) B left arm ( ) C right leg ( ) D left leg ( ) E respiratory ( )

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19. Is the patient agitated?	Yes / No
20. Is the patient conscious?	Yes / No
21. Is the patient in a coma? If so, time/date coma began	_____
22. The pupils are:	
Right A normal ( ) B dilated ( ) C contracted ( )	Left A normal ( ) B dilated ( ) C contracted ( )
23. Is patient in pain? If so, localisation and degree?	Yes / No _____
21. Has patient had malaria?	Yes / No
25. Is patient diabetic?	Yes / No
26. Does patient vomit?	Yes / No
27. Does patient have diarrhea?	Yes / No
28. Does patient have intestinal bleeding?	Yes / No
29. Is there any other bleeding? If so, where?	Yes / No _____
30. Is patient a psychiatric patient?	Yes / No


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ALL CASES TREATMENT ALREADY GIVEN	
1. Has the patient been operated on? If so, indicate nature and result of the operation:	Yes / No
2. If fracture, how has it been immobilised?	Yes / No
3. Is the patient on drip? Nature of infusion	Yes / No
1. Treatment initiated – present medications	
5. Does the patient need blood?	Yes / No
6. If known, blood type:	
7. Give any other useful, precise details on the nature of the illness and the patient's condition:	
8. Was the patient suffering from an illness known previously?	
9. Were laboratory tests carried out? If so, which one and state results:	
10. Has the patient been given with any Medicine/ Drugs? If so give details	

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#### ATTACHMENT 19. FIELD INFORMATION REQUIRED FOR PROPERTY OR ENVIRONMENT DAMAGE


Name and location of the rig/crew/workshop/other place	
Date and time of the accident	
Description of the accident	
Number of personnel at the location	
Extent / number of casualties (see above)	
Detail of equipment down	
Evacuation / rescue requirements	
Extent of loss	
Action being taken to control losses	
Any external assistance participating	
Weather Conditions if applicable	
Has the client been informed?	
Client contact person and telephone number for this event	
Extent of nature of Environmental damage	
Immediate actions taken to contain the environmental damage.	

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#### ATTACHMENT 20A - BANGKOK AREA HOSPITALS


##### Recommended Hospitals (Closest to the office)

Name	Contact Number
1. Vibhavadi General Hospital	02-561-1111
2. Kesemraj Prachachuen Hospital	02-910-1600
3. Paolo Memorial Hospital	02-271-7000
4. Nonthavej Hospital	02-596-7888
5. Phayathai 2 Hospital	1772

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##### ATTACHMENT 20. IMPORTANT TELEPHONE NUMBERS

Organisation	Service/Supplier	Position	Phone	Mobile
ECOE/R (T)	Bangkok Office	General Manager	02-937-1124-9 ext 112	081-924-3854
		Deputy General Manager	02-937-1124-9 ext 111	081-928-9164
		Administration Manager	02-937-1124-9 ext 107	089-925-7929
		Production Manager	02-937-1124-9 ext 127	089-925-7932
		HSE Manager	02-937-1124-9 ext 128	081-845-9143
	Wichian Buri Office	Upcountry Admin/CR Manager	056-718-318 ext 108	089-813-7223
		Production Leader	056-718-318 ext 312	081-902-1763
		Senior Shift Supervisor	056-718-318 ext 316	089-892-4717
		Engineering Leader	056-718-318 ext 203	081-841-6954
DMF Office	DMF	Ms. Jirakha Sakthamjan	02-794-3391	081-850-1260
		Mr. Porasak Ngamompak	02-794-3002	089-969-0141
		Mr. Jancroh Rathaphan	02-794-3375	081-810-1053
		Ms. Nisium Komthue	02-794-3377	086-374-9308
		Ms. Pichann Kaswananum	02-794-3383	089-969-0141
		Mr. Witsarut Tungontorakhan	02-794-3390	081-830-8917
		Mr. Verasak Puengrasamee	02-794-3359	081-810-1059
Drilling Rig Company	ELITE Drilling	Rig - Radio Room	-	085-4095-291
		Rig Manager	-	083-162-8321
Drilling Fields Supplier	Scout Oilfield	Country Manager	02-204-2910-3	081-854-3377
Logistics	Onshore Logistics	Managing Director	02-279-6380-1	081-855-6945
Wireline Logging	Schlumberger	Thailand Manager	02-937-0700	081-896-4251
Waste Disposal	NM Logistics	CEO	02-322-7979	081-826-1758

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##### ATTACHEMENT 20B – WICHIAN BURI EMERGENCY CONTACT NUMBERS AND LOCAL EMERGENCY SERVICES

Type of Medical service provider	No. of beds	No. of Emergency room	No. of Operation room	No. of Nurse	No. of Doctor	Basic medical equipment	Contact Number
Wichian Buri Hospital	150	1	2	90	10	X-ray =1, Blood bank Lab =1, Ambulance = 4	056-751319, 056-928169, 056-791269
Tarong First Aid Station	5	-	-	3	-	-	056-751629
Bo-Rang Health Center	2	-	-	1	3	-	056-718067
Na Samun First Aid Station	2	-	-	1	-	-	087-1124485
Si Thep Hospital	30	1	1	40	4	X-ray =1, Lab =1, Ambulance = 2	056-799467, 056-799498
Phetchabun Province Hospital	508	1	8	300	48	X-ray = 2 Blood bank =1 Ambulance= 2	056-717600-1

