

Environmental and Social Impact Assessment Report (ESIA) – Appendix 20, Part 1

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Prepared by PT Supreme Energy Rantau Dedap (PT SERD) for Asian Development Bank

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SAFETY, HEALTH AND ENVIRONMENTAL MANUAL

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PREAMBLE

The Supreme Energy project companies: PT Supreme Energy Muara Laboh, PT Supreme Energy Rajabasa and PT Supreme Energy Rantau Dedap are independent companies developing geothermal projects in Sumatra, Indonesia. Based on the agreement of the shareholders of the individual project companies, the Supreme Energy companies are managed in an integrated way in order to maximize the synergies in terms of use of resources and organization of their core and supporting processes. Consequently, important portions of the documentation body developed and applied within each company (manuals, procedures, description of processes, guidelines etc.) are common to all project companies. The applicability of each document to one or several project companies is reflected in the reference of each document.

Any document applicable to PT Supreme Energy Muara Laboh contains the characters “ML” in the document reference.

Any document applicable to the PT Supreme Energy Rajabasa project company contains the characters “RB” in the document reference.

Any document applicable to the PT Supreme Energy Rantau Dedap project company contains the characters “RD” in the document reference.

Within each document, for any reference to the project company, the term “Company” will be used. This term will refer to those companies the names of which are referred to in the document reference.

THIS DOCUMENT

This Safety, Health and Environmental Manual, ref. SE-ML/RB/RD-SUP-SHEM, refers to the PT SE Muara Laboh, PT SE Rajabasa and PT SE Rantau Dedap project companies.

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Our Vision, Mission and Values

OUR VISION

To become the leading and the most respected geothermal producer in Indonesia, generating clean and sustainable electricity, creating maximum value for its stakeholders



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MISSION

We will achieve our VISION by:

- 1. Developing our human capital to their highest potential**
- 2. Uncompromising commitment to safety, health and environment protection**
- 3. Utilizing state of the art technology, benefitting from the resources, experience, expertise and brands of the reputed industrial groups we have as shareholders**
- 4. Nurturing the highest level of professionalism, accountability and compliance to laws, regulations and ethical standard**
- 5. Fostering active communication, transparency and teamwork**
- 6. Satisfying interests of shareholders**
- 7. Becoming the partner of choice for investors, governments, communities and employees**
- 8. Assuring sustainability of success by maintaining a long term vision**

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OUR VALUES

We shall foster '**SUPREME**' values :

- S**trive for excellence, innovation, creativity and entrepreneurship
- U**nquestionable honesty and integrity
- P**erseverance and hardwork
- R**espect people, community, culture and the importance of trust, relationships, teamwork and harmony
- E**nvironment, health and safety awareness
- M**indful of cost and efficiency
- E**nsure life time learning and improvement

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1. INTRODUCTION

Statement of Safety, Health and Environmental (SHE) at the Company:

Policy Statement

The Company is fully committed to conducting operations in an incident-free workplace, all the time, everywhere. Proactive individual involvement, personal responsibility, accountability, and continuous improvement are expected of all employees, clients and subcontractors. The SHE Management System is designed to align all stakeholders' efforts to attain these objectives.

SHE Management is a line management responsibility. Visible management commitment and involvement is essential at all levels. The fundamental elements of the SHE Management System are:

- Each employee is responsible to know and act in accordance with the Company's SHE Management System to protect self and others, the environment, and the property of the Company.
- Effective planning and communication is the foundation of all Company risk management processes.
- Each employee has the obligation to interrupt an operation to prevent an incident from occurring.
- Effective SHE performance will be recognized.
- All incidents will be reported.
- Employees are encouraged to identify improvement and corrective opportunities and participate in developing safety improvement plans.

The Company is committed to ensuring that all operations are performed in a safe manner. This Safety, Health and Environmental (SHE) Manual provides guidance and information regarding the minimum precautions required to work safely in the operations of the Company.

The Company's commitment to safety, health and environment is outlined in **SHE Policy Statements** included in this Manual.

Please read it and if you have any doubt or questions, don't hesitate to seek guidance from your immediate supervisor.

Safety is everyone's responsibility.

We are all responsible for our own Safety and that of our co-workers. This way of thinking is fundamental to our business. All employees of the Company and Contractors are responsible for full compliance with all safety policies, procedures and precautions when performing work for the Company.

We will develop and train our employees to ensure that we can work correctly and safely. Our programs are designed to build safety awareness, knowledge and skill and to inspire a consistent

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culture of safety and an environment of teamwork for all of our personnel. Our SHE training and awareness development program will lay the foundation for getting all of our people to understand and become Safety Leaders all of the time. The Company safety training is focused on the practical learning approach of our safety culture and is intended to be a training tool used throughout the company to teach and re-enforce the correct use of the safety tools.

All personnel of the Company must comply with the **Company's** Safety, Health and Environment rules

Please always bear in mind that:

“YOUR SAFETY MEANS EVERYBODY ELSE’S SAFETY”

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2. SAFETY, HEALTH AND ENVIRONMENTAL (SHE) POLICY

2.1. Policy Intent

The Company is determined to implement the highest standards of Safety, Health and Environmental (SHE) execution to ensure that all areas of operation are environmentally proactive and safe places for our stakeholders. SHE is a line function with full accountability throughout the entire corporate structure.

2.2. Policy

It is the policy of the Company to provide a safe and healthy work environment. The Company is committed to proactively protecting human health and the environment. The Company shares this commitment with its employees, our customers, other companies, and the communities we work with. Our policy is to continuously improve our safety and health performance by routinely reviewing our practices, policies and procedures to identify opportunities for reducing accidents and enhancing compliance. Our policy is founded on the following basic principles:

- We will comply fully with applicable safety and health laws and regulations;
- We will review our operations and assess the potential for safety and health risks and will develop and implement plans to manage these risks prudently;
- We will regularly review our safety and health performance to identify opportunities to enhance our performance;

The Company Safety and Health Policies are designed to ensure that specific requirements, performance-based standards, and the intent of regulations are specifically identified in order to minimize interpretive errors. The Company is committed to efficiently reduce the potential impacts of our business on safety, health and environment (SHE) by managing hazards, preventing injury, reducing waste, emissions and discharges and by using energy efficiently. We will eliminate injury by observing hazards, reporting and rectifying all unsafe actions and any condition which could lead to an incident.

Each employee is responsible for complying with company policies, guidance and procedures to ensure that work is performed in a safe and healthful manner. Responsibilities for SHE performance shall be visible throughout the organization with clear management accountability. Full implementation of SHE Management Policies throughout the entire life of the project is essential to our business. Every employee, affiliate, consultant, contractor and subcontractor of the Company shall unconditionally support and rigorously apply the Supreme SHE goals, objectives and all statutory requirements.

Our business, operational and implementation plans and personal objectives shall including quantifiable measurable SHE targets are that will be established annually, reviewed regularly and adjusted as needed to improve the effectiveness of the program. Every employee is accountable for implementation of this policy. If you have any doubt or questions, don't hesitate to seek guidance from your immediate supervisor.

Safety is everyone's responsibility. We are all responsible for both our own safety and that of our co-workers. This objective is fundamental to our business. All employees of

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Company and Contractors have the same responsibility to comply with safety precautions during performing their work for Company. We are all responsible to work correctly and safely.

In carrying out the policy intent, the Company will:

- ensure that systems are developed and established to identify and control hazards within the work place and to monitor SHE performance.
- ensure that all employees to understand that Safe Operations is “good business”, and has an equal importance with any other business matter.
- motivate and encourage all employees, suppliers (vendors and contractors) and other stakeholders to maintain high standards of SHE consciousness.
- communicate openly with employees, suppliers and all stakeholders to continually improve the SHE standards.
- meet all legal obligations wherever we operate and always strive to exceed requirements.
- adopt best practices and apply standards that protect the Safety and Health of the employees and prevent harm to the Environment.
- follow written procedures for high risk or unusual situations.
- involve the right people in decisions that affect SHE procedures and equipment
- ensure that every employee understands that have the duty to prevent SHE losses and provide a safe and healthy place of work.

Jakarta, May 2011

Supramu Santosa

President & CEO

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3. SHE WORKING PRINCIPLES

The safety and welfare of our people is our most important value. We are determined to operate our business to ensure that all our employees, contractors, sub-contractors and the communities in which we operate are kept free of injury and illness.

We will achieve this by the application of an integrated risk management system that ensures that all employees, contractors, sub-contractors and clients understand and endorse our culture of safety. We will eliminate and control hazards, ensure that all incidents are fully and transparently investigated, and identify any organisational contributions to all incidents. We will undertake regular audits and inspections of our work sites, we will empower all employees and sub-contractors to cease work where there is a threat to safety. All employees and sub-contractors are required to carry out their work in accordance with our safety values, report any incident which generates an actual or potential injury and stop work where there is a threat to the safety of themselves or others. We believe that:

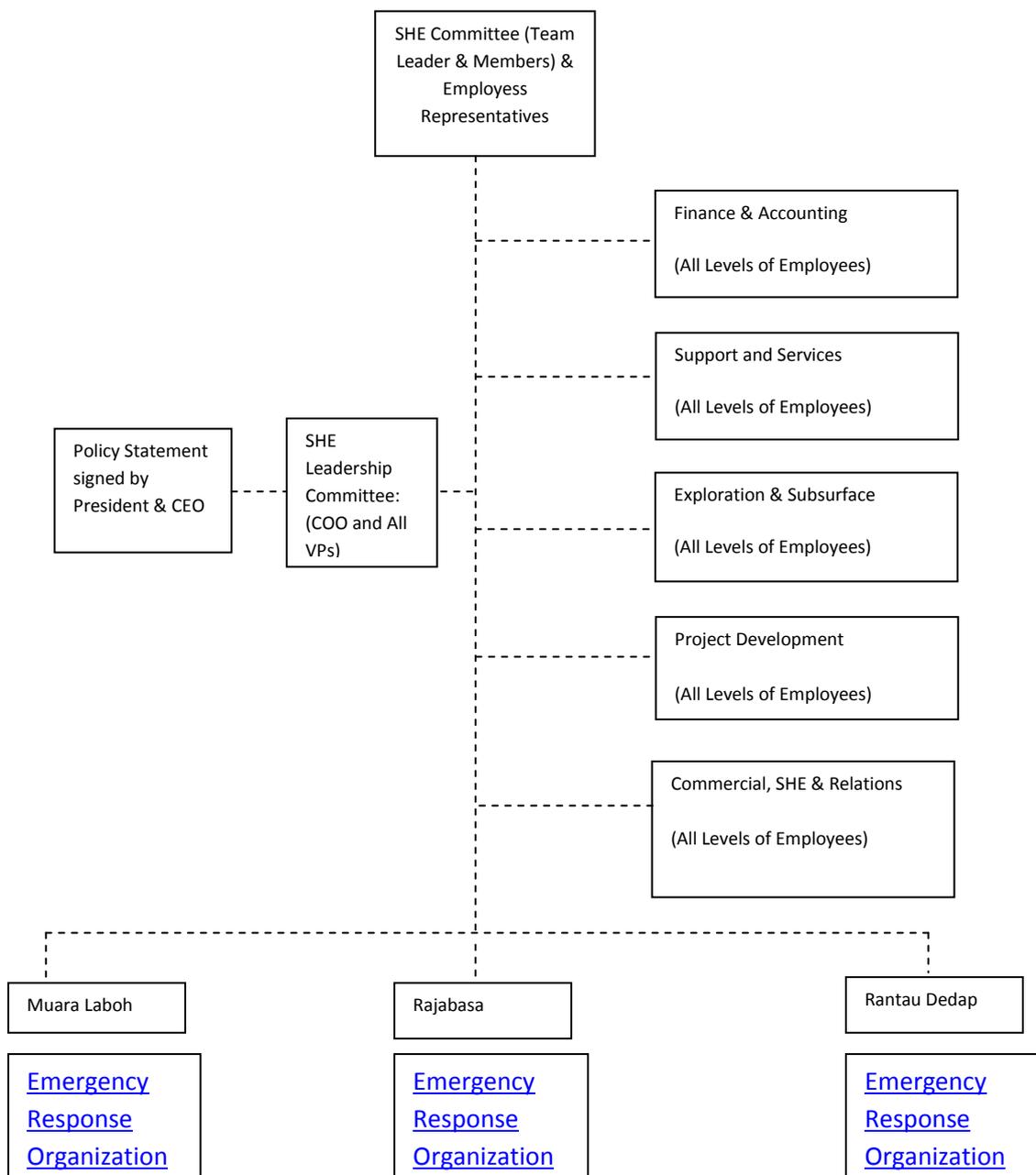
- ALL INJURIES AND ACCIDENTS ARE PREVENTABLE.
- SAFETY IS A WAY OF LIFE AND PART OF EVERYTHING WE DO, BOTH ON AND OFF THE JOB.
- EACH INDIVIDUAL IS RESPONSIBLE AND ACCOUNTABLE FOR HER/HIS OWN SAFETY AND THE SAFETY OF OTHERS.
- EVERY EMPLOYEE MUST LEAD SHE ACTIVITIES BY EXAMPLE.
- A STRONG, VISIBLE, FELT LEADERSHIP COMMITMENT TO SHE IS ESSENTIAL TO SUCCESS.
- TEAMWORK ACROSS DEPARTMENTS AND INVOLVEMENT BY ALL IS CRITICAL TO SHE SUCCESS.
- TO ELIMINATE INJURIES AND ACCIDENTS, WE MUST RECOGNIZE AND ADDRESS SAFE AND UNSAFE WORK HABITS.
- EVERYONE HAS THE RESPONSIBILITY TO ENSURE A SAFE WORK ENVIRONMENT.
- NO WORK IS SO URGENT THAT WE CANNOT TAKE TIME TO WORK SAFELY.

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4. SAFETY, HEALTH AND ENVIRONMENTAL (SHE) MANAGEMENT ORGANIZATION

Based on the above Policy and SHE Working Principles, the Company has established its Safety Management System (SHE Management System) with the Organization that can be described by the following Chart.

Organization Structure for SHE Management System



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5. SECTION I - GENERAL SAFETY

5.1. Employee Safety

Working safely is the responsibility of each employee of the Company. Everyone benefits from a safe and healthful work environment. We are committed to maintaining an injury-free and illness-free workplace, and complying with applicable laws and regulations governing workplace safety. Adherence to safety rules and guidelines and a positive attitude toward safety enhances your job performance. Disregarding or neglecting safe practices will not be tolerated. Violations could be cause for disciplinary action to be taken.

It is each employee’s responsibility to develop and maintain a sincere interest in the implementation of safety programs. The Company’s responsibility is to provide a safe work place and to protect the environment. This however cannot be done without your cooperation.

5.2. Employee Responsibility

- Correct any hazardous situation detected if it is within your ability to do so. Report any such correction to your supervisor.
- Immediately report to your supervisor any accident or hazardous situation that you detect.
- Come to work physically able to do your job.
- Know and perform your work according to the guidelines set forth in this handbook, as well as your job’s specific requirements.
- Maintain a clean, safe working area and environment at all times.

5.3. Company Responsibility

- Correct all known hazardous situation as soon as possible through repairs, modification or procedural changes.
- Provide appropriate protective equipment for Company employees who may be exposed to recognized hazards
- Provide training to Company employees so that they can perform their jobs in a safe manner.

5.4. Contractor Safety

Safety is everybody’s responsibility. We are all responsible for safety, both our own safety and the safety of our colleagues.

Company recognizes its responsibility to provide a safe working environment for its employees as well as for the employees of it’s contractors.

5.5. Contractor SHE Management

THE CONTRACTOR SHE MANAGEMENT IS GOVERNED AND DESCRIBED IN DETAIL IN THE DOCUMENT “CONTRACTOR SHE MANAGEMENT SYSTEM (CSMS)”, REF. SE-ML/RB/RD-SUP-CSMS-REV.0.

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5.6. Contractor Responsibility

- All contractors working on Company premises are required to ensure that their employees comply fully with all Company SHE regulations, policies and procedures.
- Contractors are responsible for providing Personal Protective Equipment (PPE) for their employees while they are working on Company premises. PPE is clothing, equipment or substances designated to be worn by someone to protect them from risks of injury or illness.
- Contractors are responsible for training and supervising their employees to ensure that their employees work correctly and safely.
- Contractors must, ensure that all Contractor furnished machinery, tools and equipment are maintained properly, in a safe operating condition, are inspected regularly, and have been re-checked and accepted by an authorized Company Representative.

5.7. Company Representative Responsibility

- When a Company Representative becomes aware of a situation where safety is being or has been compromised, he will immediately correct any hazardous situation detected and report any such correction to his supervisor and notify the appropriate Contractor Supervisor who is responsible for the conduct and safety of its employees while working for Company and follow up to ensure that appropriate action is taken to rectify the situation.
- The Company representative will provide a copy of Company’s SHE Manual to the Contractor Supervisor and employees immediately upon their arrival on the Company premises. The Contractor must then read Company’s SHE Manual. The Contractor must then sign the acknowledgement card and hand the card to his immediate supervisor.

5.8. SHE Induction Course

All personnel must attend a “Company Facility Induction Course” upon arrival and in any case before they are allowed to go unaccompanied outside of the induction facility

The “Induction Course” will ensure all personnel arriving on Company Installations are effectively establish a working knowledge of the facility working practices, emergency systems and escape evacuation and rescue systems.

5.9. SHE Meetings

5.9.1. General SHE Meetings

Attendance at regular SHE Meetings is mandatory. The meeting will be informal and meet specific needs and concerns of individual locations. All employees will participate in SHE meetings.

5.9.2. Tool Box Meeting

These meetings will be held before the start of each shift or before the start of any multi-person task. All involved personnel will participate in these meetings.

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5.9.3. Weekly Meeting

Each employee and involved contractor is required to attend and participate in Company Communication Plan. Company Employees and Contractors are required to attend pre-job safety meetings and routine weekly work group safety briefings.

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6. SECTION II - SAFETY RULES AND OPERATIONAL GUIDELINES

6.1. General Safety Rules & Operational Guideline

All employees (inc. contractor / visitor / vendor / supplier) shall comply with all pertinent local and Indonesian laws, rules, regulations and standards.

Where there are no such requirements, those issued under the U.S Occupational Safety and Health Administration (OSHA), including any additions or amendments, may be utilized as general guidelines.

6.2. General Disciplinary Guideline

Company SHE Policy applies to all employees, all contractors, all subcontractors and anyone else who is on Company premises for any reason. Employees, who violate Company Safety Rules or other policies and regulations, are subject to disciplinary action.

Contractors, subcontractors, vendors and visitors who violate Company Safety Rules or other policies and regulations will be formally sanctioned. This SHE Policy supports these fundamental concepts:

- Management’s ongoing commitment to a safe workplace
- Regular safety meetings
- Effective job safety training for all employees
- Job hazard analysis
- Incentive awards for exemplary safety performance.

Company employees are required to report any injury occurring EITHER at Company or at other locations off duty to their supervisor. For injuries happening away from Company while not on Company business, a casual mentioning of the injury is not sufficient.

Safety Violation Notices may be issued to any employee or anyone on the jobsite violating the safety rules or regulations. A Safety Violation Notice may be completed by any Company employee, vendor, contractor, or guest. They should be turned in to any supervisor who will ensure that the SHE procedures are rigidly enforced. Intentional or flagrant violation of SHE Policy may result in immediate suspension or termination.

6.3. Crisis Communication

The nature of the business conducted by Company requires that we be prepared for sudden or serious crisis. At that same time, we must anticipate potential evolving crisis situations.

Company has developed a corporate-wide Crisis Communication Plan that serves as a guide for responding to sudden, serious business disruptions. This plan also provides a framework for Plant/Operations Manager to collect, evaluate and disseminate information necessary in the event of an emergency associated with the operation of the plant. In addition, each Company facility has its own crisis communication plan.

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6.3.1. Guidelines

The Company's Crisis Communication Plan is built on the following principles:

- In the event of an emergency, the most immediate actions are to protect lives and health of employees, contractors and neighbours from possible dangers.
- Company's response to any plant crisis, regardless of its size, scope or complexity, will be directed by local management and supported by the corporate office. The Company Crisis Management Team will be activated on an as-needed basis to support local efforts.
- Company's policy is to respond immediately to ensure that any crisis will be controlled as quickly and effectively as possible.
- Company's success hinges on protecting the integrity and reputation of the Company and its affiliated plants. That impression will come from a vigorous operational response, supported by open, honest interaction with employees, customers, media, local communities, government officials and others, during a crisis.

Each facility is required to have a Crisis Communication Plan in place. Each manager and supervisor should know what his/her responsibilities are under this plan and must ensure that every employee in his/her work area is aware of the steps to take in a crisis situation.

6.4. Training

6.4.1. AED/CPR and First Aid Training

All employees shall be trained in and familiar with the safety-related work practices, safety procedures and other safety requirements in this section that pertain to their jobs assignments.

In the absence of an infirmary, clinic or hospital in near proximity to the workplace which is used for the treatment of all injured employees, a person or person shall be adequately trained to render first aid. Adequate first aid supplies shall be readily available.

6.4.2. Electrical Safety Training

When employees are performing work on or associated with exposed lines or equipment energized at 50 volts or more, persons trained in first aid including CPR shall be available. Qualified employees shall also be trained and competent in:

- Skills and techniques necessary to distinguish exposed live parts from other parts of electric equipment
- Minimum approach distances

Proper use of special precautionary techniques, personal protective equipment, insulating and shielding materials and insulated tools for working on or near exposed energized parts of electric equipment.

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6.4.3. Hazard Communication

Company will provide employees with effective information and training on hazardous chemicals in their work area upon their initial assignment and whenever a new physical or health hazard is introduced into the workplace. Employee training shall include:

- Methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area
- The physical and health hazards of the chemicals in the work area.
- The measures that can be taken to protect workers from these hazards including specific procedures that Supreme has implemented to protect employees such as appropriate work practices, emergency procedures and personal protective equipment requirements.

6.4.4. Hearing Conservation

Company will provide training in the use and care of all hearing protectors. Employees shall be informed of the following:

- Effects of noise on hearing
- Purpose of hearing protectors,
- Advantages, disadvantages of various types
- Instructions on selection, fitting, use and care.

6.4.5. Personal Protective Equipment

Company shall train each employee to use PPE. Each employee shall be trained to know at least:

- When PPE is necessary
- What PPE is necessary
- How to properly put on, take off, adjust, and wear PPE

6.4.6. Respiratory Protection

Company will provide effective training to employees who are required to use respirators. The training will be comprehensive, understandable, and recur annually. Company will ensure that each employee can demonstrate knowledge of at least the following:

- How to use the respirator effectively in emergency situations
- How to inspect, put on and remove, use, and check the seals of the respirator
- What the procedures are for maintenance and storage of the respirator
- How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators

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- 6.4.7. Access to Medical and Exposure Records
- 6.4.8. Fire Prevention and Protection
- 6.4.9. HAZWPR Refresher/Emergency Response
- 6.4.10. Initial Employee Training
- 6.4.11. Hazardous Material Technical Training
- 6.4.12. Confine Space Attendant and Entry Supervisor Training
- 6.4.13. Lockout/Tagout Training
- 6.4.14. AED/BBP/CPR and First Aid
- 6.4.15. Electrical Safety Training
- 6.4.16. Hazard Communication
- 6.4.17. Hearing Conservation
- 6.4.18. Respiratory Protection
- 6.4.19. Access to Medical and Exposure Records
- 6.4.20. Fire Prevention and Protection
- 6.4.21. Personnel Protective Equipment
- 6.4.22. Regulatory Inspection

6.5. Certification of Competency

Every personnel who operate critical equipment (or manage critical processes) are competent and certified as required by Government Regulations or specific Company policy.

Example certifications of competency: Operator Certification, Crane Operator, Forklift Operator, Wire line Operator, Light Vehicle Driving License, Heavy Equipment Driving License, Scaffolding Inspector, NDE Inspector, Etc.

6.6. Refusal to Work

All workers (employees or contractors) working at a Company facility has the right to refuse work or assignments that they believe are unsafe. No person should carry out or cause to be carried out any work process or operate or cause to be operated any tool, appliance or equipment if that person has reasonable cause to believe that to do so would create an undue hazard to the health and safety of

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any person. A person who refuses to carry out a work process or operate a tool, appliance or equipment must immediately report the circumstances of the unsafe condition to their supervisor or employer. A supervisor or employer receiving an unsafe work report must immediately investigate the matter and ensure that any unsafe condition is remedied without delay, or if in their opinion the report is not valid will inform the person who made the report.

No worker will be subject to disciplinary action for such a refusal however temporary assignment to alternative work at no loss in pay to the worker until the matter is resolved does not constitute disciplinary action.

6.7. House Keeping

Good housekeeping is essential to a successful safety program. Proper housekeeping will eliminate hazards and help your job run smoothly.

Good housekeeping is our common responsibility, not just in our designated area but wherever we travel in Company facilities.

Each person (employee, contractors, visitors) is responsible to keep all working areas (including tools and equipment) clean, neat and orderly. Good housekeeping is the foundation of safety and good environmental practice. Accidents are caused by people tripping, slipping and falling over materials and equipment which should not have been left lying around. Environmental problems are avoided when materials are disposed of properly instead of being allowed to escape into the surrounding area. One of the key areas of safety control is housekeeping, where everyone can make a significant contribution to safety and the environment, merely by applying common sense.

- Do not leave rubbish or debris lying about - clean up as you go.
- Ensure all waste is disposed of correctly.
- Do not obstruct ladders, aisles or stairways with tools or materials.
- Make sure that spilled oil, grease or liquids are cleaned up from floors and the contaminated clean up material is disposed of in the correct skip / bin.
- Gather up all off-cuts of timber, reinforcing bars, and any other material, and dispose of correctly.
- When clearing up, make sure the refuse disposal point is in a safe position and all waste containers are clearly marked for their contents.
- Position all cables and hoses out of the way. Where possible do not lay them across a pedestrian walkway.
- Look out for sparks and hot slag falling from welding, cutting and other hot work.
- Dispose of oil rags in metal containers.
- An accumulation of waste material provides a good starting point for fire. Do not let it happen.
- Ensure the waste disposal area is kept neat and orderly and containers are removed in adequate time to prevent spillage.

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Proper waste disposal is an integral part of good housekeeping. Not only does this improve site tidiness but it also improves safety and reduces the likelihood of pollution occurring. Remember a clean and orderly site is a safe site.

6.8. Clothing

All employees (incl. contractor / visitor / vendor) shall be clothed in a manner that will not impair their safety. Company is committed to protect the health and safety of all employees. Appropriate Personal Protective Equipment (PPE) will be provided to control the risk for personnel. Instruction and training for the correct use, maintenance and storage will be provided.

- PPE is issued to personnel in accordance with the requirements of their job.
- PPE is appropriate for the person and controls the risk for that person
- Instruction, training and information is provided to employees required to wear PPE in its fit, use and maintenance
- A regular review of the effectiveness of the company’s Personal Protective program will be performed

Specific jobs may require more personal protective equipment or clothing. For example.

- Hand, face and eye protection (when welding, angle grinding etc)
- Respirators for employees who may be exposed to atmospheric contaminants (e.g. hazardous fumes, gases or dust)
- Fall arrest systems and devices when working at heights (e.g. harnesses)
- Hearing protection in noisy areas(e.g. ear muffs or plugs)
- Protective clothing in hot and cold environments
- Sunscreen and eye protection for outside workers

Company policy requires PPE to be worn by personnel during all job tasks which require such protection and that they undergo training to ensure they are competent in the proper selection, fit, use, cleaning and maintenance of PPE.

6.9. Smoking

Company promotes a smoke-free working environment and prohibits smoking within Company facilities or vehicles, except in areas specifically designated for that purpose. Each supervisor/manager is expected to follow this policy and is responsible for ensuring that their work group abides by this policy. Supervisors/managers should treat non-adherence to the non-smoking policy as a performance issue. This policy applies to every person entering Company’s offices, facilities or vehicles and includes regular employees, temporary employees, visitors, and contract personnel. Smoking includes carrying a lighted cigarette, pipe, cigar, or other tobacco product. Smoking is not allowed in Company offices, facilities or vehicles. Should an individual desire to smoke, they must go to an area that has been designated for that purpose by senior management at that location. Should an employee violate the policy by smoking in a Company office, facility or vehicle, anyone may ask the individual to go to one of

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the designated smoking areas. If the incident requires further action, the employee’s supervisor/manager should address the problem.

6.10. Drug and Alcohol Free Workplace Policy

Company has an interest in the health and safety of its employees and recognizes that the effect of drug and alcohol abuse extends beyond the abuser’s own health. The safety of co-workers, customers and the public are threatened by the abuse of drugs and alcohol. It is Company’s policy to provide employees with a working environment that is free of the problems associated with both the use and abuse of drugs and alcohol. Such behaviour is inconsistent with the level of conduct expected of our employees, subjects Company to unacceptable risks of workplace accidents and undermines Company’s ability to operate effectively and efficiently.

To address these issues, Company has implemented this Drug and Alcohol-Free Workplace Policy which applies to all current employees and applicants. Under this Policy, the unlawful use, sale, possession, distribution, dispensation or manufacture of controlled substances, the use of prescribed medications for which no prescriptions have been issued, and the abuse of prescribed medications, on Company property or other work site(s) where employees may be assigned or elsewhere during work hours, are strictly prohibited. Also prohibited is the use of such substances and medications on non-working time to the extent such use impairs an employee’s ability to perform his/her job, or where their use, sale possession, distribution, dispensation, or manufacture affect the reputation of Company. Persons violating this Policy may be subject to disciplinary action, up to an including termination of employment for a first offense.

Any employee’s use of alcohol on Company property or during working hours or the use of alcohol during non-working time if such use impairs an employee’s ability to perform his/her job is strictly prohibited.

To ensure compliance with this Policy, Company conducts drug/alcohol testing at Company expense in accordance with the following guidelines:

6.10.1. Applicant Testing

All applicants shall receive written notice of Company’s right to conduct drug/alcohol testing at the time of application. As part of the application process, applicants may be required to submit to a drug and/or alcohol test after receiving an offer of employment. Any applicant who test positive for drugs or alcohol, who refuses to undergo a test or who attempts to falsify a test, shall be disqualified from employment with Company.

6.10.2. Employee Testing

Company may engage in drug/alcohol testing of an employee where Company has a reasonable suspicion that the employee is under the influence of drugs or alcohol. Company may also engage in such testing of employees on an unannounced random basis or at Company’s sole discretion where the employees are in security or safety sensitive position. In addition, an employee shall submit to a drug/alcohol test when required by federal or state law. Consent to drug/alcohol tests under these

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circumstances constitutes a condition of employment with Company. While an employee may decline to submit to such testing, those who do so, or who attempt to falsify a test, may be subject to a disciplinary action up to and including termination of employment.

Employees who test positive for drug or alcohol shall be informed of the test results by a designated Company representative and shall be given an opportunity to discuss the results. Company reserves the right to take disciplinary action up to and including termination of employment on the basis of a positive test result. Employees who test positive for drug use or for blood alcohol concentration of 0.02% or higher are subject to immediate termination of employment for a first offense.

6.10.3. Notice by Applicant/Employees of Lawful Use

An applicant or employee having recently issued prescription or over-the-counter drugs should provide notice of such use to the testing agency prior to undergoing testing procedures. Such information shall be recorded in writing by the test agency. Upon request, applicants or employees shall present evidence of such lawful use.

6.10.4. Condition of Employment

Compliance with Company’s Drug and Alcohol-Free Workplace Policy, including cooperation with drug/alcohol test-taking, is a condition of employment. Failure to comply or cooperate shall be grounds for disqualification from employment in the case of an applicant, or disciplinary action up to an including termination of employment in the case of an employee.

The provision of this Policy shall be implemented and administered in accordance with all applicable federal, state and local laws.

6.11. Weapons and Stolen Property

Unauthorized drugs, weapons, pyrotechnic or explosive devices, stolen items, drug paraphernalia, and other such contraband items are not allowed on any Company premises (any office, work location, helicopter, airplane, boat or vehicle).

Prohibited items include:

1. Firearms of whatever nature;
2. Weapons and explosives;
3. Any knife with a blade more than four (4) inches in length; and
4. Any other type of weapon, ammunition or fireworks.
5. Any stolen property or unauthorized possession of Company property is prohibited.

Company expects every employee voluntarily to comply with this policy. Company will, regularly without notice, take actions to ensure compliance with this policy. These actions include, without limitation, the following:

1. Reasonable searches and inspections of Company premises;

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2. Reasonable searches and inspections of employees and others on the premises, including the personal effects, lockers and vehicles of such persons;
3. Urine drug screens and blood tests or other investigative examinations of such persons; and
4. Confiscation of prohibited item and substances, and when appropriate, delivery of such items to law enforcement authorities.

Any person, who refuses to allow inspection and/or is discovered in possession of contraband material, will be subject to appropriate disciplinary action.

6.12. Unacceptable Behaviors in the Workplace

Company prohibits and will not tolerate:

- Any criminal conduct, acts of violence, making threats of violence, fighting, gambling, horseplay, using profane, obscene, degrading, abusive language and actions, provoking a fight during time with, or negligent damage of property.
- Insubordination, mouthing off, or refusing to obey instructions properly issued by a supervisor or manager pertaining to work; threatening, intimidating or coercing fellow participants on or off the premises at any time and for any purpose.
- Engaging in any act of sabotage causing the destruction or damage of Company property or the property of fellow participants, customers, vendors, contractors or visitors. Engaging in slander or any action damaging to the Company's reputation.
- Damage, loss, destruction, or theft of Company, employee, or customer property due to wilful or careless acts.
- Unauthorized possession of, removal or use of property belonging to Company, customers or other participants; using Company property for profit.
- Dishonesty, in any form or degree, falsification or misrepresentation of application or other work records.
- Loafing or sleeping on the job, unsatisfactory or careless work, a failure to meet production or quality standards, mistakes due to carelessness or failure to get necessary instructions, incompetence or neglect of work duties.
- Any act of harassment of any kind.
- Unwillingness or inability to work in harmony with others, discourtesy, conducts creating disharmony, irritation or friction.
- Failure to immediately report damage to Company equipment.
- Failure to immediately report an accident or injury on Company property,
- Company employees are forbidden from possessing or viewing pornographic material of any nature in any form while on company premises.
- Company employees are expected to maintain appropriate standards of conversation, refraining from swearing, vulgarity, sexually explicit conversation, and any other language that could be deemed offensive.

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6.13. Electrical Safety Policy

This policy establishes minimum standards to prevent hazardous electrical exposure to personnel and ensure compliance with regulatory requirements applicable to electrical systems. Working on equipment in a de-energized state is required unless de-energizing introduces an increased hazard or is infeasible. This policy is designed to help ensure that energized electrical work at Supreme facilities is performed safely by qualified electrical workers, who are trained and provided with the appropriate safe work procedures, protective equipment and other controls. The program is intended to protect employees against electrical shock, burns and other potential electrical safety hazards as well as comply with regulatory requirements. Electricity-related hazards include electric shock and burns, arc-flash burns, arc-blast impacts, and falls.

- Electric shock and burns. An electric shock occurs when electric current passes through the body. This can happen when touching an energized part. If the electric current passes across the chest or head, death can result. At high voltages, severe burns can result.
- Arc-flash burns. An electric arc flash can occur if a conductive object gets too close to a high-amp current source or by equipment failure (for instance, while opening or closing disconnects). The arc can heat the air to temperatures as high as 35,000° F, and vaporize metal in the equipment. The arc flash can cause severe skin burns by direct heat exposure and by igniting clothing.
- Arc-blast impacts. The heating of air and vaporization of metal creates a pressure wave that can damage hearing and cause memory loss (from concussion) and other injuries. Flying metal parts are also a hazard.
- Falls. Electric shocks and arc blasts can cause falls, especially from ladders or unguarded scaffolding

This policy has been established in order to:

- Ensure the safety of employees who may work on or near electrical equipment.
- Ensure that employees understand and comply with safety standards related to electrical work.
- Ensure that Company Employees and Contractors employees follow uniform practices during the progress of electrical work.
- Comply with Industry Standards according to the following six points:
 1. Provide and demonstrate a safety program with defined responsibilities.
 2. Determine the degree of arc flash hazard by qualified personnel.
 3. Affix warning labels on equipment.
 4. Provide personal protective equipment (PPE) for workers.
 5. Provide documented training to workers on Lockout/Tagout procedures and the hazards of arc flash.
 6. Provide appropriate tools for safe work.

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6.13.1. Electric Safety Principles

- De-energize whenever possible.
- Plan every job. The approach and step-by-step procedures to complete the work at hand must be discussed and agreed upon between all involved employees before beginning. Write down first-time procedures. Discuss hazards and procedures in a job briefing with supervisors and other workers before starting any job. It is the employer’s responsibility to have or develop a checklist system for working on live circuits, if such a scenario arises.
- Identify the hazards. Conduct a job hazard analysis. Identify steps that could create electric shock or arc-flash hazards.
- Minimize the hazards. De-energize any equipment, and insulate, or isolate exposed live parts so contact cannot be made. If this is impossible, obtain and wear proper personal protective equipment (PPE) and tools.
- Anticipate problems. If it can go wrong, it might. Make sure the proper PPE and tools are immediately available for the worst-case scenario.
- Obtain training. Make sure all involved employees are a qualified electrical worker with appropriate training for the job.

6.13.2. Requirements

Workers near energized, or potentially energized electrical circuitry of fifty (50) volts to ground or greater, shall be trained in energized electrical safe work practices and procedures and retrained as necessary.

6.13.3. Qualified Electrical Worker

Employees must receive training in avoiding the electrical hazards associated with working on or near exposed energized parts prior to performing energized electrical work. Such training will be provided when the employee is initially assigned to the job and refresher training will be provided every three years or when conditions change.

The following items are to be included in the training of Qualified Electrical Workers:

- Demonstrate a working knowledge of the National Electrical Code.
- The Lockout/Tagout Training Program including safe work practices required to safely de-energize electrical equipment.
- Universal electrical safety procedures.
- Skills and techniques necessary to distinguish exposed live parts from other parts of electric equipment.
- Perform on-the-job training with a qualified electrical worker.
- Skills and techniques necessary to determine the nominal voltage of exposed live parts.
- The approach distances specified and the corresponding voltages to which the qualified electrical worker will be exposed.
- Selection and use of proper work practices, personal protective equipment, tools, insulating and shielding materials and equipment for working on or near energized parts.

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Qualified Electrical Workers must be also be trained in recognizing signs and symptoms of electric shock, heart fibrillation, electric burns, and proper first aid protocols for these conditions. They must have the following training:

- Basic Cardio Pulmonary Resuscitation (CPR);
- Automatic External Defibrillator (AED); and
- Contacting emergency personnel and basic first aid.

6.13.4. Portable Electrical Equipment and Extension Cords

The following requirements apply to the use of cord-and-plug-connected equipment and flexible cord sets (extension cords):

- Extension cords may only be used to provide temporary power.
- Portable cord and plug connected equipment and extension cords must be visually inspected before any use for external defects such as loose parts, deformed and missing pins, or damage to outer jacket or insulation, and for possible internal damage such as pinched or crushed outer jacket. Any defective cord or cord-and-plug-connected equipment must be removed from service and no person may use it until it is repaired and tested to ensure it is safe for use.
- Extension cords must be of the three-wire type. Extension cords and flexible cords must be designed for hard or extra hard usage.
- Job-made extension cords are forbidden per the electrical code.
- Personnel performing work on plant or construction sites using extension cords or where work is performed in damp or wet locations must be provided, and must use, a ground-fault circuit interrupter (GFCI).
- Portable equipment must be handled in a manner that will not cause damage. Flexible electric cords connected to equipment may not be used for raising or lowering the equipment.
- Extension cords must be protected from damage. Sharp corners and projects must be avoided. Flexible cords may not be run through windows or doors unless protected from damage, and then only on a temporary basis. Flexible cords may not be run above ceilings or inside or through walls, ceilings or floors, and may not be fastened with staples or otherwise hung in such a fashion as to damage the outer jacket or insulation.
- Cords must be covered by a cord protector or tape when they extend into a walkway or other path of travel to avoid creating a trip hazard.
- Extension cords used with grounding type equipment must contain an equipment-grounding conductor (i.e., the cord must accept a three-prong, or grounded, plug).
- Attachment plugs and receptacles may not be connected or altered in any way that would interrupt the continuity of the equipment grounding conductor. Additionally, these devices may not be altered to allow the grounding pole to be inserted into current connector slots. Clipping the grounding prong from an electrical plug is prohibited.
- Flexible cords may only be plugged into grounded receptacles. The continuity of the ground in a two-prong outlet must be verified before use. It is recommended that the receptacle be

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replaced with a three-prong outlet. Adapters that interrupt the continuity of the equipment grounding connection may not be used.

- All portable electric equipment and flexible cords used in highly conductive work locations, such as those with water or other conductive liquids, or in places where employees are likely to contact water or conductive liquids, must be approved for those locations.
- Employee's hands must be dry when plugging and unplugging flexible cords and cord and plug connected equipment if energized equipment is involved.
- If the connection could provide a conducting path to employees hands (for example, if a cord connector is wet from being immersed in water), the energized plug and receptacle connections must be handled only with insulating protective equipment.
- Locking type connectors must be properly locked into the connector.
- Lamps for general illumination must be protected from breakage, and metal shell sockets must be grounded.
- Temporary lights must not be suspended by their cords unless they have been designed for this purpose.
- Portable lighting used in wet or conductive locations, such as tanks or boilers, must be operated at no more than 12 volts or must be protected by GFCI's.
- Extension cords are considered to be temporary wiring, and must also comply with the section on "Requirements for Temporary Wiring" in this program.