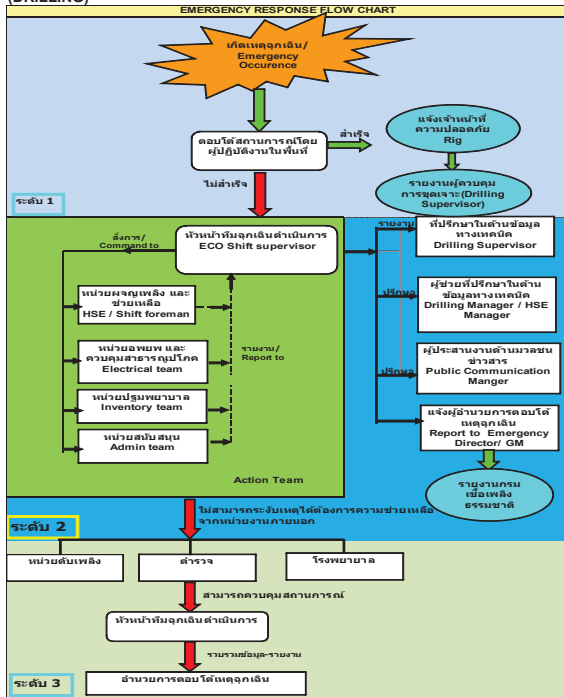
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##### ATTACHEMENT 20B – WICHIAN BURI EMERGENCY CONTACT NUMBERS AND LOCAL EMERGENCY SERVICES (CONTINUED)

Name of Fire Brigade/ Police	No. of Fire Truck	No. of Water Truck	No. of Foam Truck	No. of Hose	No. of Portable Fire extinguisher	Other Equipment	Contact Number
Wichian Buri Police Station	-	-	-	-	-	Communication device available for police network - 30 staff	056-791306 056-792191 056-752225
Wichian Buri Municipality, Fire Brigade	4	1 x 1,000 L 1 x 2,000 L 1 x 6,000 L 1 x 12,000 L	40 Liter	1 1/2" = 7 2 1/2" = 2	Dry chemical 15 lb =15 Cylinders	Fire suit 7 suits	056-791388 ext 111
Si-Thep Police Station	-	-	-	-	-	- Communication device available for police network - 30 staffs	056-799365
Si Thep Municipality, Fire Brigade	1	1x 5,500 L	-	1 1/2" = 10 2 1/2" = 10	Dry 15 lb = 6 Cylinders	Fire suit 5 suits	056-799433

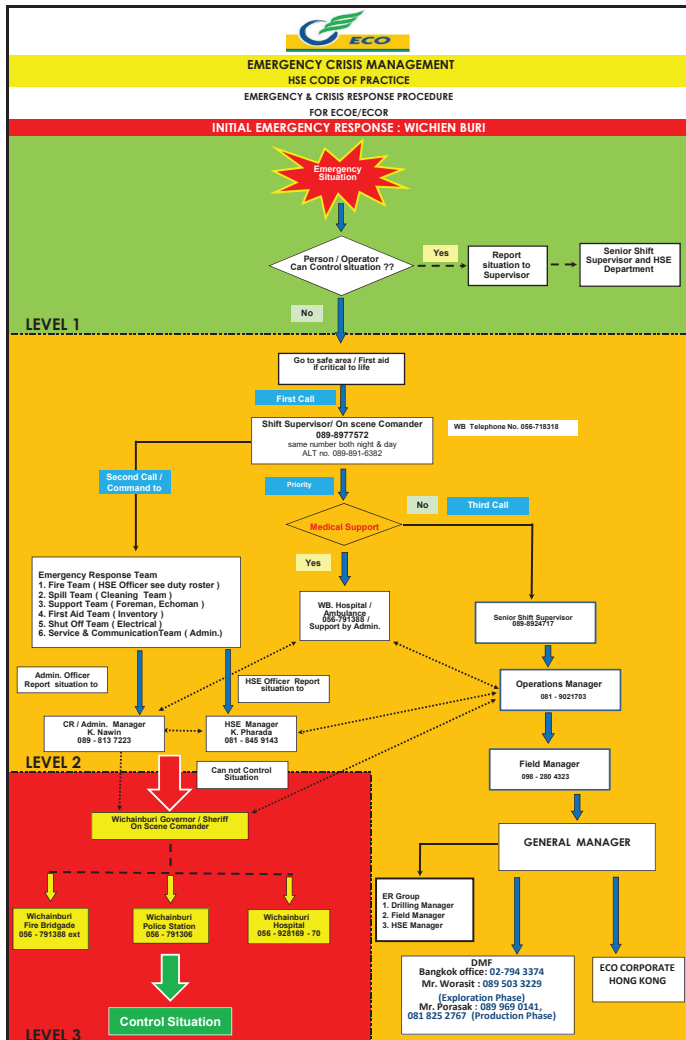
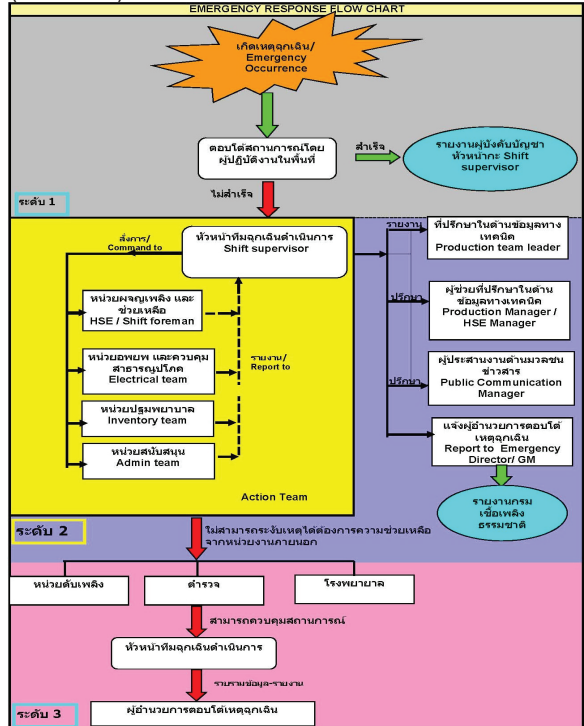
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ATTACHMENT 21 A, WICHIAN BURI EMERGENCY RESPONSE DIAGRAM (DRILLING)



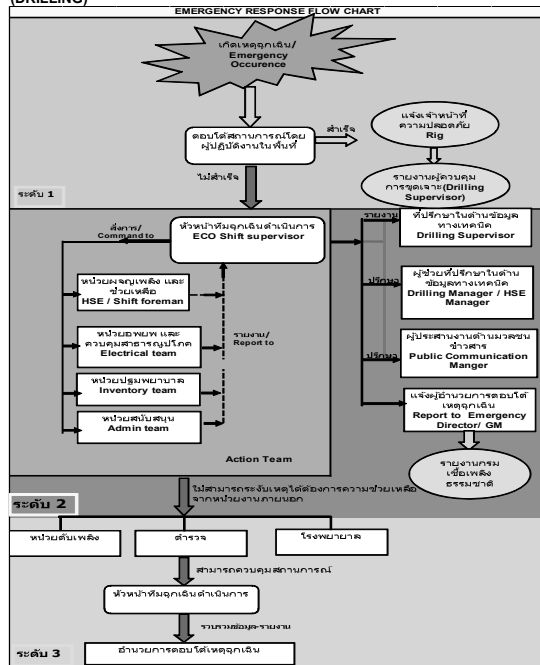
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ATTACHMENT 21 B, WICHIAN BURI EMERGENCY RESPONSE DIAGRAM (PRODUCTION)



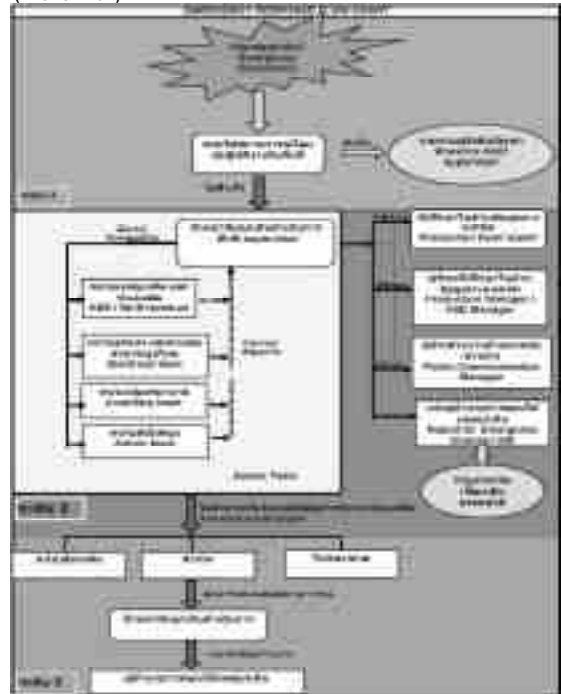
	<b>Document / Rev No:</b>	<b>HSE-PM-001-Rev 0</b>
<b>THAILAND EMERGENCY RESPONSE</b>	<b>Revision Date:</b>	<b>25 July 2013</b>
<b>PROCEDURE MANUAL</b>		

**ATTACHMENT 21 A, WICHIAN BURI EMERGENCY RESPONSE DIAGRAM (DRILLING)**



	<b>Document / Rev No:</b>	<b>HSE-PM-001-Rev 0</b>
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<b>PROCEDURE MANUAL</b>		

**ATTACHMENT 21 B, WICHIAN BURI EMERGENCY RESPONSE DIAGRAM  
(PRODUCTION)**



ภาคผนวก จ-2  
การตรวจสอบเครื่องจักรอุปกรณ์

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## ระยะเจาะหลุมผลิตปิโตรเลียม

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# TRAVELLING BLOCK & HOOK 游车大钩

## Preventive Maintenance Service

Ensure adequate safety precautions while work is being performed (disconnect power)

Equipment No. \_\_\_\_\_ Rig No. 2001 Unit No. \_\_\_\_\_  
 Serial No. \_\_\_\_\_ Total Running Time(h): \_\_\_\_\_  
 (Equipment No. 设备号, Rig No. 游车大钩编号, Unit No. 单元号)  
 姓名: Mr. Michael/陈冠中, Maintenance/维修组/电钳班/电钳班

Unit running time: \_\_\_\_\_

1. Check the lifting eye is in good condition and show pin in place  
 吊钩的吊眼是否在良好状况, 吊钩销是否在位

2. Check the vision hook is tightening or not (钩头主销是否拧紧)

3. Locking device for hook coupling flexible or not  
 钩头锁紧装置, 是否灵活是否可动

4. Make hook coupling freely or not (钩头是否可动)

5. Lubricating oil enough and in good quality  
 钩头内机油是否充足, 油质是否良好

6. Lubricating condition of the hook eye, shaft and bearing and indicator  
 吊钩眼, 轴, 轴承等润滑情况

7. Any loading or unloading area while hook is horizontal or vertical position  
 大钩在水平位置或垂直时, 是否挂有重物或障碍物

8. Any rust outside of the body  
 钩头外部是否有锈迹

9. Check every shackle is secure firmly or not  
 钩头各销是否牢固

10. Check safety guardsightening bolts  
 钩头安全防护螺栓

11. Safety guards damaged or not any distance between it and shackle  
 钩头安全防护螺栓是否损坏, 是否有任何距离

12. Lubricate all bearings once a week with grease  
 每周给所有轴承润滑一次, 使用润滑脂

Unit	1-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100
1										
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Signature: Michael \_\_\_\_\_ Signature: Toop/李 \_\_\_\_\_

Date Completed: \_\_\_\_\_

# TRAVELLING BLOCK & HOOK 游车大钩

## Preventive Maintenance Service

Ensure adequate safety precautions while work is being performed (disconnect power)

Equipment No. \_\_\_\_\_ Rig No. 2001 Unit No. \_\_\_\_\_  
 Serial No. \_\_\_\_\_ Total Running Time(h): \_\_\_\_\_  
 (Equipment No. 设备号, Rig No. 游车大钩编号, Unit No. 单元号)  
 姓名: Mr. Michael/陈冠中, Maintenance/维修组/电钳班/电钳班