6.13.5. Requirements for Temporary Wiring

Temporary electrical power and lighting installations 600 volts or less, including flexible cords, cables and extension cords, may only be used during and for renovation, maintenance, repair, or experimental work. The duration for temporary wiring used for decorative lighting for special events and similar purposes may not exceed 90 days. The following additional requirements apply:

- Ground-fault protection (e.g., ground-fault circuit interrupters or GFCI) must be provided on all temporary-wiring circuits, including extension cords, used on construction sites.
- In general, all equipment and tools connected by cord and plug must be grounded. Listed or labelled double insulated tools and appliances need not be grounded.
- Feeders must originate in an approved distribution centre, such as a panel board, that is rated for the voltages and currents the system is expected to carry.
- Branch circuits must originate in an approved power outlet or panel board.
- Neither bare conductors nor earth returns may be used for the wiring of any temporary circuit.
- Receptacles must be of the grounding type. Unless installed in a complete metallic raceway, each branch circuit must contain a separate equipment-grounding conductor, and all receptacles must be electrically connected to the grounding conductor.
- Flexible cords and cables must be of an approved type and suitable for the location and intended use. They may only be used for pendants, wiring of fixtures, connection of portable lamps or appliances, elevators, hoists, connection of stationary equipment where frequently interchanged, prevention of transmission of noise or vibration, data processing cables, or where needed to permit maintenance or repair. They may not be used as a substitute for the

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fixed wiring, where run through holes in walls, ceilings or floors, where run through doorways, windows or similar openings, where attached to building surfaces, or where concealed behind building walls, ceilings or floors.

- Suitable disconnecting switches or plug connects must be installed to permit the disconnection of all ungrounded conductors of each temporary circuit.
- Lamps for general illumination must be protected from accidental contact or damage, either by elevating the fixture or by providing a suitable guard. Hand lamps supplied by flexible cord must be equipped with a handle of moulded composition or other approved material and must be equipped with a substantial bulb guard.
- Flexible cords and cables must be protected from accidental damage. Sharp corners and projections are to be avoided. Flexible cords and cables must be protected from damage when they pass through doorways or other pinch points.

6.13.6. Wet or Damp Locations

Work in wet or damp work locations (i.e., areas surrounded or near water or other liquids) should not be performed unless it is absolutely critical. Electrical work should be postponed until the liquid can be cleaned up. The following special precautions must be incorporated while performing work in damp locations:

- Only use electrical cords that have Ground Fault Circuit Interrupters (GFCIs);
- Place a dry barrier over any wet or damp work surface;
- Remove standing water before beginning work. Work is prohibited in areas where there is standing water;
- Do not use electrical extension cords in wet or damp locations; and
- Keep electrical cords away from standing water.

6.13.7. Working on De-Energized Equipment

Electrically Safe Condition

The most important principle of electrical safety is to assume all electric circuits are energized unless each involved worker ensures they are not. Every circuit and conductor must be tested every time work is done on them. Proper PPE must be worn until the equipment is proven to be de-energized.

1. Voltage rated gloves and leather protectors must be worn
2. Electrically insulated shoes should be worn
3. Approved insulating mats
4. Safety glasses must be worn
5. The required Arc Flash PPE must also be worn

The following six steps outline the process to ensure for electrically safe work.

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1. Identify all sources of power to the equipment. Check applicable up-to-date drawings, diagrams, and identification tags.
2. Remove the load current, and then open the disconnecting devices for each power source.
3. Where possible, visually verify that blades of disconnecting devices are fully open or that draw out-type circuit breakers are fully withdrawn.
4. Apply lockout/tagout devices in accordance with a formal, written policy.
5. Test each phase conductor or circuit part with an adequately rated voltage detector to verify that the equipment is de-energized. Test each phase conductor or circuit part both phase-to-phase and phase-to-ground. Check the voltage detector before and after each test to be sure it is working.
6. Properly ground all possible sources of induced voltage and stored electric energy (such as, capacitors) before touching. If conductors or circuit parts that are being de-energized could contact other exposed conductors or circuit parts, apply ground-connecting devices rated for the available fault current.

The process of de-energizing is "live" work and can result in an arc flash due to equipment failure. When de-energizing, follow the procedures described in "Working On or Near Live Equipment."

6.13.8. Lockout/Tagout Program

- Each facility shall establish a written lockout/tagout program and train employees in the program. The program should cover planning for locating and labelling energy sources, identifying employees at risk, how and by whom the equipment is de-energized, releasing of stored energy, verifying that the circuit is de-energized and can't be restarted, voltage testing, grounding requirements, shift changes, coordination with other jobs in progress, a procedure for keeping track of all involved personnel, applying and removing lockout/tagout devices, return to service, and temporary re-energizing for testing/positioning. Lockout/tagout procedures should be developed for each machine or piece of equipment that will require servicing.
- Lockout/tagout application. Each person who could be exposed to electric energy must be involved in the lockout/tagout process.
- After de-energizing, each employee at risk should apply an individual lockout/tagout device to each source of electric energy. Pushbuttons or selector switches cannot be used as the only way to de-energize.
- A lockout device is a key or combination lock with a tag that can be attached to a disconnecting device to prevent the re-energizing of the equipment being worked on without removal of the lock. The lockout device should have a way of identifying whose lock it is. Individual lockout devices with the employee name and picture on them are preferred. That employee must be the only person who has the key or combination for the lockout device they install, and that employee should be the only person to remove the lock after all work has been completed.
- A tagout device is a tag and a way to attach it that can withstand at least 50 pounds of force. Tagout devices should be used alone only when it is not possible to install a lockout device.

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- The tag used in conjunction with a lockout or tagout device must have a label prohibiting unauthorized operation of the disconnecting means or unauthorized removal of the device.
- Before beginning work, each involved employee must verify through testing that all energy sources have been de-energized.
- Electric lockout/tagout procedures should be coordinated with all other site procedures for controlling exposure to electric energy and other types of energy sources.
- Individual qualified-employee control procedure. For minor servicing, maintenance, inspection, and so on, on plug-connected equipment, work may be done without attaching lockout/tagout devices if the plug is next to where the employee is working, is always easy to see, and the equipment is never left alone while being serviced.
- Complex lockout/tagout procedures. Special procedures are needed when there is more than one energy source, crew, craft, location, employer, way to disconnect, or lockout/tagout procedure - or work that lasts beyond one shift. In any of these cases, one qualified person should be in charge of the lockout/tagout procedure with full responsibility for ensuring all energy sources are under lockout/tagout and to account for all people on the job. There should be a written plan addressing the specific details and naming the person in charge.
- Removal of lockout/tagout devices. Lockout and tagout devices should be removed only by the person installing them. If work is not completed when the shift changes, workers arriving on shift should apply their locks before departing workers remove their locks.
- Return to service. Once work is completed and lockout/tagout devices removed, tests and visual inspection must confirm that all tools, mechanical restraints, electric jumpers, shorts, and grounds have been removed. Only then is it safe to re-energize and return to service. Employees responsible for operating the equipment and needed to safely re-energize it should be out of the danger zone before equipment is re-energized.
- Temporary release. If the job requiring lockout/tagout is interrupted for testing or positioning equipment, follow the same steps as in return to service (above).

6.13.9. Vehicular and Mechanical Equipment

When work must be performed near overhead lines, the lines shall be de-energized and grounded, or other protective measures shall be provided before work is started.

- If the lines are to be de-energized, arrangements shall be made with the person or organization that operates or controls the electric circuits involved to de-energize and ground them.
- If protective measures, such as guarding, isolating or insulating are provided, these precautions shall prevent employees from contacting such lines directly with any part of their body or indirectly through conductive materials, tools or equipment

6.13.10. Elevated Equipment

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Where any vehicle or mechanical equipment structure will be elevated near energized overhead lines, they shall be operated so that the applicable NFPA Limited Approach Boundary distance is maintained. However, under the following conditions, the clearances may be permitted to be reduced:

- If the vehicle is in transit with its structure lowered, the NFPA Limited Approach Boundary distance to the overhead lines may be permitted to be reduced by 2 meters. If insulated barriers, rated for the voltages involved, are installed and they are not part of an attachment to the vehicle, the clearance shall be permitted to be reduced to the design working dimensions of the insulating barrier.
- If the equipment is an aerial lift insulated for the voltage involved, and if the work is performed by a qualified person, the clearance (between the un-insulated portion of the aerial lift and the power line) shall be permitted to be reduced to the NFPA Restricted Approach Boundary.

6.13.11. Equipment Contact

Employees standing on the ground shall not contact the vehicle or mechanical equipment or any of its attachments, unless either of the following conditions applies:

- The employee is using protective equipment rated for the voltage.
- The equipment is located so that no un-insulated part of the structure (that portion of the structure that provide a conductive path to employees on the ground) can come closer to the line than permitted in NFPA 130.5 (E)(1).

6.13.12. Equipment Grounding

If any vehicle or mechanical equipment capable of having parts of its structure elevated near energized overhead lines is intentionally grounded, employees working on the ground near the point of grounding shall not stand at the grounding location whenever there is a possibility of overhead line contact. Additional precautions, such as the use of barricades or insulation, shall be taken to protect employees from hazardous ground potentials (step and touch potential), which can develop within a few feet or more outward from the ground point.

6.13.13. Working on or Near Energized Equipment

Working on live circuits means actually touching energized parts. Working near live circuits means working close enough to energized parts to pose a risk even though work is on de-energized parts. Common tasks where there may be a need to work on or near live circuits include:

- Taking voltage measurements
- Opening and closing disconnects and breakers
- Racking breakers on and off the bus
- Removing panels and dead fronts
- Opening electric equipment doors for inspection

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Company will adopt standard written procedures and training for these common tasks. For instance, when opening and closing disconnects, use the left-hand rule when possible (stand to the right side of the equipment and operate the disconnect switch with the left hand).

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6.13.14. Energized Electrical Work Permit for 240 Volts and Higher

- If live parts are not placed in an electrically safe condition, work to be performed shall be considered energized electrical work and shall be performed by written permit only.
- The intent of this permit is to ensure that all appropriate safety precautions are taken prior to starting energized electrical work.
- Work related to testing, troubleshooting, and voltage measuring may be completed without a permit provided appropriate safe work practices and PPE are used.
- The permit must be originated by the qualified electrical worker.
- Energized Work Permits shall be submitted to the appropriate supervisor for each facility.
- The permit must be posted in an appropriate location where the energized work is taking place for the duration of the task.

6.13.15. Approach Distances to Exposed Live Parts

The National Fire Protection Association (NFPA) defines 3 approach distances for shock hazards and one for arc flash.

- The limited approach boundary is the distance from an exposed live part within which a shock hazard exists.
- The restricted approach boundary is the closest distance to exposed live parts a qualified person can approach with without proper PPE and tools. Inside this boundary, accidental movement can put a part of the body or conductive tools in contact with live parts or inside the prohibited approach boundary. To cross the restricted approach boundary, the qualified person must:
 1. Have an energized work permit that is approved by the supervisor or manager responsible for the safety plan.
 2. Use PPE suitable for working near exposed lived parts and rated for the voltage and energy level involved.
 3. Be certain that no part of the body enters the prohibited space.
 4. Minimize the risk from unintended movement, by keeping as much of the body as possible out of the restricted space; body parts in the restricted space should be protected.
- The prohibited approach boundary is the minimum approach distance to exposed live parts to prevent flashover or arcing. Approaching any closer is comparable to making direct contact with a live part. To cross the prohibited approach boundary, the qualified person must:
 1. Have specified training to work on exposed live parts.
 2. Have a permit with proper written work procedures and justifying the need to work that close.
 3. Do a risk analysis.
 4. Have (2) and (3) approved by the appropriate supervisor.
 5. Use PPE appropriate for working near exposed live parts and rated for the voltage and energy level involved.

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- The Flash Protection Boundary is the approach limit at a distance from exposed live parts within which a person could receive a second degree burn if an electrical arc flash were to occur.
 1. Use PPE appropriate for working near exposed live parts and rated for the voltage and energy level involved.
 2. For systems of 600 volts and less, the flash protection boundary is 4 feet, based on an available bolted fault current of 50 kA and a clearing time of 6 cycles for the circuit breaker to act, or any combination of fault currents and clearing times not exceeding 300 kA cycles.
 3. When working on de-energized parts and inside the flash protection boundary for nearby live exposed parts: If the parts cannot be de-energized, use barriers such as insulated blankets to protect against accidental contact or wear proper PPE.

6.13.16. Other Precautions

When working on de-energized the parts, but still inside the flash protection boundary for nearby live exposed parts:

- If the parts cannot be de-energized, barriers such as insulated blankets must be used to protect against accidental contact or PPE must be worn.
- Employees shall not reach blindly into areas that might contain exposed live parts.
- Employees shall not enter spaces containing live parts unless illumination is provided that allows the work to be performed safely.
- Conductive articles of jewellery and clothing (such as watchbands, bracelets, rings, key chains, necklaces, metalized aprons, cloth with conductive thread, metal headgear, or metal frame glasses) shall not be worn where they present an electrical contact hazard with exposed live parts.
- Conductive materials, tools, and equipment that are in contact with any part of an employee's body shall be handled in a manner that prevents accidental contact with live parts. Such materials and equipment include, but are not limited to long conductive objects such as ducts, pipes, tubes, conductive hose and rope, metal-lined rules and scales, steel tapes, pulling lines, metal scaffold parts, structural members, and chains.

When an employee works in a confined space or enclosed spaces (such as a manhole or vault) that contains exposed live parts, the employee shall use protective shields, barriers or insulating materials as necessary to avoid contact with these parts. Doors, hinged panels, and the like shall be secured to prevent them from swinging into employees. Refer to the confined space entry program.

6.14. Hand Tools & Machinery

Hand tools are used in all workplaces, every day. Many tasks cannot be completed without the use of hand tools; yet simple hand tools can cause serious injuries through misuse or poor maintenance. The safe use of hand tools is essential to our operation. Tools can be considered under a number of headings:

- Hand Tools: For example simple tools such as hammers and chisels, spanners, wrenches etc

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- Special Purpose Tools: This would include tools that have a specific and unique function, for example tools issued by (or purchased from) equipment suppliers for work on their machinery or equipment
- "Special Tools": This description refers to special tools made by employees in order to carry out specific tasks or jobs.

6.14.1. Safe & Proper Use of Tools

The safe & proper use of tools depends upon a number of features

- The safe use of tools depends on the selection of the correct tool for the job. A screwdriver is designed for driving screws into timber, and is not intended for levering or prying. Some circumstances require the use of special tools e.g. non-sparking or non-magnetic tools
- There is a correct method of use for most tools and failure to follow it will increase the risk of injury. Proper use may extend to include the use of suitable personal protective equipment when tools are used e.g. eye protection when hammering metal chisels, pins etc or when using masonry nails.
- All tools must be subject to regular inspection. Users of tools should inspect them before each occasion of use although a tool in continuous use throughout the working day e.g. a hammer could be inspected at the start of the day. The purpose of this inspection is to detect faults and damage and to ensure that the defects are fixed quickly. Employees should carry out such inspections regularly and routinely.

However, it is advisable for employers to carry out more formal inspections e.g. weekly or monthly. The frequency should be established by means of risk assessment taking into account the nature of the tools that employees are expected to provide and the frequency of use. Employer inspections should ideally be carried out by shop floor supervisors and should ideally be recorded.

- Maintenance: Some tools will require routine maintenance on a regular basis. For example:
 - Cutting tools such as wood chisels will need regular sharpening
 - Cold chisels, drift pins and wedges must have mushroomed heads ground off regularly
 - Wooden handles on hammers should be free of cracks and splinters and should be a tight fit in the hammer head
 - Adjustable tools such as wrenches may need lubricating and adjusting
 - Where tools cannot be repaired e.g. spanners with "sprung" jaws they should be discarded and replaced
- Training: Employers should consider what training might be necessary. This could take the form of simple publicity e.g. posters warning of the dangers associated with poor tools or by means of "tool box talks".

6.14.2. Employee Tool Policy

Company policy regarding employee's tools should clearly state:

- What tools are supplied by the Company and thus need not be provided by employees

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- What tools employees are expected to provide at their own cost
- What standards are in place e.g. the employer may set minimum standards regarding the type and quality of tools that are permitted or may prohibit "home-made specials"
- Rules and procedures regarding the purchase of employee's tool e.g. assisted purchase schemes to ensure that tools of a suitable quality are purchased
- Employees' responsibility for inspection, maintenance and repair of all tools - not just those they have supplied
- Employer's procedures for inspection

Hand tools must be properly maintained to avoid accidents. Most injuries involving hand tools are caused by:

- Misuse of tools
- Use of defective tools

To avoid accidents caused by hand tools, please observe the following:

- Use the proper tool. Using an incorrect tool may cause damage or even an accident.
- Use the tools correctly.
- Maintain all tools in a good and safe operating condition.

No person operates any machinery or uses any tool without appropriate training. Supervisor ensures they are competent to use any tools / machinery.

Repairs on any machinery or equipment shall not be performed until the system is de-energized and or isolated out from the system/process, and the potential release of hazardous stored energy is controlled.

Guards for belts, couplings, chains, etc., must be in place before starting-up equipment or during operation.

6.15. Compressed Air and Gases

6.15.1. Cylinders and Containers

1. Approval and marking. All portable cylinders used for the storage and shipment of compressed gases shall be constructed and maintained in accordance with the regulations of the U.S. Department of Transportation, 49 CFR Parts 171-179. This must be included as a requirement in any purchase or use agreement to insure that the vendor is supplying approved cylinders.
2. Compressed gas cylinders shall be legibly marked, for the purpose of identifying the gas content, with either the chemical or the trade name of the gas. Such marking shall be by means of stencilling, stamping or labelling, and shall not be readily removable. Whenever practical, the marking shall be located on the shoulder of the cylinder. This method conforms to the American National Standard Method for Marking Portable Compressed Gas Containers to Identify the Material Contained, ANSI Z48.1-1954.

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3. Compressed gas cylinders shall be equipped with connections complying with the American National Standard Compressed Gas Cylinder Valve Outlet and Inlet Connections, ANSI B57.1-1965.
4. All cylinders with a water weight capacity of over 30 pounds (13.6 kg) shall be equipped with a means of connecting a valve protection cap or with a collar or recess to protect valve.

6.15.2. Transporting and Moving of Compressed Gas Cylinders

1. Valve protection caps, where cylinder is designed to accept a cap, shall always be in place and secure.
2. When transporting cylinders by a crane or derrick, a cradle, boat, or suitable platform shall be used. Slings or electric magnets shall not be used for this purpose.
3. Cylinders shall be moved by tilting and rolling them on their bottom edges. They shall not be intentionally dropped, struck, or permitted to strike each other violently.
4. When cylinders are transported by powered vehicles, they shall be secured in a vertical position.
5. Valve protection caps shall not be used for lifting cylinders from one vertical position to another. Bars shall not be used under valves or valve protection caps to pry cylinders loose when frozen. Warm, not boiling water shall be used to thaw cylinders loose.
6. Unless cylinders are firmly secured on a special carrier intended for this purpose, regulators shall be removed and valve protection caps put in place before cylinders are moved.
7. A suitable cylinder truck, chain, or other steadying device shall be used to keep cylinders from being knocked over while in transit.
8. When cylinders are moved at any time, the cylinder valve shall be closed.
9. Compressed gas cylinders shall be secured in an upright position at all times except, if necessary, for short periods of time while cylinders are actually being hoisted or carried. Acetylene cylinders must remain upright at all times.

6.15.3. Storage

1. Cylinders shall be kept away from radiators and other sources of heat.
2. Inside of buildings, hydrogen cylinders shall be stored in a well-protected, well ventilated, dry location, at least 20 feet (6.1m) from highly combustible materials. All cylinders should be stored in definitely assigned places away from elevators, stairs, or gangways. Assigned storage places shall be located where cylinders will not be knocked over or damaged by passing or falling objects, or subject to tampering by unauthorized persons. Cylinders shall not be kept in unventilated such as lockers and cupboards.
3. Empty cylinders shall have their valves closed and marked "MT".
4. Valve protection caps, where cylinder is designed to accept a cap, shall always be in place, hand-tight, except when cylinders are in use or connected for use.
5. Fuel-gas cylinders stored inside a building, except those in actual use or attached ready for use, shall be limited to a total cumulative gas capacity of 2,000 cubic feet (56 m3) or 300 pounds (135.9 kg) of liquefied petroleum gas.
6. Acetylene cylinders shall be stored valve end up.

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7. Oxygen cylinders in storage shall be separated from fuel-gas cylinders or combustible materials (especially oil or grease), a minimum distance of 20 feet (6.1 m) or by a non-combustible barrier at least 5 feet (1.5m) high having a fire-resistance rating of at least one-half hour.

6.15.4. Operating Procedures

1. Cylinders, cylinder valves, couplings, regulators, hose, and apparatus shall be kept free from oily or greasy substances. Oxygen cylinders or apparatus shall not be handled with oily hands or gloves. A jet of oxygen must never be permitted to strike an oily surface, greasy clothes, or enter a fuel oil or other storage tank.
2. Cylinders shall not be dropped or struck or permitted to strike each other violently.
3. Cylinders not having fixed hand wheels shall have keys, handles, or non-adjustable wrenches on valves stems while these cylinders are in service. In multiple cylinder installations, only one key or handle is required for each manifold.
4. Cylinder valves shall be closed when work is finished.
5. Empty cylinders shall be closed and placed in appropriate designated storage locations as part of the change-out procedure.
6. Cylinders shall be kept far enough away from welding or cutting operations so that sparks, hot slag, or flame will not reach them, or fire-resistance shields shall be provided.
7. Cylinders shall not be placed where they might become part of an electric circuit. Cylinders shall be kept away from radiators, piping systems, layout tables, etc., that may be used for grounding electric circuits such as for arc welding machines. Any practice, such as the tapping of an electrode against a cylinder to strike an arc, shall be prohibited.
8. Cylinders shall never be used as rollers or supports, whether full or empty.
9. The numbers and markings stamped into cylinders shall not be tampered with.
10. No person, other than the gas supplier, shall attempt to mix gases in a cylinder. No one, except the owner of the cylinder or person authorized by him, shall refill a cylinder.
11. No one shall tamper with safety devices on cylinders or valves.
12. Unless connected to a manifold, oxygen from a cylinder shall not be used without first attaching an oxygen regulator to the cylinder valve. Before connecting the regulator to the cylinder valve, the valve shall be opened slightly for an instant and then closed. Always stand to one side of the outlet when opening the cylinder valve.
13. A hammer or wrench shall not be used to open cylinder valves. If valves cannot be opened by hand, the supplier shall be notified.
14. Cylinder valves shall not be tampered with, nor should any attempt be made to repair them. If trouble is experienced, the supplier should be sent a report promptly.
15. Fuel gas cylinders shall be used with the valve stem up and liquefied gases stored and shipped with the valve end up.
16. Cylinders shall be handled carefully. Rough handling, knocks, or falls may damage the cylinders, valve, or safety devices and cause leakage.

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6.15.5. Training

Those employees, who use gas cylinders as part of their job, should be trained in their proper use. This training should be included as part of the employees' Welding and Cutting, Chemical Hygiene, or Hazard Communication training. If this training must be provided separately, it should be documented and forwarded to the Office of Safety.

6.16. Traffic Regulation

To improve the safety of all road users and to consider the requirements of the local communities:

All vehicles shall be given a pre-use inspection every day.

Maximum speed limits are (except where stated otherwise):

- All Site Roads: 30 km/hrs
- Passing Pedestrians / Groups of People 20 km/hrs
- Access Road: 60 km/hrs
- Toll Roads: 100 km/hrs

Company vehicles are not permitted to overtake other vehicles on the left hand shoulder of any toll road.

Drivers should be aware of the nuisance created by dust when passing pedestrians during the dry season and adjust their speed accordingly.

All vehicles shall have seat belts installed and must be worn at all times by driver and all passengers (including rear seats).

Drivers must have a valid police driving license.

Traffic hazards exist at Company operation area – in particular small children, undisciplined motor cyclists, villagers using hand-carts, steep gradients, tight curves, slow trucks, wide loads, heavy use by public vehicles, periods of heavy rainfall.

Passengers are not permitted to ride on truck roofs or any area outside the designated spaces.

Smoking is prohibited in all Company vehicles, Contractor vehicles within project area or any vehicles that used for Company business trip.

Use of hand phones is strictly prohibited whilst driving within the Company project area.

Driving under the influence of alcohol is strictly prohibited.

The use of motorbikes for company business is strictly prohibited. Motorbikes may be used for commuting to and from work, providing that crash helmets for both driver and passenger.

Any driver and passenger who violate these traffic regulations will be subject to disciplinary action.

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6.17. Driving Certificate

The driving license is required for Company employee and contractors who drive company vehicles (including rental vehicles) and contractors' cars.

6.18. Vehicle Regulation

All vehicles used for routine operations within Company operation area shall carry a fire extinguisher and first aid kit.

All vehicles entering the Company operation area shall be subjected to a vehicle inspection. Vehicles will be randomly inspected by Security Guards, Line Managers and Company Contract Supervisors. Vehicles that do not comply with this regulation are to be de-mobilised until they have been repaired. Independent mechanics shall be used to resolve any disputes between parties.

Company Operation requires that all contractors (including truck drivers and helpers) wear hard hats, safety shoes and safety glasses or they will not be permitted to leave their vehicle.

6.19. Traffic Controller

Traffic Controllers are trained to observe, monitor, direct and control traffic flow during special activities, such as heavy construction periods, movement of special loads or equipment or emergency response conditions.

6.20. Work Permit

A work permit system is applied to designated operating areas, including LOTO, Confined Space Entry, Hot work, Excavation to mitigate hazards and ensure the work is completed safely.

6.21. Permit to Work

A Permit to Work (PTW) is requested for all physical work completed within Company project area to identify and control hazards and ensure all work is properly approved and managed prior to commencement.

Example activities that require PTW: Major/minor maintenance work, any energy sources requiring LOTO, non-routine work in a potentially high H2S area (well testing, well start up, wire-line work), work at height, work with hazardous and toxic substances/material, inspection, construction, drilling, survey, process equipment cleaning, hot work, entry into confined space, excavation, etc.

Exceptions: routine activities which are described by SOP's and completed by Facility Owner's work crew.

Permit to Work Form consists of two sections:

- *PTW section (upper portion), completed by requestor performing the task/job to ask permission from the "facility owner" of equipments.*
- *Pre-Job Hazard Screening section (lower portion), to remind the personnel performing tasks/jobs to ensure that working area is safe before they works.*

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6.22. System Transfer

In addition of PTW, A system transfer Permit is required when a system or component is transferred to another group from facility or process owner.

This includes maintenance activities; tie in of new systems to old systems and repair or modification of systems.

System transfer is not required on certain Company Construction or Maintenance activities that do not interfere with the ability of Operations to operate a system.

6.23. Confined Space Entry Permit

6.23.1. Purpose

This program establishes practices and procedures for entering, exiting, and working in confined spaces.

6.23.2. Scope

In order to ensure safe confined space entries, all Company sites shall:

- a. Identify and label all confined spaces at the site;
- b. Develop and implement written confined space entry procedures;
- c. Provide necessary training, equipment and rescue services; and,
- d. Include employees in the site-specific procedure reviews.

6.23.3. General

6.23.3.1. Initial Workplace Evaluation

The entire workplace shall be evaluated to determine which areas are confined spaces. Areas determined to be confined spaces shall have warning signs posted at all points of possible entry. (A sign reading "DANGER - CONFINED SPACE - DO NOT ENTER" or similar language would satisfy this requirement.)

6.23.3.2. Equipment List

The following shall be readily available and maintained for confined-space entry:

- a. Adequate testing and monitoring equipment.
- b. Ventilating equipment needed to obtain acceptable entry conditions.
- c. Communications equipment necessary for permit space communications.
- d. Personal protective equipment necessary when engineering and work practice controls do not adequately protect employees.
- e. Lighting equipment needed to enable employees to see well enough to work safely and to exit the space quickly in an emergency.
- f. Barriers and shields, as required, to protect entrants from external hazards.
- g. Equipment, such as ladders, needed for safe entrance and exit by entrants.

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- h. Rescue and emergency equipment needed to comply with permit-required confined space entry requirements, except to the extent that the equipment is provided by off-site rescue services.
- i. Any other equipment necessary for safe entry into and rescue from confined spaces.
- j. All portable electric equipment taken into confined spaces shall be rated for the application, explosion-proof if necessary, and GFCI protected.

6.23.3.3. Testing for Atmospheric Hazards

Testing for atmospheric hazards shall be done with a calibrated (minimum $\pm 10\%$ accuracy) direct-reading instrument, for the following conditions in the order given:

- a. Oxygen content;
- b. Flammable gases and vapours; and
- c. Potential toxic air contaminants (for example: CO and H₂S).

Testing shall be conducted in such a manner that represents the atmosphere throughout the confined space and shall be performed by a qualified person. The qualified person shall have a basic understanding of the work being performed and shall be knowledgeable in the proper use of atmospheric monitoring instruments, field calibration, anticipated hazardous contaminants, and any process which could significantly alter original conditions inside or outside the confined space.

Initial testing of atmospheric conditions shall be done with the ventilation system shut down. It shall be accomplished during initial entry procedures and anytime the space is vacated for any length of time (lunch break, or overnight). Further testing (i.e., periodic testing every two hours to assure that a hazardous atmosphere has not developed) shall be conducted with ventilation systems running. This is to ensure that the contaminants are removed and that the ventilation system is not a source of contamination.

Employees and their representatives shall be allowed to observe the monitoring process.

6.23.3.4. Respiratory Protection in Confined Spaces

Air quality and respiratory protection are of paramount concern in confined space work. When circumstances demand confined space entrants wear respirators, such respirators shall be selected and used in accordance with Section 9.10 (Respiratory Protection).

6.23.3.5. Welding, Cutting and Brazing (Hotwork) in Confined Spaces

- a. All confined space cutting and welding (hot work) operations shall either be adequately ventilated, or appropriate respirators shall be worn by all personnel in the space (See Section 9.10, Respiratory Protection, for ventilation and respiratory protection requirements.)
- b. All gas cylinders and welding machines shall be left on the outside of the confined space. Before operations are started, any heavy portable (wheel-mounted) equipment shall be securely blocked to prevent accidental movement.
- c. Where a welder shall enter a confined space through a manhole or other small opening, means shall be provided for quickly removing him/her in case of an emergency. When safety harnesses

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and lifelines are used for this purpose, they shall be attached in such a manner as to prevent the welder's body from becoming jammed in a small exit opening. An attendant with a pre-planned rescue procedure shall be stationed outside to observe the welder at all times and be capable of putting rescue operations into effect.

- d. When arc welding is to be suspended and equipment is left unattended for any period of time, all electrodes shall be removed from the holders, the holders shall be carefully located so that accidental contact cannot occur, and the machine shall be disconnected from the power source.
- e. When compressed gasses are used for hot work in confined spaces, the torch valves shall be closed and the fuel-gas and oxygen supply to the torch positively shut off at some point outside the confined space whenever the torch is left unattended. Where practicable, the torch and hose shall also be removed from the confined space.
- f. After welding operations are completed, the welder shall mark the hot metal with a standard symbol or marking, or provide some other means of warning other workers.
- g. See Section 9.16 (Fire Protection and Prevention) for further requirements pertaining to cutting and welding.

6.23.4. Pre-Entry Requirements

Before a confined space can be entered, hazards of the space shall be identified and evaluated to determine how the risks associated with those hazards can be managed. The type and magnitude of risks involved determines which one of the two procedures will be followed during entry (high-risk spaces require more extensive measures than low-risk spaces). Finally, regardless of which entry procedure is to be followed, certain standard precautions shall be taken in preparation for entering the space.

6.23.4.1. Hazard Identification

The initial phase of any confined space entry is the identification of existing and/or potential hazards associated with the space. As a minimum, the hazard identification process shall include:

- a. Past and current uses of the confined space which may adversely affect the atmosphere of the space.
- b. Physical characteristics, configuration, and location of the confined space (include entry/exit hazards posed by adjacent spaces/operations).
- c. Existing or potentially hazardous atmospheric hazards in the space.
- d. Biological hazards.
- e. Mechanical hazards.
- f. Physical agents (electrical, thermal, radiological, engulfment, fall hazards or compression).

6.23.4.2. Hazard Evaluation

Once hazards have been identified, they shall be evaluated to determine the risks involved and how they can be managed. A qualified person shall evaluate the identified hazards with respect to:

- a. Scope of hazard exposure (how many/which employees exposed/affected).
- b. Magnitude of the hazard.

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- c. Likelihood of hazard occurrence.
- d. Consequences of hazard occurrence.
- e. Potential for changing conditions/activities.
- f. Strategies for controlling the hazards (engineering solutions are necessary when possible).
- g. Impact on emergency response (include physical conditions which may hinder emergency rescue).

6.23.4.3. *Classifying Confined Spaces*

Based on the hazard evaluation, the confined space shall be classified into one of two categories: permit-required or non-permit. ALL confined spaces are considered permit-required prior to entry unless the conditions below can be met. If these conditions cannot be met, the confined space will remain a permit-required confined space.

In order to reclassify a permit-required confined space to a non-permit confined space, the following conditions shall be met:

- a. Non-atmospheric hazards shall be eliminated either without entry into the space, or by entering the space in accordance with the permit-required confined space entry procedures.
- b. Ensure that removed hazards are not reintroduced prior to employee exit of the confined space.
- c. If atmospheric hazards exist, demonstrate that continuous forced air ventilation alone is sufficient to maintain that space for entry.
- d. Monitoring and inspection data shall support the above conditions. If an entry of the space is required to obtain this data, the entry is performed in accordance with the permit-required confined space entry procedures.

6.23.4.4. *Pre-Entry Precautions*

The following steps shall be taken before any confined space entry:

- a. Any conditions making it unsafe to remove an entrance cover shall be eliminated before the cover is removed. Lockout/Tagout shall be implemented where applicable.
- b. When entrance covers are removed, the opening shall be promptly guarded by a railing, temporary cover, or other temporary barrier that will prevent an accidental fall through the opening and that will protect employees working in the space from foreign objects entering the space.
- c. Without entering the space, the internal atmosphere shall be tested for atmospheric hazards (if the space must be entered, the permit-required confined space entry procedures apply).

6.23.5. Permit-Required Confined Space Entry

Confined space entry shall be in accordance with the requirements below.

6.23.5.1. *General Requirements*

The permit-required confined space program shall contain measures to:

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- a. Implement the measures necessary to prevent unauthorized entry.
- b. Identify and evaluate the hazards of permit spaces before employees enter them.
- c. Implement the means, procedures, and practices necessary for safe permit space entry operations, including, as a minimum:
 - Specifying acceptable entry conditions.
 - Isolation of the permit space in accordance with lockout/tagout.
 - Purging, inerting, flushing, or ventilating the permit space as necessary to eliminate or control atmospheric hazards.
 - Providing barriers as necessary to protect entrants from external hazards.
 - Verifying that conditions in the permit space are acceptable for entry throughout the duration of an authorized entry.
- d. Test and evaluate permit-space conditions prior to entry and, periodically, to determine if acceptable entry conditions are satisfied.
- e. Provide at least one attendant outside the permit space for the duration of entry operations. (Attendants may be assigned to monitor more than one permit space provided that attendant's responsibilities can be effectively performed for each permit space that is monitored, and the attendant performs no other functions).
- f. If multiple spaces are to be monitored by a single attendant, include the means and procedures to enable the attendant to respond to an emergency affecting one or more of the permit spaces being monitored without distracting from the attendant's responsibilities.
- g. Designate the persons who are to have active roles (for example, authorized entrants, attendants, entry supervisors, or persons who test or monitor the atmosphere in a permit space) in entry operations, identify the duties of each such employee, and provide each such employee with the required training.
- h. Implement procedures for summoning rescue and emergency services, for rescuing entrants from permit spaces, for providing necessary emergency services to the rescued, and for preventing unauthorized personnel from attempting a rescue. Involve employees in the process of review and development of a confined space rescue team.
- i. Implement a system for the preparation, issuance, use, and cancellation of entry permits.
- j. Implement procedures to coordinate entry operations when employees of more than one employer are working simultaneously in a permit space, so that employees of one employer do not endanger the employees of any other employer.
- k. Implement procedures (such as closing off a permit space and cancelling the permit) necessary for concluding the entry after entry operations have been completed.

6.23.5.2. *Entry Permits*

Permit-required confined space entry permits shall be used as follows:

- a. The confined space entry permit shall be completed prior to entry.
- b. The permit shall identify all authorized entrants attached to the specific job, which entrants are in the space, and attendant(s). This requirement can be met by a separate "entry/exit" log maintained by the attendant. This log is considered part of the permit.

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- c. Before entry begins, the entry supervisor identified on the permit shall sign the entry permit to authorize entry.
- d. Copies of the completed permit shall be posted at all points of entry into the confined space.
- e. The duration of the permit may not exceed the time required to complete the assigned task or job identified on the permit, not to exceed one (1) shift.
- f. If a permit space is vacated with the permit still in effect, the space shall be barricaded or attended so as to prohibit unauthorized entry, (i.e., during a lunch break), atmospheric testing shall be conducted before re-entry into the permit space. A qualified person shall verify that all precautions and other measures called for on the permit are still in effect.
- g. The entry supervisor shall terminate entry and cancel the entry permit when:
 - The entry operations covered by the entry permit have been completed; or
 - A condition that is not allowed under the entry permit arises in or near the permit space; or
 - End of shift.
- h. The cancelled entry permit (including entry/exit log, if used) shall be retained for at least one (1) year to aid review of the confined space program. Any problems encountered during an entry operation shall be noted on the permit so that appropriate revisions to the permit space program can be made.

6.23.5.3. *Entry Team*

Due to the hazardous nature of entering a permit-required confined space, an entry team shall be identified prior to entry. The entry team is comprised of the authorized entrant(s), an attendant stationed immediately outside the space while authorized entrants are in the space, and an entry supervisor who oversees the entry operations. A complete list of responsibilities for entry team personnel is provided below.

6.23.5.4. *Authorized Entrants*

It is the responsibility of the authorized entrants to:

- a. Know the hazards that may be faced and signs/symptoms and consequences of exposure.
- b. Use required equipment properly.
- c. Communicate with the attendant as necessary.
- d. Alert the attendant and exit as quickly as possible whenever a warning sign/symptom of exposure to a dangerous situation is noticed or a prohibited condition is recognized.
- e. Exit from the space as quickly as possible whenever an order to evacuate is given (alarm or vocal).

6.23.5.5. *Attendants*

It is the responsibility of the attendants to:

- a. Know the hazards that may be faced by the authorized entrants, and signs/symptoms and consequences of exposure.

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- b. Be aware of possible behavioural effects of hazard exposure to authorized entrants.
- c. Continuously maintain an accurate count of authorized entrants in the permit space and ensure that the permit accurately identifies who is in the permit space.
- d. Remain outside the permit space during entry operations until relieved by another attendant. This also applies when attendants who are trained and authorized to provide rescue services must enter the space.
- e. Communicate with authorized entrants as necessary to monitor entrant status and to alert entrants of the need to evacuate the space.
- f. Monitor activities inside and outside the space to determine if it is safe for entrants to remain in the space.
- g. Summon rescue and other emergency services as soon as he/she determines that authorized entrants may need assistance to escape from permit space hazards.
- h. Order the authorized entrants to evacuate the permit space immediately under any of the following conditions:
 - If a prohibited condition is detected;
 - If the behavioural effects of hazard exposure to an authorized entrant are detected;
 - If a situation outside the space that could endanger the authorized entrants is detected; or
 - If the attendant cannot effectively and safely perform all of the indicated responsibilities.
- i. Take the following actions when unauthorized persons approach or enter a permit space whenever the space is open and access is possible :
 - Warn the unauthorized persons that they must stay away from the permit space.
 - Advise the unauthorized persons that they must exit immediately if they have entered the permit space.
 - Inform the authorized entrants and the entry supervisor if unauthorized persons have entered the permit space.
- j. Perform designated non-entry rescue duties.
- k. Perform no duties that might interfere with the primary duty of monitoring and protecting the authorized entrants.

6.23.5.6. *The Entry Supervisor*

It is the responsibility of the entry supervisor to:

- a. Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.
- b. Identify and evaluate the hazards of the space to be entered.
- c. Verify, by checking that the appropriate entries have been made on the permit, that all tests specified by the permit have been conducted and that all procedures and equipment specified by the permit are in place before endorsing the permit and allowing entry to begin.
- d. Terminate the entry and cancel the permit when entry operations covered by the permit have been completed or a condition that is not allowed under the entry permit arises in or near the permit space.
- e. Verify that rescue services are available and that the means for summoning them are operable.

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- f. Remove unauthorized individuals who enter or who attempt to enter the permit space during entry operations.
- g. Determine that entry operations remain consistent with terms of the entry permit and that acceptable entry conditions are maintained:
 - When responsibility for a permit space entry operation is transferred; and
 - At intervals dictated by the hazards and operations performed within the space.
- h. Notify the rescue service or team prior to entry.

6.23.5.7. Retrieval System

To facilitate non-entry rescue, retrieval systems or methods shall be used whenever an authorized entrant enters a permit space, unless the retrieval equipment would increase the overall risk of entry or would not contribute to the rescue of the entrant. Retrieval systems shall meet the following requirements:

- a. Each authorized entrant shall use a chest or full body harness, with a retrieval line attached at the centre of the entrant's back near shoulder level, or above the entrant's head.
- b. Wristlets/anklets may be used in lieu of the chest or full body harness if it can be demonstrated that the use of a chest or full body harness is infeasible or creates a greater hazard and that the use of wristlets is the safest and most effective alternative.
- c. The other end of the retrieval line shall be attached to a mechanical device or fixed point outside the permit space in such a manner that rescue can begin as soon as the rescuer becomes aware that rescue is necessary. A mechanical device shall be available to retrieve personnel from vertical type permit spaces more than 5 feet (1.52 m) deep.

6.23.5.8. Rescue and Emergency System

Rescue and emergency services may be either provided internally or contracted out.

Internal Rescue Service Requirements

- a. Ensure that each member of the rescue service is provided with, and is trained to use properly, the personal protective equipment and rescue equipment necessary for making rescues from permit spaces.
- b. Each member of the rescue service shall be trained to perform the assigned rescue duties.
- c. Each member of the rescue service shall receive the same training as authorized entrants.
- d. Each member of the rescue service shall practice making permit space rescues at least once every 12 months, by means of simulated rescue operations in which they remove dummies, mannequins, or actual persons from the actual permit spaces or from representative permit spaces. Representative permit spaces shall, with respect to opening size, configuration, and accessibility, simulate the types of permit spaces from which rescue is to be performed.
- e. Each member of the rescue service shall be trained in basic first aid and in cardiopulmonary resuscitation (CPR)

Off-Site Rescue Services

When arrangements are made to have outside services perform permit rescue, the site shall:

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- a. Inform the rescue service of the hazards they may confront when called on to perform rescue at the site, and
- b. Provide the rescue service with access to all permit spaces from which rescue may be necessary so that the rescue service can develop appropriate rescue plans and practice rescue operations.

6.23.5.9. Hazardous Substance Exposure

If an injured entrant is exposed to a substance for which a Material Safety Data Sheet (MSDS) or other similar written information is required to be kept at the work site, that MSDS or written information shall be made available to the medical facility treating the exposed entrant.

6.23.5.10. Lighting in Confined Spaces

Lighting used in confined spaces shall comply with distinct electrical standards. Portable electric lighting used in wet and/or other conductive locations as, for example, drums, tanks, and vessels, shall be operated at 12 volts or less. However, a 120-volt light may be used if protected by a ground-fault circuit interrupter.

6.23.6. Non-Permit Confined Space Entry

If the confined space has been classified as a non-permit confined space, then it may be entered in accordance with the following requirements:

- a. The site-specific Confined Space Entry Permit Form shall be completed and copies posted at all points of entry into the confined space. This certification is good for the duration of the shift only.
- b. Confined Space Reclassification Checklist should be used as a guide to evaluate the confined space for reclassification.
- c. There may be no hazardous atmosphere within the space whenever any employee is inside the space.
- d. If continuous forced air ventilation is used:
 - An employee may not enter the space until the forced air ventilation has eliminated any hazardous atmosphere.
 - The forced air ventilation shall be so directed as to ventilate the immediate areas where an employee is or will be present within the space and shall continue until all employees have left the space.
 - The air supply for the forced air ventilation shall be from a clean source and may not increase hazards in the space.
- e. If the work being performed introduces hazards into the atmosphere (welding, painting, etc.) or if the possibility exists whereby a hazardous atmosphere may develop, the atmosphere within the space shall be periodically tested as necessary to ensure that the continuous forced air ventilation is preventing the accumulation of a hazardous atmosphere.
- f. If a hazardous atmosphere is detected during entry:
 - Each employee shall leave the space immediately;
 - The space shall be evaluated to determine how the hazardous atmosphere developed; and

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- Measures shall be implemented to protect employees from the hazardous atmosphere before any subsequent entry takes place.
- a. The space shall be re-evaluated and reclassified to a permit-required confined space, if necessary when:
 - There are changes in the use or configuration of a non-permit confined space that might increase the hazards to entrants; or
 - Hazards arise within the space, forcing employees to exit it.

6.23.7. Training

6.23.7.1. General Training

General training and information will be provided to all site employees at the time of initial assignment as part of the new-hire site orientation. As a minimum, this training shall include a discussion of the dangers of confined spaces, the difference between non-permit and permit-required confined spaces, proper procedures for gaining entry to each, and an explanation of the signs and permits related to confined spaces.

6.23.7.2. Additional Training

Additional training will be provided to all personnel responsible for supervising, planning, entering, or participating in confined space entry and rescue. Training will be provided:

- a. Before the employee is first assigned duties related to confined spaces;
- b. Before there is a change in assigned duties;
- c. Whenever there is a change in confined space operations that presents a hazard about which an employee has not previously been trained;
- d. Whenever there is reason to believe either that there are deviations from the confined space entry procedures (permit or non-permit) or that there are inadequacies in the employee's knowledge or use of these procedures; and
- e. Refresher training accomplished annually.

6.23.7.3. Training Requirements

Training shall establish proficiency in functional duties and, as a minimum, include the following:

- a. An explanation of the general hazards associated with confined spaces.
- b. A discussion of specific confined space hazards associated with the site, location, or operation.
- c. The reason for, proper use of, and limitations of personal protective equipment and other safety equipment required for entry into confined spaces.
- d. An explanation of the permit system and other procedural requirements for conducting a confined space entry.
- e. How to respond to emergencies.
- f. Duties and responsibilities as a member of the confined space entry team. (This applies only to permit-required confined spaces and includes authorized entrants, attendants, and entry supervisors.)

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- g. A description of how to recognize probable air contaminant overexposure symptoms to themselves and co-workers, and methods for alerting attendants.

6.23.8. Contractors

When non-site personnel (contractors, etc.) perform work that involves permit space entry, site management shall:

- a. Inform the contractor that the workplace contains permit spaces and that permit space entry is only allowed at site management’s discretion;
- b. Apprise the contractor of the elements, including the hazards identified and the site’s experience with the space, that make the space in question a permit space;
- c. Apprise the contractor of any precautions or procedures that the site has implemented for the protection of employees in or near confined spaces where contractor personnel will be working;
- d. Coordinate entry operations with the contractor when both site and contractor personnel will be working in or near the same permit spaces; and
- e. De-brief the contractor at the conclusion of the entry operations regarding the permit space program used and any hazards confronted or created in permit spaces during entry operations.

6.23.9. Reviewing Confined Space Program

6.23.9.1. Periodic Review

Periodic review of entry operations is necessary when there is reason to believe that measures taken under the program may not protect employees. The program shall be revised to correct any deficiencies before subsequent entries are authorized. Affected employees shall be consulted regarding development and revision of confined space entry procedures.

Examples of circumstances requiring review of the program are:

- a. Any unauthorized entry of a confined space;
- b. Detection of hazards not originally thought to exist;
- c. Detection of a permit space hazard not covered by the permit,
- d. Detection of a condition prohibited by the permit;
- e. Occurrence of an injury or near-miss during entry;
- f. Changes in the use or configuration of a permit space; and,
- g. Employee complaints about the effectiveness of the program.

6.23.9.2. Annual Review

Annual review of the program is required, unless no entry is performed during the 12-month period. The review shall include all cancelled permits accumulated over the 12-month period. The program shall be revised as necessary to ensure that employees participating in entry operations are protected from permit space hazards. Affected employees shall be consulted regarding the development and revision of confined space entry procedures.

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6.24. Lock Out & Tag Out (LOTO)

Lockout/Tagout Procedure

6.24.1. Purpose and Scope

This procedure will explain the responsibilities and authorities, the process for issuing and for the removing of locks/tags for equipment clearances, audit and periodic inspection processes, and training requirements associated with the Company Lockout/Tagout (LOTO) procedure. Non-compliance with this procedure will create a hazard to personnel or equipment and will be grounds for disciplinary action up to and including dismissal.

6.24.2. Responsibility and Authority

6.24.2.1. Management

The Management personnel included in the list of Authorized Workers for the LOTO program at the Company Generating Plant are responsible for insuring the Lockout/Tagout Procedure is followed by all workers. They are responsible for insuring adequate training, review and implementation of this procedure

6.24.2.2. Primary Authorized Worker

At COMPANY the primary authorized worker (Tagging Authority and Primary Authorized Worker will be used interchangeably throughout this procedure) will be the Lead O&M Technician on-shift or the control room operator. The Primary Authorized Worker will have the following responsibilities:

- Responsible for insuring the accurate preparation, review, implementing and removal of all Lockout/Tagout procedure/clearances.
- Responsible for resolving conflicts and answering questions for all clearances
- Responsible for maintaining the Lockout/Tagout log
- Responsible for insuring that the LOTO establishes a “safe condition” for the scope of work to be performed.
- Responsible for providing system restoration line-ups and system testing if none are provided

6.24.2.3. Technical Reviewer

The Technical reviewer will review the Equipment Clearance Procedure to insure the accuracy and adequacy of the isolation boundaries. This review is performed using available information such as controlled drawings, documents, or field walk-down. This will serve as a periodic Inspection for the Company (Lockout/Tagout Procedure.

6.24.2.4. Authorized Worker

At Company those workers who have the responsibility for the LOTO process are considered an Authorized Worker. Authorized Workers involved in a LOTO have the following responsibilities:

- An Authorized Worker is responsible for performing reviews of the Lockout/Tagout for completeness, accuracy, and adequacy.

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- Only an Authorized Worker can act as a Technical Reviewer and, in this capacity, Authorized Worker is responsible for ensuring that the LOTO establishes a "safe condition" for the scope of the work to be performed.
- Only Authorized Workers shall install tags under this procedure.
- Only Authorized Workers shall conduct the Lockout/Tagout audit.

6.24.2.5. *All Personnel*

- All Company Generating personnel and contract personnel shall comply with the Company Generating Lockout/Tagout (LOTO) procedure.
- No one shall operate any device on which a danger tag is hung.
- No one shall operate equipment on which a caution tag is installed beyond the limits specified on the tag.
- No one shall authorize another person to violate a Lockout/Tagout that is in place.
- Any wilful or negligent violation of instructions on a tag is sufficient cause for disciplinary action up to and including termination of employment.
- Contact the Lead O&M Technician or the control room operator immediately if a loose tag is found.

Note:

Anyone who finds a loose or unattached tag shall contact the Lead O&M Technician immediately. The Lead O&M Technician shall immediately determine if the tag is still active and issue a replacement if necessary. If for any reason this procedure cannot be effectively applied, a written authorization for hazardous work shall be prepared and approved by the Operations/Plant Manager prior to beginning the work.

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6.24.3. LOTO Types and Devices at Company

6.24.3.1. LOTO Types

There are two types of LOTOs allowed at Company. The two types are as follows:

a. Single Point Isolation Lockout/Tagout

Single Point Isolation can be used when the following 8 items apply and can be adhered to per OSHA 29 CFR 1910.147. Single point isolation will be allowed on a case-by-case basis and after review with a primary authorized worker. Note that the Lockout Device is under the exclusive control of the Authorized Worker performing the service or maintenance. An example of a single point isolation lockout/tagout would be a lube oil reservoir sight glass which can be isolated from the reservoir with a single valve or lockout of a breaker feeding a lighting panel where the lighting panel is not an energy source.

- The machine or equipment has no potential for stored or residual energy or re-accumulation of stored energy after shut down which could endanger employees.
- The machine or equipment has a single energy source which can be readily identified and isolated.
- The isolation and locking out of that energy source will completely de-energize and de-activate the machine or equipment.
- The machine or equipment is isolated from that energy source and locked out during servicing or maintenance.
- A single lockout device will achieve a locked out condition.
- The lockout device is under the exclusive control of the authorized worker performing the servicing or maintenance.
- The servicing or maintenance does not create hazards for other employees.
- The employer, in utilizing this exception, has had no accidents involving the unexpected activation or re-energization of the machine or equipment during servicing or maintenance.

b. General Lockout/Tagout

To be used under any circumstances which requires a LOTO for a specific job to insure a piece of equipment has been properly isolated from any energy source. The job work scope will determine the clearance points need to insure a piece of equipment is properly locked/tagged out. The procedure for a General LOTO is described in section 5.0 of this procedure.

6.24.3.2. Locks, Locking Devices and Tags

Locks

The following color coded locks are used at Company:

- Blue Lock – A Blue Lock is the Primary Authorized Persons lock hung on a lock box in the control room which is being used to store keys for locks being used as a Locking Device.

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- Red Lock – A Red Lock is to be used to lockout a piece of equipment, valve, breaker or any other device which is a potential energy source. The key to this lock will be placed in a lock box in the control room.
- Green Lock – This lock is for personal protection. Each authorized worker at COMPANY is assigned a set of green locks. These locks will be placed on a lock box which contains red lock keys for locks used to isolate the equipment being worked on.

Locking Devices

The following locking devices are used at Company:

- Safety Lockout Hasp – This lockout device can be used by up to six workers at a time to keep inoperative while repairs or adjustments are made.
- Circuit Breaker Lockouts and Cleats - These devices attach to 120, 220, and 480 volt breakers and prevent operation of the breaker.
- Chain – All valves that cannot directly accept a locking device shall be secured by means of chain link positioned so that the valve will not move. A lock will then be fasted to the chain end.
- Fuse Block Devices – Use when a fuse has been pulled for LOTO protection. Prevents fuse from being place back in fuse holder.
- Plug Lockout – Safety device used to attach lock to plugs for LOTO protection.
- Gate Valve Locking Device - Adequate secures gates valves during for LOTO protection.
- Ball Valve Locking Device – Adequately secures ball valves for LOTO protection

Tags

The following tags are used at Company in conjunction with locking devices.

Note:

Tags are only to be used together with locks to provide a safe LOTO boundary for personnel protection. Every effort shall be made to insure that a locking device is attached to an isolation point. Tags do not provide the same level of protection as a locking device and should not be used alone for personnel protection.

Danger Tag – A danger tag shall be used to detail in writing the safe working boundaries for a specific piece of equipment. It is used in conjunction with a locking device to prevent the operation of any component or equipment when operation could cause personnel injury, death, or damage to the property or environment.

Caution Tags – a caution tag is used in conjunction with this procedure to provide information such as identifying limiting conditions for equipment operation, provide information for locked/tagged equipment and serve as an aid in procedural equipment. A caution tag shall not be used for personnel protection. A caution tag shall not be used at a boundary isolation point for personal protection.

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Locks and Tags shall be used and hung as follows:

- Tags shall be legible with all spaces properly filled.
- Tags and their means of attachment shall be capable of withstanding the environment to which they are exposed for the maximum period of time that exposure is expected.
- Multiple Locks and Tags may exist for a piece of equipment but no piece of equipment shall have both a caution tag and a danger tag attached to it. If a conflict is detected the tagging authority shall be notified.
- Locks and Tags shall be hung in manner which isolates the electrical equipment first then the mechanical equipment. This is to prevent accidental injury or equipment damage due to remote operation of equipment when not in an operational line-up.
- Locks and Tags shall be attached in a manner providing high visibility and should be hung to prevent obscuring meters or lights if possible.
- Every effort shall be made to insure that Locks, Locking devices and Tags are securely attached to the equipment or controls as to prevent their operation.
- If a piece of equipment will not accept a lock, a tag shall be hung and attached to the device. Any person who manipulates this device without the consent of the tagging authority will be subject to disciplinary action up to and including dismissal.
- The use of wire to attach tags to electrical equipment is prohibited.
- When a component must be physically removed from its location in the plant, the authorized person shall insure that any tags hanging on the component are properly removed prior to removal and the new appropriate boundary isolation points are established.

6.24.4. Lockout/Tagout Documentation

This section will detail the documentation required and the type of forms used for the LOTO procedure. The forms in use are kept in the control room in the LOTO folder. Completed LOTO clearance sheets are stored for one year in the control and then filed in the Technical Library.

There are four forms at Company that are used to fulfil the required documentation for the LOTO: Lockout/Tagout Index Sheet, Single Point Isolation Index, The Lockout/Tagout Clearance Form, and the Lockout/Tagout Audit Sheet.

6.24.4.1. LOTO Index Sheet

The Index Sheet is a list of LOTO that have been issued normally listed in numerical sequence. The Index form lists the following:

- LOTO Number – The LOTO number is the identifier for the specific clearance being issued. Each LOTO is assigned a unique number
- System Designator – The system designator is the two-letter identifier for the system being worked on.
- Equipment Name and Component – The unique equipment/component description assigned to a piece of equipment.

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- Lock Box Number – The number of the lock box in which the keys for the locked are stored for that specific LOTO.
- Date Hung – the date the locks and tags were placed on the isolation points
- Date Removed – the date in which the LOTO was permanently removed.

6.24.4.2. Audit Sheet

The audit sheet is used to record and document a bi-monthly audit conducted on all active LOTOs. The sheet list the date of the audit, the LOTO Number audited, any discrepancies and action taken to resolve discrepancies. When the audit is complete, an authorized worker will sign the audit sheet indicating successful completion of the audit.

Audits are programmed into the work order system. Every two weeks, a work order is automatically generated to conduct an audit on all active LOTO’s. Under normal conditions, the on-shift Lead O&M Technician would perform this audit although any of the authorized employees for the LOTO program listed in Attachment 1 could perform the audit. The audit requirements are more fully discussed in section 10.0.

6.24.4.3. Single Point Isolation Index

The single point isolation log is used to track those jobs that involve single point isolation lockouts only (requirements for single point isolation are explained in the next section of this procedure). The single point isolation log includes the following:

- Date of the single point isolation
- Description of the equipment to be isolated
- Isolation Point
- Authorized Worker performing the job
- Time Isolated
- Time Restored
- Control Room Operator Initials

6.24.4.4. Lockout/Tagout Clearance Sheet

This sheet details the step by step isolation points used to isolate a piece of equipment. Information shall be listed on the sheet by the Primary Authorized Worker. The following information shall be listed on the sheet:

- **Permit Number** – The system automatically assigns the next sequential number for all LOTOs issued. This number must be shown on the LOTO permit
- **Unit Number** – Specifies on which Unit the work is to be done.
- **Asset Number** – Specifies on which component the work is to be done or specifies system on which the work is to be done.
- **Task** – Specifies what the work scope is to be done
- **Reason for LOTO** – Clarifies work to be done and why the LOTO is to be hung

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- **Hazards** –Specifies what hazards are present and which hazards are being avoided by the implementation of the LOTO.
- **Special Instructions** – Details any unusual condition which may affect the LOTO
- **Tag Type** – Specifies the tag type. Only a Danger Tag at Company will be used for isolation purposes. A caution may be used to provide information specific to that piece of equipment and may be used on the LOTO for that purpose only.
- **Tag Number** – The system will automatically sequence the tags as they are written.
- **Isolation Point** – Specifically identifies a boundary isolation point that will be used to isolate the equipment to be worked on. This point should be descriptive as well as having the assigned asset number designator in the box.
- **Placed by** (initials)- This box is to be initialled by the authorized person who actually hangs the lock and tag on the boundary isolation point.
- **Verified by** (initials) – This box is to be initialled by the authorized person who verifies that the lock and tag have been placed on the correct isolation point. This also fulfils the periodic inspection requirements.
- **Isolation Position** – This indicates the position in which the isolation point must be left in to provide safe boundary conditions for the LOTO.
- **Removed by:** This box will be initialled by the Authorized Worker responsible for removing the LOTO and returning the isolation point to the service position.
- **Service Position** - This is the position the isolation point is left in when the LOTO is removed.
- **Technical Review:** The signature of the authorized person who has reviewed the LOTO Form prior to installation to insure that all boundary points on the LOTO form are correct
- **Tagout Issue by:** The signature of the Tagging Authority (primary authorized person) indicating that the LOTO has been properly reviewed and is ready for installation.
- **Authorized Worker Sign on:** The signature of the Authorized Worker who will be maintaining or servicing the piece of equipment to be isolated.

6.24.4.5. *Lock Removal Notification Form*

This form is to be filled out in the event an employee or Contractor has left the site and the lock must be removed from service.

6.24.5. Lockout/Tagout Procedures

There are two type of Lockout/Tagouts allowed at Company. These are Single Point Isolations Lockout and General Lockout/Tagouts.

6.24.5.1. *Single Point Isolation LOTO*

1. The Authorized Worker working with the Tagging Authority will determine based on P&ID, walk-downs and system knowledge if single point isolation LO is applicable to the equipment being worked on.
2. The Authorized Worker will obtain approval from the on shift Tagging Authority to perform the work under a single point isolation tag.
3. The Tagging Authority will inform all workers that will be affected by the lock out.

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4. Prior to isolating the equipment from the energy source, the Authorized Worker will inform the control room.
5. The Authorized Worker will then place their personal locking device on the isolation point and inform control that it is isolated.
6. The control room will enter the time on the Single point isolation index log. (See attachment G)
7. When the Authorized Worker has completed the work they will report to the control room, and get permission to clear the single point isolation lock out.
8. When the Authorized Worker has removed the lock out and restored the equipment they will report it to the control room. The control room will log it on the Single point isolation index log.
9. Single Point Isolation Clearances are good for one shift only. If at the end of the shift, additional work is required, a general clearance will be issued.

6.24.5.2. General LOTO

The followings are the procedural steps in creating, reviewing and removing a Lockout/Tagout:

Creating a Lockout/Tagout

Company uses an automated LOTO program to generate the Lockout/Tagout Clearance Sheet. When a piece of equipment needs to be cleared for maintenance or servicing, an Authorized Worker and the Tagging Authority will complete the following:

1. An authorized Worker shall request a LOTO for piece of equipment after the scope of work is determined.
2. The Primary Authorized Worker will review the scope of work for which the LOTO has been requested and generate the Lockout/Tagout Clearance Sheet.
3. The Primary Authorized Worker (PAW) will then determine the boundary isolation points and methods of isolation for isolating the system or component for which the LOTO has been requested. The PAW will use system knowledge, P&IDs and system walk-downs to determine proper isolation points.
4. Once the Primary Authorized Worker has determined isolation points, the isolation points shall be listed on the Lockout/Tagout Clearance Sheet. Any Special Precautions that need to be in effect during the LOTO shall be noted on the top of the Lockout/Tagout Clearance Sheet.
5. The isolation boundary points shall be listed beginning with electrical components and then mechanical.
6. Once the Primary Authorized Worker has listed all points, a second Authorized Worker shall perform the technical review of the LOTO for accuracy. The technical reviewer will use system knowledge, P&IDs and system walk-downs to determine proper isolation points. This will also fulfill the requirements for a periodic inspection.
7. The Authorized Worker conducting the technical review will sign the LOTO form. Once the LOTO form has been technically reviewed, the Tagging Authority shall sign the LOTO form signifying the LOTO is ready to be hung.
8. Once issued, the Tagging Authority will list the LOTO on the LOTO Index.
9. All blanks will be filled in on an active LOTO form. If the requested information is not applicable, then N/A should be entered.

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10. Any corrections to tags or LOTO forms shall be initialled by the person making the correction.

Installing a LOTO

1. Once the Tagging Authority has signed the LOTO form, all needed locking devices and tags will be issued for the LOTO.
2. Any affected person shall be notified at this time that a LOTO is to be hung on a specific piece of equipment.
3. An Authorized Worker will install the locking devices, locks and tags. Following installation they will initial that the devices have been installed on the LOTO form.
4. A second Authorized Worker will verify that all locking devices, locks and tags have been installed correctly and on the correct equipment. Following verification, they will initial that the devices have been verified on the LOTO form.
5. The key for the red field locks will be hung in a lock box designated for that specific LOTO.
6. Once the LOTO has been hung and verified, the LOTO will remain active until all tags authorized by that form for a particular system or component are removed.
7. An Authorized Worker will perform a safe condition check prior to signing onto the LOTO or hanging a personnel protection lock. A safe condition check will include insuring the equipment is de-energized or properly drained.
8. Once the LOTO has been hung, and a safe condition check performed, the tagging authority will hang a blue lock onto the LOTO box. The key for the blue lock will be placed in the Tagging Authority box at the Control Station and remain in the custody and control of the Tagging Authority.
9. Once the LOTO has been hung, and a safe condition check performed, each Authorized Worker who is servicing or maintaining the piece of equipment for which the LOTO has been issued will hang a green lock on the lock box with the key(s) for the LOTO locks.
10. All authorized workers maintaining or servicing a piece of equipment for which a LOTO is in place should walk-down the clearance and verify all boundary isolation points have been locked out.
11. All Authorized Workers are required to sign-off the LOTO form and remove their locks once they are finished with the job.

6.24.5.3. Removing a LOTO

Once the Tagging Authority confirms the scope of work has been completed and all workers have signed off and removed their locks, then the Tagging Authority will begin the process of removing and closing the LOTO. The process for removing a LOTO will be conducted as follows:

1. The Tagging Authority will remove the blue lock from the Lock Box.
2. Before the locking LOTO devices are removed, an Authorized Worker will inspect the equipment and area to insure all nonessential items have been removed and to ensure machine or equipment components are operationally intact.
3. Before removing a LOTO, an Authorized Worker will inspect the work area to insure employees have been properly positioned. All affected workers will be informed that the LOTO is removed.

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4. An Authorized Worker will remove the field lock key(s) from the Lock Box and remove all locks and tags associated with the LOTO. At this time the Authorized Worker will return the boundary points to the service position. When a component has multiple tags and locks, only those tags and locks associated with the specific LOTO number shall be removed.
5. After removing all locking devices, locks and tags, the Authorized Worker will initial the “Removed By” box on the LOTO form.
6. The Tagging Authority will verify all tags have been removed by comparing the tags with the LOTO form. Once this verification is complete, the tags will be disposed of.
7. The Tagging Authority shall verify all affected workers are clear of the equipment before starting the system and are safely positioned. Affected workers will be told that the LOTO will be removed.
8. The work area shall be inspected to insure that nonessential items have been removed and to insure machine or equipment components are operationally intact.
9. The Tagging Authority will complete the “date removed” portion of the LOTO Index form, remove the LOTO form from the book of active LOTOs and place the LOTO in the LOTO closeout book.

6.24.6. Addition of Locks and Tags

When required to provide additional protection and or isolation, additional tags may be issued on a Lockout/Tagout form. Additional tags are generated the same as in a general lock and a technical reviewer will initial each additional tag/lock added to the Lockout/Tagout form.

6.24.7. Partial Removal of Locks and Tags

Individual tags/locks may be cleared prior to the removal of the entire Lockout/Tagout only in two cases and only when specifically authorized by the Tagging Authority and the Clearance Holder: (1) When that component is no longer needed for the scope of the work required by the Authorized Workers signed/locked onto the LOTO and is agreed to by all Authorized Workers signed/locked onto the LOTO. (2) For testing of equipment under a temporary lift (temp lift). A temporary lift may be performed for testing under the following conditions:

- All Authorized Workers signed on to the LOTO are notified and concur with the lift.
- The surrounding area will be surveyed by an Authorized Worker to insure the equipment is clear of tools, and affected workers have been cleared of the area
- The primary Authorized Worker oversees the temp lift
- The lift is logged by the tagging authority in the control room logs
- All Authorized Workers and the tagging authority have removed their locks from the lock box.
- When the lift is completed, the primary Authorized Worker oversees the reinstallation of the Tagging Authority lock and all Authorized Worker locks on the LOTO.

6.24.8. Removal of Locks When Authorized Workers Cannot Be Contracted

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If for any reason an Authorized Worker is not available to release the LOTO, a LOTO program Authorized Manager can authorize release of a LOTO or the forced removal of a lock under the following conditions:

- Several attempts have been made to contact the authorized worker.
- The Operations, Safety or Maintenance Manager has been notified
- The LOTO Notification Form has been filled out.

The Authorized Worker shall be notified immediately upon returning to the site that their lock has been removed.

6.24.9. Missing, Mutilated or Illegible Tags

When a tag is discovered missing, mutilated, or illegible the Control Room Operator will verify that the tag is still active and required. A replacement tag will be issued using the identical number as shown on the Lockout/Tagout form. No technical review is required to hang a missing or illegible tag or re-establish boundary isolation.

6.24.10. Audits

To insure the integrity of the LOTO system, Lockout/Tagout Procedure

6.24.11. Contractors

All contracted work at Company will be performed following the Company Generating Plant Lockout/Tagout Procedure. All contractors involved in a Company LOTO shall be provided with a copy of the Company LOTO procedure. Each contractor will be responsible for:

- Providing locks for all employees to lock on the LOTO. This can be accomplished by locking onto the Company lockbox provided for the LOTO or by locking onto a lock box provided by the contractor. If a lockbox is provided by the contractor, the supervisor shall lock onto the Company Generating Plant Lockbox. All other contractor employees will then lock onto a contractor lockbox containing the supervisor's key.
- Walking down a LOTO with Company personnel to insure adequate isolation boundaries have been installed. The Company Authorized Worker shall explain the isolation points to the contractor.
- Insuring all contractor employees follow the Company LOTO procedure.
- Insuring that shift manager sign on and sign off a clearance at the end of each shift thereby transferring responsibility for keys and locks to the oncoming shift manager.

6.24.12. Training

All Company employees who are Authorized Workers shall receive LOTO Training. This procedure will be reviewed with all Authorized Workers on an annual basis. In addition all training shall be documented with each Workers name and the dates of training. Included in the review will be:

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- Instruction on installation and removal of a lock/out Lockout/Tagout device in accordance with this procedure.
- Methods to recognize the types and magnitude of hazards existing in the work place
- Means to control and isolate these hazards
- Instruction on the limitations of a LOTO Device.
- Appropriate retraining shall be provided to Authorized Workers whenever there is:
 - A deviation from the procedure as witnessed during a periodic inspection,
 - Significant change in work assignment, a new hazard is identified,

There is significant change in the Company Lockout/Tagout procedure will insure that each LOTO is audited on a semi-monthly schedule for those LOTOs remaining in place for an extended period of time. The audit will be conducted on a three-week basis to insure tags are still legible and in place in the field. Each LOTO in place at the time of the audit will be inspected for the following:

- Evidence of correct implementation of this procedure.
- An evaluation of the continuing need for the Clearance.
- The Lockout/Tagout form and tags were filled out completely.
- Proper placement of tags.
- The tagged components are in the required position.

The Lockout/Tagout Audit Sheet will be used to document the completion of Lockout/Tagout audits. This audit sheet is maintained in the LOTO log in the Control Room. The surveillance, including the deficiencies found and corrective action(s) taken, shall be documented on the Lockout/Tagout Audit Sheet. The Form shall be available for review.

6.25. Hot Work

In addition to the PTW, a Hot Work Permit is required to provide safe working conditions, information and practices on how to protect people, property and equipments for personnel performing / assisting hot work activities, e.g. welding, metal cutting, grinding.

A fire watch shall be present during hot work being performed under a Hot Work Permit. The fire watch is required to remain at the worksite at least 1/2 hour after hot work is completed to detect and extinguish smouldering embers.

The permit is valid for a single shift only. Gas contents must be periodically checks

6.26. Excavation

In addition to the PTW, an Excavation Permit is required for excavation, trenching, shoring, sloping or benching.

Example excavations activities: Key ways, subsurface drain, culvert installation, cellars, emergency repair work to underground facilities, subsequent constructing of trench or excavation that are 5 feet or deeper.

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Confined space permit will be required, prior anyone entering a trench or excavation.

6.27. Fall Prevention

A personal fall arrest system is used (Safety belts and/or safety harnesses) to arrest a worker’s fall from a working level not protected by railings including working at heights of 1.5 meters or more

Every flight of stairs having four or more risers shall be provided with railings on open sides.

Open-sided floors, walkways, platforms or runways above or adjacent to dangerous equipment shall be guarded with a standard railing with toe board.

Workers near excavations shall be protected by guardrails, fences or barricades when the excavations are not readily visible due to plant growth or other visual barrier.

6.28. Scaffolding

Scaffolds shall be inspected daily prior to use, including Guardrails, Connectors, Fastenings, Footings, Tie-ins and Bracings by scaffolding inspector.

Scaffolds shall be **RED** tagged “DO NOT USE” while being erected or modified.

After inspected and approved the completed scaffold will **GREEN** tagged “SAFE FOR USE” on the scaffold. The tag must visible to anyone climbing the ladder.

In the event a scaffold or platform cannot be erected in accordance with the applicable codes, i.e., handrails or equivalent fall protection, a **YELLOW** tag will have a warning message, "SAFETY BELTS SHALL BE WORN".

Employees observed working on a **YELLOW** tagged scaffold and who are not using safety belts are subject to disciplinary action.

6.29. Lifting Operation

Cranes, boom trucks and other lifting equipment used in any Company operation areas shall conform to the requirements of The American National Standards Institute (ANSI) and regularly be inspected and certified by an authorized institution.

Only certified operators are permitted to operate such lifting equipment.

Do not walk, work or stand under suspended loads. Attach tag lines to guide and control all suspended loads.

6.30. Manual Lifting

Incorrect lifting most often causes back pain. To avoid accidents caused by lifting, you must observe the following:

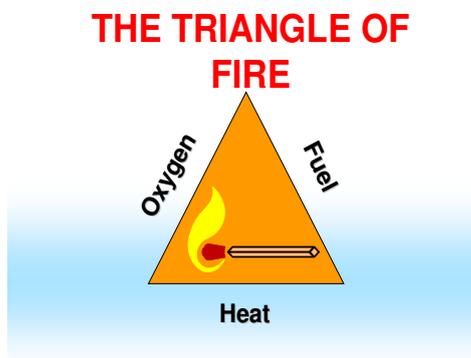
- Get help to lift any load that is too bulky or too heavy for easy handling by one person.
- Do not lift any object if it will obstruct your vision.

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- Space your feet for good balance and get a firm grip on the load before the lift is attempted.
- Take a deep breath prior to lifting. This helps to support your spine.
- To change direction do not twist your waist, instead use your entire body.
- Observe your surroundings. Check to see if there is any obstruction or other activity, which may cause an accident.
- Do not change your grip position while walking. Stop and get the support of the load of you before you change.
- Keeps your back straight while walking

6.31. Fire Prevention and Protection

Prevention is the best method of avoiding fires. We must make a conscientious effort to practice fire prevention. To do this is important to know the principal causes of fires and the ways to minimize them.



The major causes of fire include electrical overload or malfunction, poor house-keeping, smoking, improper welding operations, hot surfaces and poor equipment maintenance.

You can eliminate most of the causes by using common sense, following proper work procedures and maintaining good house-keeping.

Fire is caused by a chemical reaction of combustible / flammable fuel (oil, paper, wood), oxygen (air), ignition source (sparks from welding, static electricity, friction, hot surface, electric equipment) and the resulting chain reaction (involving fuel and oxygen). If we remove one of the three elements a fire will not start.

6.31.1. Classification Of Fires

Fires can be classified into four categories (based on the fuel supply) as follows:

CLASS A

These are fires caused by ordinary combustible materials, such as wood, paper, textiles, packing materials and rubbish. Water is the preferred extinguishing media for this type of fire. Multipurpose dry chemical can also be used to extinguish this type of fire.

CLASS B

Flammable liquids such as oil, grease or paint are the sources of this type of fire. These fires will occur in the vapour-air-mixture over the surface of the flammable and

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combustible liquids. Dry chemicals, inert gas, carbon dioxide and water fog can be used for extinguishing this type of fire.

CLASS C

These fires occur in electrical equipment (motors, generators, switch panels and computers) where a non-conducting, extinguishing agent must be used, such as dry chemical, inert gas and carbon dioxide.

To fight this type of fire, the first thing to do is to disconnect the electrical power source. Do not use water or foam since it will cause a short circuit.

CLASS D

Class D fire involves combustible metals such as magnesium, zirconium and sodium. Special techniques involving extinguishing agent (such as dry powder) are required.

6.31.2. Fire Prevention

- KNOW YOUR WORK AREA. KEEP IT CLEAN. KNOW WHAT MATERIALS CAN BE EASILY IGNITED. HANDLE AND STORE FLAMMABLE MATERIALS WITH EXTREME CARE.
- FOLLOW NO SMOKING RULES.
- DO NOT LEAVE OIL/PAINT SOAKED RAGS OR CLOTHING LYING AROUND SINCE THEY CAN IGNITE SPONTANEOUSLY. PLACE THESE MATERIALS IN PROPER CONTAINERS. THE CONTAINERS MUST BE EMPTIED FREQUENTLY. PUT RUBBISH IN THE RUBBISH BIN.
- KEEP FLAMMABLE LIQUIDS IN APPROVED CONTAINERS.
- DO NOT USE FLAMMABLE LIQUIDS SUCH AS GASOLINE, NAPHTHA OR LACQUER THINNER FOR CLEANING PURPOSES. USE DETERGENTS FOR THESE PURPOSES.
- KEEP ALL CONTAINERS OF FLAMMABLE LIQUIDS CLOSED. KEEP AWAY FROM IGNITION SOURCES.
- WHEN POURING OR PUMPING GASOLINE OR OTHER FLAMMABLE LIQUIDS, MAINTAIN METALLIC CONTACT BETWEEN THE POURING AND RECEIVING CONTAINERS TO PREVENT STATIC ELECTRICITY. USE APPROVED GROUND IF FITTED WITH ONE.
- ENSURE GOOD VENTILATION FOR GASOLINE OR OTHER FLAMMABLE LIQUIDS STORAGE.
- AVOID USING PAINTS, INSECT SPRAYS OR PAINT REMOVERS NEAR AN OPEN FLAME, BECAUSE MANY OF THEM ARE FLAMMABLE. READ THEIR LABELS CAREFULLY BEFORE USE.
- MOPS, RAGS AND OTHER COMBUSTIBLE MATERIALS SHOULD NOT BE PLACED NEAR AN ENGINE EXHAUST OR OTHER SOURCE OF IGNITION.
- DO NOT ALLOW EXCESSIVE VOLUMES OF FLAMMABLE LIQUIDS TO ACCUMULATE IN THE DRIP PANS BENEATH PIPING OR EQUIPMENT.
- REGULARLY CHECK MACHINERY AND EQUIPMENT, CLEAN UP OIL. REPORT IF ANY LEAKS ARE FOUND.
- REMOVE ALL IGNITION SOURCES FROM BATTERY ROOMS.
- FOLLOW ALL PROCEDURES OUTLINED ON THE HOT WORK PERMIT.

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- DO NOT USE GLASS OR PLASTIC CONTAINERS FOR ANY FLAMMABLE MATERIALS.
- ALL SPILLED HYDROCARBONS SHALL BE CLEANED UP IMMEDIATELY.

6.31.3. Fire Protection

- DO NOT REMOVE FIRE EXTINGUISHER FROM THEIR DESIGNATED LOCATIONS FOR PROLONGED TIME PERIODS EXCEPT FOR FIRE FIGHTING PURPOSES.
- KNOW THE NEAREST LOCATION OF FIRE EXTINGUISHER AND ITS TYPE AT YOUR WORKING AREAS.
- ENSURE THAT YOU ARE ABLE TO USE IT IN CASE OF FIRE EMERGENCY.
- ENSURE THAT YOU FAMILIAR WITH THE LOCATION OF FIRE ALARM BUTTONS AND KNOWING HOW TO ACTIVE IT IN CASE OF FIRE EMERGENCY.
- FIRE EXTINGUISHERS ARE USUALLY EFFECTIVE WHEN THE FIRE IS STILL SMALL.
- USE THE PROPER CLASS OF EXTINGUISHER TO EXTINGUISH A FIRE.

6.31.4. Firefighting Agents

6.31.4.1. *Water*

Good for Class “A” fires, works by cooling. Use pumps, stored pressure extinguisher, hose streams or buckets.

6.31.4.2. *Compressed Inert Gas*

Good for Class B and C fires. Work by smothering or by inhibiting the fire’s chemical chain reaction. Extinguisher of this type includes carbon dioxide.

6.31.4.3. *Dry Chemical*

Good for Class B and C fires, works by interrupting the chemical chain reaction. Extinguishers are stored-pressure. Extinguishers are stored pressure of cartridge-operated.

6.31.4.4. *Multi-Purpose Dry Chemical*

Good for Class A, B and C fires. Works mainly by interrupting the chemical chain reaction and by smothering (coating) Class A materials.

6.31.4.5. *Dry Powder*

Special powders are used for Class D fires, usually applied by a scoop or shovel.

6.31.5. Use of Hand – Portable Fire Extinguisher

At Company locations, there may be several different types of fire extinguisher.

The most common are cartridge-type dry chemical portable fire extinguishers:

- Take the extinguisher off the hanger and walk a safe distance up-wind from the fire.
- Remove the hose.

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- Firmly grip the nozzle and pressurize the extinguisher by sharply striking the puncture lever. Keep clear of the extinguisher cap by leaning the extinguisher in a safe direction or by standing to one side of the extinguisher.
- Lift the extinguisher by the carrying handle and approach the fire with the wind at your back
- Squeeze the nozzle valve completely open when you are within 6 to 8 feet of the fire. Do not throttle the valve. Direct the stream of dry chemical 6 inches ahead of the flame edge, using a side-to-side motion. Make each sweep of the stream slightly wider than the near edge of the fire. DO NOT raise the nozzle to chase the fireball.
- Note that the discharge time for a 30-pound capacity extinguisher is only approximately 21 seconds. If your extinguisher begins to run out of chemical, back away from the fire.
- Always back away from an extinguished fire. Never turn your back, because the fire could flash back.
- After using the extinguisher, turn it upside down on its filler cap and squeeze the nozzle to release all the pressure

6.31.6. Natural Gas Fire

In most cases, a fire involving natural gas, butane, etc. It should not be extinguished unless the source of the fuel feeding the fire can be shut-off.

Until the source can be shut off, a cooling water spray should be applied to any equipment affected by flames.

Extinguish the Gas Fire in advance without shut-off the source of gas, it will endanger the whole installation as the flammable gas may travel and occupied the hiding and confined areas.