Unit running time: \_\_\_\_\_

1. Check the lifting eye is in good condition and show pin in place  
 吊钩的吊眼是否在良好状况, 吊钩销是否在位

2. Check the vision hook is tightening or not (钩头主销是否拧紧)

3. Locking device for hook coupling flexible or not  
 钩头锁紧装置, 是否灵活是否可动

4. Make hook coupling freely or not (钩头是否可动)

5. Lubricating oil enough and in good quality  
 钩头内机油是否充足, 油质是否良好

6. Lubricating condition of the hook eye, shaft and bearing and indicator  
 吊钩眼, 轴, 轴承等润滑情况

7. Any loading or unloading area while hook is horizontal or vertical position  
 大钩在水平位置或垂直时, 是否挂有重物或障碍物

8. Any rust outside of the body  
 钩头外部是否有锈迹

9. Check every shackle is secure firmly or not  
 钩头各销是否牢固

10. Check safety guardsightening bolts  
 钩头安全防护螺栓

11. Safety guards damaged or not any distance between it and shackle  
 钩头安全防护螺栓是否损坏, 是否有任何距离

12. Lubricate all bearings once a week with grease  
 每周给所有轴承润滑一次, 使用润滑脂

Unit	1-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100
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12										

Signature: Michael \_\_\_\_\_ Signature: Toop/李 \_\_\_\_\_

Date Completed: \_\_\_\_\_

# TRAVELLING BLOCK & HOOK 游车大钩

## Preventive Maintenance Service

Ensure adequate safety precautions while work is being performed (disconnect power)

Equipment No. \_\_\_\_\_ Rig No. 2001 Unit No. \_\_\_\_\_  
 Serial No. \_\_\_\_\_ Total Running Time(h): \_\_\_\_\_  
 (Equipment No. 设备号, Rig No. 游车大钩编号, Unit No. 单元号)  
 姓名: Mr. Michael/陈冠中, Maintenance/维修组/电钳班/电钳班

Unit running time: \_\_\_\_\_

1. Check the lifting eye is in good condition and show pin in place  
 吊钩的吊眼是否在良好状况, 吊钩销是否在位

2. Check the vision hook is tightening or not (钩头主销是否拧紧)

3. Locking device for hook coupling flexible or not  
 钩头锁紧装置, 是否灵活是否可动

4. Make hook coupling freely or not (钩头是否可动)

5. Lubricating oil enough and in good quality  
 钩头内机油是否充足, 油质是否良好

6. Lubricating condition of the hook eye, shaft and bearing and indicator  
 吊钩眼, 轴, 轴承等润滑情况

7. Any loading or unloading area while hook is horizontal or vertical position  
 大钩在水平位置或垂直时, 是否挂有重物或障碍物

8. Any rust outside of the body  
 钩头外部是否有锈迹

9. Check every shackle is secure firmly or not  
 钩头各销是否牢固

10. Check safety guardsightening bolts  
 钩头安全防护螺栓

11. Safety guards damaged or not any distance between it and shackle  
 钩头安全防护螺栓是否损坏, 是否有任何距离

12. Lubricate all bearings once a week with grease  
 每周给所有轴承润滑一次, 使用润滑脂

Unit	1-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100
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11										
12										

Signature: Michael \_\_\_\_\_ Signature: Toop/李 \_\_\_\_\_

Date Completed: \_\_\_\_\_

# TRAVELLING BLOCK & HOOK 游车大钩

## Preventive Maintenance Service

Ensure adequate safety precautions while work is being performed (disconnect power)

Equipment No. \_\_\_\_\_ Rig No. 2001 Unit No. \_\_\_\_\_  
 Serial No. \_\_\_\_\_ Total Running Time(h): \_\_\_\_\_  
 (Equipment No. 设备号, Rig No. 游车大钩编号, Unit No. 单元号)  
 姓名: Mr. Michael/陈冠中, Maintenance/维修组/电钳班/电钳班

Unit running time: \_\_\_\_\_

1. Check the lifting eye is in good condition and show pin in place  
 吊钩的吊眼是否在良好状况, 吊钩销是否在位

2. Check the vision hook is tightening or not (钩头主销是否拧紧)

3. Locking device for hook coupling flexible or not  
 钩头锁紧装置, 是否灵活是否可动

4. Make hook coupling freely or not (钩头是否可动)

5. Lubricating oil enough and in good quality  
 钩头内机油是否充足, 油质是否良好

6. Lubricating condition of the hook eye, shaft and bearing and indicator  
 吊钩眼, 轴, 轴承等润滑情况

7. Any loading or unloading area while hook is horizontal or vertical position  
 大钩在水平位置或垂直时, 是否挂有重物或障碍物

8. Any rust outside of the body  
 钩头外部是否有锈迹

9. Check every shackle is secure firmly or not  
 钩头各销是否牢固

10. Check safety guardsightening bolts  
 钩头安全防护螺栓

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12. Lubricate all bearings once a week with grease  
 每周给所有轴承润滑一次, 使用润滑脂

Unit	1-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100
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10										
11										
12										

Signature: Michael \_\_\_\_\_ Signature: Toop/李 \_\_\_\_\_

Date Completed: \_\_\_\_\_

Secretary of Defense



# DERRICK DESANDER & DESILTER 除砂除泥一体机

## Preventive Maintenance Service

Ensure adequate safety precautions while work is being performed (disconnect power)

Equipment No. \_\_\_\_\_ Rig No. 2011 Well No. \_\_\_\_\_

Serial No. \_\_\_\_\_ Tool Running Number \_\_\_\_\_  
 Equipment 型号: 除砂、除泥一体机 Desander/Desilter 规格: H-1000 重量: 1000kg  
 品牌: McWaters/德沃特 制造商: 德沃特机械有限公司

Serial \_\_\_\_\_

Daily running time

Time	1-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100
1. Check seal water and seal water of the desander and the pump for normal condition. 检查密封水及泵是否正常。	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Check the seal water of the spiral separator and the tank and pump for normal condition. 检查螺旋分离器及罐体和泵是否正常。	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Check the seal water and pump for the proper running and its lubrication and seal and normal sound. 检查密封水及泵的运行和润滑及密封和正常声音。	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4. Check the insulation of the motor. 检查电机的绝缘情况。	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. Check the insulation of the motor together with the M12 desander. 检查电机绝缘情况与M12除砂器一起。	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

COMMENT: \_\_\_\_\_

Date Completed: \_\_\_\_\_ Signature: McWaters \_\_\_\_\_ Signature: Toolmaker \_\_\_\_\_

# CENTRIFUGE 离心机

## Preventive Maintenance Service

Ensure adequate safety precautions while work is being performed (disconnect power)

Equipment No. \_\_\_\_\_ Rig No. 2011 Well No. \_\_\_\_\_

Serial No. \_\_\_\_\_ Tool Running Number \_\_\_\_\_  
 Equipment 型号: 离心机 Centrifuge 规格: H-1000 重量: 1000kg  
 品牌: McWaters/德沃特 制造商: 德沃特机械有限公司

Serial \_\_\_\_\_

Daily running time

Time	1-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100
1. Check seal water and seal water of the centrifuge for normal condition. 检查密封水及泵是否正常。	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Check the seal water and lubrication of the motor bearing. 检查密封水及电机的润滑。	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Check the seal of the first pump packing. 检查第一泵的密封。	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4. Check the insulation of the motor and switch box. 检查电机及控制箱的绝缘情况。	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. Check the speed for normal condition. 检查速度是否正常。	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6. Check the seal of the tank. 检查罐体的密封。	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

COMMENT: \_\_\_\_\_

Date Completed: \_\_\_\_\_ Signature: McWaters \_\_\_\_\_ Signature: Toolmaker \_\_\_\_\_

# DERRICK DESANDER & DESILTER 除砂除泥一体机

## Preventive Maintenance Service

Ensure adequate safety precautions while work is being performed (disconnect power)

Equipment No. \_\_\_\_\_ Rig No. 2011 Well No. \_\_\_\_\_

Serial No. \_\_\_\_\_ Tool Running Number \_\_\_\_\_  
 Equipment 型号: 除砂、除泥一体机 Desander/Desilter 规格: H-1000 重量: 1000kg  
 品牌: McWaters/德沃特 制造商: 德沃特机械有限公司

Serial \_\_\_\_\_

Daily running time

Time	1-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100
1. Check seal water and seal water of the desander and the pump for normal condition. 检查密封水及泵是否正常。	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Check the seal water of the spiral separator and the tank and pump for normal condition. 检查螺旋分离器及罐体和泵是否正常。	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Check the seal water and pump for the proper running and its lubrication and seal and normal sound. 检查密封水及泵的运行和润滑及密封和正常声音。	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4. Check the insulation of the motor. 检查电机的绝缘情况。	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. Check the insulation of the motor together with the M12 desander. 检查电机绝缘情况与M12除砂器一起。	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

COMMENT: \_\_\_\_\_

Date Completed: \_\_\_\_\_ Signature: McWaters \_\_\_\_\_ Signature: Toolmaker \_\_\_\_\_

# HYDRAULIC POWER TONG 液压大钳

## Preventive Maintenance Service

Ensure adequate safety precautions while work is being performed (disconnect power)

Equipment No. \_\_\_\_\_ Rig No. 2011 Well No. \_\_\_\_\_

Serial No. \_\_\_\_\_ Tool Running Number \_\_\_\_\_  
 Equipment 型号: 液压大钳 Hydraulic Power Tong 规格: H-1000 重量: 1000kg  
 品牌: McWaters/德沃特 制造商: 德沃特机械有限公司

Serial \_\_\_\_\_

Daily running time

Time	1-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100
1. Check seal water and seal water of the tong for normal condition. 检查密封水及泵是否正常。	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Check the seal water and lubrication of the motor bearing. 检查密封水及电机的润滑。	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Check the seal of the first pump packing. 检查第一泵的密封。	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4. Check the insulation of the motor and switch box. 检查电机及控制箱的绝缘情况。	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. Check the speed for normal condition. 检查速度是否正常。	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6. Check the seal of the tank. 检查罐体的密封。	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

COMMENT: \_\_\_\_\_

Date Completed: \_\_\_\_\_ Signature: McWaters \_\_\_\_\_ Signature: Toolmaker \_\_\_\_\_

# MANUAL TONG 吊钳

## Preventive Maintenance Service

Ensure adequate safety precautions while work is being performed (disconnect power)

Equipment No. \_\_\_\_\_ Rig No. 2011 Well No. \_\_\_\_\_

Serial No. \_\_\_\_\_ Tool Running Number \_\_\_\_\_  
 Equipment 型号: 吊钳 Manual Tong 规格: H-1000 重量: 1000kg  
 品牌: McWaters/德沃特 制造商: 德沃特机械有限公司

Serial \_\_\_\_\_

Daily running time

Time	1-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100
1. Check seal water and seal water of the tong for normal condition. 检查密封水及泵是否正常。	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Check the seal water and lubrication of the motor bearing. 检查密封水及电机的润滑。	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Check the seal of the first pump packing. 检查第一泵的密封。	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4. Check the insulation of the motor and switch box. 检查电机及控制箱的绝缘情况。	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. Check the speed for normal condition. 检查速度是否正常。	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6. Check the seal of the tank. 检查罐体的密封。	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

COMMENT: \_\_\_\_\_

Date Completed: \_\_\_\_\_ Signature: McWaters \_\_\_\_\_ Signature: Toolmaker \_\_\_\_\_





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\_\_\_\_\_

### High-Dimensional Feature Spaces

100

1000

\_\_\_\_\_







# Choke Manifold & Remote control unit & BOP WING VALVES 节流管汇 遥控箱 及防喷器翼阀

## Preventive Maintenance Service

Ensure adequate safety precautions while work is being performed (decommissioned power)

Equipment No. \_\_\_\_\_ Rig No. 2010-01 Well No. \_\_\_\_\_

Inspector: 周江 (ZHOU Jiang) By: 廖建 (Liao Jian) Checked: 王 (Wang) Approved: 王 (Wang)