6.32. Hazard Communication Program

The hazard communication program is intended to ensure that all employees working with chemicals know the hazards of those substances and use the proper protective equipment.

To make this program work, the following must be observed:

- Material Safety Data sheet
- Material Safety Data Sheets (MSDS) explain about using, handling and storing chemicals.
- Label on the container
- Labels on containers describe the name of chemicals and its hazards. Do not tear off labels on containers.
- Protective Equipment
 - Use the proper protective equipment as described in the MSDS while handling or using chemicals.
- Emergency Situation
 - Review the MSDS emergency procedure for any accident occurs, e.g. spillage or splashing onto body.

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6.32.1. A typical MSDS must contain at least the following information:

- Chemical identity: chemical name, common name(s), synonyms and trade name. All ingredients in a mixture must be so identified.
- Physical and chemical characteristics: vapour pressure, flash point, etc.
- Physical hazards: potential for reactivity, corrosively, fire explosion, etc
- Health hazards: exposure sensitivity symptoms, medical contradictions
- Physiological routes of entry: inhalation, ingestion, absorption
- Known exposure limits and recommendations: from manufacturer, international industrial hygiene groups, local regulations.
- Pertinent toxicological and carcinogenic potential
- Personal protective equipment, engineering controls, practices and procedures warranted
- Emergency information, first aid medical direction.
- Date of MSDS preparation and name, address, and telephone number of MSDS author.

6.32.2. Corrosive Chemicals

Corrosive chemicals may cause deterioration to body tissue if they come in contact with the body. Corrosive chemicals can deteriorate eyes, lungs or skin.

6.32.3. Acid and Base

Keep acids and bases separate in storage. If you want to dilute acid, pour the acid to water not the reverse.

REMEMBER 3 A (ALWAYS ADD ACID TO WATER)

6.33. H₂S (Hydrogen Sulphide)

6.33.1. Properties of H₂S

- H₂S is an extremely toxic gas/poisonous gas which have the potential to kill.
- H₂S at low concentrations has the odour of rotten eggs. At high concentrations, it deadens the sense of smell.
- H₂S is colourless. Their hazards cannot be seen visually.
- H₂S is heavier than air. It may accumulate in low-lying areas.
- H₂S is soluble in water.
- H₂S is highly flammable. Flammable limits in air are 4.3% to 45%. The ignition temperature is 500°F (250°C).
- H₂S is very corrosive and reacts with metals, except aluminium.

6.33.2. Possible Hazardous Areas and Operations

- During shut-in, killing, discharge of Well
- Confined or Enclosed Areas: Wellhead Cellars, Separators or Scrubbers, Tanks (including Flash Tank), Sumps (condensate / brine), Condenser/Inter-condenser, Gas Capped Well, Drilling Rig,

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Thermal Pond Area, NCG Removal / Ejector System (Liquid Ring Vacuum Pump), Rock Muffler, Cooling Tower (Fan area and Hot Water Basin), Drain valve, Tapping point, Sampling port, and Annubar Pit.

6.33.3. H2S Physical Effects

Connection (ppm)	Physical Effects
0.02	Odor threshold
10	Obvious and unpleasant odor
20	Safe for 15 minutes exposures
OVER 20 PPM, WEAR RESPIRATORY PROTECTION!!	
100	Safe for 15 minutes exposures
200	Kill smell in 3 to 15 minutes, may sting eyes and throat
500	Dizziness, breathing ceases in a few minutes, needs prompt artificial respiration
700	Unconscious quickly, death will result if not rescued promptly
1000	Unconscious at once, followed by death within minutes

<u>Effects</u>	<u>Contents</u>	<u>Exposure Limit</u>
TWA	10 ppm	8 hrs
STEL	15-20 ppm	10 min
Ceiling limit	50 ppm	
IDLH	300 ppm	
Odour Threshold	Less than 1 ppm	

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6.33.4. H₂S Safety Rules

- Evaluate each job for H₂S hazards before starting and while doing the work
- Use H₂S Detection equipment anytime you suspect H₂S might be present
- Never work alone in any area where you suspect H₂S might be present.
- If breathing difficulty, eye irritation, or nausea occur during any work, immediately evacuate out of the area and notify your immediate Supervisor.
- Be aware of wind direction if evacuation becomes necessary. Flags or windsocks may be tied to equipment to help indicate wind direction.

7. SECTION III – PERSONAL PROTECTIVE EQUIPMENT

7.1. Personal Protective Equipment (PPE)

PPE is the last defend when identified health or safety hazards cannot be adequately control by engineering method, work practices or administrative controls.

The personal protective equipment selected must fit to employee, and use as design.

It is Employees' responsibility to use PPE properly, understand where and when PPE must be used, understand type of PPE need, understand limit of protection from PPE and take good care of the PPE.

7.2. PPE Guidelines

Government Regulation: UU No.1/1970, its amendment or any other applicable regulations

- Employer must provide PPE for their employee.
- Employer must identify & explain: work hazards, PPE require each work place, PPE for employee & procedure to work with safety.
- Employee must give correct information, use PPE with proper, comply with all safety rule,
- Employee have rights to "refuse to work" whenever the PPE condition is doubtful.

7.3. PPE Specifications

7.3.1. Head Protection

AS/NZS 1801 Occupational protective helmet or equivalent, electric protective & manufacture colour.

7.3.2. Hearing Protection

Hearing protection (earplug or earmuff) shall be worn when working in designated high noise level areas (i.e. gas removal system, turbine deck of Power Station), or when using tools or equipment producing high noise level.

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Length of Exposure	8	5	4	2	Hours/day
Noise Level	85	87	88	91	dBA
Length of Exposure	1	0.5	0.25	0.13	Hours/day
Noise Level	94	97	100	103	dBA

7.3.3. Eye and Face Protection

Use ASNZS1337 Eye protector for industrial application or equivalent. Eye/Face protection (goggles, safety glasses, or face shield/hood) shall be worn at designated locations and work areas, dictated by the PPE procedure (i.e. doing grinding).

7.3.4. Body Protection

- Work wear on steam field area shall long sleeve hand.
- Work wear for night shall completed with high visibility apparel i.e. fluoresces strip.
- Body protection for chemical handling material must protective from chemical solvent.

7.3.5. Foot Wear protection

ANSI Z41.1 Protective footwear with impact resistant rating class 50 or equivalent, for general used minimum height 6 inch (protect ankle), for chemical handling minimum height 10 inch with material protective from chemical solvent, for electrical field must equip with anti static, for construction whit hazard puncture metal sharp must equip with steel mid sole.

Footwear (safety shoes/boots) shall always be worn at all times when working in all operating and or construction areas.

7.3.6. Hand Protection

For chemical handling must made chemical solvent protection, for electric work must be electric shock proof higher than available voltage where the work performs, for work at heat steam line must be heat resistant up to 200°C, for handling sharp material must be cut resistant.

7.3.7. Fall Protection Equipment

ANSI A10.14 fall protective device or equivalent, Harnesses and Lanyards shall meet ANSI Z359.1 (Safety Requirements for Personal Fall Arrest Systems, Subsystems and Components) or equivalent

7.3.8. Respirators

NIOSH approved.

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7.3.9. Special PPE

Electrical work shall comply with NFPA 70 E standard for electrical safety requirements for employee workplace.

8. SECTION IV – HEALTH AND INDUSTRIAL HYGIENE

8.1. Health & Industrial Hygiene

All potential health hazards must be recognized, evaluated, and controlled properly so that a suitable work environment is maintained:

- To protect employees from injuries and illnesses due to industrial hygiene hazards.
- To keep and improve employees' fitness and health.
- To ensure that personnel carrying out their duties are "FIT FOR WORK"

8.2. Hazard Communication – MSDS

Proper safety equipment and or PPE, as prescribed by Material Safety Data Sheet, will be utilized when handling hazardous chemicals. Disposal of hazardous chemicals shall be in accordance with applicable regulatory requirements.

8.3. Fit For Duty

Every person must fit to perform the task involved effectively and without risk to their own or to others' health and safety.

8.4. First Aid

When you start work in a new department, make sure you know the locations of the Medical Room, the nearest telephone, your First Aider and first aid equipment.

If you suffer injury, feel unwell, or develop any unusual symptoms, such as skin rash, obtain proper treatment from the first aider, paramedic or doctor.

If you splash yourself with a chemical, immediately wash the affected use the eye wash solution provided and then get medical treatment as soon as possible afterwards.

If you feel in any way unwell when working with chemicals go out into the fresh air and get help.

Report any accident to your Supervisor and Medical Department so that the necessary accident report is promptly completed.

8.5. First Aid Principles

- DO NOT PANIC
- CHECK THE AREA, IS IT SAFE?
- OBSERVE WHAT OCCURRED, THE MAIN THING THAT THREATENS THE VICTIMS
- CALL FOR HELP

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- **THEN. PERFORM FIRST AID ACTIONS**

8.6. Cardiopulmonary Resuscitation (CPR)

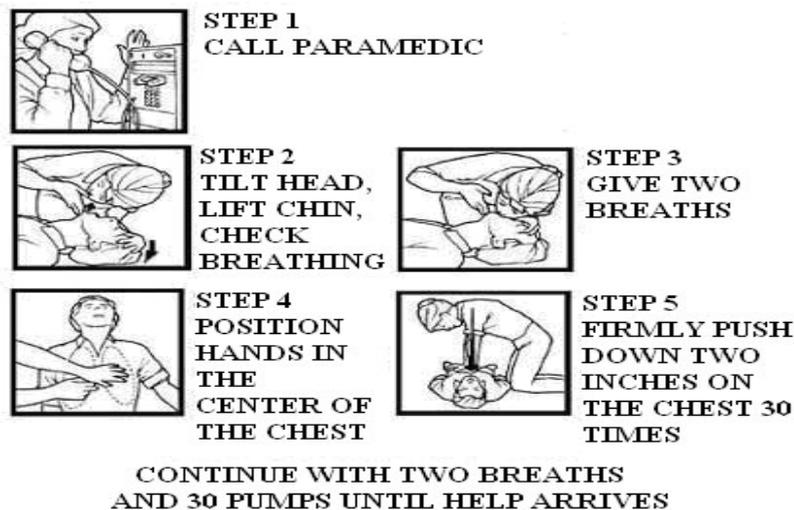
Cardiopulmonary resuscitation (CPR) is a first-aid technique used to keep victims of cardiopulmonary arrest alive and to prevent brain damage while more advanced medical help is on the way. CPR is a simple technique that requires little or no equipment.

CPR has two goals:

- keep blood flowing throughout the body
- keep air flowing in and out of the lungs

What you do is pretty basic:

Blow into the victim's mouth to push oxygenated air into the lungs. This allows oxygen to diffuse through the lining of the lungs into the bloodstream. Compress the victim's chest to artificially re-create blood circulation. Here are the steps that make up CPR:



8.7. Heimlich Maneuver

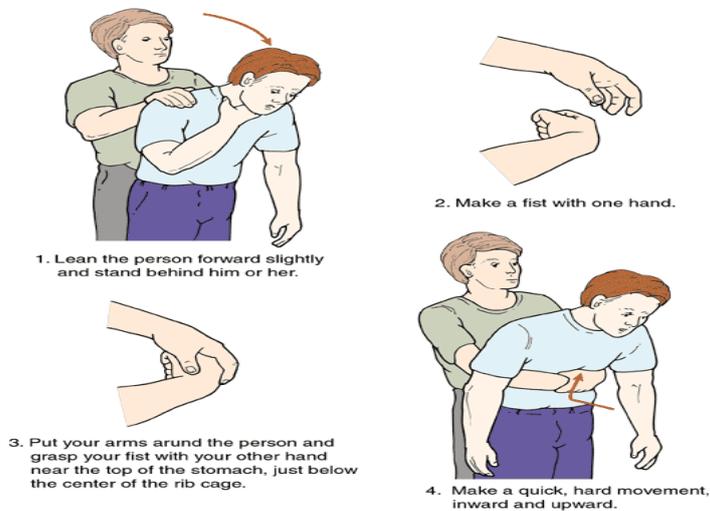
The Heimlich manoeuvre is set of steps you can use to help a person who is choking. When someone is choking, the airway can be partly or totally blocked. The airway is the tube that goes from your lungs to your nose and mouth. The goal of the Heimlich manoeuvre is to push air out of the lungs in a forceful "cough." This "cough" should pop the object the person is choking on out of the airway.

The Heimlich manoeuvre should only be done if the person is conscious (awake). If the person is unconscious, you may have to start rescue breathing or CPR (cardiopulmonary resuscitation). Rescue breathing can help person start breathing, and CPR can help their heart start beating.

The steps are:

- If the person is standing or sitting, stand closely behind the person and wrap your arms around his waist.
- Make a fist with one hand.
- Place the thumb side of your fist against the middle of the person's abdomen (belly) just above the navel (belly button). Do not put your fist on the breastbone or ribs. It is very easy to break bones in this area, hurting the person's abdomen or chest.
- Put your other hand over your fist. Using both hands, press your fist into the person's abdomen with a quick upward push.
- Keep repeating quick pushes until the object comes out of the person's mouth or they can spit it out. If the object does not come out, the person may become unconscious.
- If the person is very overweight or looks to be pregnant, wrap your arms right under their armpits. Place your fist on the centre of their breastbone. Be sure your fist is not low on the breastbone, or off to one side, on the ribs. Place your other hand over the fist, and do quick pushes. Do this until the object comes out of their mouth or they become unconscious.

Heimlich Maneuver



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8.8. Treating Diabetics

Diabetes is a very common disease which causes a disruption in the way the body uses glucose, the primary source of fuel for the body's cells. Without glucose, the cells cannot operate and eventually die.

The goal of any diabetic is to control his or her blood sugar level.

The symptoms associated with low blood sugar levels include:

- Hungry
- Sweating
- Weak
- Confused
- Aggressive

The symptoms associated with high blood sugar levels include:

- thirsty
- need to urinate
- hot dry skin
- smell of acetone on breath

The following information will help you manage a diabetic emergency:

If the casualty is unconscious:

- follow basic life support sequence
- call paramedic for help
- place him/her in the recovery position

If the casualty is conscious and symptom suggest low blood sugar:

- help the casualty to sit or lie down
- give a sugary drink, sugar lumps, chocolate, or other sweet food every 15 minutes until recovery or medical aid arrives

If the casualty responds quickly, give more food and drink and let him/her rest until he/she feel better.

If the casualty is conscious and symptom suggest high blood pressure:

- Call paramedic for assistance
- Give casualty sugar free fluids to drink if help delayed.
- Remove the casualty urgently to hospital.

If you are not sure which type of diabetic emergency the casualty is facing, give a sweet drink. if casualty has a high blood sugar emergency, then giving a sweet drink will not do undue harm.

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8.9. Heat Exhaustion/Stroke

The following sign & symptoms suggest heat exhaustion:

- feeling hot, exhausted and weak
- persistent headache
- thirst and nausea
- giddiness and faintness
- fatigue
- rapid breathing and shortness of breath
- pale, cool, clammy skin
- rapid, weak pulse

Heat Stroke:

- high body temperature
- flushed or pale, dry, hot skin
- Irritability and mental confusion may progress to seizures and unconsciousness.

WARNING: HEAT STROKE MAY RAPIDLY LEAD TO COMA AND DEATH IF THE VICTIM IS NOT QUICKLY COOLED AND TAKEN TO HOSPITAL.

The following information will help you manage a victim of heat exhaustion/heat stroke:

Heat exhaustion

- a. Lie the victim down carefully
- b. Move casualty to a cool place with circulating air and lie down.
- c. Loosen tight clothing, remove unnecessary garments
- d. sponge with cold water
- e. give fluids to drink
- f. seek medical aids:
 - is casualty vomits
 - if casualty does not recover promptly

Heatstroke

- a. follow basic life support sequence
- b. apply cold packs or ice to neck, groin and armpits
- c. cover with wet towel, sheet or shirt
- d. call ambulance
- e. If casualty is fully conscious, give fluids.

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9. SECTION V – ENVIRONMENTAL MANAGEMENT

9.1. Environmental Management

Company operational activities conducted in an environmentally responsible manner which improves the lives of people wherever we work.

Identify and mitigate the potential for adverse environmental impacts, and to prevent pollution.

All spills of brine, fuel, oil or any other hazardous materials/chemicals must be reported immediately to your supervisor, and or to the designated person in charge (i.e. Production Supervisor and Environmental Engineer).

9.2. Waste Management

Manage waste from Company activities, reduce impact to environment and maintain a good house-keeping of Company facilities.

For segregated bins are provided in Company operations:

Organic : vegetable, fruit, paper and other organic waste

Inorganic : plastic or glass bottle, jars, cans and other glass/plastic-ware

Hazardous : use oil, waste paint, printer cartridges, “majun” etc.

Metal : scrap metal.

9.3. Hazardous Material & Toxic Handling

All of hazardous and toxic waste produced from the site should be reported to Warehouse Supervisor cc to Environmental Supervisor

Every package or container for storage processing, shall be given symbols and labels indicating characteristic and type of hazardous and toxic waste.

9.4. Noise

KEEP THE NOISE INTENSITY DURING CONSTRUCTION AND COMMISSIONING MUST BE LIMITED TO THE LEVELS AS SPECIFIED IN THE MINISTER OF MANPOWER AND TRANSMIGRATION DECREE NO. 51/MEN/1999 CONCERNING THRESHOLD LIMIT VALUES FOR PHYSICAL FACTORS IN THE WORKPLACE AND/OR ANY OTHER PREVAILING REGULATIONS.

9.5. Pollution

- Hazardous Waste Management: Cooperate with PPLI, WGI and Hospital for disposal
- Dust: Water Spraying, by providing truck mounted water tank with spray nozzle (Limit of dust concentration : 260 µ/m³)
- Domestic Waste Water: Provide portable latrines or toilet with septic tanks. And dispose accumulated of liquid waste or sludge to the existing and approved treatment facility

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- Oil spill: Provide oil containment, oil trap, collected into the container and treat as hazardous waste
- Disposal of Condensate and Brine Water Re-injected to the re-injection well
- H2S: control to minimize and mitigate the concentration as standard. H2S emission standard : 35 mg/m³ & H2S ambient standard: 0.02 ppm or 28 mg/mm³

10. SECTION VI – SECURITY MANAGEMENT SYSTEM

10.1. Security & Access Control

10.2. Access Control - Personnel (ID Badge rules)

All visitors must

- Report to Security at the security post to attain a visitor badge.
- Log in on arrival and log out on departure. Upon departure must return visitor badge to security.

These requirements ensure that all visitors to the site can be accounted for at any time.

ID BADGE, a Company ID badge shall be worn within Company premises by all employees, contractors, vendors and visitors. Visitors must be accompanied by a Company representative at all times and comply with their instruction including any restrictions applied.

10.3. Access Control – Vehicles

Security on Power Station Gate will log-in all vehicles, drivers' name and all passengers as the vehicle enters/leaves the power station.

Each driver of vehicles entering the LPM/RB operations area must be able to show valid Police driving license of a class appropriate for the vehicle being operated.

First time drivers will be given a driver orientation to ensure that all personnel who drive in LPM/RB Operation area are familiar with and aware of the road conditions

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11. SECTION VII – PREPAREDNESS, RESPONSE & RECOVERY

11.1. Emergency Response

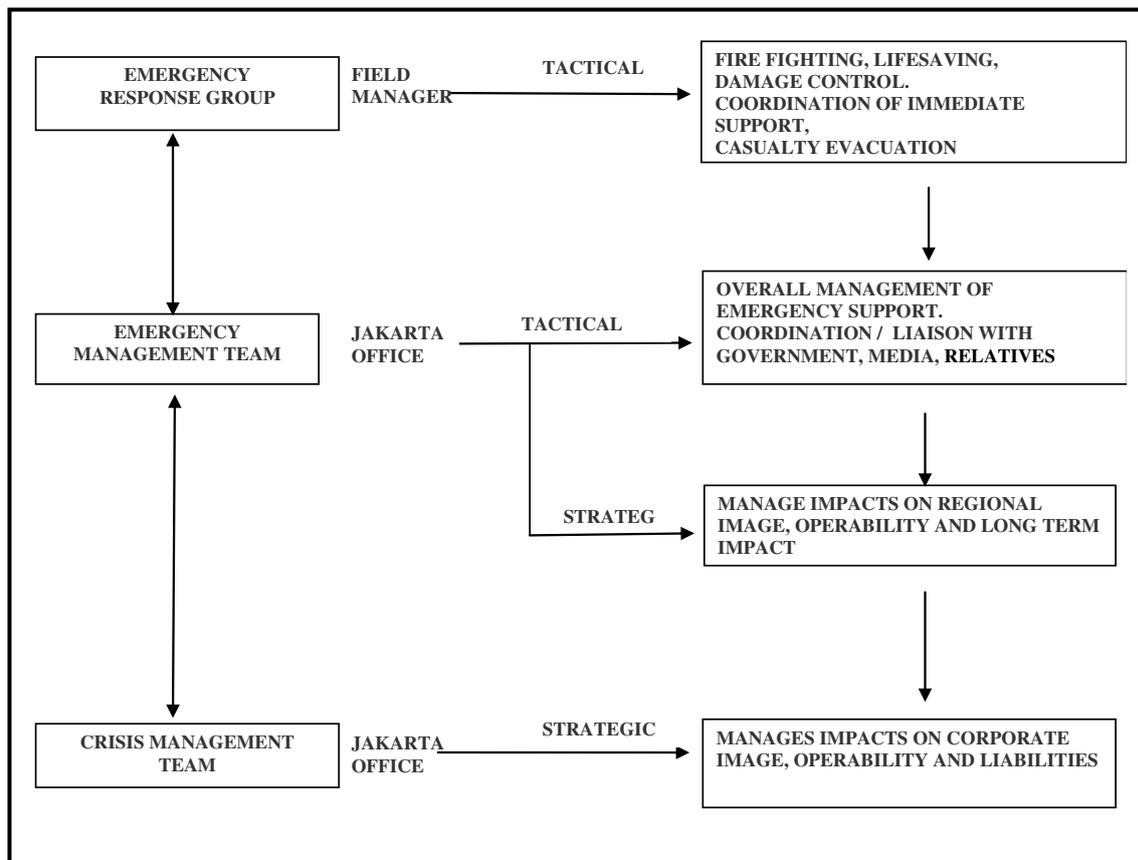
11.1.1. Emergency Response Organization

The Company Emergency arrangements are based on 3 tiers.

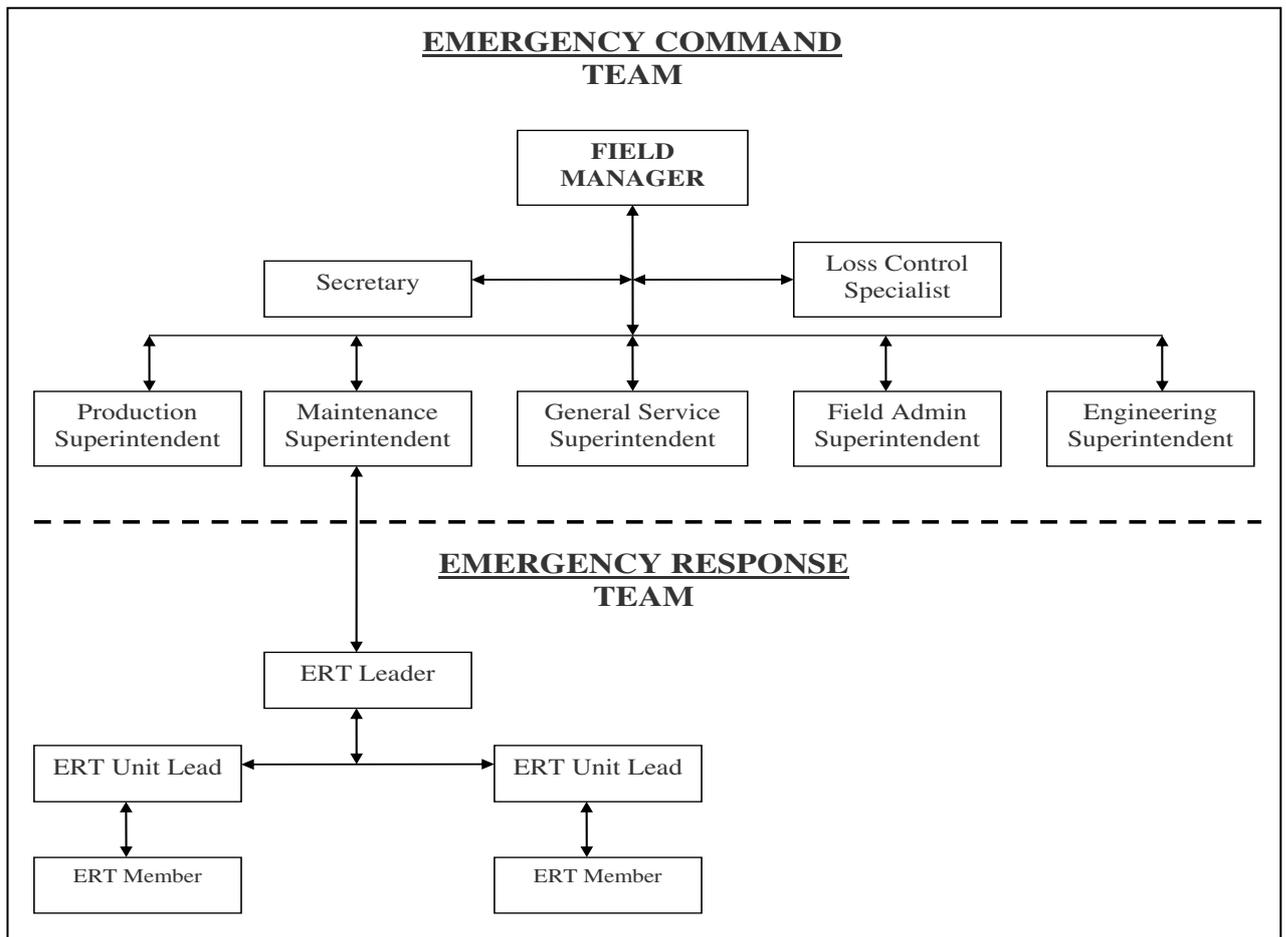
Emergency Response Group (ERG) = Field

Geothermal Emergency Management Team (EMT) = Jakarta Office

Crisis Management Team (CMT) = Jakarta Office



Company Emergency Response Organizations = 3 Tiers



Emergency Response Group = Field

11.2. Emergency Response Plan

The following concerns are Company priorities when developing and undertaking Incident Response Plans:

- THE HEALTH AND SAFETY OF OUR EMPLOYEES AND NEIGHBOURS
- THE INTEGRITY OF ENVIRONMENT
- THE VALUE OF OUR PROPERTY AND ASSETS
- REPUTATION AS A RESPONSIBLE AND RESPONSIVE COMPANY

When you observed an emergency situations or accident occurred where assistance is required, call the ERP Hotline Number.

11.3. Contractor's Emergency Response Plan

The Company has overall responsibility for coordination of Emergency Preparedness and Response at all locations where project work is being carried out by a Contractor. The Company is responsible for

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ensuring that where Contractor/Company work activities interface with each other there is proper communication and understanding of the various roles and responsibilities.

The Contractor is required to cooperate and comply with the Company's emergency response requirements.

Each employee (including contractors / visitors / vendors) is required to participate in any emergency drills conducted at Company Operation area.

11.4. Emergency Responses

11.4.1. Fire

- STOP WORK, EVACUATE AT ONCE TO THE SAFE ASSEMBLY AREA
- EVACUATE USING NEAREST ACCESS. BE CAREFUL WHEN STEPPING DOWN THE STAIRS, USE ITS HANDRAILS
- DESIGNATED FLOOR WARDENS SWEEP ALL ROOMS TO ENSURE THAT NOBODY LEFT
- FLOOR WARDENS DO THE HEAD COUNT AND ADVISES FIELD MANAGER OF FINDING
- FIELD MANAGER GIVES SAFETY BRIEFING. ALL PARTIES HAVE TO REMAIN IN SAFE ASSEMBLY AREA UNTIL FIELD MANAGER DECLARES SAFE FOR RETURNING TO WORK PLACE.
- CONTROL ROOM EVACUATION WILL BE UP TO OPERATION SUPERVISOR JUDGMENT. THE JUDGMENT SHALL BE BASED ON PERSONAL SAFETY FIRST WHILE TRYING TO SECURE THE PLANT OPERATION.
- IN CASE OF STRUCTURAL FIRES OCCURRED IN PERMANENT VILLAGE, EVACUATE AT ONCE TO THE SAFE ASSEMBLY AREA IN THE PARKING YARD.

11.4.2. Civil unrest

IN THE EVENT OF CIVIL UNREST:

- STAY CALM; DO NOT MAKE ANY PROVOCATIVE ACTIONS.
- IN CASE OF EMERGENCY, EVACUATION SHALL BE CONDUCTED UNDER FLOOR WARDEN DIRECTION

11.4.3. Medivac

Where medical evacuation is required, one should contact Control Room and Medical Doctor immediately. Medivac procedures shall be done under Field Manager acknowledgement.

11.4.4. Earth quake

a. Preparedness

- For personal safety, assess your workplace area in anticipating earthquake emergency.
- Window / glass - If your work station is near windows or glass partitions, decide where you will take cover to avoid being injured by flying glass.

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- Heavy objects - If your work station is near a temporary wall or partition, make sure it is securely anchored.
 - Loose objects - If you have material stored on top of cabinets or shelves, determine if these items could be secured or moved.
 - If you are near pipelines in the field, be prepared to get away from the pipelines.
- b. During earthquake, people are requested to:
- Remain calm - Do not panic and do not attempt to go outside. Protect yourself.
 - Act quickly - Move away from windows, temporary walls or partitions, and or free-standing objects such as files, cabinets, shelves, hanging objects.
- c. If you are inside a building, do the following as appropriate:
- Duck - Duck or drop down to the floor.
 - Cover - Take cover under a sturdy desk, table or other furniture. If that is not possible, seek cover against an interior wall and protect your head and neck with your arms.
 - Hold - If you take cover under a sturdy piece of furniture, hold on to it and be prepared to move with it.
 - Stay put - Hold this position until the ground and/or building stops shaking and it is safe to move. Stay inside; do not attempt to exit the building during the shaking.
- d. If you are outside:
- If you are outdoors when the quake occurs, stay there.
 - Move away from structures, power poles, lamp poles, walls, and/or retaining walls that could fall during the quake, avoid fallen electrical lines, and avoid wellheads and pipelines if you are in the field. If possible, move to an open area.

11.4.5. Spills

All spills greater than 15 barrels should be reported immediately to the authorized persons (Control Room, Emergency Response Group) to ensure appropriate actions are taken.

For minor spill, first responder can take appropriate actions to handle the spill where specific skill and knowledge is not required.

11.5. Incident Notification

Each individual is responsible for accident prevention. Employees, contractors, visitors, or vendors responsible to correct and or report to their respective supervisor any unsafe conditions or practices/acts that may be observed in their workplace.

All on-the-job personal injuries, near misses, even of a minor nature, must be reported to the employee's supervisor no later than the end of the shift in which the injury occurred.

11.7. Incident Notification & Reporting Matrix

Internal Notification & Reporting	Oral		Written			
	A	B	C	D	E	F
Major	X		X	X	X	X
Serious	X		X	X	X	X
Moderate		X	X	X	X	
Minor			X			

A: Supervisor → Plant/Field Manager (<2 h) → VP Operation → Directors

B: Supervisor → Plant/Field Manager (<2 hours)

C: Supervisor prepared report form D (Incident) & E (injury) → send to Plant/Field Manager, Superintendent, Loss Control, Administrator (<24 hours)

D: Plant/Field Manager send clause “C” above to VP Operation

E: Supervisor & Investigation Team prepared report form F (investigation) → Plant/Field Manager (7 days)

F: Plant/Field Manager nominated Investigation Team to complete comprehensive report.

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TYPE	MAJOR	SERIOUS	MODERATE	MINOR
	> \$500,000	\$25,000 - \$500,000	\$500 - \$25,000	< \$500
Injury/Illness	Fatality/death or ≥ 3 people hospitalized.	LWC or ≥ 3 injured in one incident	MTC or RWC	FAC
Environmental loss	>\$500,000	\$25,000 - \$500,000	\$500 - \$25,000	<\$500
Property Damage Fire/Explosion	>\$500,000	\$25,000 - \$500,000	\$500 - \$25,000	<\$500
Process Loss / Disturbance	>\$500,000	\$25,000 - \$500,000	\$500 - \$25,000 Unit Trip	<\$500
External Relations	Significant news media – negative implications	Demonstrations > 20 people or with violent intent Citations with potential fines >\$25,000 News – negative implication (local).	Demonstrations 10 – 20 people Rumour demo ≥ 20 people Citations with potential fines \$500 - \$25,000	Demonstrations < 10 people Rumour demo < 20 people Citations with potential fines < \$500
Theft/Crimes	>\$500,000	\$25,000 - \$500,000	\$500 - \$25,000	<\$500
Vehicular	>\$500,000	\$25,000 - \$500,000	\$500 - \$25,000	<\$500
Near Miss		Major/Serious	Moderate	Minor
Other	Kidnapping, extortion, or other life endangering threats, Sabotage or terrorism			

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11.8. Minor Near Miss Report

All Employees, contractor or visitor are required to promptly make report of all minor near-miss report and send to Loss Control if sub-standard acts/practices or sub-standard conditions observed on operation area.

11.8.1. Sub-Standard Practices/Acts

- Are behaviours which could permit the occurrence of an incident (accident or near miss)
- Deviation from standard procedures or practices.

11.8.2. Sub-Standard Conditions

- Are circumstances which have or could permit the occurrence of an incident (accident or near miss)
- Deviation from standard conditions of equipment, materials, or environment
- Equipment not fit for purpose

12. ACCIDENT REPORTING AND INVESTIGATION

It is the policy of Company to promptly investigate and report any accidents, which occur on Company location in order that corrective measures can be taken to prevent recurrence.

The accident report form shall be completed within 24 hours after an accident and sent to the Safety, Health & Environmental Manager.

Any accident beyond first aid cases and above that involves Company personnel must have an ASTEK Medical Report completed by Personnel Section.

Plant/Field Manager shall report any accident, which cause lost workday to its Supervisor and Safety, Health & Environmental Manager within 24 hours by fax that includes concise report of accident.

Any person witnessing or experiencing a near miss cases shall immediately report the incident to his supervisor and complete a simple Near Miss Report Form that available on each installations. The Responsible Area Supervisor shall investigate and take the necessary corrective action to prevent an accident occurring.

Any person involved in or witnessing or experiencing an accident shall immediately report it to his/her supervisor immediately. See the doctor immediately if you are injured.

The responsible area supervisor must conduct a thorough investigation of each accident occurring within his area of responsibility. The supervisor may request assistance from the Plant/Field Manager and the Safety, Health & Environmental Manager to form an accident investigation team if the investigation is beyond his capability.

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ACKNOWLEDGEMENT CARD

I acknowledge receipt of this SHE Manual. I have read it and I understand it. I agree to abide by the rules contained therein while on board the facilities of Company.

Name (printed): _____

Signature: _____

Date: _____

I have answered the questions and any concern of the employee.

Supervisor's signature: _____

Title: _____

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CONTRACTOR SAFETY, HEALTH & ENVIRONMENTAL MANAGEMENT SYSTEM (CSMS)

MANUAL

	Position	Name
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Approved By	Chief Operating Officer (COO)	Jan Bartak
Reviewed By	SHE Leadership Committee	Andrew J. Whittome
		Radikal Utama
		Julfi Hadi
		Nisriyanto
		Priyandaru Effendi
Prepared By	SHE Committee (Custodian/Originator)	Gagat Bhumyantoro (Custodian)
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		Dodi Gauzali
		M. Yunus

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DISTRIBUTION LIST

POSITION	COPY NO
JAKARTA OFFICE:	
President & CEO	1.
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Chief Financial Officer	3.
VP. Support & Services	4.
VP. Project Development	5.
VP. Exploration and Subsurface	6.
VP. Finance and Accounting	7.
VP. Commercial, SHE & Relations	8.
Sr. Manager Commercial & SHE	9.
Sr. Manager SCM	10.
Sr. Manager Engineering	11.
Sr. Manager Finance	12.
Manager Exploration Muara Laboh	13.
Manager Exploration Rajabasa	14.
Manager Drilling	15.
Manager Support & Services	16.
Deputy Mgr. Business Relation	17.
Deputy Mgr. Field Relation	18.
Field Manager Muara Laboh	19.
Field Manager Rajabasa	20.
Head of Procurement	21.
Head of Logistics	22.
SHE Administration and Document Controller	23.

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REVISION HISTORY

REVISION NUMBER	DATE	DESCRIPTION OF CHANGE	PAGE(S)

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Policy Statement

Supreme Energy Group of Companies (Supreme Energy) strive to continually reduce the potential impacts of our business on Safety, Health and Environment (SHE) by managing hazards, preventing injury, reducing waste, emission and discharges, and by using energy efficiently. We shall eliminate injury by observing hazards, reporting and rectifying all unsafe actions and conditions, which could lead to an incident.

Responsibilities for SHE performance shall be visible throughout the organization with clear line management accountability. Fully ensured implementation of SHE management system throughout the exploration and development phases is fundamental to our business. All parties shall fully support the SHE goals, objectives and all statutory requirements.

Our business plan and personal objectives including the measurable SHE targets are established annually and reviewed regularly. Executive Management is accountable for implementation of this policy.

Contractor SHE Management System (CSMS) Manual

The CSMS Manual is established to ensure our contractor's SHE performance meeting with our contract requirements and standards. The CSMS Manual is also to assist Supreme Energy's Procurement Committee, field management or field representative, all department managers and other line management functions within the Company to have similar perception and consistent implementation of CSMS.

Supreme Energy will encourage all contractors and sub-contractors operating on behalf of Supreme Energy Group of Companies to voluntarily follow and implement the CSMS Manual on their own premises if they do not have such CSMS Manual.

Line Manager, who may be assisted by the Process Owner, is accountable for the CSMS implementation for the Project or Work in her/his area of responsibility while the designated Procurement and SHE staffs are only as resource personnel.

Jakarta, May 2011

SHE Leadership Committee:

Jan Bartak

Chief Operating Officer

Radikal Utama

VP Support & Services

Julfi Hadi

VP Exploration & Subsurface

Nisriyanto

VP Finance & Accounting

Andrew J. Whittome

VP Project Development

Prijandaru Effendi

VP Commercial, SHE & Relations

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2011 – TEAM CHARTER

CONTRACTOR MANAGEMENT SYSTEM (CSMS) DEVELOPMENT AND IMPLEMENTATION TEAM CHARTER

OBJECTIVES

The CSMS Development and Implementation Team (CSMS Team) will be responsible to develop the CSMS Manual (Manual), the engagement and socialization process internally and externally, and the implementation of the CSMS Manual within the operation of Supreme Energy (Company). The Manual shall be based on the integrated SHE Management System which meets the standards of the internationally recognized Quality Management System/ISO-29001 (or ISO-9001 for Oil/Gas/Geothermal Operations), Environmental Management System/ISO-14001 and Safety & Occupational Management System/OHSA 18001.

BACKGROUND

The CSMS Team is not a structural organization. It is made up of cross-sectional members from related departments in the Company. Even though the CSMS Team is to whom all concerned parties will seek advice on the CSMS matters, but this team is not a problem-solving committee. It is also a hands-on team responsible to ensure the development and implementation of the Manual needed to manage contractor's SHE performance during which these contractors are performing the works for the Company. This CSMS Team is advised and has direct consultation report to the SHE Leadership Committee and has a full support and commitment from Executive Management, President & CEO, as well as from the Board of Directors.

Team Leader : Gagat Bhumyantoro
Members : M. Yunus, Asharry Sofyan, Dodi A. Gauzali, Win Sukardi
Document Controller : Teddy Wahyudi

TIME FRAME

The CSMS Team shall develop the Manual within 1 month from the approval date and conduct the internal and external engagement and socialization process afterwards. CSMS Team will serve the duties for 3 years. Leader and Members may be replaced at anytime depending on the needs. Should replacement be made, this Team Charter shall be amended and approved.

KEY ACTIVITIES

- Oversee and secure Manual development and implementation.
- Develop all necessary supplementary procedures, guidelines or others to satisfactorily implement the Manual
- Conduct a quarterly review of the CSMS implementation result involving internal and external parties to be presented to the SHE Leadership Committee
- Assist in promoting the SHE awareness to all contractors, employees and other stakeholders of the Company.

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APPROVED BY,

Supramu Santosa
President & CEO

Jan Bartak
Chief Operating Officer

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1. INTRODUCTION

1.1. Purpose

The purpose of this CSMS Manual (so called “Manual”) is to have Company’s integrated system in place to manage all Contractors’ activities in a safe and healthy workplace and protecting the environment.

The Manual will secure Company’s commitment to the highest standard of SHE performance, by:

- Providing a framework for managing Contractor(s) and its sub-contractor(s);
- Involving all Process Owners and Contractors to prevent SHE losses;
- Clearly defining the SHE responsibilities of the Process Owners and Contractors;
- Establishing expectations and maintaining communications throughout the organization; and
- Facilitating the interface activities between Company and Contractor (including its sub-contractors).

All forms and checklists under this Manual are designed as minimum requirements for which it is not recommended to reduce the contents. If it is deemed necessary, additional forms and checklists may be developed to cover any specific needs related to the work. The use of such additional forms and checklists should be well communicated to the Contractor.

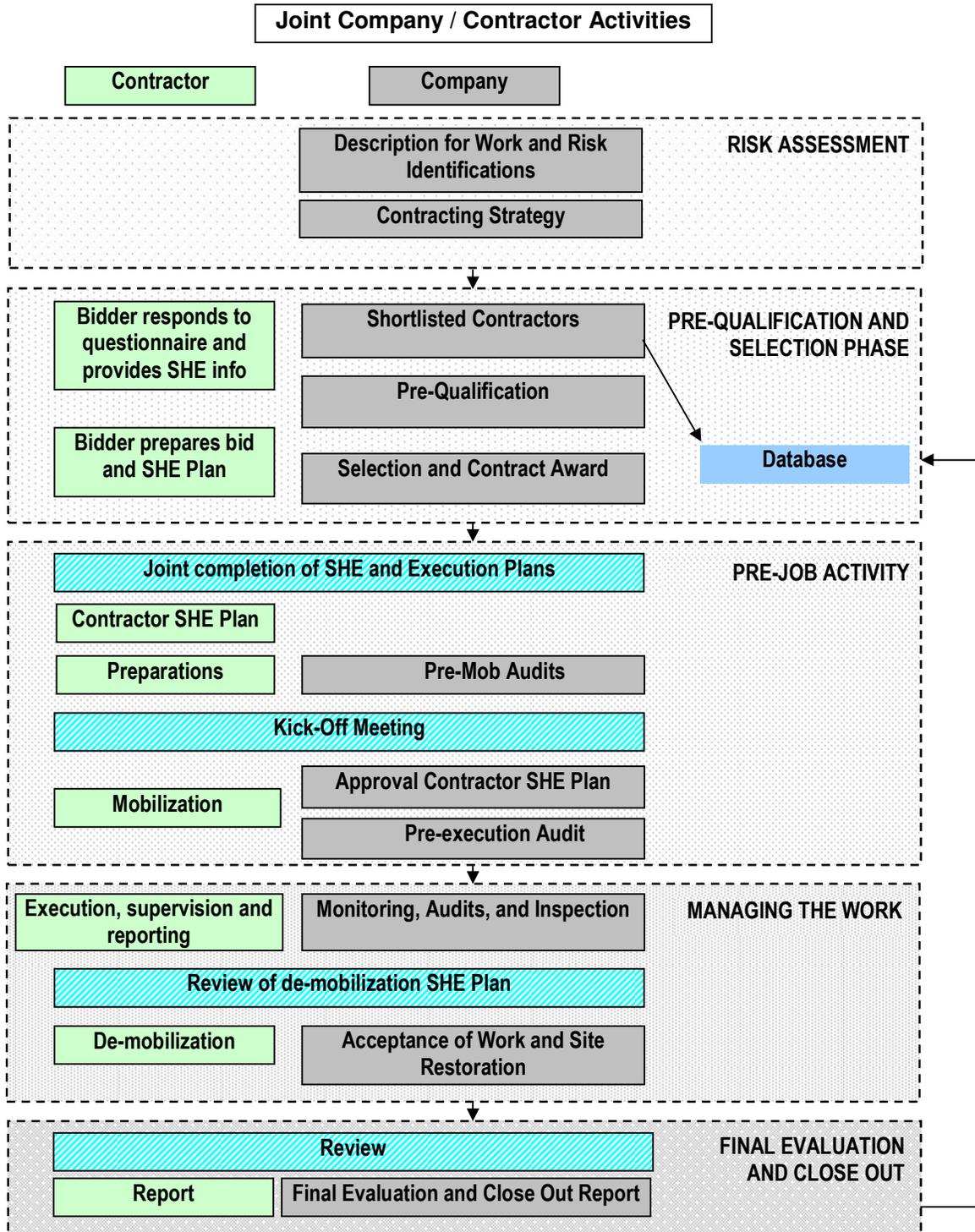
The Manual should protect both Company’s and Contractor’s personnel from workplace injury and illness as well as from environmental damage associated with incident, while preserving the independent Contractor relationship.

1.2. Scope

This Manual shall be applied to Services Contract (so called “Contract”) which is executed in Company (including subsidiaries) operating areas. The Manual is not mandatory for work performed in Contractor’s premises or any non-Company’s premises.

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1.3. Overview of the CSMS Process



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The following table provides requirements of CSMS process for each job classification.

Table 1: CSMS Process Requirement

CSMS STEPS	RISK LEVEL		
	LOW	MEDIUM	HIGH
Risk Assessment	Required	Required	Required
Pre-assessment	Discretionary	Discretionary	Required
Selection	Discretionary	Discretionary	Required
Pre-job Activities	Discretionary	Required	Required
Work In Progress	Discretionary	Required	Required
Final Evaluation	Required	Required	Required

The above “Discretionary” status may be changed to be “Required” for specific work being contracted. Respective Line Manager may propose the change of status and shall be approved by the respective Senior Management. Once the status is changed to be “Required”, Originator shall state it in the **Risk Assessment Resume (Appendix I.2: CSMS/RA/02)**.

1.4. Responsibilities

List of Responsibility, Accountability, Contributory, and Informed (RACI) for each related party in the CSMS process is summarized and posted in each step of the CSMS Process.

1.5. Control of Records

Records shall be established and maintained to provide evidence of conformity to requirements and of the effective operation of the quality management system. Records shall remain legible, readily identifiable and retrievable. A documented procedure shall be established to define the controls needed for the identification, storage, protection, retrieval, retention time and disposition of records.

SHE Department as the custodian of this Manual will be responsible to finalize the revision and distribute the copy to each respective personnel. SHE Administration and Document Controllers will be the main responsible personnel to execute this particular effort.

2. RISK ASSESSMENT

2.1. Objectives

The objectives of this step are to describe the type of work and to assess the SHE risks associated with the work.

2.2. Risk Assessment Process

Company is responsible for making an initial assessment of the SHE risks involved in execution of the work. This will assist Contractor and Company in developing programs and safe work practices to protect all interested parties and Company assets/facilities

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The focus of the assessment should be to evaluate the inherent hazards in conducting the work. The Originator of contracted work or services shall conduct risk assessment.

A risk assessment should include the following considerations:

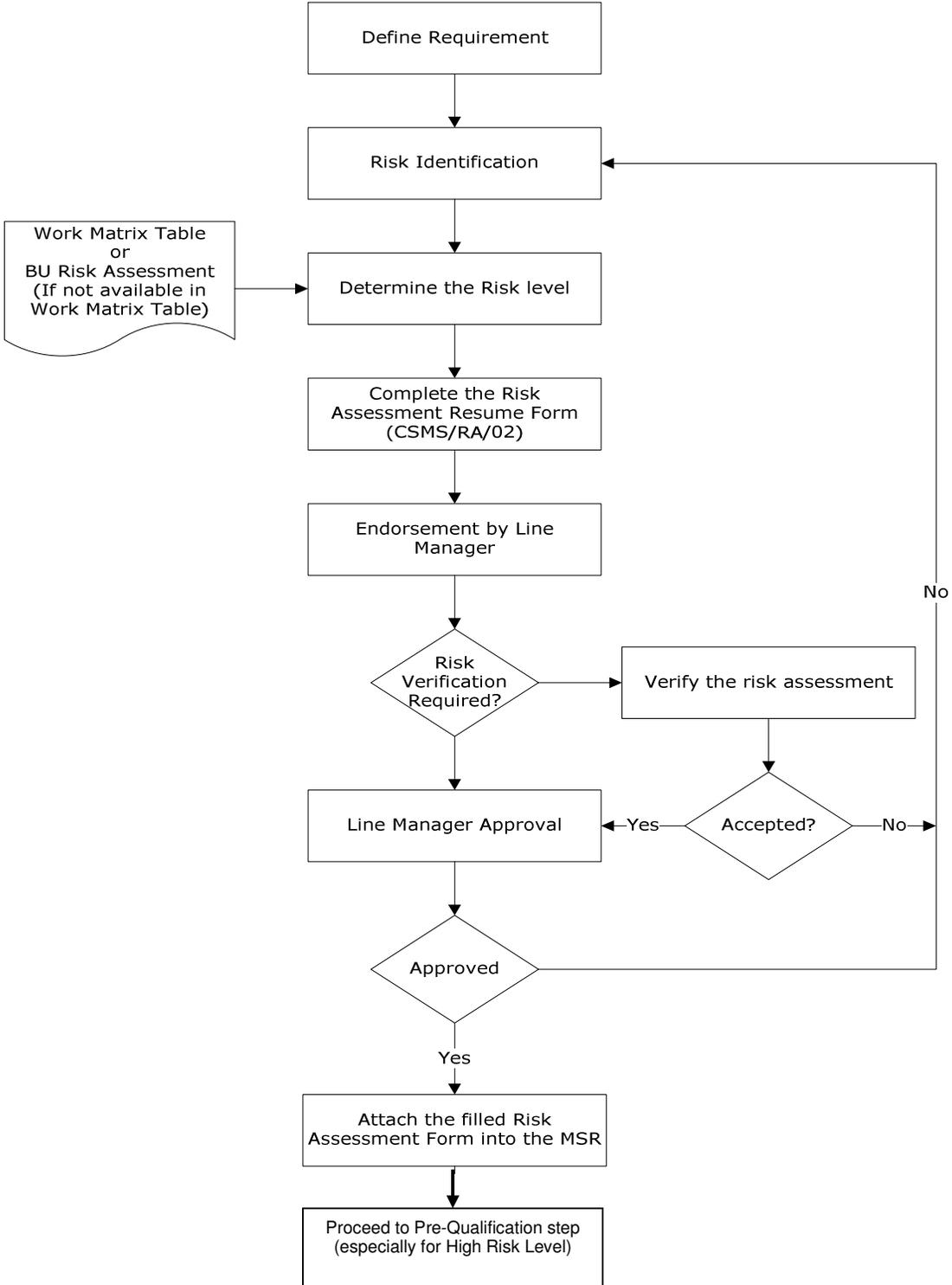
- Nature of the work;
- Work location;
- Materials/equipment used;
- Potential for exposure to work site hazards;
- Potential exposure to hazards for all personnel;
- Simultaneous work by different Contractor in the same area;
- Work duration;
- Potential non-conformities and consequences;
- Contractor experience and competency;
- Exposure to negative impact to Stakeholders;
- Hazard mitigation.

Job risk categories are characterized as Low, Medium or High Risk. List of risk category of each job can be found at **Appendix I.1: CSMS/RA/01 (Work Matrix Table)**. Types of jobs that are not listed in the appendix need to be assessed by Process Owner by using Risk Assessment Matrix available in each Business Unit.

Risk Assessment form shall be part of the Material Service Requisition (MSR) in which the Originator shall fill in the **Appendix I.2: Form CSMS/RA/02 (Risk Assessment Resume)** and attach it when Originator submits the MSR for approval.

Figure 1 below illustrates the risk assessment process flow.

Figure 1: Risk Assessment Process



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Table below explains briefly about Roles and Responsibilities for each personnel in conducting Risk Assessment process.

Table 2: Roles and Responsibilities for Risk Assessment

Originator/End User/Process Owner	SHE Representative	Line Manager	Contractor	Procurement	CSMS Team
<p>Analyses the inherent hazards associated with the work, complete, and sign the checklist. These activities may be delegated down as necessary.</p> <p>However, responsibility for signing the checklist lies with the respective Line Manager.</p>	<p>Verifies the risk assessment upon request.</p>	<p>Approves the Risk Assessment Resume.</p>	<p>Not Applicable</p>	<p>Ensures Risk Assessment Resume has been filled, appropriately signed, and attached to the MSR prior to processing it.</p>	<p>Ensures that the Risk Assessment Resume is verified and recorded into the CSMS database.</p>
Responsible	Consult	Accountable	-	Informed	Responsible

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3. PRE-QUALIFICATION

3.1. Objective

The objective of conducting the pre-qualification process in the CSMS framework is to screen potential Contractors who are able to undertake the activities which comply with Company SHE requirements.

3.2. Pre-Qualification Process

In the CSMS framework, pre-qualification process is to provide basic Contractor's SHE information, such as:

- SHE Leadership and Commitment;
- Policy and strategic objectives;
- Organization, responsibility, resources, standards, and documentation;
- Potential Hazards and Effects Management;
- Planning and procedures;
- Implementation and performance monitoring;
- Audit and review.

If required, additional features such as non-SHE requirements may be added. Not all Contracts require pre-qualification process. There are 3 (three) conditions that do not necessitate Contractor to be pre-qualified:

- Services classified as Low and Medium Risk.
- Has passed pre-qualification process for similar type of services and is still in the Validity Period.
- Waived by Senior Management.

The validity of pre-qualification result is approved by CSMS Team. This validity can be revoked at any time if the Contractor fails to perform or due to other justifiable reasons.

However, for low risk jobs that in the past experienced frequent accidents or incidents, the risk level requires to be classified as high. Therefore, Contractor rendering such services must be pre-qualified. For high-risk works, CSMS pre-qualification must precede any bidding activities.

Pre-Qualification Questionnaire to be completed by Contractor is provided in **Appendix II.1: Form CSMS/PQ/01**. During pre-qualification of multinational Contractor, especially those with divisions in numerous countries, the use of the record of the Corporation may not be appropriate. The form can be distributed to Contractor in a hard copy or electronic format. Contractor responses over the CSMS pre-qualification document will be evaluated against **Appendix II.2: CSMS/PQ/02 Contractor SHEMS Criteria**.

It is highly recommended that the CSMS Team conducts pre-qualification site visits on certain issues to verify implementation of Contractor's SHE Management System. The overall result of the qualification will be filled into the Contractor SHE Management System Evaluation form, provided in the **Appendix II.3: Form CSMS/PQ/03**.

The minimum acceptable score for a Contractor to pass a CSMS pre-qualification is **56**. In case none of the Bidders meet the minimum acceptable score, the respective Executive Management will decide whether or not to continue with the pre-qualification process. Should

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the pre-qualification process be continued and a Conditional Acceptance is rendered, strict requirements, time periods and control measures necessary for the relative risks must be applied to the Contractor.

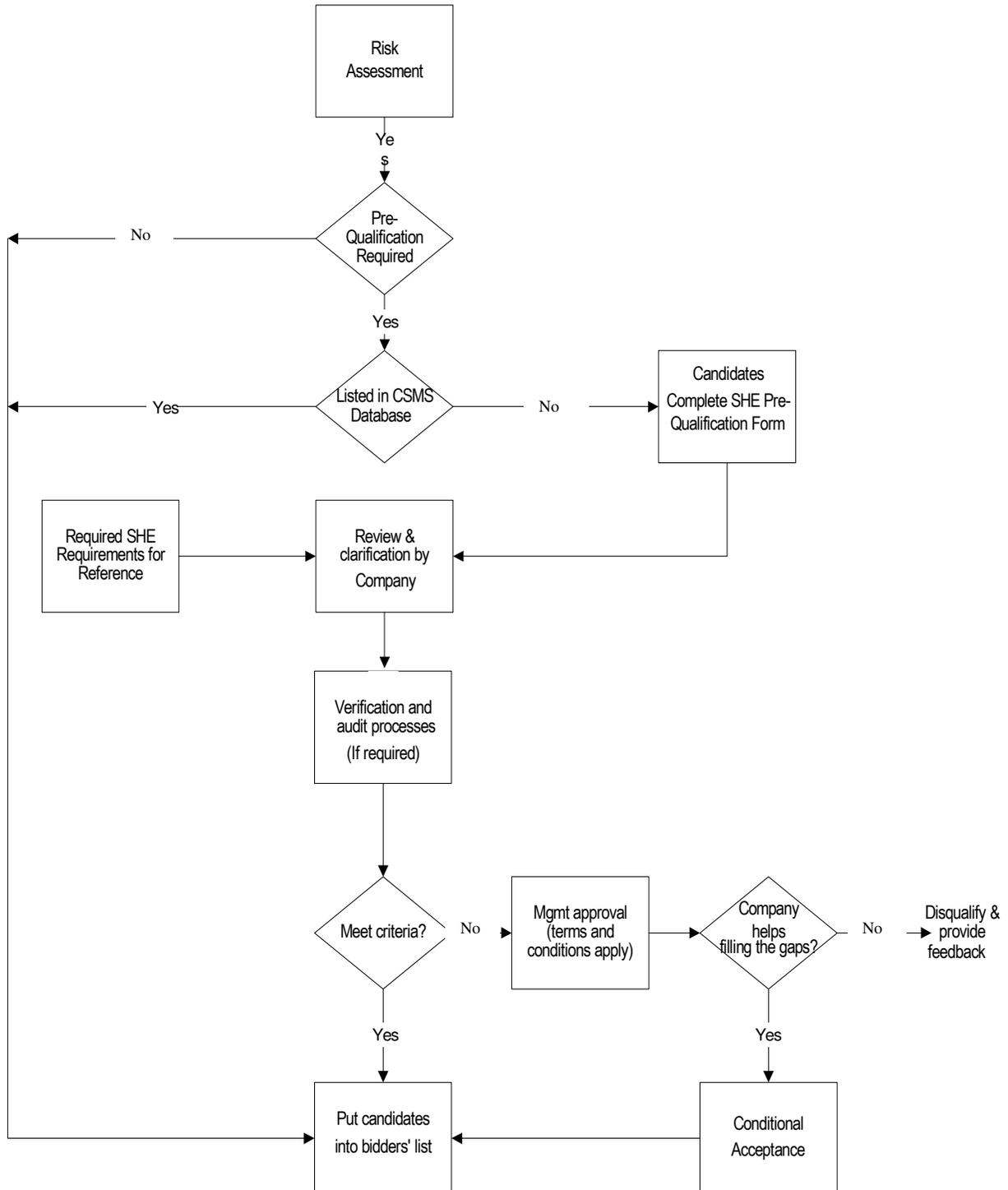
Once Contractor passes the initial evaluation, inspection of Contractor’s facilities and audit of Contractor’s conformance to the pre-qualification documents may follow. The policy on SHE Audit is available separately from the SHE Department.

Contractor that does not pass the pre-qualification process will be given feedback informing them the reasons why they are not qualified and will be advised as to what corrective actions are required to close the identified deficiencies/non-conformities. The only gate for providing feedback to Contractor shall be through the Procurement Department. Company will give time frame at least 12 months for failed contractor to close the pre-qualification result gap and prove that they have improved their SHE management, and then they may qualify for future work.

While Procurement department prepares Bid or Enquiry Document, the Originator must develop SHE requirements specific to the work being bid. These SHE requirements will be included into the bid package for the Contractor to prepare, while they in turn will prepare their SHE Plan and programs specific to the work. These documents will be evaluated during the bid evaluation process. For further guidelines, refer to the Selection step regarding bid document preparation and Contractor evaluation.

Figure 2 below illustrates the pre-qualification process.

Figure 2: Pre-Qualification Process



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Table 3 in the following page explains briefly about Roles and Responsibilities for each personnel in conducting Pre-Qualification process.

Table 3: Roles and Responsibilities for Pre-Qualification

Originator/ End User/ Process Owner	SHE Representative	Line Manager	Contractor	Procurement	CSMS Team
<p>Prepares SHE requirements for inclusion into the Bid Document.</p> <p>Involved in inspection activities.</p>	<p>Verifies pre-qualification packages, if necessary.</p> <p>Educates Contractor to understand the pre-qualification form, and successful criteria to meet Company SHE requirements.</p> <p>If necessary, participates in inspections, audits activities, provides SHE assurance, produces the necessary recommendations, and monitors follow-ups of the recommendation.</p>	<p>Determines the necessity of continuing with the pre-qualification process when no candidates meet the minimum SHE scores.</p> <p>Monitors inspection and audit activities.</p>	<p>Responds to questionnaires and provides SHEMS information.</p> <p>Provides clarifications, if requested.</p> <p>Obligated to undergo SHE inspections and audits.</p>	<p>Prepares pre-qualification package for work classified as high risk:</p> <ul style="list-style-type: none"> - Instructions to Bidders - Questionnaire - Evaluation criteria <p>Checks Contractor CSMS history during the evaluation process.</p> <p>If necessary, participates in inspections.</p> <p>Develops Bidder List based on the pre-qualification results. Assists all pre-qualification evaluation results are well documented and easy to locate.</p> <p>Provides feedback to Contractor that fails the pre-assessment.</p>	<p>Coordinate pre-qualification documents submitted by Bidders and inputs the initial results into the CSMS database.</p> <p>Coordinate inspection activities and inputs the results into the CSMS database.</p> <p>Issues CSMS PQ certificate to pre-qualified Contractor.</p>
Responsible	Consult	Responsible	Responsible	Responsible	Accountable

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4. SELECTION

4.1. Objective

The objective of this step is to select Contractor which has fulfilled and passed the requirements stipulated in the bid document as evaluation criteria.

Generally, the requirements include administration, technical, SHE, and commercial.

4.2. Selection Process

This CSMS Selection step runs in parallel with the bid evaluation process within the procurement process framework and is considered part of the technical evaluation. The overall risk of contract and SHE management should be given appropriate weighting along with other considerations when selection criteria are evaluated.

4.2.1. Preparation

If a weighting system is applied in the selection process, SHE content should be given an appropriate weighting along with other considerations. Originator may consult with SHE representative to obtain the most appropriate weight for the work to be contracted, within a range of 10% - 30%, depending on the complexity and risk of the work. Minimum requirements to be addressed in the Bid Document are:

a. SHE Plan

It is an execution plan relating to performance of the work within the context of how SHE will be managed and executed. It clearly focuses on the contract's specific risks, rather than generic SHE issues. It is not just a high level document, but also a working level document. SHE Plan guidelines can be found in **Appendix III.2: CSMS/SL/02 (SHE Plan Guideline)**.

b. Risk assessment of the detailed work as part of the Scope of Work may include:

- Hazard Identification (including Construction HAZID);
- Hazard registers;
- Hazard analyses;
- Mitigation plans.

c. Interface Plan

This defines Company's and the Contractor's anticipated interfaces, supervision strategy and interaction with Company operation that may include:

- Interface scope and its risk identification (e.g. SIMOPS);
- Resources and work plans to manage the contract in accordance with Contractor SHE Plan, e.g. manpower resources;
- Contractor affiliations;
- Technical resource institutions;
- Other matters.

d. Gap Analysis and Closure Plans

Contractor should provide the gap analysis and closure plan of their SHE system based on their original CSMS in the pre-qualification and the proposed SHE Plan.

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At minimum, the following requirements should be asked to all Bidders and should be written in the bid document:

- Company Commitment to SHE Performance;
- Contractor Safety, Health, and Environmental (SHE) Plan;
- Contractor Safety, Health and Environmental Management System (CSMS) requirements;
- Company’s SHE specification requirements. These should be linked to Exhibit of Scope of Work;
- SHE Performance Indicators as may be stated in the Exhibit of Scope of Work.

The above requirements should be included in the SHE exhibit of the Bid Document. **Appendix III.1: CSMS/SL/01** is to show an example of SHE exhibit

When preparing Bid Document, there are several items that need to be taken into consideration:

- Line Manager is responsible for assuring that all SHE requirements are addressed in the Bid Document and information concerning all identified hazards is passed onto the Contractor. Company shall never assume that the Contractor knows the hazards in the Company premises or workplaces.
- Contractor has independent responsibility for their SHE Plan, but the document should create a clear access for Company to perform SHE audits on the Contractor’s SHE Management System to ensure compliance with the SHE Plan.

4.2.2. Evaluating Bid, Site Inspection and Audit

During bid evaluation, the Originator and/or End User, SHE, and Procurement Department should convene meetings to concentrate on reviewing the SHE plan prepared by the Contractor and assess how effective the Contractor has been in providing assurance that all hazards have been identified. What has been evaluated during the pre-qualification process may be re-evaluated and compared among all Bidders.

Clarification meetings between Company and Contractor should also be conducted to clarify and further assess the suitability of Contractor’s SHE Plan, risk assessments of detailed work and how these plans interact with Company CSMS and other Contractor. Once the SHE issues have been evaluated and weighted against the established weighting factors, they will be incorporated into the overall technical evaluations. These appraisals must be documented, as they are part of the crucial conditions for awarding the contract.

Site inspections may be conducted to ensure conformance with what the Bidders have proposed. The SHE representative will assist, by providing SHE assurances and producing the necessary recommendations. Results of the selection process are electronically recorded using the form provided in **Appendix III.3: Form CSMS/SL/03 (Inspection Result)**.

4.2.3. Negotiation

During negotiation, Company has the opportunity to leverage SHE excellence into the Contract at minimal costs. As such, it is recommended that the gaps identified within the Pre-Qualification package and the SHE Plan submitted at the bid stage be reviewed in context of where Company would like to be, and tabled as an integral part of the commercial negotiation session.

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4.2.4. Award

As soon as the selection process is completed, the results will be incorporated into the overall bid evaluation and award recommendation package. The Procurement Committee will approve the award recommendation.

Figure 3: Selection Process

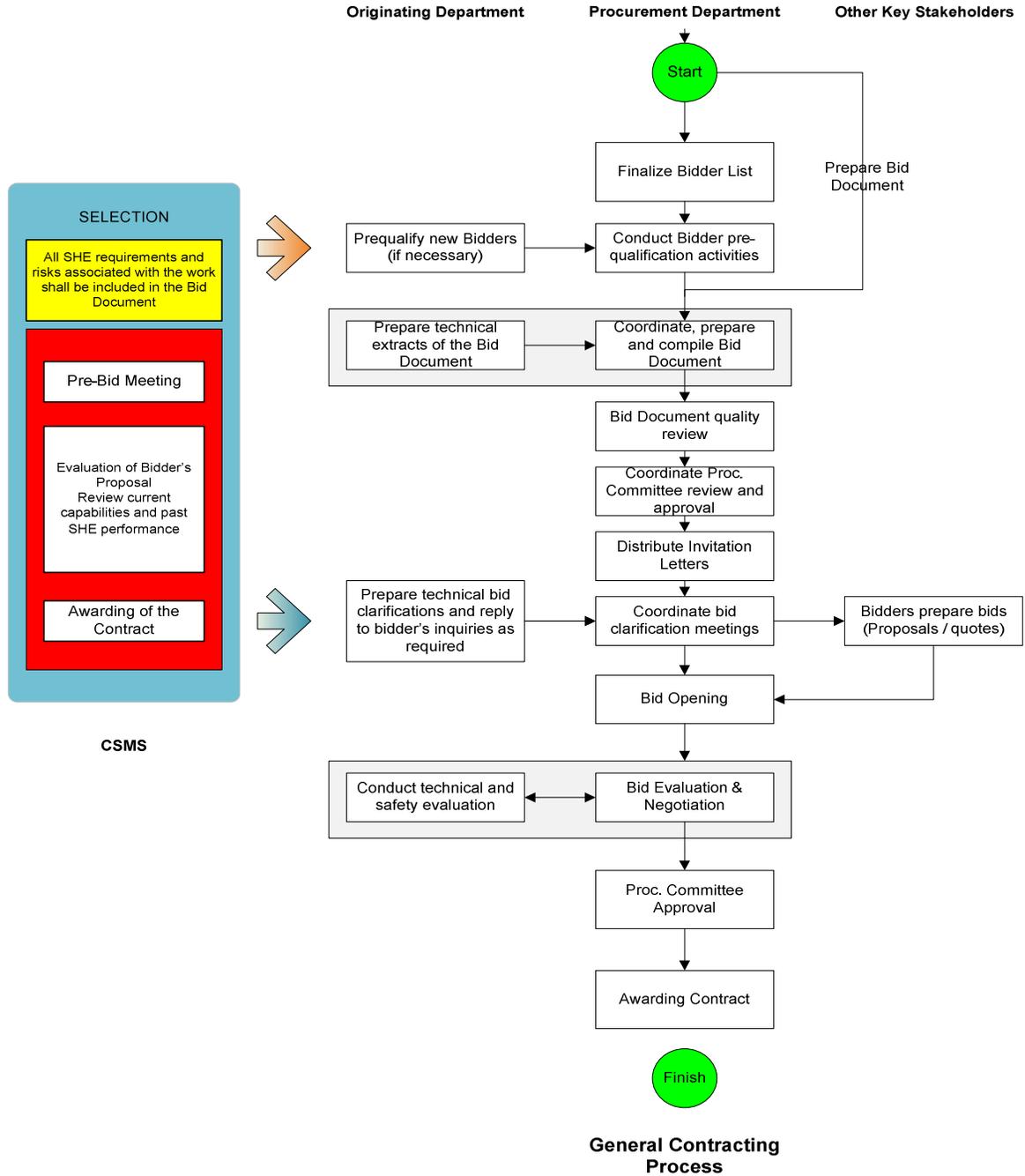


Table 4 below summarizes the Roles and Responsibilities for each personnel in conducting Selection process.

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Table 4: Roles and Responsibilities for Selection Process

Originator/End User/Process Owner	SHE Representative	Line Manager	Contractor	Procurement	CSMS Team
<p>Develops SHE evaluation criteria specific to each work type and weighting system (if applied).</p> <p>Involve in bid evaluation, including inspection process if required.</p>	<p>Assists in developing weighting system (if applied).</p> <p>Provides SHE assurance and produces the necessary recommendation and monitors follow-up of the recommendation.</p>	<p>Approves bid evaluation and recommendation for award as Bid Committee member.</p>	<p>Not Applicable</p>	<p>Coordinates bid evaluation process.</p>	<p>Advises and assists on SHE related matters during selection process.</p>
Responsible	Consult	Responsible	-	Accountable	Responsible

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5. PRE-JOB ACTIVITIES

5.1. Objectives

The objectives here are to ensure that the relevant aspects of work risks assessment and any other SHE aspects of the Contract are communicated and understood by all parties prior to implementation of the Contract.

5.2. Pre-Job Activities Steps

Pre-Job Activities consist of 2 (two) steps: pre-mobilization and mobilization. The Line Manager or the designated person(s) lead the conduct of these pre-job activities.

5.2.1. Pre-mobilization

During the pre-mobilization phase, all relevant aspects of SHE Plan, Interface Plans and any other SHE aspects are communicated and understood by all parties prior to implementation of the Contract. Confirm that the recommendation from pre-qualification has been addressed.

Activities that are completed in this step are kick of meeting, inspection and audit, SHE orientation and induction, SHE training, and SHE final meeting prior to mobilization.

5.2.1.1. Contractor SHE Focal Point / Representative.

Ensure Contractor assigns competent person as the Contractor focal point / representative. He or she shall have sufficient authority to take any action required related to SHE activities.

5.2.1.2. Kick-off Meeting

Kick-off meeting is led by the Line Manager and/or his/her officially designated person who will be responsible for the work. This meeting should be held immediately after the Contract has been awarded and before the execution of any work.

Kick-off meeting is conducted to provide opportunities to familiarize with work location, facilities, and personnel related to the work and other information related to the job.

Kick-off meeting attendees:

- Company Line Manager or her/his officially designated person;
- Company SHE department representative;
- Contractor's senior management who is authorized to make decisions and lead personnel/ Supervisory level personnel from Contractor and its sub-Contractor(s) if any.

Kick-off meetings may be held either at Company office or worksite or at Contractor's office. Company Line Manager or the officially designated person will determine the location and time for this kick-off meeting.

The topics covered by the kick-off meeting may include:

- The introduction of Company and Contractor SHE Management System.
- Confirmation of SHE Plan to be implemented, including confirmation that roles and responsibilities have been clearly defined and understood.

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- Reviews of the risk assessment concerning the associated major hazards, as well as the analyses and mitigation plans. Detailed reviews of work permits, associated hazards and Job Safety Analysis (JSA) shall be conducted prior to field mobilization.
- The Interface Plan that defines Company’s and Contractor’s anticipated interfaces, supervision strategies and interactions with Company operations.
- Review of mutually agreed SHE Key Performance Indicator (KPI).
- Confirmation of Contractor personnel’s SHE competencies, training and medical check-up requirements as stipulated in the contract.
- The introduction of all key personnel, including their responsibilities in the work, from Company and Contractor who may be involved in SHE related matters during the contract execution.
- Assurance for the bridging document between Company’s and Contractor’s emergency response plans.
- Pre-job inspections and audit requirements before mobilization (to minimize mobilization delays due to SHE issues), including discussions of closing plans of gap findings.
- Introduction of accident and incident reporting and investigation requirements and other SHE initiatives/program within the Company.

These meetings should also be used as an opportunity to clarify or raise new SHE issues that may have been unforeseen in the contract documents.

After these issues have been agreed on, Contractor, witnessed by Company representative, should conduct sessions to convey and discuss the meeting results to their own working levels. With Company’s prior approval, Contractor should incorporate new issues raised during these meetings.

5.2.1.3. SHE Orientation and Induction

Ensure that Contractor has received general SHE orientation and induction of Company’s facilities. All potential hazards and other SHE issues identified during the kick-off meeting must be well communicated during these orientations by the Company Line Manager or his/her officially designated person supported by SHE department representative.

5.2.1.4. Inspections and Audits

Pre-Job Activity checklist provided in **Appendix IV.1: CSMS/PJA/01** shall be used to check the Contractor’ readiness to perform the work as stipulated in the Contract. End User is responsible for ensuring that all gap findings resulting from these activities are closed and put into the database system.

Line Manager or his/her officially designated person shall conduct SHE inspections and audits at points of mobilization and decide whether mobilizations can proceed.

5.2.1.5. SHE Training

Contractor is responsible in conducting training and work preparation to mitigate the entire potential hazard and other issues related to the job. Company will do check assurance; the method could be in several ways, either with direct check or checking the related document.

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5.2.2. Mobilizations

Mobilizations can be performed after all the SHE concerns from the pre-mobilization activities have been resolved and communicated to all relevant Company’s and Contractor’s personnel. Any exception can be made subject to Company’s Senior Management approval.

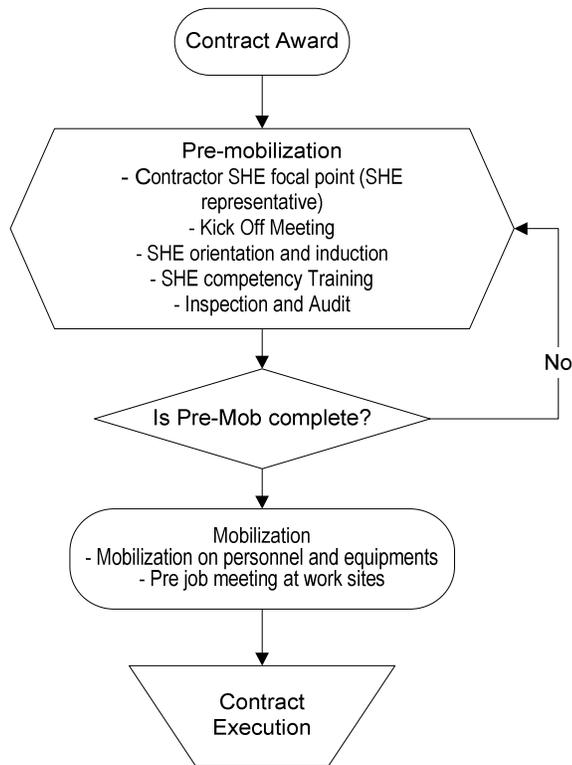
During the mobilization phase, some of the principle activities are:

- Mobilization of Contractor personnel and equipment;
- Pre job meetings at the worksite (toolbox meetings).

During the initial part of the mobilization phase, all key personnel assigned to the work must attend SHE orientation programs that should be used to communicate the SHE Plan and any other significant SHE aspects of the Contract. Progress meetings should then be used as a formal method of reviewing SHE implementation, along with frequent walk-through by Company’s personnel, in this case the Line Manager or his/her officially designated person and SHE representative.

Company shall ensure that safety toolbox meetings / pre-job meetings are conducted prior to commencing the job.

Figure 4: Pre-Job Activities Process



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Table 5 below summarizes the Roles and Responsibilities for each personnel in conducting Pre Job Activity process.

Table 5: Roles and Responsibilities for Pre Job Activity Process

Originator/End User/Process Owner	SHE Representative	Line Manager	Contractor	Procurement	CSMS Team
<p>Works together with Contractor to initiate Pre-Job Activities: Sets schedule of inspections, kick-off meeting, site orientations and SHE briefings, pre-mob evaluation and meetings.</p> <p>Evaluates Contractor's SHE Plan and assures adequacy of Contractor's SHE Plan.</p> <p>Finalizes SHE Plan, Contractor's Performance contract and target (KPI).</p> <p>Communicates SHE Plan to all involved personnel both Company and Contractor.</p> <p>Complete Pre-Job Activities SHE records.</p>	<p>Assists the Line Managers or Process Owner to facilitate all CSMS Pre-Job Activities processes until they are completed.</p> <p>Provides necessary input and verifies final drafts of SHE Plan.</p> <p>Conducts necessary SHE Audits, and onsite inspections along with related parties.</p> <p>Provides SHE assurance and produces the necessary recommendations and monitors follow-up of the recommendation.</p>	<p>Ensures that CSMS pre-job activities are well planned established and meet SHE requirement, including Sub-contractor if any.</p> <p>Signs and approves Contractor's KPI, which have already been set to meet Company's targets.</p> <p>Line Manager or his/her authorized delegate should conduct SHE inspections and audits at points of mobilization and decide whether mobilization can proceed or not.</p>	<p>Works closely along with Company Process Owner to conduct all series of CSMS Pre-Job Activities.</p> <p>Participates in inspections, kick-off meeting, site orientations and SHE briefings.</p> <p>Completes all CSMS Pre-Job Activities requirements.</p> <p>Completes any gaps identified during the pre-mobilization activities.</p> <p>Mobilizes equipment.</p> <p>Assures SHE Plan is communicated to all involved personnel both Company and Contractor</p>	<p>Advises Line Manager or Process Owner if there are special concerns about Contract obligations, conditional acceptances, rewards and penalties, etc.</p>	<p>Verify and secure that results are recorded into the CSMS database.</p> <p>Input Pre-Job Activities SHE records into CSMS Database.</p>
Responsible	Consult	Accountable	Responsible	Consult	Responsible

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6. MANAGING THE WORK

6.1. Objectives

The objectives of this phase are to ensure that the work performed is conducted according to the agreed upon SHE Plan, and that any additional SHE requirements that have been identified during the work are properly addressed.

6.2. Company and Contractor Senior Management SHE Visits

It is a mandatory requirement on high risk and high value of Contracts for the Company's and Contractor's Senior Management who is accountable for the work to have SHE visit programs at Company's premises where the Contractor is performing the work within 14 (fourteen) calendar days after work commencement. These visits will include:

- Meetings with the Contractor's site management and Company representatives;
- Meetings to communicate Company management expectations to all site staff;
- SHE observation.

Apart from the SHE visits previously mentioned, the respective Senior Management may also conduct inspections to ensure that all SHE obligations are met.

Where responsibility for supervision rests with the Contractor, Company should monitor compliance with contractual terms and systems defined within the Contract. Unless the Process Owner has a permanent presence onsite as the Person-In-Charge (PIC), the respective Senior Management must monitor and verify that all SHE obligations are met. Advice from the Company SHE representative can be obtained when needed.

6.3. Competence Assurances

During contract execution, Process Owner must monitor the competencies of the Contractor, e.g. any associated training commitments undertaken. Monitoring should include verifications that the Contractor complies with their management system.

This monitoring process may include:

- Competencies of Contractor personnel especially the new one;
- Provisions of necessary induction courses;
- Training of Contractor personnel in job related activities and procedures;
- Completion of all agreed upon SHE training, including all specified statutory training requirements;
- Availability of SHE documents, instructions and information leaflets reinforced with simple visual messages focusing on hazard communication.

6.4. Inspections, SHE Audits and Interim Evaluations

Inspections and audits provide the methods for monitoring Contractor SHE activities. The performance of Contractor that has satisfactorily passed the qualification phase and are well prepared during the Pre-Job Activities cannot be guaranteed if they are not closely monitored and evaluated. Therefore, it is mandatory that periodic evaluations and inspections be conducted using forms available in **Appendix V: Managing the**

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Work Forms. In addition to these forms, the inspectors shall also use the Contractor’ SHE Plan as a tool to conduct such reviews. The preceding questionnaires in the checklist should be considered as the criteria for the ratings. The performance ratings of each category shall be summarized in the Interim Evaluation Form. The interim evaluation results shall be put into the database system by the evaluators. Key Performance Indicator (KPI) shall also be used to measure the Contractor’ SHE performance during the interim evaluations.

The frequency of such evaluations depends on the nature of the work, size of the work, the risks involved and/or length of the Contract period and recorded into the CSMS database. When due, a warning system will be automatically switched on to remind the evaluators or Company Senior Management to conduct the inspections.

Company and the Contractor shall perform inspections and audits. Any findings of inspections and audits must be shared between Company and the Contractor with positive commitments from both parties to use the findings to improve performance. The Contractor shall follow up with corrective actions of any deficiencies found. Negligence in doing so or insufficient corrective actions may result in negative records in the final evaluations. These, together with the issuance of verbal or written warnings, personnel terminations, contract suspensions, or contract terminations, will affect the Contractor’ opportunity to participate in any future work.