Date: \_\_\_\_\_

Daily working time: \_\_\_\_\_

	11-1	11-2	11-3	11-4	11-5	11-6	11-7	11-8	11-9	11-10	11-11	11-12
1 Check remote control unit working pressure 检查遥控箱工作压力	0	0	0	0	0	0	0	0	0	0	0	0
2 Check steel bottle N2 pressure 检查钢瓶氮气压力	0	0	0	0	0	0	0	0	0	0	0	0
3 Check oil level and quality 检查油位及油质	0	0	0	0	0	0	0	0	0	0	0	0
4 Check all air / oil pipe connections 检查所有气管连接	0	0	0	0	0	0	0	0	0	0	0	0
5 Check all valves are working properly 是否所有的阀都正常工作	0	0	0	0	0	0	0	0	0	0	0	0
6 Check all valves are in correct position 阀位是否正确	0	0	0	0	0	0	0	0	0	0	0	0
7 Check all gauges are working properly 所有压力表的工况	0	0	0	0	0	0	0	0	0	0	0	0
8 Any rust outside of body 防锈油	0	0	0	0	0	0	0	0	0	0	0	0

Comments:

Date Completed: \_\_\_\_\_

Signature: 廖建

Signature: 王

# Choke Manifold & Remote control unit & BOP WING VALVES 节流管汇 遥控箱 及防喷器翼阀

## Preventive Maintenance Service

Ensure adequate safety precautions while work is being performed (decommissioned power)

Equipment No. \_\_\_\_\_ Rig No. 2010-01 Well No. \_\_\_\_\_

Inspector: 周江 (ZHOU Jiang) By: 廖建 (Liao Jian) Checked: 王 (Wang) Approved: 王 (Wang)

Date: \_\_\_\_\_

Daily working time: \_\_\_\_\_

	11-1	11-2	11-3	11-4	11-5	11-6	11-7	11-8	11-9	11-10	11-11	11-12
1 Check remote control unit working pressure 检查遥控箱工作压力	0	0	0	0	0	0	0	0	0	0	0	0
2 Check steel bottle N2 pressure 检查钢瓶氮气压力	0	0	0	0	0	0	0	0	0	0	0	0
3 Check oil level and quality 检查油位及油质	0	0	0	0	0	0	0	0	0	0	0	0
4 Check all air / oil pipe connections 检查所有气管连接	0	0	0	0	0	0	0	0	0	0	0	0
5 Check all valves are working properly 是否所有的阀都正常工作	0	0	0	0	0	0	0	0	0	0	0	0
6 Check all valves are in correct position 阀位是否正确	0	0	0	0	0	0	0	0	0	0	0	0
7 Check all gauges are working properly 所有压力表的工况	0	0	0	0	0	0	0	0	0	0	0	0
8 Any rust outside of body 防锈油	0	0	0	0	0	0	0	0	0	0	0	0

Comments:

Date Completed: \_\_\_\_\_

Signature: 廖建

Signature: 王

# Choke Manifold & Remote control unit & BOP WING VALVES 节流管汇 遥控箱 及防喷器翼阀

## Preventive Maintenance Service

Ensure adequate safety precautions while work is being performed (decommissioned power)

Equipment No. \_\_\_\_\_ Rig No. 2010-01 Well No. \_\_\_\_\_

Inspector: 周江 (ZHOU Jiang) By: 廖建 (Liao Jian) Checked: 王 (Wang) Approved: 王 (Wang)

Date: \_\_\_\_\_

Daily working time: \_\_\_\_\_

	11-1	11-2	11-3	11-4	11-5	11-6	11-7	11-8	11-9	11-10	11-11	11-12
1 Check remote control unit working pressure 检查遥控箱工作压力	0	0	0	0	0	0	0	0	0	0	0	0
2 Check steel bottle N2 pressure 检查钢瓶氮气压力	0	0	0	0	0	0	0	0	0	0	0	0
3 Check oil level and quality 检查油位及油质	0	0	0	0	0	0	0	0	0	0	0	0
4 Check all air / oil pipe connections 检查所有气管连接	0	0	0	0	0	0	0	0	0	0	0	0
5 Check all valves are working properly 是否所有的阀都正常工作	0	0	0	0	0	0	0	0	0	0	0	0
6 Check all valves are in correct position 阀位是否正确	0	0	0	0	0	0	0	0	0	0	0	0
7 Check all gauges are working properly 所有压力表的工况	0	0	0	0	0	0	0	0	0	0	0	0
8 Any rust outside of body 防锈油	0	0	0	0	0	0	0	0	0	0	0	0

Comments:

Date Completed: \_\_\_\_\_

Signature: 廖建

Signature: 王

# Choke Manifold & Remote control unit & BOP WING VALVES 节流管汇 遥控箱 及防喷器翼阀

## Preventive Maintenance Service

Ensure adequate safety precautions while work is being performed (decommissioned power)

Equipment No. \_\_\_\_\_ Rig No. 2010-01 Well No. \_\_\_\_\_

Inspector: 周江 (ZHOU Jiang) By: 廖建 (Liao Jian) Checked: 王 (Wang) Approved: 王 (Wang)

Date: \_\_\_\_\_

Daily working time: \_\_\_\_\_

	11-1	11-2	11-3	11-4	11-5	11-6	11-7	11-8	11-9	11-10	11-11	11-12
1 Check remote control unit working pressure 检查遥控箱工作压力	0	0	0	0	0	0	0	0	0	0	0	0
2 Check steel bottle N2 pressure 检查钢瓶氮气压力	0	0	0	0	0	0	0	0	0	0	0	0
3 Check oil level and quality 检查油位及油质	0	0	0	0	0	0	0	0	0	0	0	0
4 Check all air / oil pipe connections 检查所有气管连接	0	0	0	0	0	0	0	0	0	0	0	0
5 Check all valves are working properly 是否所有的阀都正常工作	0	0	0	0	0	0	0	0	0	0	0	0
6 Check all valves are in correct position 阀位是否正确	0	0	0	0	0	0	0	0	0	0	0	0
7 Check all gauges are working properly 所有压力表的工况	0	0	0	0	0	0	0	0	0	0	0	0
8 Any rust outside of body 防锈油	0	0	0	0	0	0	0	0	0	0	0	0