6.5. SHE Plan Implementation

Process Owner and Contractor are jointly responsible for the implementation and improvement of the SHE Plan. Successful implementation of the SHE Plan will be determined by the achievements of monitoring, evaluations, and the conducting of corrective actions, for example:

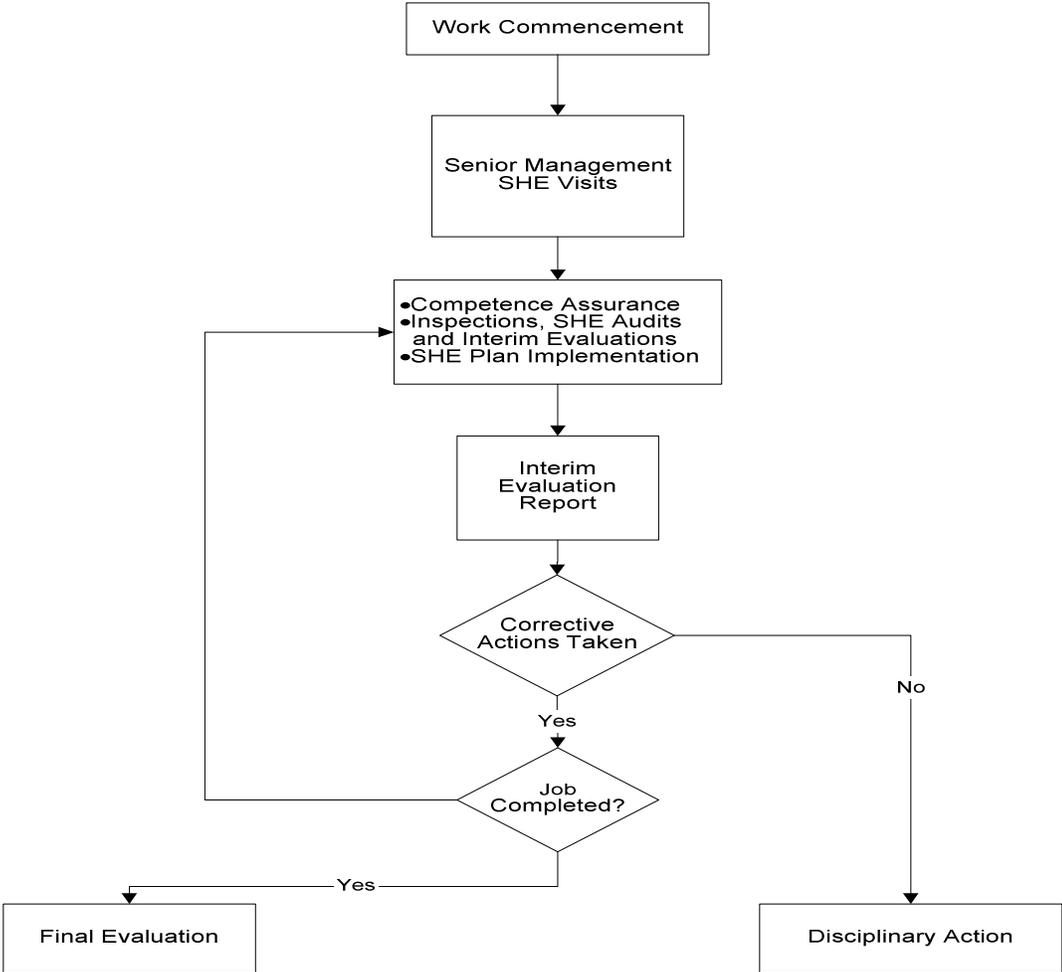
- **Gaps Closures**
Any remaining gaps prior to mobilization shall be discussed and resolved by pre-determined and mutually agreed schedules. These gaps should be considered as non-critical items by the respective Company Senior Management.
- **SHE Meetings**
Company and Contractor shall jointly conduct SHE meetings on a regular basis, attended by all Contractor and Company representatives. These meetings are intended to provide ongoing training and communication of SHE issues and shall be recorded and documented.
- **SHE Promotions**
SHE promotions are still necessary even though the workplaces have been designed for safety, job procedures have been made as safe as possible, employees are thoroughly trained and safe work procedures are consistently reinforced. Nevertheless, these promotions are still necessary because the prevention of accidents also depends upon people’s desire to work safely since not all potential hazardous conditions and unsafe acts can be anticipated or controlled by others. All concerned parties must also use their own initiative, common sense and self-discipline to protect themselves.
- **Supervisory and Employee SHE Communication**
The Contractor’ supervisors or employees ensure that the work they are performing is not hazardous either to themselves or others. The Contractor should ensure that their

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employees are able to communicate any related SHE issues to their management, such as through the use of SHE observation programs.

- **Emergency Drills and Exercises**
 Contractor is required to conduct or participate in any emergency drills while working on or visiting Company facilities. The Contractor’ emergency procedures may be reviewed and improved whenever necessary. The Contractor shall also be familiar with all Company emergency procedures.
- **Accident and Incident Investigation/Reporting**
 All accidents or incidents associated with the Contractor’ work within Company premises shall be reported to Company immediately and will be recorded. Following accident or incident reports, Company and the Contractor may conduct joint investigations. Further procedures concerning accident and incident investigations and reporting are available separately from the SHE Department.

Figure 5: Managing the Work Process



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Table 6 on the following page summarizes the Roles and Responsibilities for each personnel in conducting Managing the Work process.

Table 6: Roles and Responsibilities for Managing the Work Process

Originator/End User/Process Owner	SHE Representative	Line Manager	Contractor	Procurement	CSMS Team
<p>Works together with Contractor to conduct regular joint Audit/ inspections during the Contractor's work.</p> <p>Ensures all work in progress activities/ joint audits, inspections are well documented using the checklist available as minimum.</p> <p>Monitors and evaluates Contractor SHE performance, assure inspections, feedback to Contractor and follow up findings or gaps identified are conducted.</p> <p>Produces Interim Evaluation reports signed by both Contractor and Company Reps. Ensures those reports are well documented.</p> <p>Follow up Company SHE Reps. Recommendation</p>	<p>Provides SHE assurance and produces the necessary recommendation and monitors follow up of the recommendation.</p>	<p>For high risk and high value work, it is the mandatory requirement for the Line Manager accountable for the work to carry out visits at Company premises where the Contractor is performing the work within 14 (fourteen) calendar days after work commencement.</p> <p>Assures follow up actions.</p> <p>Conducts SHE observation.</p>	<p>Works closely together with Company Managers/ Process Owner to conduct regular Joint audit/ inspections during the work including Senior Management visits.</p> <p>Provides feedback and follow up actions following findings on joint audits in an expeditious manner.</p> <p>Signs interim evaluation reports.</p> <p>Complies with SHE Plan and KPI.</p> <p>Performs the contracted work.</p> <p>Fills gaps identified during inspections according to the time frame.</p> <p>Seeks formal approvals from Process Owner for any proposed deviations from or amendments to the SHE Plan.</p>	<p>Involved in developing Managing the Work schedule upfront and regular progress meetings.</p>	<p>Maintains CSMS Managing the Work database.</p> <p>Joint effort with Process Owner and Contractor's Management to develop Managing the Work schedule upfront.</p> <p>Ensures all reports are well documented and recorded in database.</p>
Responsible	Consult	Accountable	Responsible	Informed	Informed

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7. FINAL EVALUATION AND CLOSE OUT

7.1. Objectives

The objectives of this phase are to conduct joint evaluations of the Contractor' and Company's SHE performance and provide feedback to the Contractor and Company which can be used as references for future work.

7.2. Final Evaluation and Close Out

Contract must be closed out with reports after the final evaluation, which should be done once the work has been completed and proven by the Company's acceptance. Final evaluation shall be based on SHE contractual obligations, Pre-Job Activities reports, Interim Evaluation reports, corrective actions during interim evaluations and final KPI figures. The final evaluation shall be approved by the respective Company Senior Management and all completed data shall be recorded into the CSMS database. The result of final evaluation will be used as reference by Procurement for issuing the Contractor Performance Evaluation (CPE). In addition to the Final Evaluation Checklist, additional performance evaluation forms or checklist may be added, provided that the additional performance evaluations forms should be communicated with Contractor in the beginning of work execution.

The checklist shall be completed at the end of the job or at the expiration of a Contract. The analysis and summary of conclusions should address:

- The quality of the original SHE Plan and their relevance to the overall Contractor performance. They should stipulate what was learned and how future contracts should be constructed.
- The highlighting of the positive aspects of learning and how they can be applied in the future. These lessons should be shared with the Contractor.
- The incorporation of any new hazards identified into the hazard identification and evaluation process for future contracts.
- The analyses of both the Company and Contractor's SHE performance for mutual improvement.
- Information on the Contractor to be added as references for future Bidder list which may provide advice for improvements in assessing future bids.
- The recording of any personnel who have been blacklisted due to disciplinary actions or those who performed satisfactorily and may be recommended for future work.

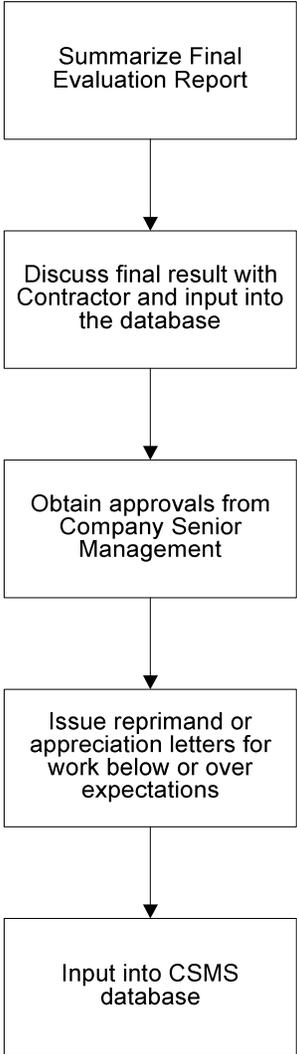
The Final Evaluation Checklist (Appendix VI.1.CSMS/FE/01) shall be filled by Company representative and agreed by Contractor's representative at the end of work or by the end of Contract. Contractor should give all data related to SHE performance which include:

- Issues in SHE performance;
- SHE observation, incident report, damage report, and near miss report;
- Trainings that have been conducted;
- Results from this summary shall be communicated and agreed upon. There should be no major difficulties if communication has been established from the beginning;
- Rewards or punishments apply to Contractor whose performance either exceeded or failed to meet expectations by issuing letters of recognition or reprimand;
- These letters may be used for Company's internal purposes or shared with other Company.

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Line Manager and Originator should also fill the **Contractor Performance Evaluation** which the form is available at **Appendix VI.2: CSMS/FE/02**.

Figure 6: Final Evaluation and Close Out Process



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Table 7 below summarizes the Roles and Responsibilities for each personnel in conducting Pre Job Activity process.

Table 7: Roles and Responsibilities for Final Evaluation and Close out Process

Originator/End User/Process Owner	SHE Representative	Line Manager	Contractor	Procurement	CSMS Team
<p>Conducts final Contractor SHE performance evaluations, based on interim evaluations.</p> <p>Provides feedback to Contractor. Submits results to the CSMS Team for recording and assessment of CSMS database.</p> <p>Reviews final Contractor SHE evaluations.</p>	<p>Provides necessary assurance and verifications to the final evaluation based on the proper CSMS processes.</p>	<p>Reviews and approves final Contractor SHE evaluations.</p>	<p>Receives and provides feedback of evaluations.</p> <p>Acknowledge CPE result.</p>	<p>Closes out Contract.</p>	<p>Ensure CSMS Final Evaluation and Close Out report is recorded into CSMS database.</p> <p>Keep the original document.</p>
Responsible	Consult	Accountable	Informed	Informed	Responsible

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8. MANAGING CSMS PROCESS

8.1. Administration System

CSMS implementation process shall be well administered from the first step to the final one. The administration system will also include the data recording process in a CSMS database system. This administration system consists of 2 (two) main processes:

8.1.1. General Contracting Process which consists of:

- Risk Assessment Resume is to explain the risk category. This form is to be filled by End User or a person who knows and understands the subject work.
- Pre-Qualification Form, to be filled in by Contractor and should be returned to Company for further evaluation.
- Selection Process, which the process shall follow the Procurement Procedure.

8.1.2. Inspection and Control Process in the Work Location

- Report on Pre-Job Activities should be made.
- Managing the Work report has to be made periodically and comprises of 2 (two) checklists; Safety Work Inspection Checklist and SHE Program Checklist.
- Final Evaluation report is made based on:
 - The implementation of SHE obligations as per contract;
 - Initial work activity report;
 - All reports including corrective actions summary from Contractor for the conditional acceptance.

8.2. CSMS Evaluation Program

The purpose of the evaluation program is to have a feed back and control mechanism to increase effectiveness of the overall implementation. There are 3 (three) activities in this program:

8.2.1. Appraisal Program

This activity is intended to review, evaluate and provide recommendation on the CSMS implementation. The evaluation is conducted by reviewing the database either all or randomly sampling of the contracts. This appraisal program is scheduled once in a year.

8.2.2. Performance Benchmarking

Contractor SHE main purpose is to achieve the low RCIR (Recordable Case Incident Rate) of the Contractor. Contractor RCIR will show how far the Contractor SHE program is implemented. Therefore, besides revealing the Contractor's SHE strength and weakness, Contractor SHE success can be measured directly based on the RCIR in the Contractor's work and by benchmarking the RCIR with other companies within the same type of industry. This type of program should be held twice a year.

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8.2.3. Reformulation Program

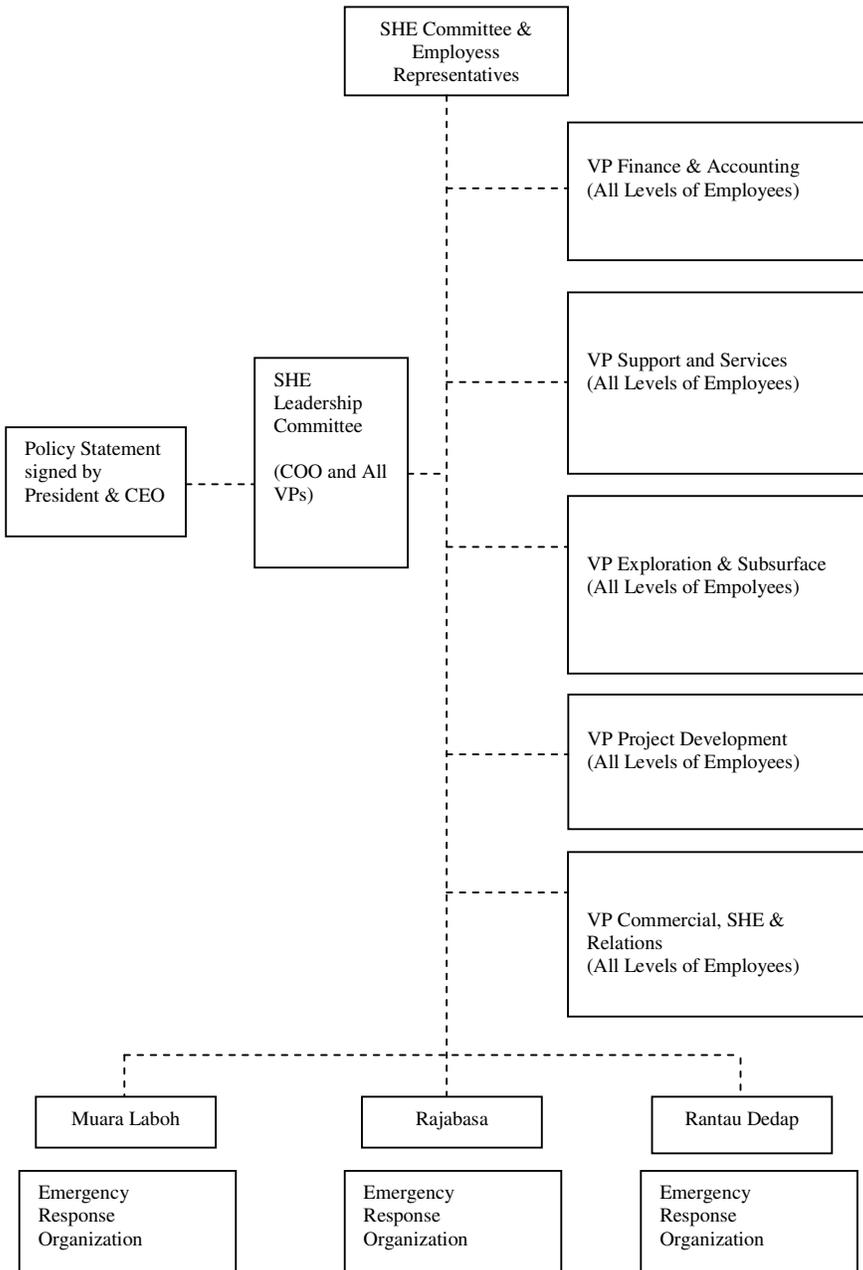
CSMS Reformulation Program may be conducted if it is necessary depending upon the appraisal and performance benchmarking results. This program may be initiated after 3 (three) years of implementation, involving the joint CSMS Team, SHE Committee and the SHE Leadership Committee.

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9. SHE MANAGEMENT SYSTEM ORGANIZATION

Organization Structure for Setting-up Integrated SHE Management System

Organization Structure for Integrated SHE Management System



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GLOSSARIES AND ABBREVIATION

Accident

Undesired event giving rise to death, ill health, injury, damage or other loss (refer to ISO/OHSAS).

Award

Process of granting the contract as a result of selection process.

Bidder

Party (Contractor, including Consortium) who is participating in the selection process of Work being bid.

Bid Document

Document which consists of invitation to bid, instruction to bidders, general terms and conditions, and all exhibits.

Company

Refer to Supreme Energy Group of companies.

Contract

Written agreement between Company and Contractor which binds the two parties for a certain period of time. Contractor shall perform the required services stated in the Contract while Company shall pay Contractor for the satisfactory performance.

Contractor

Firm that has entered into a legal contract to supply the services to Company.

CPE

Contractor Performance Evaluation.

CSHEMC

Corporate SHE Management Organization.

CSMS

Contractor SHE Management System.

CSMS Database

Database developed by Company which contains Contractor's SHE Management System data.

CSMS Team

A team which has a function to ensure the CSMS process is well implemented.

Custodian

This shall mean the Manual Custodian which is the SHE Administration and Document Controller.

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DJ EBT-KE

Direktorat Jendral Energi Baru Terbarukan and Konservasi Energi.

End User

One department or in one case more than one department who owns the Work.

Final Evaluation

Final evaluation conducted by Company to evaluate Contractor’s SHE performance at the end of the Contract period.

Hazard

Potential source of serious harm to people, property or the environment (to be referred to ISO/OHSAS).

HAZID

Hazard Identification. It is a process recognizing that a hazard exists and defining its characteristics (refer to OHSAS).

Incident

Specific event or sequence of events that has resulted in or could have resulted in a significant unwanted and unintended impact on health or safety of people, property or the environment. Event that gave rise to an accident or had the potential to lead to an accident (refer to ISO/OHSAS).

Occupational Health and Industrial Hygiene

Practice conducive to maintaining health, i.e. proper handling of chemicals, and equipment that may have negative impact on health.

Interface Plan

Document which outlines interfaces among involved parties in execution of the work.

Interim Evaluation

Interim evaluation conducted by Company to evaluate the Contractor’s SHE performance during the Contract period.

ISO

International Organization for Standardization.

Kick-Off Meeting

Initial meeting which kicks off the Project or Work as stipulated in the Contract.

KPI

Key Performance Indicators and defined as a significant measure to monitor how well a business is achieving its quantifiable objectives.

Line Manager

At least a Manager’s position within one Company department.

MSR

Material Service Requisition. A request to Procurement department for certain services required for the requestor’s operation or project.

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MR

Management Representative.

Near Miss

Serious incident that does not result in any injuries or damages but have the potential to do so if not corrected (refer to ISO/OHSAS).

Non-conformities

Any deviation from work standards, practices, procedures, regulations etc. that could either directly or indirectly lead to injury or illness, property damage, damage to environment, or a combination of these (refer to ISO/OHSAS).

OHSAS

Occupational Health and Safety Assessment Series.

Originator

Authorized person who originated the MSR.

PPE

Personal Protective Equipment.

Process Owner

Person in the Company department who administers the execution of the Contract. The person may also be the Originator.

PTW

Permit-To-Work.

RACI

Responsibility, Accountability, Consult, and Inform.

Risk

Combination of the likelihood/frequency and consequence/severity of a specified hazardous event occurring (refer to ISO/OHSAS).

Risk Assessment

Overall process of estimating the magnitude of risk and deciding whether or not the risk is tolerable (refer to ISO/OHSAS).

RFQ

It stands for Request for Quotation. It has similar meaning with Enquiry Document which means a process of requesting Bidder to submit quotation of the requested Work.

Senior Management

VP level for Company and General Manager or Director for Contractor.

SHE Plan

Execution plan relating to performance of the Work within the context of how SHE will be managed and executed.

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Supplier

Party who supplies goods/materials or services to Company.

SHE

Safety, Health and Environment.

SHEMS

Safety, Health and Environmental Management System.

Sub-Contractor

Another Contractor employed by the main Contractor (which this main Contractor signed the Contract with Company). For the purpose of this document, the term Sub-Contractor is automatically included in the term of sub-Contractor.

Executive Management

Direct Reports to the President and CEO of Supreme Energy Group of Companies.

Selection

Process of selecting the party, which will be working for Company performing the required Work, in preferences of others with respect to certain criteria (experience, quality, safety, technical track-record, commercial/pricing etc.).

SIMOPS

Simultaneous Operations. This activity involves inter-departments in supporting the work.

Validity Period

The period when the result of PQ process (Pass category) of a Contractor is still valid. This period is 2 (two) years from the issuance of the Pass certificate. This period may be revised from time to time. Please consult to the Custodian for the latest update on the period.

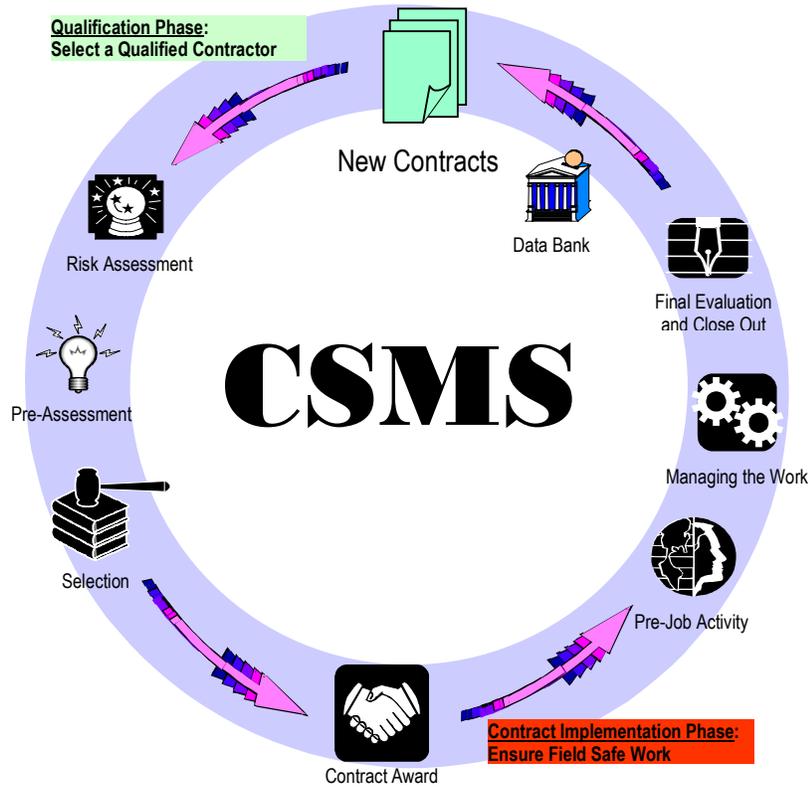
Vendor

Party who is engaged in a legal binding (agreement) with Company to supply goods, materials or equipment to Company.

10. REFERENCES

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- Environmental Management System, International Organization for Standardization (ISO) 14001:2004.
- Occupational Health and Safety Assessment Series (OHSAS) 18001:2007 Requirement.
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FORMS AND CHECKLISTS



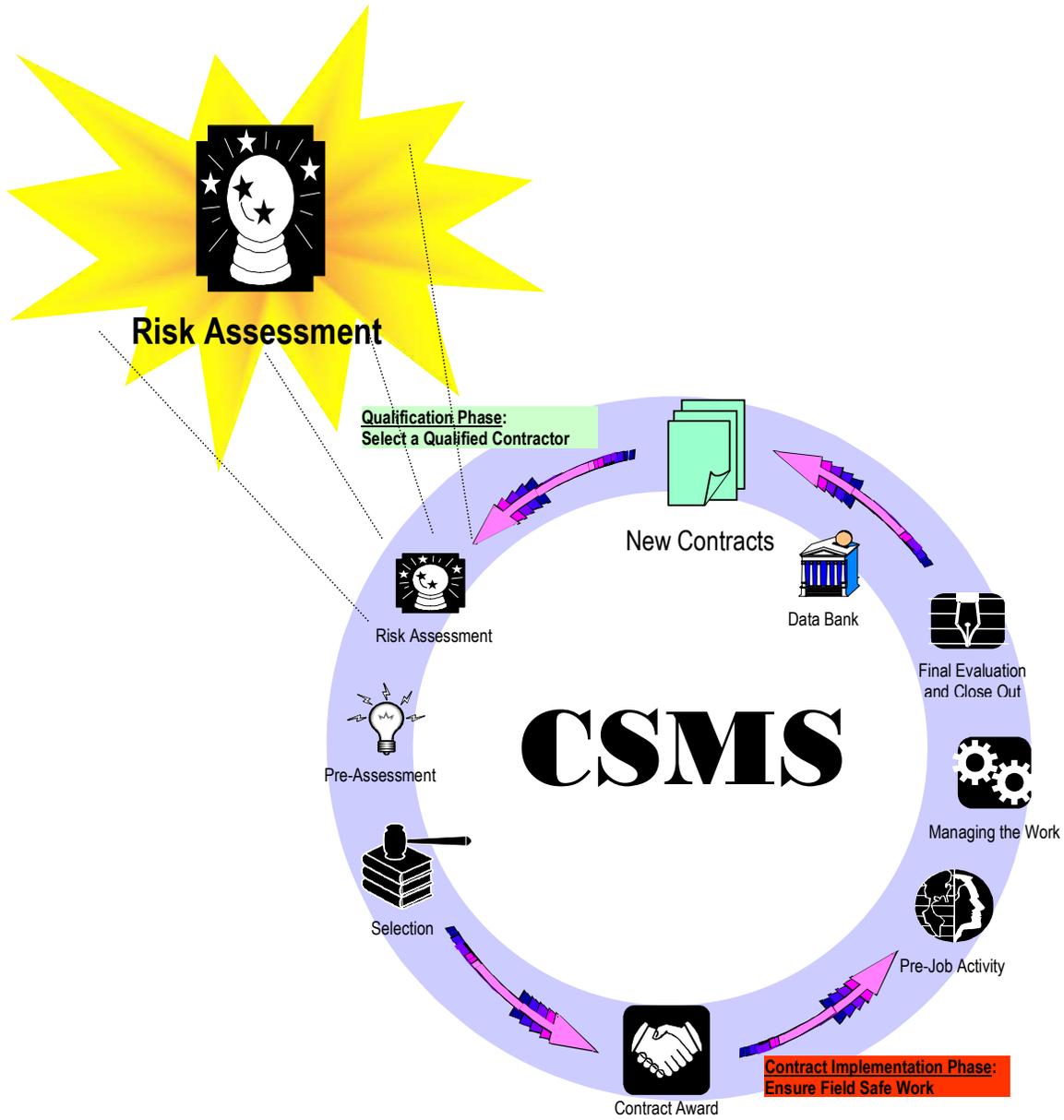
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Appendix I. Risk Assessment Forms



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Appendix I.1: CSMS/RA/01 Work Matrix Table

GEOHERMAL WORK MATRIX TABLE

TYPE OF WORKS	DETAIL WORKS	RISK LEVEL
Hot work	Welding, PWHT, hot tapping	H
	Cutting, grinding	M
Transportation	Heavy vehicle, passenger car	H
Civil works	Well-pad opening, land clearing, large building construction	H
	Trenching, digging, road maintenance, small building construction	M
Mechanical works	Turbine & Generator overhaul, mechanical construction, SAGS pipe works	H
	Maintenance works, equipment repair, equipment installation	M
Electrical & Instrumentation	Installation, commissioning, online repair	H
	Equipment & installation repair	H
Pressure vessel works		H
Testing, inspection & re-certification	NDT (radiation), hydro-test, gas test	H
	General technical inspection	M
Consulting, technical assistant, training		L
Medical services		M
Confined Space		H
Food catering and camp services		M
Office administration services	Office support and cleaning services	M
Site survey	Site survey at forestry area / green-field area	M
	Site survey at tea plantation area	M
Ground maintenance	Grass cutting, landscaping, gardening	M
Drilling		H
Well Testing activities	Pressure and Temperature Survey, flow test, down-hole activities	H
EPC Project	Engineering, Procurement and Construction Project	H
Manpower supply		M
Heavy equipment rental	Heavy equipment, heavy lifting operation	H

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Appendix I.2: CSMS/RA/02 Risk Assessment Resume

RISK ASSESSMENT RESUME

Date :

Project/Work Period :

Job Title :

MSR No :

Project/Work Location :

Risk Category (Tick one) : L (Low) M (Medium) H (High)

Justification :
(Risk Assessment detail must be attached)

Assessed by:

Approved by:

Acknowledged by:

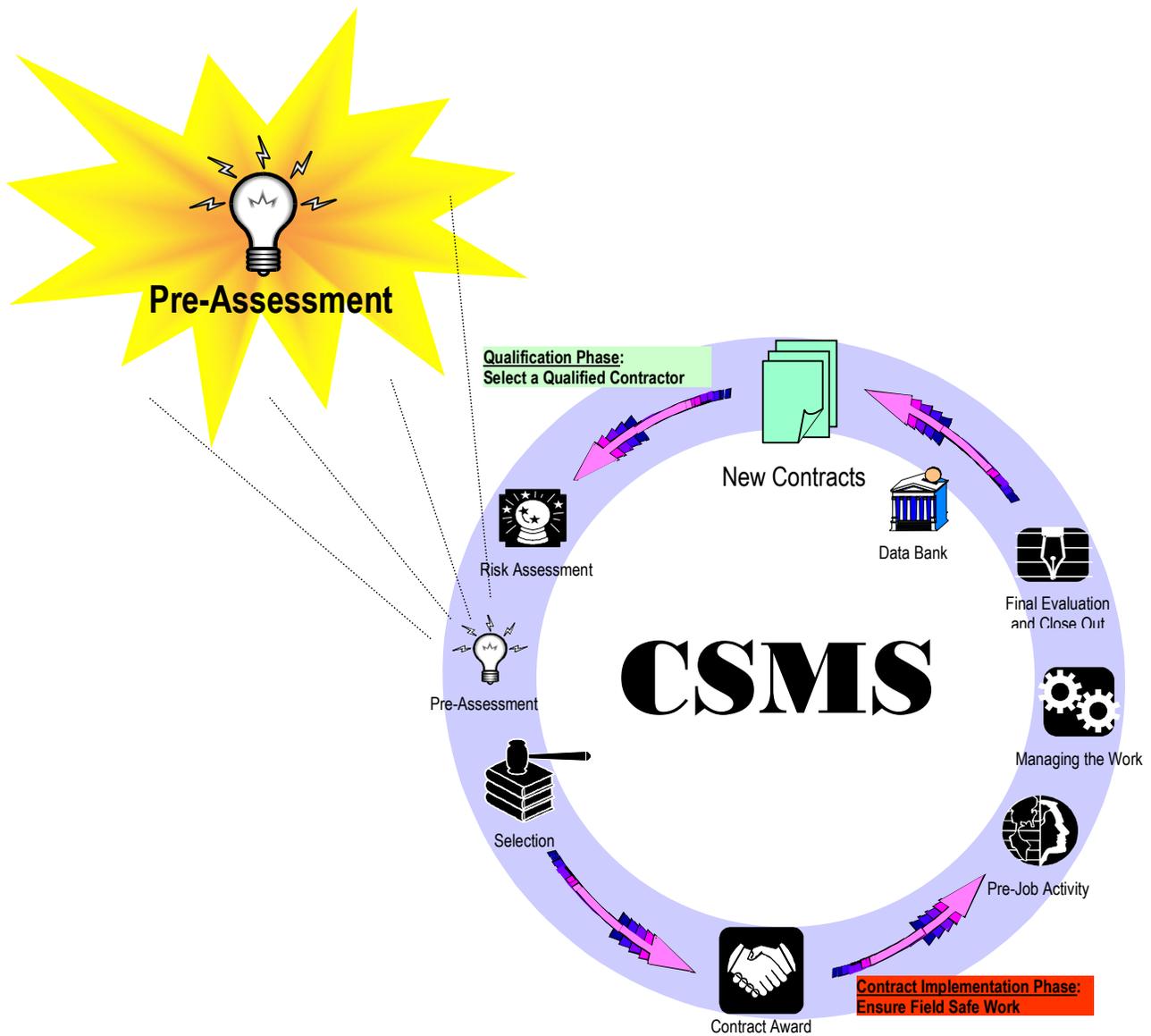
Name:
 (Originator)

Name:
 (Line Manager)

Name:
 (SHE Representative)

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Appendix II. Pre-Assessment Forms



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Appendix II.1: CSMS/PQ/01: Contractor Pre-Qualification Questionnaire

Date / Tanggal:

Contractor / Kontraktor:

Subject: **Contractor Pre-Qualification Form (PAF)**
 Perihal : **Formulir Pra-Kualifikasi Kontraktor (FPK)**

PT. Supreme Energy [name of entity] , hereinafter referred to as Company, is continually improving a safe and healthy place for employees, contractors, and neighbors. Only those contractors who have demonstrated management leadership and system resulting in good SHE performance are added to the approved contractors list. Please complete this pre-qualification form and return it as instructed should you wish to be included on our approved contractor list.

Kelompok Perusahaan Supreme Energy, selanjutnya disebut sebagai Perusahaan, melakukan perbaikan terus menerus terhadap keselamatan dan kesehatan tempat kerjanya untuk kepentingan para karyawan, kontraktor, dan penduduk sekitar. Hanya kontraktor-kontraktor yang memiliki kepemimpinan dan sistem manajemen yang menghasilkan kinerja keselamatan, kesehatan kerja dan lingkungan (K3LL) yang baik yang akan diikutsertakan ke dalam daftar kontraktor yang disetujui. Harap formulir pra-penilaian ini dilengkapi dan dikembalikan sesuai dengan instruksinya jika Anda ingin dimasukkan dalam daftar kontraktor yang disetujui tersebut.

To be considered as a contractor qualified to perform the specified work for Company, you must meet the minimum acceptance criteria established at the discretion of Company.

Untuk dipertimbangkan sebagai kontraktor yang memenuhi syarat untuk melaksanakan pekerjaan tertentu bagi Perusahaan, Anda harus memenuhi kriteria penerimaan minimum yang ditetapkan oleh Perusahaan.

Company expects that you :

- Have a documented SHE program that meets Company standard requirements applicable to the work.
- Have a program to comply with Company SHE.
- Agree that any utilized sub-contractor will meet the requirements listed above.

Perusahaan mengharapkan bahwa Anda:

- *Memiliki dokumentasi program K3LL mengikuti syarat pokok Perusahaan bagi pekerjaan yang dilakukan.*
- *Memiliki program untuk memenuhi persyaratan K3LL.*
- *Menyetujui bahwa semua sub-kontraktor yang digunakan akan memenuhi persyaratan tersebut di atas.*

Please return the completed form to :

Harap mengembalikan formulir yang telah diisi kepada :

Procurement Committee
Indonesia Stock Exchange Building Tower I, 29th Floor
Jl. Jend. Sudirman Kav 52 - 53, Jakarta - 12190
Tlp: 021-5155222 - Fax : 021-5155333

Company hereby reserves the right to inspect and interview any of your key personnel according to the existing SHE Prequalification Audit stipulated in the SOP Company. Any misrepresentation of facts will result in rejection/ disqualification of your Company as Company approved contractor.

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Perusahaan memiliki hak untuk memeriksa dan mewawancarai setiap pegawai penting Anda mengikuti Audit Pra-Kualifikasi K3LL yang terdapat di dalam SOP Perusahaan. Segala keterangan yang tidak sesuai dengan kenyataan akan berakibat penolakan/ diskualifikasi terhadap perusahaan Anda sebagai kontraktor yang disetujui oleh Perusahaan.

Please return this form and any supporting document to Procurement Department of Company before: _____

Harap mengembalikan form ini dilengkapi dengan lampiran pendukung ke Departemen Procurement Perusahaan sebelum :

Tanggal : _____ **Jam :** _____

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GENERAL INFORMATION / KETERANGAN UMUM			
1. <u>Company Name</u> <i>Nama Perusahaan</i>		<u>Phone, Fax and E-mail</u> <i>Telepon, fax dan E-mail</i>	
<u>Street Address</u> <i>Alamat Jalan</i>		<u>Mailing Address</u> <i>Alamat Surat-Menyurat</i>	
2. <u>Officer</u> <i>Pejabat</i>	<u>Name</u> <i>Nama</i>	<u>Years with company</u> <i>Lama bekerja di perusahaan</i>	
<u>President</u> <i>Pimpinan</i>			
<u>Vice President</u> <i>Wakil Pimpinan</i>			
<u>Treasurer</u> <i>Bendahara</i>			
<u>How many years has your organization been in business under your present firm name?</u> <i>Berapa tahun organisasi Anda telah berusaha menggunakan nama perusahaan yang sekarang?</i>			
A. <u>Parent Company Name</u> <i>Nama Perusahaan Induk</i>			
<u>City</u> <i>Kota</i>	<u>State</u> <i>Negara</i>	<u>Zip Code</u> <i>Kode Zip</i>	
<u>Subsidiaries</u> <i>Anak perusahaan</i>			
B. <u>Principal Company Name</u> <i>Nama Perusahaan Prinsipal</i>			
<u>City</u> <i>Kota</i>	<u>State</u> <i>Negara</i>	<u>Zip Code</u> <i>Kode Zip</i>	
5. <u>Under Current Management since (date)</u> <i>Di bawah Manajemen Sekarang sejak (tanggal)</i>			
6. <u>Contact for Insurance Information</u> <i>Kontak untuk keterangan asuransi</i>			
<u>Title</u> <i>Jabatan</i>	<u>Phone</u> <i>Telepon</i>	<u>Fax</u> <i>Fax</i>	
7. <u>Insurance Carrier(s)</u> <i>Penanggung Asuransi</i>			
<u>Name</u> <i>Nama</i>	<u>Type of Coverage</u> <i>Jenis Asuransi</i>	<u>Phone</u> <i>Telepon</i>	
8. <u>Are you self insured for Worker's Compensation Insurance?</u> <i>Apakah Anda menjamin sendiri Asuransi Kompensasi untuk Karyawan?</i>			
		<u>Yes</u> <i>Ya</i>	<u>No</u> <i>Tidak</i>
9. <u>Contact for CSMS</u> <i>Kontak untuk CSMS</i>			<u>E-mail</u> <i>E-mail</i>
<u>Title</u> <i>Jabatan</i>	<u>Phone</u> <i>Telepon</i>	<u>Fax</u> <i>Fax</i>	
10. <u>PQF completed and signed by</u> <i>FPK diisi dan ditandatangani oleh</i>			<u>Name</u> <i>Nama</i>
* This PQF must be completed and signed by the Company's authorized first level Management <i>FPK ini harus diisi dan diketahui oleh Pimpinan Perusahaan yang berwenang</i>			<u>Signature</u> <i>Tanda tangan</i>
<u>Title</u> <i>Jabatan</i>	<u>Phone</u> <i>Telepon</i>	<u>Fax</u> <i>Fax</i>	

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SECTION 1 – LEADERSHIP AND COMMITMENT BAGIAN 1 – KEPEMIMPINAN DAN KOMITMEN
1. Commitment to SHE through leadership Komitmen K3LL melalui kepemimpinan
<p>a) <u>How are top management(s) personally involved in SHE management system implementation?</u> <i>Bagaimana manajemen puncak terlibat secara pribadi dalam implementasi manajemen K3LL?</i></p>
<p>b) <u>Provide evidence of commitment at all levels of the organization?</u> <i>Berikan bukti komitmen pada semua tingkat di dalam organisasi?</i></p>
<p>c) <u>How do you promote a positive culture towards SHE matters?</u> <i>Bagaimana anda mempromosikan budaya yang positif terhadap masalah-masalah K3LL?</i></p>
<p>Hints (Please provide):</p> <ul style="list-style-type: none"> Evidence of Top/Sr.Management involvement on SHE matters (e.g. Top/Sr.Management visits to worksite and report, SHE Meeting attendance list and MOM, Safety Message, Campaigns etc), SHE Management Review.
SECTION 2: POLICY AND STRATEGIC OBJECTIVES BAGIAN 2: KEBIJAKAN DAN STRATEGI
2.1. SHE Policy and Documents 2.1. Kebijakan dan dokumen K3LL
<p>a) <u>Does your company have an SHE policy document?</u> <input type="checkbox"/> Yes <input type="checkbox"/> No. <u>If yes, please attach.</u> <i>Apakah perusahaan anda memiliki kebijakan K3LL? Ya Tidak. Jika ya, dilampirkan</i></p>
<p>b) <u>Who has overall and final responsibility for SHE in your organization?</u> <i>Siapakah yang memikul tanggung jawab keseluruhan dan tanggung jawab akhir dari K3LL dalam organisasi anda?</i></p>
<p>c) <u>Who is the most senior person in the organization responsible for this policy being carried out at the premises and on site where his employees are working?</u> <i>Siapakah orang paling senior dalam organisasi yang bertanggung jawab terhadap kebijakan yang sedang dijalankan pada daerah kewenangan dan lokasi dimana karyawannya bekerja?</i></p>
2.2. Availability of Policy Statements to Employees 2.2. Ketersediaan Pernyataan Kebijakan bagi Karyawan
<p>a) <u>Itemize the methods by which you have drawn your policy statement to the attention of all your employees.</u> <i>Jelaskan secara rinci metoda-metoda yang anda gunakan untuk memastikan kebijakan K3LL menjadi perhatian karyawan-karyawan anda?</i></p>
<u>Please provide evidence and supporting document for each of above question</u> <i>Sediakan bukti dan dokumen pendukung untuk setiap pertanyaan diatas</i>

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b) What are your arrangements for advising employees of changes in the policy?
Pengaturan apa yang anda punyai untuk memberitahu kepada karyawan mengenai perubahan-perubahan pada kebijakan K3LL?