Comments:

Date Completed: \_\_\_\_\_

Signature: 廖建

Signature: 王





## BOP (封井器)

### Preventive Maintenance Service

Ensure adequate safety precautions while work is being performed (disconnected power)

Equipment No. \_\_\_\_\_ Rig No. 9201 Job No. \_\_\_\_\_

Inspector (姓名): 陈松, 邱, 王 (邱松, 邱松, 邱松) (Name: 陈松, 邱, 王 (邱松, 邱松, 邱松))

Date: \_\_\_\_\_

Drills Running Time

1. Check all pipe connections, are leaking  
检查所有连接件, 有无泄漏
2. Check all pressure control pipe runs (100psi/200psi)  
检查所有压力控制管, 100psi/200psi
3. Check pressure and valve when installed or not  
检查压力和阀门是否安装或否
4. Check all gate valves working properly  
检查所有闸阀是否正常工作
5. Check all flange connections  
检查所有法兰连接件是否松动, 泄漏

Drills Running Time	1.0-1.5	1.5-2.0	2.0-2.5	2.5-3.0	3.0-3.5	3.5-4.0	4.0-4.5	4.5-5.0	5.0-5.5	5.5-6.0	6.0-6.5	6.5-7.0	7.0-7.5	7.5-8.0	8.0-8.5	8.5-9.0	9.0-9.5	9.5-10.0
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments:

Date Completed

Signature: M. J. Chen

Signature: T. J. Chen

## Kuany Unit 远控台

### Preventive Maintenance Service

Ensure adequate safety precautions while work is being performed (disconnected power)

Equipment No. \_\_\_\_\_ Rig No. 9201 Job No. \_\_\_\_\_

Inspector (姓名): 陈松, 邱, 王 (邱松, 邱松, 邱松) (Name: 陈松, 邱, 王 (邱松, 邱松, 邱松))

Date: \_\_\_\_\_

Drills Running Time

1. Check electric and air pump working condition  
检查电气泵和空气泵工作状况
2. Check all pressure are correct  
检查所有压力是否正确
3. Have electricity test tool working  
是否有漏电, 漏电测试
4. Check all alarm test settings, make sure correct  
检查所有报警设置, 确保正确
5. Check H<sub>2</sub> testable pre-charge pressure  
检查氢气预充压力
6. Discharge function valve open  
放空/泄压阀打开
7. Emergency control valve in power position  
应急控制阀在动力位置
8. Pump switches in auto position  
泵开关在自动位置
9. Alarm test (test) valve cover in place  
报警测试/全开盖下盖在盖好
10. Accumulator isolation valve open  
储能器隔离阀打开
11. Air supply valve in pump open  
空气泵供气

Drills Running Time	1.0-1.5	1.5-2.0	2.0-2.5	2.5-3.0	3.0-3.5	3.5-4.0	4.0-4.5	4.5-5.0	5.0-5.5	5.5-6.0	6.0-6.5	6.5-7.0	7.0-7.5	7.5-8.0	8.0-8.5	8.5-9.0	9.0-9.5	9.5-10.0
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments:

Date Completed

Signature: M. J. Chen

Signature: T. J. Chen

## BOP (封井器)

### Preventive Maintenance Service

Ensure adequate safety precautions while work is being performed (disconnected power)

Equipment No. \_\_\_\_\_ Rig No. 9201 Job No. \_\_\_\_\_

Inspector (姓名): 陈松, 邱, 王 (邱松, 邱松, 邱松) (Name: 陈松, 邱, 王 (邱松, 邱松, 邱松))

Date: \_\_\_\_\_

Drills Running Time

1. Check all pipe connections, are leaking  
检查所有连接件, 有无泄漏
2. Check all pressure control pipe runs (100psi/200psi)  
检查所有压力控制管, 100psi/200psi
3. Check pressure and valve when installed or not  
检查压力和阀门是否安装或否
4. Check all gate valves working properly  
检查所有闸阀是否正常工作
5. Check all flange connections  
检查所有法兰连接件是否松动, 泄漏

Drills Running Time	1.0-1.5	1.5-2.0	2.0-2.5	2.5-3.0	3.0-3.5	3.5-4.0	4.0-4.5	4.5-5.0	5.0-5.5	5.5-6.0	6.0-6.5	6.5-7.0	7.0-7.5	7.5-8.0	8.0-8.5	8.5-9.0	9.0-9.5	9.5-10.0
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments:

Date Completed

Signature: M. J. Chen

Signature: T. J. Chen

## Kuany Unit 远控台

### Preventive Maintenance Service

Ensure adequate safety precautions while work is being performed (disconnected power)

Equipment No. \_\_\_\_\_ Rig No. 9201 Job No. \_\_\_\_\_

Inspector (姓名): 陈松, 邱, 王 (邱松, 邱松, 邱松) (Name: 陈松, 邱, 王 (邱松, 邱松, 邱松))

Date: \_\_\_\_\_

Drills Running Time

1. Check electric and air pump working condition  
检查电气泵和空气泵工作状况
2. Check all pressure are correct  
检查所有压力是否正确
3. Have electricity test tool working  
是否有漏电, 漏电测试
4. Check all alarm test settings, make sure correct  
检查所有报警设置, 确保正确
5. Check H<sub>2</sub> testable pre-charge pressure  
检查氢气预充压力
6. Discharge function valve open  
放空/泄压阀打开
7. Emergency control valve in power position  
应急控制阀在动力位置
8. Pump switches in auto position  
泵开关在自动位置
9. Alarm test (test) valve cover in place  
报警测试/全开盖下盖在盖好
10. Accumulator isolation valve open  
储能器隔离阀打开
11. Air supply valve in pump open  
空气泵供气