Hints (Please provide):

- SHE Policy Statement
- Evidence of communication on SHE Policy (e.g. distribution list, display on bulletin boards/office/workshop, email, meetings, announcement letter etc), SHE goals & objectives.

SECTION 3: ORGANIZATION, RESPONSIBILITY, RESOURCES, STANDARDS AND DOCUMENTATION
BAGIAN 3: ORGANISASI, TANGGUNGJAWAB, SUMBER DAYA, STANDAR DAN DOKUMENTASI

3.1. Organizations - Commitment and Communication
3.1. Organisasi – Komitmen dan Komunikasi

a) How is management involved in SHE activities, objective setting and monitoring?
Bagaimana keterlibatan manajemen dalam aktivitas K3LL, penetapan tujuan dan pemantauan?

b) Do you have a SHE organization? Yes No.
Apakah perusahaan anda memiliki organisasi K3LL?
If Yes, please provide an organization chart and a description of responsibilities.
Jika ya, lampirkan struktur organisasi dan deskripsi tanggung jawabnya

c) How is your company structured to manage and communicate SHE effectively?
Bagaimana struktur organisasi perusahaan anda dibuat untuk mengelola dan mengkomunikasikan K3LL secara efektif?

d) What provision does your company make for SHE communication meetings?
Ketentuan apa yang dibuat perusahaan anda untuk pelaksanaan rapat K3LL?

Hints (Please provide):

- Company and SHE Organization Charts
- Evidence of SHE Meeting program and schedule at all levels and implementation (i.e. minutes of meeting, attendance list, presentation materials etc)

3.2. Competence and Training of Manager/Supervisors/Senior Site Staff/SHE Adviser
3.2. Kemampuan dan Pelatihan Manajer/Pengawas/Petugas Senior Lapangan/Penasihat K3LL

Have the managers and supervisors at all levels that will plan, monitor, oversee and carry out the work received formal SHE training in their responsibilities with respect to conducting work to SHE requirements? Yes No.
Apakah para manajer dan pengawas disemua tingkat yang akan merencanakan, memantau, memperkirakan dan melaksanakan pekerjaan sudah menerima pelatihan formal K3LL sesuai tanggung jawab mereka dalam kaitannya dengan pelaksanaan pekerjaan sesuai dengan persyaratan-persyaratan K3LL?

If Yes please give details. Where the training is given in-house please describe the content and duration of courses.
Jika ya, berikan rincian. Jika pelatihan diberikan in-house, jelaskan isi dan lamanya pelatihan.

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Hints (Please provide):

- SHE Training Program for staff (managers, supervisors, SHE advisor etc)
- Evidence of SHE Training Matrix/Competency Matrix (i.e. training requirement for each position)
- SHE Training Records for all staff related to work.

Please provide evidence and supporting document for each of above question

Sediakan bukti dan dokumen pendukung untuk setiap pertanyaan diatas

3.3. Competence and General SHE Training

3.3. Kemampuan dan Pelatihan Umum K3LL

a) What arrangements does your company have to ensure employees have knowledge of basic industrial SHE, and to keep this knowledge up to date?
Pengaturan apa yang telah dibuat perusahaan anda untuk memastikan bahwa karyawan mempunyai pengetahuan dasar tentang K3LL dalam industri, dan untuk menjaga agar pengetahuan tersebut selalu "up to date"?

b) What arrangements does your company have to ensure new employees, including sub contractors, also have knowledge of your SHE policies and practices?
Pengaturan apa yang telah dibuat perusahaan anda untuk memastikan bahwa karyawan, termasuk subkontraktor, juga memahami kebijakan dan tata cara K3LL anda?

c) What arrangements does your company have to ensure new employees and new subcontractor employee have been instructed and have received information on any specific hazards arising out of the nature of the activities? What training do you provide to ensure that all employees are aware of company requirements?
Pengaturan apa yang telah dibuat perusahaan anda untuk memastikan bahwa karyawan yang baru dan karyawan subkontraktor yang baru telah diberi instruksi dan menerima informasi mengenai bahaya spesifik yang timbul sesuai dengan sifat pekerjaannya? Pelatihan apa yang telah anda berikan untuk memastikan bahwa semua karyawan mengetahui semua persyaratan-persyaratan perusahaan?

d) What arrangements does your company have to ensure existing staffs SHE knowledge is up to date?
Pengaturan apa yang telah dibuat perusahaan anda untuk memastikan bahwa pengetahuan K3LL karyawan yang sekarang selalu "up to date"?

If training is provided in-house please give details of content.
Jika pelatihan diberikan secara in-house, berikan rincian isi pelatihan.

Hints (Please provide):

- SHE Training Program for existing and new employee
- Evidence of SHE Orientation materials (booklet, hand out, etc)
- SHE Handbook (outlines, explains, and demonstrates new employee's job)
- Evidence of follow up observation of new employee's job.

3.4. Specialized Training

3.4. Pelatihan Khusus

a) How have you identified areas of your company's operations where specialized training is required to deal with potential hazards? Please itemize and provide details of training given.
Bagaimana anda telah mengidentifikasi lokasi di dalam operasi anda dimana pelatihan khusus diperlukan untuk menghadapi bahaya yang mungkin terjadi? Berikan daftar dan rincian dari pelatihan yang diberikan.

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b) If the specialized work involves radioactive, asbestos removal, chemical or other occupational health hazards, how are the hazards identified, assessed and controlled?

Jika suatu pekerjaan khusus melibatkan radioaktif, pembuangan asbes, bahan kimia atau bahaya kesehatan kerja lainnya, bagaimana bahaya tersebut diidentifikasi, ditinjau dan dikontrol?

Please provide evidence and supporting document for each of above question

Sediakan bukti dan dokumen pendukung untuk setiap pertanyaan diatas

3.5. SHE Qualified Staff – Additional Training

3.5. Karyawan Dengan Kualifikasi K3LL – Pelatihan Tambahan

Does your company employ any staffs that possess SHE qualifications that aim to provide training in more than the basic requirements? Yes No

Apakah perusahaan anda mempekerjakan staf yang memiliki kualifikasi K3LL yang ditujukan untuk memberikan pelatihan yang lebih dari sekedar persyaratan dasar?

What format of safety qualifications do your staffs have? Describe briefly!

Format kualifikasi keselamatan mana yang dipunyai oleh staf anda? Jelaskan secara ringkas

Hints (Please provide):

- Specialized Training program, including re-training (refresher) period (e.g. radioactive, explosive, diving, rigging, inspector, welding, lifting, etc). Attach certificates.
- List of qualified SHE Professional employees.

3.6. Assessment of Suitability of Subcontractors / Other Companies

3.6. Penilaian Mengenai Kesesuaian Subkontraktor / Perusahaan Lain

a) How do you assess SHE competence and SHE record of the subcontractors and companies with whom you place contracts

Bagaimana perusahaan anda menilai kemampuan dan data riwayat K3LL dari subkontraktor dan perusahaan-perusahaan yang anda kontrak?

b) Where do you spell out the standards you require that your contractors to meet?

Dimana anda menjelaskan standar yang anda tuntut agar dipenuhi oleh kontraktor anda?

c) How do you ensure these standards are met and verified?

Bagaimana perusahaan anda memastikan standar-standar ini telah dipenuhi dan telah diverifikasi?

- Safety training for employee working.
Pelatihan keselamatan kerja untuk karyawan yang bekerja
- Recruiting process for employee working for your work.
Proses rekrutmen karyawan yang akan bekerja untuk proyek anda
- Employees understand the company's commitments, policy, objective and standard.
Karyawan mengerti komitmen, kebijakan, tujuan dan standar-standar perusahaan.
- Interface plan with sub-contractor? If any?
Rencana penyesuaian dengan subkontraktor? Kalau ada?

d) Please provide the names of major sub-contractor, if known, at this time.

Berikan nama-nama dari subkontraktor utama anda, pada saat ini, kalau sudah ada.

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Hints (Please provide):

- Assessment program/procedure and standards for sub-contractor
- Evidence of the implementation of the above program and standards (i.e. pre-qualification, work in progress record etc)

Please provide evidence and supporting document for each of above question

Sediakan bukti dan dokumen pendukung untuk setiap pertanyaan diatas

3.7. Standards

3.7. Standar-standar

a) Do you have SHE performance standards you require to be met?

Apakah perusahaan anda memiliki standar performa K3LL yang harus perusahaan anda capai?

b) How do you ensure these are met and verified?

Bagaimana perusahaan anda memastikan standar ini telah dipenuhi dan diverifikasi?

c) How do you identify new industry or regulatory standards that may be applicable to your activities?

Bagaimana perusahaan anda mengidentifikasi standar-standar industri baru atau peraturan-peraturan baru K3LL yang mungkin berlaku bagi aktivitas anda?

d) Is there an overall structure for producing, updating and disseminating standards?

Adakah tata cara menyeluruh untuk mengeluarkan, memperbaharui dan menyebarkan standar-standar K3LL?

e) List your SHE performance standard/procedures manuals. Please submit current copies

Sebutkan manual untuk standar kinerja / prosedur K3LL. Lampirkan salinannya.

Hints (Please provide):

- List of SHE Standards and its references (e.g. local and/or global industry regulatory standards)

SECTION 4: HAZARDS AND EFFECT MANAGEMENT

BAGIAN 4 : PENANGANAN BAHAYA DAN DAMPAK

4.1. Hazards and Effect Management

4.1. Penanganan Bahaya dan Pengaruh

What techniques are used within your company for the identification, assessment, control and mitigation of hazards and effects?

Teknik apa yang anda gunakan dalam perusahaan anda untuk mengidentifikasi, menilai, mengawasi dan mengurangi bahaya dan dampak?

Hints (Please provide):

- Hazards and effects management procedure/guideline (risks assessment and hazards identification)
- Evidence of risks assessment and hazards identification implementation (e.g. sample of HIRA, JSA, HAZID, HAZOP, QRA, TRA etc)

Please provide evidence and supporting document for each of above question

Sediakan bukti dan dokumen pendukung untuk setiap pertanyaan diatas

4.2. Exposures of the Workforce

4.2. Paparan terhadap pekerja

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What systems are in place to monitor the exposure of your workforce to chemical or physical agents?

Sistem apa yang ada untuk memantau paparan pekerja anda terhadap bahan kimia atau gangguan fisik?

Hints (Please provide):

- Evidence of hazards exposure monitoring report/result of chemical, physical or biological hazards such as noise, radiation, vapour, illumination, fumes, temperature extremes etc.
- Evidence of safety or hazard observation, safety inspection, etc.

4.3. Handling of Potential Hazards

4.3. Penanganan Bahaya yang Potensial

How is your workforce advised on potential hazards, e.g. chemicals, noise, radiation, etc., encountered in the course of their work?

Bagaimana pekerja anda diberikan informasi mengenai bahaya yang mungkin timbul pada waktu melakukan pekerjaannya, seperti bahan kimia, kebisingan, radiasi dsb.?

Hints (Please provide):

- Procedure for handling of potential hazards (hazardous chemicals, substances, radiation etc)
- Communication methods to the workforce of the major hazards that they are likely to be exposed (e.g. e-mail, induction, orientation, notice board, safety sign, safety toolbox meeting, etc.)
- Database of the properties of potential hazards (e.g. MSDS, etc)

4.4. Personnel Protective Equipment

4.4. Alat Pelindung Diri (APD)

a) What arrangements does your company have for provision and up-keep of protective equipment and clothing, both standards issue, and that required for specialized activities?

Pengaturan apa yang dimiliki perusahaan anda untuk pengadaan dan pemeliharannya untuk peralatan pelindung dan pakaian kerja, baik yang standar maupun yang diperlukan untuk kegiatan-kegiatan khusus?

b) Do you provide appropriate personal protective equipment (PPE) for your employees? Please provide a listing of the PPE for the scope of this work.

Apakah anda menyediakan Alat Pelindung Diri (APD) yang sesuai untuk karyawan anda? Berikan daftar APD untuk lingkup kerja ini.

c) Do you provide training on how to use PPE? Explain the content of the training and any follow-up.

Apakah anda memberikan pelatihan mengenai cara penggunaan APD? Jelaskan materi pelatihan dan kelanjutannya.

d) Do you have a program to ensure that PPE is impacted and maintained?

Apakah anda mempunyai program untuk memastikan bahwa APD digunakan dan dirawat?

Hints (Please provide):

- PPE procedure for assessing PPE requirements.
- List of PPE requirement as company standard
- Evidence of PPE inspection records or spot checks usage
- Evidence of PPE stock inventory and PPE training records

Please provide evidence and supporting document for each of above question

Sediakan bukti dan dokumen pendukung untuk setiap pertanyaan diatas

4.5. Waste Management

4.5. Manajemen Limbah

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a) What systems are place for identification, classification, minimization and management of waste?

Sistem apa yang digunakan untuk mengidentifikasi, mengklasifikasi, meminimalisasi, dan mengelola limbah?

b) Does the system in-line with applicable regulations?

Apakah sistem ini sudah sesuai dengan ketentuan yang berlaku?

c) Please provide the number of incidents resulting in environmental damage in the amount greater than \$50,000 for the last 24 months. Attach copies of any governmental reports submitted.

Berikan data kecelakaan-kecelakaan yang menyebabkan kerusakan lingkungan dengan nilai lebih besar dari \$50,000 dalam 24 bulan terakhir. Lampirkan salinan dari laporan-laporan yang dikirim ke pemerintah.

d) Do you have procedures for waste disposal? Yes No

Apakah anda memiliki prosedur pembuangan limbah?

e) Does the system in line with applicable regulation?

Apakah sistem tersebut sudah sesuai dengan ketentuan yang berlaku?

f) Do you have procedures for spill reporting? Yes No

Apakah terdapat prosedur untuk pelaporan terjadinya tumpahan?

g) Do you have procedures for spill clean up? Yes No

Apakah terdapat prosedur untuk pembersihan tumpahan?

h) Please provide details at any of your equipment related to environmental matters.

Berikan rincian mengenai peralatan anda yang berkaitan dengan pemeliharaan lingkungan.

i) Who is the person in charge for coordinating environment matter and what is his experience?

Siapakah orang yang bertanggung jawab untuk mengkoordinasikan masalah lingkungan dan bagaimana pengalamannya?

Hints (Please provide):

- Corporate or Company Waste Management Procedure/System
- Evidence of implementation of Waste Management Plan/System (e.g. waste classification/segregation, waste disposal including B-3, waste manifest/record etc)

4.6. Industrial Hygiene

4.6. Kesehatan Industri

a) Do you have an occupational health and industrial hygiene program? Yes No

Apakah anda memiliki program Kesehatan Kerja dan Kesehatan Industri?

If so, what does it include?

Bila ada, apa saja yang termasuk di dalamnya?

Please provide evidence and supporting document for each of above question

Sediakan bukti dan dokumen pendukung untuk setiap pertanyaan diatas

b) Do you have a risk assessment, or similar type effort, for identifying work place hazards?

Apakah perusahaan mempunyai analisa resiko, atau upaya sejenis, untuk mengidentifikasi bahaya-bahaya di tempat kerja?

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Please describe this process.

Jelaskan prosesnya.

c) If you introduce hazardous materials/substances into the work site, describe the process you will use to document and control these.

Jika anda mendatangkan bahan/zat berbahaya ke tempat kerja, jelaskan proses yang akan anda gunakan untuk mendokumentasikan dan mengawasinya.

Hints (Please provide):

- Occupational Health & Industrial Hygiene Program (e.g. noise protection, respiratory protection, indoor air quality control, ergonomic, illumination control, house keeping, personal hygiene etc)
- Evidence of health hazards identification (e.g. noise measurement, illumination level etc) and control mechanism (e.g. provide proper PPE, provide barriers, provide proper tools for manual handling etc)

4.7. Drugs and Alcohol

4.7. Obat-obatan dan Alkohol

Do you have a drugs and alcohol policy in your organization? If so, does it include pre-employment and random testing?

Apakah perusahaan memiliki kebijakan mengenai penggunaan obat-obatan dan alkohol di perusahaan anda? Jika ya, apakah kebijakan ini mencakup ujian penerimaan karyawan dan dilakukan secara acak?

Hints (Please provide):

- Drug and Alcohol Policy Statement
- Evidence of communication (e.g. distribution list, display on bulletin boards, email or announcement letter, etc)
- Drug and Alcohol program (e.g. random check test to employee etc)

SECTION 5: PLANNING AND PROCEDURES

BAGIAN 5 : PERENCANAAN DAN PROSEDUR

5.1. SHE or Operations Manuals

5.1. K3LL atau Manual Operasi

a) Do you have a company SHE manual or Operations Manual with relevant sections on SHE which describes in detail your company approved SHE working practices and safety instructions such as those covering scaffolding, lifting, heavy equipment, pressurized cylinders or excavation?

Yes No

Apakah perusahaan memiliki manual K3LL atau Manual Operasi dimana terdapat bagian yang relevan dengan K3LL yang menjelaskan secara rinci prosedur K3LL dan instruksi-instruksi keselamatan yang sudah disetujui perusahaan seperti yang menyangkut perancah (scaffolding), alat pengangkat, alat berat, bejana tekan atau penggalian?

If the answer is Yes please attach a copy of supporting documentation.

Jika ya, lampirkan salinan dari dokumen-dokumen pendukung tersebut

Please provide evidence and supporting document for each of above question

Sediakan bukti dan dokumen pendukung untuk setiap pertanyaan diatas

b) How do you ensure that the working practices and procedures used by your employees on-site are consistently in accordance with your SHE policy objectives and arrangements?

Bagaimana perusahaan anda memastikan prosedur dan cara kerja yang digunakan karyawan di area kerja konsisten dan sesuai dengan tujuan kebijakan dan ketetapan-ketetapan kebijakan K3LL?

Hints (Please provide):

- SHE Management Procedure/Manual
- SHE Document control procedure (e.g. system for updating and disseminating to employees)

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5.2. Equipment Control and Maintenance

5.2. Pengawasan dan Perawatan Peralatan

How do you ensure that plant and equipment used within your premises, on-site, or at other locations by your employees are correctly registered, certified with regulatory requirement, inspected, controlled and maintained in a safe working condition?

Bagaimana anda memastikan bahwa tempat bekerja dan peralatan yang digunakan oleh pekerja anda di area kerja anda atau lokasi lain telah didaftarkan, disertifikasi sesuai peraturan, diinspeksi, diawasi dan dirawat dalam kondisi kerja yang aman dan baik?

Hints (Please provide):

- Equipment inspection/certification and maintenance program (e.g. preventive maintenance)
- Evidence of third party inspection/certification (e.g. load test, validity certificates etc)
- Evidence of internal equipment inspection records and follow up

5.3. Transport Safety Management and Maintenance

5.3. Manajemen keselamatan transport dan perawatannya

What arrangement does your company have for vehicle incidents prevention?

Ketentuan apa yang terdapat diperusahaan anda untuk pencegahan kecelakaan kendaraan?

Hints (Please provide):

- Land Transportation procedure (Light and/or Heavy Vehicles)
- Evidence of implementation (e.g. vehicle inspection and maintenance, drivers training, vehicle incident prevention program, journey management etc)

SECTION 6: IMPLEMENTATION AND PERFORMANCE MONITORING

BAGIAN 6 : IMPLEMENTASI DAN PEMANTAUAN KINERJA

6.1. SHE Management and Performance Monitoring of Work Activities

6.1. Manajemen K3LL dan Pemantauan Kinerja dalam Aktivitas Kerja

a) What arrangement(s) does your company have for supervision and monitoring of SHE performance?

Ketetapan apa yang dimiliki perusahaan anda untuk mengawasi dan memantau kinerja K3LL?

b) What type of performance criteria are used in your company? Give examples

Kriteria kinerja seperti apa yang digunakan dalam perusahaan anda? Berikan contoh

c) What arrangements does your company have for passing on any results and findings of this supervision and monitoring to your:

Ketetapan apa yang dimiliki perusahaan anda untuk menyampaikan setiap hasil dan temuan dari pengawasan dan pemantauannya ini kepada:

Please provide evidence and supporting document for each of above question

Sediakan bukti dan dokumen pendukung untuk setiap pertanyaan diatas

i) Base management?

Manajemen fasilitas pendukung ("base")?

ii) Site employees?

Karyawan lapangan?

d) Has your company received any award for SHE performance achievement? Yes No

Pernahkah perusahaan anda menerima penghargaan untuk prestasi kinerja K3LL?

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Hints (Please provide):

- Company SHE Performance Monitoring system (e.g. procedure, man hours recording system, incidents count and analysis, SHE performance reward program etc)
- Evidence of SHE performance recognition from clients

6.2. Safety Program
6.2. Program keselamatan

a) Have you established SHE program? Yes No.
Apakah anda mempunyai program K3LL?

Please describe the detail, frequency, and schedule.
Jelaskan secara detail, frekuensi, dan jadwal.

b) Do you organize campaigns to stimulate safe working practices? Yes No
Apakah anda mengorganisasikan kampanye untuk menstimulasi cara kerja yang aman?

If so, please give details
Jika ya, jelaskan secara rinci

Hints (Please provide):

- SHE Work program & implementation (e.g. in-house SHE meeting, SHE Orientation, SHE campaign, SHE inspection, SHE audit, emergency response preparedness, management visit etc) including frequency & schedule.

6.3. Statutory Notify-able Incidents/Dangerous Occurrences, Improvement Requirement and Prohibition Notices

6.3. Surat Peringatan atas Insiden / Kejadian Membahayakan, Tuntutan Perbaikan, dan Larangan.

Has your company suffered any improvement requirement or prohibition notices on statutory notify-able incidents/dangerous occurrences by the relevant national body, regulatory body for SHE or other enforcing authority or been prosecuted under any SHE legislation in the last five years? Yes No.
Pernahkan perusahaan anda memperoleh surat peringatan untuk perbaikan atau surat larangan untuk insiden/kejadian oleh badan pemerintah yang berkaitan, badan yang berwenang dalam K3LL, atau otoritas penegak hukum lainnya atau diperkarakan di bawah undang-undang selama lima tahun terakhir?

If your answer is Yes please give details
Jika ya, berikan rinciannya

Hints (Please provide):

- Letter received from regulatory body regarding major incidents in the last five years
- Record of incident case occurred in your company (e.g. accident/incident records and statistics)

Please provide evidence and supporting document for each of above question
Sediakan bukti dan dokumen pendukung untuk setiap pertanyaan diatas

6.4. SHE Performance Records
6.4. Catatan Kinerja K3LL

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a) Have you maintained records of your incidents and SHE performance for the last five years?
 Yes No
Apakah anda menyimpan catatan mengenai insiden dan kinerja K3LL anda untuk lima tahun terakhir?

If Yes, please provide the following:
Jika ya, beri tanda pada opsi yang tersedia

▪ Number of Fatalities	<input type="text"/>
▪ Lost Time Injuries	<input type="text"/>
▪ Lost Workday Cases	<input type="text"/>
▪ Medical Treatment Cases	<input type="text"/>
▪ Restricted Work Day Cases	<input type="text"/>
▪ Fatal Accident Rate	<input type="text"/>
▪ Lost Time Injury Frequency	<input type="text"/>
▪ Total Recordable Incident Rate for each year	<input type="text"/>

b) How is health performance recorded?
Bagaimana kinerja kesehatan didokumentasikan?

c) How is environmental performance recorded?
Bagaimana kinerja lingkungan didokumentasikan?

d) How often is SHE performance reviewed? By whom?
Seberapa sering kinerja K3LL di tinjau? Oleh siapa?

Hints (Please provide):

- Accident/Incident statistic records including Injury Rate for the last five years (latest year injury rate comparison to contractor's five preceding years) with reference to national or international standard (Depnaker, OSHA, etc).

6.5. Incident Investigation and Reporting
6.5. Investigasi Kecelakaan dan Pelaporan

a) Do you have a procedure for the investigation, reporting and follow-up of accidents, dangerous occurrences or occupational illnesses? Yes No. If Yes please attach.
Apakah anda memiliki prosedur untuk menginvestigasi, melaporkan dan menindaklanjuti insiden/kecelakaan, kejadian berbahaya atau penyakit di tempat kerja

b) How are the findings following an investigation, or a relevant incident occurring elsewhere, communicated to your employees?
Bagaimana temuan hasil investigasi atau kecelakaan sejenis yang terjadi di tempat lain dikomunikasikan kepada para karyawan?

Please provide evidence and supporting document for each of above question
Sediakan bukti dan dokumen pendukung untuk setiap pertanyaan diatas

c) Are near miss safety learning reported? Yes No
Apakah kecelakaan yang hampir terjadi (nearmiss) dilaporkan?

d) Please provide copies of SHE investigation reports for the last 12 months.
Apakah salinan dari laporan investigasi K3LL untuk 12 bulan terakhir ini tersedia.

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Hints (Please provide):

- Accident/Incident reporting and investigation procedure (includes reporting flow chart, form etc)
- Evidence of Accident/Incident Report and Investigation result (e.g. example of Accident/Incident & Investigation report)
- Evidence of sharing on Accident/Incident Investigation report/findings (e.g. root cause and lesson learn document using email, notice boards, safety alert etc).
- Evidence of initiatives for SHE performance improvement based on incident lesson learns.

SECTION 7: AUDIT AND REVIEW

BAGIAN 7 : AUDIT DAN PENINJAUAN

a) Do you have a written policy on SHE auditing? Yes No

Apakah anda mempunyai kebijakan tertulis mengenai audit K3LL?

b) How does this policy specify the standards for auditing, including unsafe act auditing and the qualifications for auditors?

Bagaimana kebijakan tersebut menjelaskan standar untuk audit, mencakup audit tindakan tidak aman dan kualifikasi untuk auditor?

c) Does your company SHE Plan include schedules for auditing? Yes No.

What range of auditing is covered?

Apakah rencana K3LL perusahaan anda menyertakan jadwal audit?

d) How the effectiveness of auditing is verified and how does management report and follow up audits?

Bagaimana efektifitas audit diperiksa dan bagaimana laporan manajemen dan tindak lanjut hasil audit?

Hints (Please provide):

- Audit Procedure/Policy
- Evidence of Audit program and implementation (schedule, coverage, audit team, report and follow up etc.)

Please provide evidence and supporting document for each of above question

Sediakan bukti dan dokumen pendukung untuk setiap pertanyaan diatas

SECTION 8: EMERGENCY RESPONSE PROCEDURE

BAGIAN 8 : PROSEDUR TANGGAP DARURAT

Do you have an emergency response plan? Yes No.

Apakah anda mempunyai rencana tanggap darurat?

Please provide a list of procedures.

Berikan daftar prosedurnya.

Describe how emergency preparedness is maintained and the command structure in case of emergency.

Jelaskan bagaimana kesiapan keadaan tanggap darurat dipelihara dan bagaimana struktur komando saat terjadi keadaan darurat

Hints (Please provide):

- Emergency Response Plan/Procedure
- Emergency Response Team Organization/Command Structure
- Evidence of Emergency Drill Exercise and Schedule (e.g. report of ER drills, table top etc).
- Evidence of communication (e.g. distribution list, email, notice boards, letter of announcement)

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SECTION 9: SHE MANAGEMENT – ADDITIONAL FEATURES
BAGIAN 9 : MANAJEMEN K3LL – CIRI TAMBAHAN

a) Describe the nature and extent of your company’s participation in relevant industry, trade, and governmental organizations, especially that related to SHE?
Jelaskan keterlibatan dan partisipasi perusahaan anda dalam organisasi yang relevan dengan industri, perdagangan dan pemerintahan, terutama yang berkaitan dengan K3LL?

b) Does your company have any other SHE features or arrangements not described elsewhere in your response to the questionnaire?
Apakah perusahaan anda memiliki informasi tambahan mengenai K3LL yang belum disebutkan dalam kuesioner ini?

c) Does your company have any certification related to SHE Management System, such as ISO 14001 and OHSAS 18001?
Apakah perusahaan Anda memiliki sertifikasi yang terkait dengan manajemen K3LL, seperti ISO 14001 dan OHSAS 18001?

- Hints** (Please provide):
- List of association membership and certificates (e.g. KADIN, APINDO, IAKKI, AK3, IADC etc)
 - Certificate of compliance to SHE Management system (e.g. OSHAS-18001, ISO-14001 etc)
 - Evidence of active participation in SHE association (e.g. attending association events, etc)

Please provide evidence and supporting document for each of above question
Sediakan bukti dan dokumen pendukung untuk setiap pertanyaan diatas

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Appendix II.2: CSMS/PQ/02: Contractor SHEMS Criteria

Contractor SHE Management System Criteria

A	B	C	D
Section 1: Leadership and Commitment			
Commitment to SHE through leadership: Item 1(1) (a)-(c)			
No commitment from senior management	SHE disciplines delegated to line managers – no direct involvement by senior management	Evidence of active senior management involvement in SHE aspects	Evidence of a positive SHE culture in senior management and at all levels
Section 2: Policy and Strategic Objectives			
SHE policy documents and availability: Items 2(1) (a)-(c) and 2(2) (a)-(b)			
Policy statements exist but responsibility for SHE is unclear.	A policy statement exists with clear responsibility for SHE but not in a widely distributed document	SHE policy establishes responsibility for SHE in languages easily understood, but not widely distributed	Policy with clearly established responsibility and accountability; is distributed to all employees; and is visible on notice boards
Section 3: Organization, Responsibilities, Resources, Standards and Documentation			
SHE communication and meeting programs: Item 3(1) (a)-(d)			
No management involvement or commitment toward SHE activity	Management involvement and commitment toward SHE in special occasion only, likewise for periodic SHE meetings.	Regular management involvement and commitment toward SHE. SHE meetings performed on a regular basis at management and supervisor level	Regular management involvement and commitment toward SHE. Regular SHE meetings performed and employees are assigned topics to discuss on a rotational basis
Staff SHE training: Item 3(2)			
No SHE training established	SHE training established but not implemented	SHE training established and implemented but only to a limited staff only	SHE training established and fully implemented to all staff related to the work

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Contractor SHE Management System Criteria

A	B	C	D
Section 3: Organization, Responsibilities, Resources, Standards and Documentation (cont'd)			
Employee competency and SHE training: Item 3(3)(a)-(d)			
No formal program	Formal program established to update employee knowledge on SHE Verbal instructions on company procedures only for new employee. Orientation booklet provided for new employees but no on-the-job orientation by supervisor	Formal program established and implemented for employee and new employee on SHE. Update employee knowledge on SHE. Employee handbook provided and supervisor outlines, explains and demonstrates new employee's job	Formal program established and implemented for employee and new employee on SHE. Update employee knowledge on SHE. Employee handbook provided and supervisor outlines, explains and demonstrates new employee's job. With: follow-up observation of the new employee's work is also included. Supervisor has explained to him safe practices and emergency duties
Specialized training: Items 3(4) (a)-(b) and 3(5)			
No specialized training established	Specialized training is established but not implemented	Specialized training is established and implemented	Specialized training is established and implemented on a regular basis. Retraining periods are established. Qualified SHE professional are employed
Subcontractors: Item 3(6) (a)-(d)			
No assessment program for subcontractor established	Assessment program and standards for subcontractor are established, covering limited area only but not implemented yet	Assessment program and standards for subcontractor are established and implemented	Assessment program and standards for subcontractor are established and fully implemented. Quality assurance for compliance in place
SHE Performance Standards: Items 3(7) (a)-(e)			
No SHE performance standards available	SHE performance standards established for limited purposes only or partial and in compliance with local industry regulatory standards only	SHE performance standards established and in compliance with local industry regulatory standards	SHE performance standards established and in compliance with local and global industry regulatory standards

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Contractor SHE Management System Criteria

A	B	C	D
<i>Section 4: Hazards and Effects Management</i>			
Hazards and Effects Assessment: Item 4(1)			
Company's SHE system does not include hazards and effects assessment	Company's SHE system makes reference to the need to assess hazards and effects but has no comprehensive structure to carry this out	Company's SHE system includes methods for the assessment of major hazards and effects	Company's SHE system has a comprehensive set of methods for the assessment of all SHE hazards and effects and applies them to all of its contracts with documentation
Exposure of the workforce: Item 4(2)			
Company does not actively advise the workforce nor monitor exposure	Company advises the workforce of the major hazards that they are likely to be exposed to but only monitors exposure randomly	Company has formal methods for monitoring exposure to the major hazards	Company has a set of formal methods for monitoring exposure to all foreseeable hazards (linked to its hazards and effects assessment method) and applies them to all contracts
Potential Hazards (chemical, physical and biological hazards such as noise, radiation, vapors, fumes, temperature extremes etc.): Item 4(3)			
Company makes no special provision for advising the workforce about properties of potential hazards	Company provides information to workforce in the workplace on properties of potential hazards but has no active follow-up	Company distributes information to individuals in the workforce at start of their involvement on-site	Company maintains a database of the properties of all potential hazards encountered in its contracts and has formal methods of information distribution to all personnel and trains its workforce in handling, etc

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Contractor SHE Management System Criteria

A	B	C	D
<i>Section 4: Hazards and Effects Management (cont'd)</i>			
Personal protective equipment: Item 4(4) (a)-(d)			
Basic PPE provided to personnel but no corporate procedure for assessing individual needs	PPE requirements formally assessed but little effort made to ensure correct usage	PPE requirements formally assessed with spot checks on usage	Procedures in place to assess all PPE requirements monitor and enforce usage and replacement needs. Stock inventories monitored, kept above demand levels. Training in use provided where needed
Waste management: Item 4(5) (a)-(i)			
Company has no formal methods for the control of waste, no person in charge for this matter	Company has general procedures for waste disposal, and has a person in charge for this matter	Company has procedures for the disposal of each of the main categories of site wastes but makes no provision for minimizing environmental impact, and has a competent person in charge for this matter	Company has a formal system for waste management (including identification, minimization and classification), which actively seeks to minimize environmental impact, and has a competent person in charge for this matter
Industrial Hygiene: Item 4(6) (a)-(c)			
No Occupational Health & Industrial Hygiene policy or program exists	Basic policy or program exists but is not enforced	A policy or program exists and recognizes hazards but is not followed up	A policy or program exists which manages operations to minimize human health impacts providing a workplace free of recognized health
Alcohol and Drugs: Item 4(7)			
No alcohol and drugs policy written	An alcohol and drugs policy statement exists but not in a widely distributed document	An alcohol and drugs policy includes establishing responsibility and accountability, and widely distributed	Drugs policy with clearly established responsibility, accountability, and disciplinary clause is distributed to all employees; and is visible on notice boards

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Contractor SHE Management System Criteria

A	B	C	D
<i>Section 5: Planning and Procedures</i>			
SHE or operations manuals: Item 5(1) (a)-(b)			
No SHE procedures / manual is available	Basic SHE procedures/manual exist	Contractor has written SHE procedures/manual to cover all hazardous operations	Contractor has procedures to cover all SHE precautions/manual, typical contractor SHE Plan requirements with a system of updating and dissemination to employees
Equipment control and maintenance: Item 5(2)			
No defined program to ensure control and maintenance of plant and / or equipment	Program relies on outside sources, i.e. company inspections. Supervisory inspection of equipment confined to worksite personnel only	A written program outlining supervisory guidelines, responsibilities, frequency and follow-up is in effect	In addition to C, periodic inspections conducted by top management or by teams of specialists
Transport Safety Management: Item 5(3)			
No special attention paid to transport safety as an area of hazardous activities	Importance of transport safety acknowledged but left to core business managers/supervisors to enact individually	Company has a general management strategy with some procedures for its component issues	Company has a complete strategy and set of plans and procedures covering vehicles, drivers and operations management
<i>Section 6: Implementation and Performance Monitoring</i>			
Management and performance monitoring of work activities: Item 6(1) (a)-(d)			
No system for formally monitoring SHE performance at all	Informal/incidental monitoring SHE performance only	Company has a system for monitoring SHE performance in key areas	Company has a comprehensive system for monitoring performance in all areas with feedback to employers for improvement and has received awards for achievement

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Contractor SHE Management System Criteria

A	B	C	D
<i>Section 6: Implementation and Performance Monitoring (cont'd)</i>			
SHE program: Item 6(2) (a)-(b)			
No SHE Program is established	SHE Program is established but is not held frequently, no schedule and detail available	SHE Program is established and held frequently but no schedule and detail available	SHE Program is established and held frequently and also schedule and detail available
Statutory notify-able incidents, dangerous occurrences, improvement requirements and prohibition notices: Item 6(3)			
More than one occurrence of major incident in last five years	One occurrence of a major incident in the last five years	Occurrences relate to minor incident(s) only	No occurrences in the last five years
SHE Performance records: Item 6(4) (a)-(d)			
Contractor supplied insufficient information to establish rate or rate increases, no review conducted	Rate is not improving, but it is reviewed annually	Shows only minor rate improvement, and it is reviewed quarterly	Rate steadily improving by more than 20 percent per year, and reviewed monthly
Incident Investigation and reporting: Item 6(5) (a)-(d)			
Procedure are available but Findings not generally communicated	Procedure are available and Findings communicated to key personnel only via limited company internal memo or similar media	Procedure are available and Findings communicated to all employees via specific company notice	As in C but with the addition of details of implication for improving SHE performance, including near miss learning

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Contractor SHE Management System Criteria

A	B	C	D
Section 7: Auditing and Review			
Auditing and Review: Item 7 (a)-(d)			
Audit process is cursory only - SHE documents are not explicit about auditing	Company SHE documents include reference to auditing but there are no specific details about scheduling and coverage	Company SHE documents include details of how auditing is to be implemented with schedules/coverage for the key areas	As in C but additionally specifies management's role in audit and follow-up on action items
Section 8: Emergency Response Procedure			
Emergency Response Procedure: Item 8			
No written Emergency Response	Basic procedures only	Emergency procedures written for major scenarios, e.g. fires/explosions, H ₂ S, evacuation, release of toxic or flammable materials and medical emergencies. No requirements established for drill frequencies	Emergency procedures written for major scenarios, e.g. fires/explosions, H ₂ S, evacuation, release of toxic or flammable materials and medical emergencies. Procedures documented in an Emergency Procedures Manual, which is widely distributed. Frequency of conducting drills established
Section 9: SHE Management - Additional Features			
Membership of Associations: Item 9 (a)-(b)			
No memberships	Company has Membership of at least one association but with no prominence given to SHE	Company is a member of at least one SHE association or having a certificate of SHE compliance (ISO or OHSAS)	Company is an active participant in at least one SHE association or having achievement in SHE and having a certificate of SHE compliance

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Appendix II.3: CSMS/PQ/03 Contractor SHE Management System Evaluation

Contractor SHE Management System Evaluation

Contractor : _____
 Address : _____
 Date : _____
 Contractor SHE Reps. : _____
 Project Name : _____

Circle the number, which best represents this evaluation based on the criteria for rating purposes attached.

SECTION	A	B	C	D	Subtotal	Factor	Total
SECTION 1 – LEADERSHIP AND COMMITMENT	0	4	8	12			
SUBTOTAL						X1	
SECTION 2 – POLICY AND STRATEGIC OBJECTIVES	0	4	8	12			
<i>SUBTOTAL</i>						X1	
SECTION 3 – ORGANIZATION, RESPONSIBILITY, RESOURCES, STANDARDS AND DOCUMENTATION							
SECTION 3 – ITEM 3 (1)	0	4	8	12			
SECTION 3 – ITEM 3 (2)	0	4	8	12			
SECTION 3 – ITEM 3 (3) (A) – (D)	0	4	8	12			
SECTION 3 – ITEM 3 (4) (A) AND (B) AND 3 (5)	0	4	8	12			
SECTION 3 – ITEM 3 (6) (A) – (D)	0	4	8	12			
SECTION 3 – ITEM 3 (7) (A) – (E)	0	4	8	12			
<i>SUBTOTAL</i>						X1/6	
SECTION 4 – HAZARDS AND EFFECT MANAGEMENT							
SECTION 4 – ITEM 4 (1)	0	4	8	12			
SECTION 4 – ITEM 4 (2)	0	4	8	12			
SECTION 4 – ITEM 4 (3)	0	4	8	12			
SECTION 4 – ITEM 4 (4)	0	4	8	12			
SECTION 4 – ITEM 4 (5)	0	4	8	12			
SECTION 4 – ITEM 4 (6)	0	4	8	12			
SECTION 4 – ITEM 4 (7)	0	4	8	12			
SUBTOTAL						X1/7	
SUBTOTAL (SECT 1-SECT 4)							



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SECTION	A	B	C	D	Subtotal	Factor	Total
SECTION 5 – PLANNING AND PROCEDURE							
SECTION 5 – ITEM 5 (1) (A) AND (B)	0	4	8	12			
SECTION 5 – ITEM 5 (2)	0	4	8	12			
SECTION 5 – ITEM 5 (3)	0	4	8	12			
SUBTOTAL						X1/3	
SECTION 6 – IMPLEMENTATION AND PERFORMANCE MONITORING							
SECTION 6 – ITEM 6 (1)	0	4	8	12			
SECTION 6 – ITEM 6 (2)	0	4	8	12			
SECTION 6 – ITEM 6 (3)	0	4	8	12			
SECTION 6 – ITEM 6 (4) (A) – (D)	0	4	8	12			
SECTION 6 – ITEM 6 (5) (A) – (D)	0	4	8	12			
<i>SUBTOTAL</i>						X1/5	
SECTION 7 – AUDIT AND REVIEW	0	3	7	10			
<i>SUBTOTAL</i>						X1	
SECTION 8 – EMERGENCY RESPONSE PROCEDURE	0	3	7	10			
SUBTOTAL						X1	
SECTION 9 – SHE MANAGEMENT – ADDITIONAL FEATURES	0	2	5	8			
SUBTOTAL						X1	
TOTAL RATING (SECT 1 – SECT 9)							

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SUMMARY OF CONTRACTOR SHE MANAGEMENT SYSTEM EVALUATION

The numerical values below are the weighted ratings calculated above. The total represents the overall score for the Contractor.