Drills Running Time	1.0-1.5	1.5-2.0	2.0-2.5	2.5-3.0	3.0-3.5	3.5-4.0	4.0-4.5	4.5-5.0	5.0-5.5	5.5-6.0	6.0-6.5	6.5-7.0	7.0-7.5	7.5-8.0	8.0-8.5	8.5-9.0	9.0-9.5	9.5-10.0
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments:

Date Completed

Signature: M. J. Chen

Signature: T. J. Chen

**Hauptkategorie:** Festmessen

Verfahren: Verfahren

Signature: \_\_\_\_\_ Instructor: \_\_\_\_\_

Signature: \_\_\_\_\_



# MCC Controls

## Preventive Maintenance Service

Ensure adequate safety precautions while work is being performed (deenergized power)

Equipment No. \_\_\_\_\_  
Serial No. \_\_\_\_\_

Reg No. 1037 A-111 No. \_\_\_\_\_

1. Inspect interior of MCC Control Center for dust, dirt, etc. clean MCC Control Center with a vacuum if necessary.
2. Inspect all components of switchgear for operating well.
3. Inspect fuses on the panel is correct.
4. Inspect switchgear for locking or unlatching flexibility.

Location (MCC, MCB, etc.)	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050
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# Cable and Wire

## Preventive Maintenance Service

Ensure adequate safety precautions while work is being performed (deenergized power)

Equipment No. \_\_\_\_\_  
Serial No. \_\_\_\_\_

Reg No. 1037 A-111 No. \_\_\_\_\_

1. Inspect all cable and wiring for mechanical damage.
2. Inspect all terminations to lugs, connectors, or compression devices.
3. Remove any grease, oil, or chemicals from the wire insulation.
4. Protect any cables that are not secured to traffic area.
5. Replace any tie wraps or supports that become defective.
6. Inspect junction boxes that are frequently used.
7. Inspect for signs of arcing at points of connection where cuts or fraying are detected.

Location (MCC, MCB, etc.)	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050
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Comments: 所有電線均無損壞，且所有接線均正確。  
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所有電線均無損壞，且所有接線均正確。

Date Completed: \_\_\_\_\_  
Signature: MARSH  
Signature: Tripod

# MCC Controls

## Preventive Maintenance Service

Ensure adequate safety precautions while work is being performed (deenergized power)

Equipment No. \_\_\_\_\_  
Serial No. \_\_\_\_\_

Reg No. 1037 A-111 No. \_\_\_\_\_

1. Inspect interior of MCC Control Center for dust, dirt, etc. clean MCC Control Center with a vacuum if necessary.
2. Inspect all components of switchgear for operating well.
3. Inspect fuses on the panel is correct.
4. Inspect switchgear for locking or unlatching flexibility.

Location (MCC, MCB, etc.)	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050
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# Cable and Wire

## Preventive Maintenance Service

Ensure adequate safety precautions while work is being performed (deenergized power)

Equipment No. \_\_\_\_\_  
Serial No. \_\_\_\_\_

Reg No. 1037 A-111 No. \_\_\_\_\_

1. Inspect all cable and wiring for mechanical damage.
2. Inspect all terminations to lugs, connectors, or compression devices.
3. Remove any grease, oil, or chemicals from the wire insulation.
4. Protect any cables that are not secured to traffic area.
5. Replace any tie wraps or supports that become defective.
6. Inspect junction boxes that are frequently used.
7. Inspect for signs of arcing at points of connection where cuts or fraying are detected.

Location (MCC, MCB, etc.)	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050
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Comments: \_\_\_\_\_  
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Date Completed: \_\_\_\_\_  
Signature: Mark  
Signature: Tripod

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Location (MCC, MCB, etc.)	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050
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Comments: 所有電線均無損壞，且所有接線均正確。  
所有電線均無損壞，且所有接線均正確。  
所有電線均無損壞，且所有接線均正確。

Date Completed: \_\_\_\_\_  
Signature: MARSH  
Signature: Tripod

Location (MCC, MCB, etc.)	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050
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Comments: \_\_\_\_\_  
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Signature: Mark  
Signature: Tripod





### Major Maintenance Inspection

ensure adequate safety precautions while work is being performed (disconnected power)

1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 2680, 26

May 2005

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[illegible]

轉譯：吳，Anderson, T. (2013). 吳嘉祥的轉譯研究：以沈從文為例。 (1)

[illegible]

- 1. Inspect external surfaces of joints for deterioration or physical damage.
- 2. Inspect interior for deterioration, gross metal wear or corrosion.
- 3. Inspect all air filters for cleanliness, clean or replace as necessary.
- 4. With power off, check for loose hardware in:
  - a. In support structure during the warm-up (start) time.
  - b. During the operation, inspect all motor, instrument and lamps for faulty operation or damage.
- 5. Check all connector tips for pinning or wear.
- 6. Inspect plug and connector for damage or corrosion.

1.  $\Delta ABC$  में  $\angle A = 90^\circ$  हो।  $AD$   $BC$  पर खींचा गया हो।  $AD$   $BC$  को  $D$  पर काटता है।  $AD$   $BC$  को  $D$  पर काटता है।

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### Preventive Maintenance Inquiries

**Preventive Maintenance Inspection**  
Excess voltage safety examination while work is being performed (disconnect power)

[illegible]

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作者: 王 宇 著 王 宇 著 王 宇 著 王 宇 著 王 宇 著

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1. Inspect customer surfaces of joints for dirt, grease, oil or physical damage.
2. Inspect inside the shaft for dirt, grease, seal or sealant.
3. Inspect all seal filters for cleanliness, check to make sure necessary.
4. With power off, check for loose fasteners in the magnet, pulleys during vibration at electrician.
5. During the operation, inspect all belts, pulleys and inspect for a timely operation to factory.
6. Check all customer data for wiring or seal.
7. Inspect plant and connections for damage or leakage.

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