TOTAL RATING _____ *)

APPROVED BY:

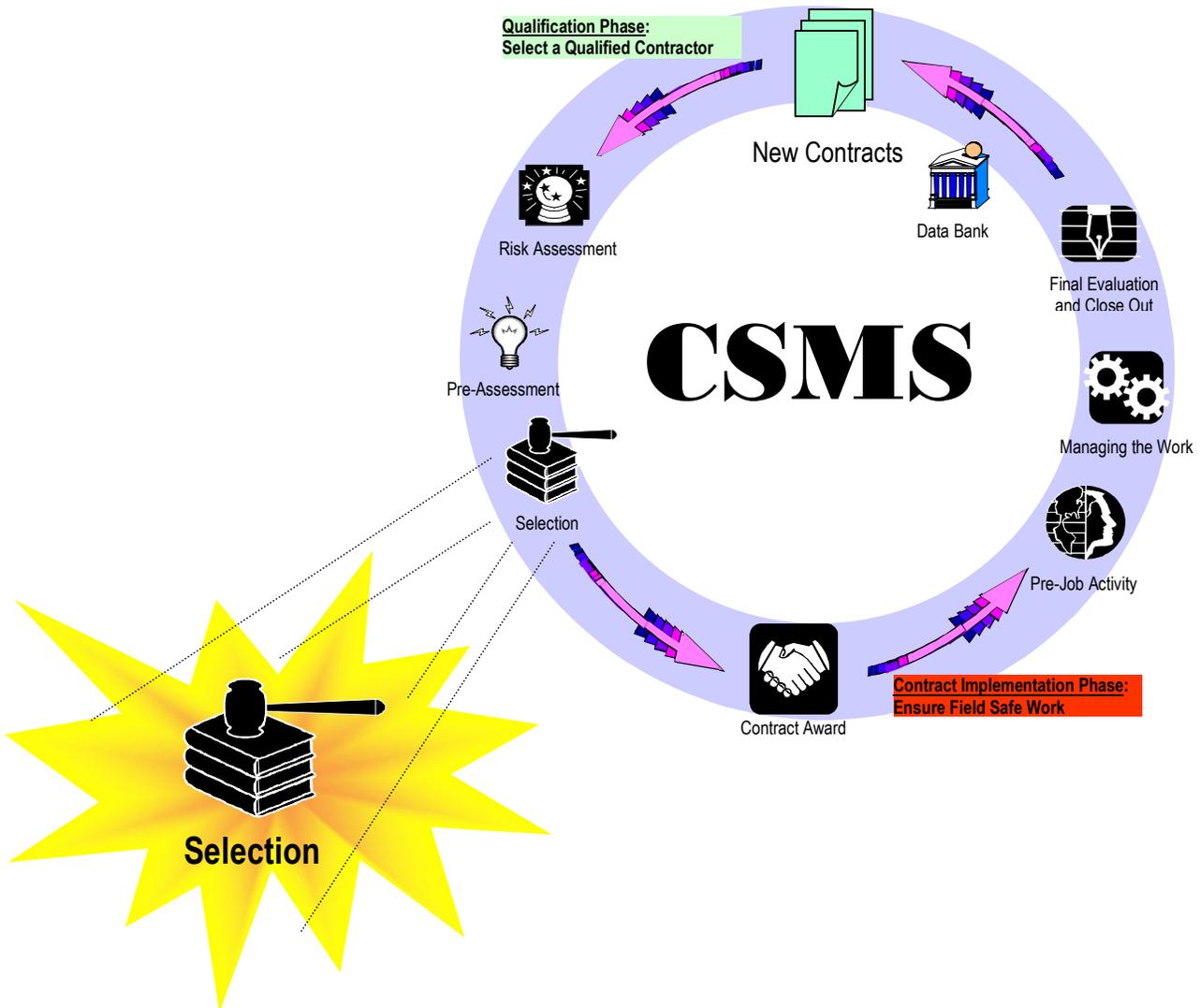
_____	_____
NAME	NAME
TITLE	TITLE
DATE	DATE

EVALUATED BY:

_____	_____
NAME	NAME
TITLE	TITLE
DATE	DATE

*) FOR A BIDDER TO QUALIFY AS ACCEPTABLE, THE TOTAL RATING MUST BE EQUAL OR MORE THAN **56** IF INSUFFICIENT NUMBERS OF BIDDERS ARE QUALIFIED, SELECTION SHALL BE MADE FROM THE FIVE BIDDERS HAVING THE HIGHEST TOTAL RATING, PROVIDED THAT THE PRIMARY FACTORS THEREOF MUST BE THE HIGHEST RELATIVE TO THE OTHER BIDDERS' PRIMARY FACTORS.

Appendix III. Selection Forms



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Appendix III.1: CSMS/SL/01 Example of Safety, Health and Environment Exhibit

EXHIBIT X

SAFETY, HEALTH AND ENVIRONMENTAL (SHE) REQUIREMENTS

PERSYARATAN KESELAMATAN, KESEHATAN KERJA DAN LINDUNGAN LINGKUNGAN (K3LL)

CHAPTER 1 / BAB 1

GENERAL REQUIREMENTS / PERSYARATAN UMUM

- | | |
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| <p>1.1. Company is committed to conducting work in manner, which minimizes the risks to the health and safety of those involved in, and affected by such work. Company is also committed to conducting its operations in a manner, which minimizes the impact on natural and 'built' environments in the worksite.</p> <p>Company's Safety, Health and Environmental ("SHE") policy statement is attached in this SHE Requirement. Contractor is required to acknowledge and support this Company's policy statement by signing the document. (Please find it in the last page of this document).</p> | <p>1.1. Perusahaan berkomitmen untuk melaksanakan pekerjaan dengan cara meminimalkan risiko-risiko pada kesehatan dan keselamatan kerja orang-orang yang terlibat dalam dan terpengaruh oleh pekerjaan tersebut. Perusahaan juga berkomitmen untuk melaksanakan kegiatan operasinya dengan cara meminimalkan dampak terhadap lingkungan alam dan lingkungan "yang telah terbentuk" di lokasi pekerjaan.</p> <p>Pernyataan kebijakan Keselamatan, Kesehatan Kerja dan Lindungan Lingkungan ("K3LL") Perusahaan terlampir pada Persyaratan K3LL ini. Kontraktor diharuskan mengakui dan mendukung pernyataan kebijakan Perusahaan ini dengan menandatangani dokumen tersebut. (mohon dilihat di akhir halaman dari dokumen ini)</p> |
| <p>1.2. This Exhibit sets out minimum SHE requirements for the work that Contractor and sub-Contractor will be required to comply with whilst conducting work for the Company under a contract ("Contract"). Furthermore, Contractor is also required to comply with the applicable site specific SHE rules.</p> | <p>1.2. Lampiran ini menjabarkan persyaratan minimal K3LL untuk pekerjaan yang harus dipatuhi oleh Kontraktor dan Sub-Kontraktor dalam/pada saat melaksanakan pekerjaan untuk Perusahaan berdasarkan suatu kontrak ("Kontrak"). Kontraktor juga diharuskan mematuhi peraturan K3LL khusus di lapangan yang berlaku.</p> |
| <p>1.3. Company may perform SHE audits and assessments of Contractor's and its Sub-Contractor's management system and performance under the Contract.</p> <p>Company reserves the right without prior notice to conduct SHE audits of the work.</p> | <p>1.3. Perusahaan dapat melakukan pemeriksaan dan pengkajian K3LL atas sistem manajemen dari Kontraktor dan Sub-Kontraktornya serta kinerja mereka berdasarkan Kontrak.</p> <p>Perusahaan berhak tanpa pemberitahuan terlebih dahulu untuk melakukan audit K3LL atas pekerjaan.</p> |

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| <p>1.4. Contractor shall at all times be responsible for performing the work in a manner so as to protect against loss of life, injury to people, damage to property and the environment. The detailed manner means and methods of performing the work shall be under the control and direction of Contractor subject to Company's approval.</p> | <p>1.4. Kontraktor harus bertanggung jawab setiap saat untuk melaksanakan pekerjaan dengan cara tertentu sehingga melindungi orang terhadap kematian, cedera, kerusakan terhadap barang dan lingkungan. Cara, sarana dan metode pelaksanaan pekerjaan secara rinci berada dalam kendali dan arahan Kontraktor yang harus disetujui oleh Perusahaan.</p> |
| <p>1.5. Prior to commencing the work, certain SHE processes must be completed. Such SHE processes include formally developing the final SHE Plan and defining the timing and frequency of SHE audits and permitting, subject to Company's approvals. Contractor shall ensure that sufficient resources are dedicated to those tasks to ensure completion prior to commencing the work.</p> | <p>1.5. Sebelum pekerjaan dimulai, proses-proses K3LL tertentu harus diselesaikan. Proses-proses K3LL tersebut mencakup pembentukan secara formal Rencana K3LL final dan penetapan waktu dan frekuensi audit dan perizinan K3LL, yang harus mendapat persetujuan dari Perusahaan. Kontraktor harus memastikan bahwa sumber daya yang memadai disediakan khusus untuk melakukan tugas-tugas tersebut untuk memastikan penyelesaiannya sebelum dimulainya pekerjaan.</p> |
| <p>1.6. Either party may at any time stop the work or any portion of the work without penalty to Company if the work is not conducted in accordance with SHE guidelines specified in this SHE Requirements or by the laws of the appropriate jurisdiction.</p> | <p>1.6. Masing-masing pihak dapat menghentikan pekerjaan atau bagian apa pun dari pekerjaan setiap saat tanpa adanya denda kepada Perusahaan apabila pekerjaan tersebut tidak dilaksanakan sesuai dengan pedoman K3LL yang ditetapkan dalam Persyaratan K3LL ini atau oleh hukum dari yurisdiksi yang sesuai.</p> |
| <p>1.7. Contractor shall ensure that the work associated with the Contract are conducted in compliance with applicable national and local laws and regulations, Contractor standards, Company requirements and guidelines, and industry best practices related to SHE.</p> | <p>1.7. Kontraktor harus memastikan bahwa pekerjaan yang berkaitan dengan Kontrak dilaksanakan sesuai dengan undang-undang dan peraturan yang berlaku secara nasional dan lokal, standar-standar Kontraktor, persyaratan dan pedoman Perusahaan, serta praktik-praktik industri terbaik berkaitan dengan K3LL.</p> |
| <p>1.8. Work Authorizations / Permit-To-Work</p> <p>All site work carried out by Contractor and/or its sub-Contractor shall comply with "Permit-To-Work System" applicable procedure.</p> <p>Contractor shall be solely responsible for obtaining in due time, all the necessary work authorizations and permits when required, to work inside restricted areas at the worksite.</p> <p>Company shall, upon Contractor's request, undertake to provide Contractor with work permits and/or authorizations as it is empowered to issue such permits.</p> | <p>1.8. Otorisasi/ Izin Kerja</p> <p>Semua pekerjaan lapangan yang dilaksanakan oleh Kontraktor dan/atau Sub-Kontraktornya harus mematuhi prosedur "Sistem Izin Kerja" yang berlaku.</p> <p>Kontraktor bertanggung jawab untuk mendapatkan pada waktunya, semua otorisasi dan izin kerja yang diperlukan jika disyaratkan, untuk bekerja di wilayah-wilayah terbatas (berbahaya) di lokasi pekerjaan.</p> <p>Perusahaan, atas permintaan Kontraktor, bertanggung jawab untuk memberikan izin dan otorisasi bekerja kepada Kontraktor sebagaimana Perusahaan diberikan wewenang untuk mengeluarkan izin tersebut.</p> |

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1.9. Limits of Authority

Company's and Contractor's representative and personnel do not have the authority to loosen SHE standards. If it is mutually agreed by both Contractor's and Company's representative that the work is inadequate with regards to any aspect of SHE, than the work may be immediately suspended.

1.10. Management of Change

Ensure that appropriate control system is implemented to fully review the impact on project SHE that the following change might invoke:

- engineering/design changes;
- organizational changes;
- planning changes.

1.9. Batas Wewenang

Wakil dan karyawan Perusahaan dan Kontraktor tidak memiliki wewenang untuk melonggarkan standar-standar K3LL. Apabila disepakati bersama oleh wakil Kontraktor dan wakil Perusahaan bahwa suatu pekerjaan tidak memadai dalam hal aspek K3LL, maka pekerjaan tersebut dapat segera ditangguhkan.

1.10 Pengelolaan Perubahan

Pastikan bahwa sistem kendali yang sesuai dilaksanakan untuk dapat secara penuh mengkaji dampak yang mungkin ditimbulkan oleh perubahan-perubahan berikut ini terhadap K3LL proyek:

- perubahan-perubahan rekayasa/desain;
- perubahan-perubahan organisasi;
- perubahan-perubahan perencanaan.

CHAPTER 2 / BAB 2
SHE MANAGEMENT / MANAJEMEN K3LL

2.1. Contractor shall take all necessary SHE measures in relation to the work to be provided and shall conduct itself and its work-force in such a way as to comply at all times with the provisions of the national and/or international SHE regulations pertinent to work.

2.2. Contractor shall take such reasonable steps to provide a safe and healthy working environment for its personnel, Company's personnel and related third parties in the performance of this work.

2.3. Contractor shall operate a management system that ensures:

- Contractor's and Sub-Contractor's personnel operate safe and healthy work systems at all times for the performance of the work.
- Hazards associated with the work are identified and appropriate controls implemented and actions

2.1. Kontraktor harus mengambil langkah-langkah K3LL yang diperlukan berkaitan dengan pekerjaan yang akan dilakukan dan harus mengatur dirinya dan satuan kerjanya sedemikian rupa sehingga setiap saat mematuhi ketentuan - ketentuan peraturan K3LL nasional dan/atau internasional yang berkaitan dengan pekerjaan.

2.2. Kontraktor harus mengambil langkah-langkah yang wajar untuk menciptakan lingkungan kerja yang aman dan sehat untuk para personelnnya, personel Perusahaan dan pihak-pihak ketiga yang terkait dalam melaksanakan pekerjaan ini.

2.3. Kontraktor harus menerapkan suatu sistem manajemen yang memastikan bahwa:

- Karyawan Kontraktor dan Sub-Kontraktor menjalankan sistem kerja yang aman dan sehat setiap saat dalam melaksanakan pekerjaan.
- Bahaya-bahaya yang berkaitan dengan pekerjaan telah teridentifikasi dan pengendalian yang benar telah

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taken to prevent accidents.

- Risks to safety, health and environmental of personnel involved in the work are identified, assessed and any precautionary actions and measurements are implemented to either eliminate or reduce such risk to a tolerable level that is considered **As Low As Reasonably Practicable (ALARP)**, given the nature of the work.
- Contractor's and Sub-Contractor's personnel are aware of the identified hazards and risk to their safety, health and environmental as well as to others, and the controls and precautions applied.
- Compliance with established safety, health and environmental standards and government regulation will be routinely monitored by the Contractor, and non-compliance remedied.
- Contractor shall identify Environmental aspect and impact with operational control required, including waste management.

Detailed safe working procedures established by Contractor to ensure that the work will be conducted with due regard to the SHE aspects, shall be submitted or referenced in the SHE Plan. Copies of the source documents shall be provided to Company if the procedures are referenced only.

2.4. SHE Representative

Contractors with high risk work shall provide at worksite a SHE representative that meets Company's criteria . The primary responsibility of the SHE representative shall include, but not limited to, the maintenance and

dilaksanakan serta tindakan-tindakan telah diambil untuk mencegah terjadinya kecelakaan.

- Risiko-risiko terhadap keselamatan, kesehatan dan lindung lingkungan personel yang terlibat dalam pekerjaan telah diidentifikasi, ditelaah dan langkah-langkah pencegahan dilakukan untuk menghilangkan atau mengurangi risiko-risiko tersebut sampai pada tingkat yang dapat ditoleransi yang dianggap **Tingkat Terendah Yang Beralasan dan Dapat Diterima**, dengan mempertimbangkan sifat pekerjaan.
- Karyawan Kontraktor dan Sub-Kontraktornya mengetahui bahaya-bahaya dan risiko-risiko yang diidentifikasi terhadap keselamatan, kesehatan dan lindung lingkungan mereka dan pihak lainnya, dan mengetahui pengendalian dan tindakan pencegahan yang diterapkan.
- Kepatuhan terhadap standar-standar dan peraturan pemerintah keselamatan, kesehatan dan lindung lingkungan yang telah ditetapkan akan dipantau secara rutin oleh Kontraktor, dan segala ketidakpatuhan diperbaiki.
- Kontraktor harus mengidentifikasi aspek dampak lingkungan dengan pengendalian operasional yang diperlukan, termasuk pengelolaan limbah.

Rincian prosedur keselamatan pekerjaan yang dibuat oleh Kontraktor untuk memastikan bahwa pekerjaan akan dilaksanakan dengan memperhatikan aspek-aspek K3LL, harus dijabarkan atau dirujuk dalam Rencana K3LL. Salinan dokumen-dokumen yang menjadi sumber harus diberikan kepada Perusahaan apabila prosedur-prosedur tersebut hanya berupa rujukan.

2.4. Perwakilan K3LL

Kontraktor dengan pekerjaan berisiko tinggi harus menempatkan perwakilan K3LL yang memenuhi kriteria Perusahaan di lokasi pekerjaan. Tanggung jawab utama perwakilan K3LL termasuk, tetapi tidak terbatas pada, pemeliharaan dan

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monitoring of the implementation of SHE guidelines and procedures and where required, provide SHE awareness training for the personnel. Such activities shall be approved and actively supported by Contractor's Senior or Corporate management level.

2.5. Training and Competence

Contractor shall ensure that its personnel and its Sub-Contractor's personnel are trained and competence to perform the work in a safe, healthy and environmentally responsible manner.

Such training and demonstration of competence will include but not limited to vocational, safety, emergency, environmental and other training required by regulatory authorities. Contractor's senior staff shall have received training in safety management. Mandatory training course or certificates have to be fully defined in the Contract document.

Contractor shall ensure that all involved personnel receive an sufficient SHE induction.

2.6. Incident Reporting

2.6.1. Contractor shall report all incidents and investigate as necessary or requested by Company. Any incident involving Company's, Contractor's, or any third party's personnel, plant or equipment, shall be reported to Company, whether or not injury to personnel and/or damage/loss to plant or equipment resulted.

The following incidents shall be reported immediately to the On-site Representative(s) of Company:

- damage to property or equipment belonging to Company, third parties, Contractor or Sub-Contractor;
- injury to personnel of Company, third parties, Contractor or sub-Contractor;
- near misses which may have had serious potential consequences;

pengawasan pelaksanaan pedoman dan prosedur K3LL dan apabila diperlukan, mengadakan pelatihan kesadaran terhadap K3LL untuk para personel. Kegiatan - kegiatan tersebut harus disetujui dan secara aktif didukung oleh jajaran tertinggi manajemen perusahaan Kontraktor.

2.5. Pelatihan dan Kecakapan

Kontraktor harus memastikan bahwa personelnnya dan personel Sub-Kontraktor nya telah terlatih dan memiliki kecakapan untuk melaksanakan pekerjaan secara aman, sehat dan bertanggung jawab terhadap lingkungan.

Pelatihan dan bukti kecakapan tersebut termasuk tetapi tidak terbatas pada pelatihan kejuruan, keselamatan, keadaan darurat, lingkungan serta pelatihan-pelatihan lainnya yang dipersyaratkan oleh pihak berwenang. Staf senior Kontraktor harus telah mendapatkan pelatihan dalam pengelolaan keselamatan. Kursus atau sertifikat pelatihan wajib harus dicantumkan secara rinci dalam dokumen Kontrak.

Kontraktor harus memastikan bahwa seluruh personel yang terlibat mendapatkan pengenalan K3LL yang memadai.

2.6. Pelaporan Insiden

2.6.1. Kontraktor harus melaporkan seluruh insiden dan menyelidikinya jika diperlukan atau diminta oleh Perusahaan. Setiap insiden yang melibatkan personel, instalasi atau peralatan Perusahaan, Kontraktor, atau pihak ketiga harus dilaporkan kepada Perusahaan, baik yang menyebabkan atau tidak menyebabkan cedera terhadap personel dan/atau kerusakan/kerugian terhadap instalasi atau peralatan.

Kejadian - kejadian berikut ini harus segera dilaporkan kepada Penanggung Jawab Lapangan Perusahaan:

- kerusakan terhadap harta-benda atau peralatan milik Perusahaan, pihak ketiga, Kontraktor atau Sub-Kontraktor;
- cedera terhadap personel dari Perusahaan, pihak ketiga, Kontraktor atau Sub-Kontraktor;
- nyaris celaka yang mungkin berpotensi menimbulkan akibat yang serius;

- any environmental incident and damage;
- external relation including civil unrest and media coverage.
- fire/explosion cases;
- theft/crimes;
- transportation incident (land, sea and air).

An initial written report, containing factual information, shall be prepared by Contractor and delivered to the Company representative within 24 hours of the incident.

Company reserves the right to participate in the investigation of any incident arising out from the performance of the work.

- segala jenis insiden atau kerusakan lingkungan;
- hubungan masyarakat termasuk demonstrasi massa dan hal yang menjadi perhatian media;
- kasus-kasus kebakaran/ledakan;
- pencurian/kejahatan;
- insiden transportasi (darat, laut dan udara).

Laporan pendahuluan tertulis, yang memuat informasi faktual, harus dibuat oleh Kontraktor dan disampaikan kepada wakil Perusahaan dalam waktu kurang dari 24 jam setelah terjadinya insiden tersebut.

Perusahaan berhak ikut serta dalam penyelidikan setiap insiden yang ditimbulkan dari pelaksanaan pekerjaan.

2.6.2. Contractor and all sub-Contractors shall have an incident reporting and investigation system, details of which shall be included in the SHE Plan.

2.6.2. Kontraktor dan semua Sub-Kontraktor harus memiliki sistem pelaporan dan penyelidikan insiden, yang rinciannya harus tercakup dalam Rencana K3LL.

2.6.3. Contractor shall maintain and submit to Company, a monthly summary of its SHE performance against agreed Key Performance Indicators.

2.6.3. Kontraktor harus memelihara dan menyerahkan kepada Perusahaan laporan bulanan kinerja K3LL berdasarkan Indikator Kunci Kinerja yang telah disepakati.

2.6.4. Contractor shall prepare and submit to Company, a weekly report stating all incidents and near misses that occurred during that week.

2.6.4. Kontraktor harus membuat dan menyerahkan kepada Perusahaan laporan mingguan yang menyebutkan semua insiden dan nyaris celaka yang terjadi selama minggu tersebut.

2.7. Safety Equipment & Personal Protective Equipment (PPE) Requirements

2.7. Persyaratan Peralatan Keselamatan Kerja & Alat Pelindung Diri (APD)

2.7.1. Contractor shall ensure that PPE provided to its employees fulfills the National and/or International Industrial Standard.

2.7.1. Kontraktor harus memastikan bahwa APD yang diberikan kepada karyawannya memenuhi Standar Industri Nasional dan/atau Internasional.

2.7.2. The Contractor shall, at its own expense, be responsible to provide its personnel with Company's approved PPE suitable for the task being carried out.

2.7.2. Kontraktor harus, atas biaya sendiri, bertanggung jawab menyediakan untuk personelnnya APD yang disetujui oleh Perusahaan yang sesuai untuk tugas yang dikerjakan.

2.7.3. Contractor shall ensure that its personnel and/or Sub-Contractor's personnel wear the appropriate PPE when either

2.7.3. Kontraktor harus memastikan bahwa personelnnya dan/atau personel Sub-Kontraktor menggunakan APD yang sesuai

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<p>engaged in work or when in the worksite area where such equipment is required referring to site specific regulations.</p> <p>2.7.4. All PPE shall be adequately inspected and maintained “fit-for-purpose” and personnel appropriately trained in its use.</p> <p>2.7.5. Any defective PPE shall be replaced without delay. Personnel without correct and proper PPE shall not be allowed to continue work until the replacement of such PPE has been provided.</p> <p>2.7.6. Contractor shall explain details in the SHE Plan of the PPE proposed to be provided to its personnel. This proposal should include the arrangements for replacement (due to wear and tear and damage) of this equipment.</p> <p>2.8. Emergency Preparedness</p> <p>2.8.1. Contractor and its sub-Contractor shall have emergency preparedness and Emergency Response Plans and Procedures (“ERP”) that are available at all times throughout the duration of the Contract.</p> <p>2.8.2. Contractor shall take all necessary measures to ensure that:</p> <ul style="list-style-type: none"> (i) Potential emergency situations have been identified and assessed; (ii) An ERP, including clear distribution of responsibilities, is established; (iii) Contractor’s management, personnel and third parties are aware of ERP procedure and their responsibilities in accordance with ERP; (iv) Regular drills and exercises are carried out to test the ERP and that any result and issues are properly addressed. <p>2.8.3. Contractor shall notify Company immediately with respect to any emergency situation and shall provide regular updates on ERP and its tests.</p>	<p>ketika melakukan pekerjaan atau ketika berada di wilayah lokasi pekerjaan di mana peralatan tersebut dibutuhkan merujuk kepada peraturan khusus lapangan.</p> <p>2.7.4. Seluruh APD harus diperiksa dan dirawat secara memadai sehingga “sesuai untuk tujuan penggunaan” dan para personel dilatih dengan baik dalam menggunakannya.</p> <p>2.7.5. Setiap APD yang cacat/rusak harus diganti dengan segera. Personel yang tidak menggunakan APD yang benar dan sesuai tidak diperbolehkan melanjutkan pekerjaan sampai pengganti APD tersebut diberikan.</p> <p>2.7.6. Kontraktor harus menjelaskan secara rinci dalam Rencana K3LL tentang APD yang diusulkan untuk disediakan bagi personelnnya. Usulan tersebut harus mencantumkan pengaturan tentang penggantian (karena penggunaan dan kerusakan) peralatan tersebut.</p> <p>2.8. Persiapan Keadaan Darurat</p> <p>2.8.1. Kontraktor dan Sub-Kontraktornya harus memiliki prosedur kesiapan tanggapdarurat dan Rencana dan Prosedur Tanggap Darurat (“RTD”) yang tersedia setiap saat selama jangka waktu Kontrak.</p> <p>2.8.2. Kontraktor harus mengambil semua langkah yang diperlukan untuk memastikan bahwa:</p> <ul style="list-style-type: none"> (i) Situasi darurat yang mungkin timbul telah diidentifikasi dan ditelaah; (ii) RTD , termasuk pembagian tanggung jawab yang jelas, telah ditetapkan; (iii) Manajemen, personel dan pihak ketiga Kontraktor mengetahui tentang prosedur RTD dan tanggung jawabnya; (iv) Latihan-latihan secara berkala dilaksanakan untuk menguji RTD dan bahwa setiap permasalahan yang timbul ditangani dengan baik. <p>2.8.3. Kontraktor harus segera memberitahukan kepada Perusahaan tentang setiap situasi darurat dan akan memberikan <i>up-date</i> berkala mengenai RTD dan pengujiannya.</p>
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2.8.4. Contractor shall explain details in the SHE Plan of a list of potential contingencies for which ERP are planned. The SHE Plan should also detail a schedule of proposed exercises and drills to verify the effectiveness of the proposed arrangements in place.

Development and implementation of the above plan shall incorporate any Company's assigned personnel to the project.

2.8.5. Contractor shall assist Company to create the "**Bridging Document**" to indicate and clarify the agreed communication and coordination links between Contractor emergency response plan and Company. The document has to be signed by both parties.

2.9. **Safety Drill**

Contractor shall ensure that its personnel are thoroughly familiar with all site alarms, muster station and evacuation devices allocation. This should be an integral part of the site induction process.

Contractor's personnel should rapidly acquire a thorough knowledge of site escape routes including alternative routes if the primary routes happen to be blocked.

All Contractor personnel working at worksite shall participate in appropriate emergency drills and emergency response training (e.g. fire, muster and evacuation drills, gas leaks, civil unrest, man overboard and abandon drill for offshore operations, and others).

2.10 **Meetings**

In order to clarify Company's SHE expectations of Contractor and to develop the SHE Plan for the work, the following meetings shall be convened:

2.8.4. Kontraktor harus menjelaskan secara rinci di dalam Rencana K3LL-nya daftar potensi keadaan darurat akan yang menjadi landasan dibuatnya RTD. Rencana K3LL juga harus menjabarkan jadwal latihan-latihan yang diusulkan untuk membuktikan keefektifan dari pengaturan yang ditetapkan.

Pembuatan dan pelaksanaan rencana tersebut di atas harus mengikutsertakan setiap personel Perusahaan yang ditugaskan oleh Perusahaan ke dalam proyek.

2.8.5. Kontraktor harus membantu Perusahaan untuk menyusun "**Dokumen Penghubung**" untuk mengindikasikan dan menjelaskan hubungan komunikasi dan koordinasi yang disetujui antara rencana tanggap darurat Kontraktor dengan Perusahaan. Dokumen tersebut harus ditandatangani oleh kedua belah pihak.

2.9. **Latihan Keselamatan Kerja**

Kontraktor harus memastikan bahwa personelnnya mengenal baik semua tanda bahaya di lokasi, tempat berkumpul dan alokasi peralatan evakuasi. Hal ini harus merupakan satu kesatuan dari proses pengenalan lokasi.

Personel Kontraktor harus dengan cepat memiliki pengetahuan yang baik terhadap jalan keluar lokasi termasuk jalan alternatif apabila jalan utama tertutup.

Seluruh Personel Kontraktor yang bekerja di lokasi kerja harus ikut serta dalam latihan darurat dan pelatihan tanggap darurat (mis. kebakaran, latihan berkumpul dan evakuasi, kebocoran gas, demonstrasi massa, orang jatuh ke laut dan pelatihan meninggalkan anjungan/kapal untuk operasi lepas pantai, dan lainnya).

2.10 **Rapat-Rapat**

Untuk menjelaskan harapan K3LL Perusahaan terhadap Kontraktor dan untuk membuat Rencana K3LL untuk pekerjaan, rapat-rapat berikut ini harus dilakukan:

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| <p>2.10.1. Initial SHE Management Meeting (kick off meeting)</p> <p>Attended by Company's and Contractor's management representatives and SHE responsible person. During this meeting, the SHE Plan will be discussed, specific action items will be identified and responsibilities for follow-up determined.</p> | <p>2.10.1. Rapat Awal Manajemen K3LL (kick off meeting)</p> <p>Dihadiri oleh wakil manajemen dan penanggung jawab K3LL dari masing-masing Perusahaan dan Kontraktor. Dalam rapat ini, Rencana K3LL akan dibahas, tindakan-tindakan khusus diidentifikasi, dan tanggung jawab untuk tindakan lanjutan terhadap temuan akan ditetapkan.</p> |
| <p>2.10.2. SHE Planning Meeting</p> <p>Attended by Company's and Contractor's representatives and SHE responsible person as proposed. Scheduled after the initial SHE management meeting and before commencing the work. At this meeting, Contractor will provide a specific SHE Plan for Company review. The outcome of the meeting will be a list of action items, time for completion, and assigned responsibilities for completion and acceptance. Company will review the information presented and will respond in a timely manner.</p> | <p>2.10.2. Rapat Perencanaan K3LL</p> <p>Dihadiri oleh para wakil Perusahaan dan Kontraktor serta penanggung jawab K3LL sebagaimana diusulkan. Dijadwalkan setelah rapat awal manajemen K3LL dan sebelum pekerjaan dimulai. Kontraktor dalam rapat ini akan menyajikan RencanaK3LL khusus untuk dikaji oleh Perusahaan. Hasil rapat akan berupa daftar poin-poin tindakan, waktu penyelesaian, dan tanggung jawab yang diberikan untuk penyelesaian dan penerimaan. Perusahaan akan mengkaji informasi yang disajikan dan akan memberi tanggapan tepat pada waktunya.</p> |
| <p>2.10.3. Performance Review Meeting</p> <p>Attended by Company's and Contractor's representatives. SHE performance should be a routine agenda item on Contract review meeting.</p> | <p>2.10.3. Rapat Peninjauan Kinerja</p> <p>Dihadiri oleh para wakil Perusahaan dan Kontraktor. Kinerja K3LL merupakan poin agenda rutin pada rapat peninjauan Kontrak.</p> |
| <p>2.10.4. Regular SHE Meeting</p> <p>All Contractor's and Sub-Contractor's personnel and Company's representative(s) shall attend SHE meetings on a regular basis. Company's representative shall be given a copy of the minutes of the meetings. Attention shall be given to provide adequate translation of all meetings contents, for non-English speaking personnel.</p> | <p>2.10.4. Rapat K3LL berkala</p> <p>Semua personel Kontraktor dan Sub-Kontraktor dan wakil (-wakil) Perusahaan harus menghadiri rapat K3LL secara teratur. Perwakilan Perusahaan harus diberikan salinan berita acara rapat-rapat tersebut. Perhatian harus diberikan untuk menyediakan terjemahan yang memadai dari semua hasil rapat untuk personel yang tidak dapat berbahasa Inggris.</p> |
| <p>2.11. Health</p> | <p>2.11. Kesehatan</p> |
| <p>2.11.1. Contractor shall, as a minimum, conduct the work and provide personnel, equipment, facilities and services consistent with the good industrial practice and national standard and regulations.</p> | <p>2.11.1. Kontraktor harus, paling tidak, melaksanakan pekerjaan dan menyediakan personel, peralatan, sarana dan jasa yang sesuai dengan praktik industri yang baik sesuai dengan standar serta peraturan nasional yang berlaku.</p> |

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<p>An assessment of the worksite with regard to “occupational health risks” and “local medical support” shall be provided by Contractor in the SHE Plan. The assessment result shall be discussed with Company, and a final assessment will be agreed by both parties.</p>	<p>Penilaian tentang lokasi pekerjaan berkaitan dengan “risiko kesehatan kerja” dan “dukungan medis setempat” harus disediakan oleh Kontraktor dalam Rencana K3LL. Hasil penilaian tersebut harus dibahas dengan Perusahaan, dan penilaian akhir akan disepakati oleh kedua belah pihak.</p>
<p>2.11.2. To ensure the fitness of personnel engaged in the work, Contractor shall conduct periodic medical examinations of its personnel refer to site specific regulation.</p> <p>Contractor shall also ensure that its Sub-Contractor’s personnel are subject to periodic medical examination. As a minimum this shall include pre-hire medical examinations and regular medical examinations. Evidence should be made available to Company to ensure that all Contractor’ personnel are suitable for the work and job location. Detail of medical check up will be determined by Company.</p> <p>Personnel who are returning from serious sickness or hospitalization must obtain medical clearance from Company’s doctor before returning to assume his/her job.</p>	<p>2.11.2. Untuk memastikan kebugaran personel yang terlibat dalam pekerjaan, Kontraktor harus melaksanakan pemeriksaan kesehatan secara berkala terhadap para personelnnya merujuk pada peraturan khusus lapangan.</p> <p>Kontraktor juga harus memastikan bahwa personel Sub-Kontraktornya menjalani pemeriksaan kesehatan secara berkala. Sekurang-kurangnya, hal tersebut mencakup pemeriksaan kesehatan sebelum menjadi pegawai dan pemeriksaan kesehatan berkala. Bukti harus disediakan kepada Perusahaan untuk memastikan bahwa semua personel dari kontraktor sesuai untuk pekerjaan dan lokasi pekerjaan tersebut. Detail pemeriksaan kesehatan akan ditentukan oleh Perusahaan.</p> <p>Untuk personel yang baru mengalami sakit serius atau dirawat di rumah sakit harus mendapatkan keterangan medis dari Dokter Perusahaan sebelum kembali melakukan pekerjaannya.</p>
<p>2.11.3. Contractor shall be responsible for the cost of medical examinations as required and to provide Company with medical certificates which confirm the fitness of Contractor’s assigned personnel for the work.</p>	<p>2.11.3. Kontraktor bertanggung jawab atas biaya pemeriksaan kesehatan sebagaimana yang diperlukan dan memberikan surat keterangan medis kepada Perusahaan yang menegaskan kebugaran personel yang ditugaskan Kontraktor untuk melaksanakan pekerjaan.</p>
<p>2.11.4. Contractor shall provide sufficient first aid kits for their own purpose. Contractor shall, at no cost to Company, be responsible for the medical welfare of its own and Sub-Contractor’s personnel.</p> <p>Contractor and its Sub-Contractor shall take care of arrangements for medical attendance, treatment or hospitalization if and when necessary and will arrange suitable insurance coverage for such contingencies.</p>	<p>2.11.4. Kontraktor harus menyediakan peralatan P3K yang memadai untuk mereka sendiri. Kontraktor harus, tanpa membebani Perusahaan, bertanggung jawab atas kesehatan personelnnya sendiri dan personel Sub-Kontraktor.</p> <p>Kontraktor dan Sub-Kontraktornya harus menangani pengaturan pelayanan kesehatan, perawatan atau perawatan rumah sakit jika dan apabila diperlukan dan akan mengurus perlindungan asuransi yang sesuai untuk hal-hal darurat tersebut.</p>

2.12. Drugs and Alcohol Abuse and Control

- a. Abuse of drugs, alcohol and/or other prohibited substances (“Prohibited Substance”) is a global concern that demands attention from all parts of society, including industry.
- b. Abuse of Prohibited Substance may lead to serious property damage, loss of life, injury, accidents, work performance deterioration or other job performance problems.
- c. Contractors’ employees and any individuals assigned to work in the Company facilities shall not operate equipment or perform their duties whilst impaired by the use of any Prohibited Substance.
- d. Contractor’s Employees and any individuals working for the Company **are not permitted** to:
 - (1) Possess, consume, purchase or sell alcohol on any Company operating facilities. Exceptions to this rule may be approved by the Company General Manager.
 - (2) Possess, use, purchase, sell, or distribute illegal drugs or other Prohibited Substance on any Company operated facilities.
- e. Company reserves the right to:
 - 1) require all contractors to pass physical examinations which include tests for Prohibited Substances;
 - 2) require all personnel who work in or manage defined safety and/or environmentally sensitive operations to be subjected to frequent random Prohibited Substance testing programs;
 - 3) search the personal effects of Contractor, and individuals assigned to work for the company for Prohibited

2.12. Penyalahgunaan dan Pengawasan Obat-Obatan Terlarang dan Minuman Keras

- a. Penyalahgunaan obat-obatan terlarang, minuman keras, dan/atau zat-zat terlarang lainnya (“Zat Terlarang”) merupakan wacana global yang membutuhkan perhatian dari seluruh lapisan masyarakat termasuk industri.
- b. Penyalahgunaan Zat Terlarang dapat mengarah kepada kerusakan serius terhadap harta-benda, kehilangan nyawa, cedera, kecelakaan, penurunan kinerja atau masalah kinerja lainnya.
- c. Karyawan Kontraktor dan semua individu yang ditugaskan bekerja dalam fasilitas Perusahaan tidak boleh mengoperasikan peralatan atau melaksanakan tugas-tugas mereka ketika sedang berada dalam pengaruh Zat Terlarang apapun..
- d. Karyawan Kontraktor dan semua individu yang bekerja untuk Perusahaan **dilarang** untuk:
 - (1) Memiliki, mengkonsumsi, membeli, atau menjual alkohol di seluruh fasilitas operasi Perusahaan. Pengecualian terhadap peraturan ini dapat disetujui oleh General Manajer Perusahaan.
 - (2) Memiliki, memakai, membeli, menjual, atau mengedarkan obat-obatan atau Zat terlarang di seluruh fasilitas Perusahaan.
- e. Perusahaan berhak untuk:
 - (1) mensyaratkan semua Kontraktor untuk lulus pemeriksaan kesehatan termasuk tes untuk Zat Terlarang.
 - (2) mensyaratkan seluruh personel yang bekerja atau yang menangani kegiatan operasi yang sensitif terhadap keselamatan dan/atau lingkungan lingkungan untuk diikuti program pengetesan Zat Terlarang secara berkala dan acak.
 - (3) melakukan pencarian terhadap kepemilikan Zat Terlarang terhadap Kontraktor dan seluruh pekerja yang berada di lokasi kerja

Substances on Company's worksite, with a proper reason and good faith;

Perusahaan dengan alasan yang wajar dan itikad baik;

4) test employees of Contractor, and individuals assigned to work for the company for the presence of Prohibited Substances in Company's worksite if there is a reasonable suspicion.

(4) melakukan tes terhadap karyawan Kontraktor dan individu yang ditugaskan untuk bekerja bagi Perusahaan sehubungan dengan keberadaan Zat Terlarang di lingkungan kerja Perusahaan, apabila terdapat kecurigaan yang beralasan.

f. All Contractors' employees must comply with the provisions in this Clause 2.12. Those who do not comply with this Clause 2.12 will not be allowed to work at Company facilities. Similar disciplinary action should be taken by the Contractor for any violation by its employees of this Clause 2.12.

f. Seluruh karyawan Kontraktor harus tunduk pada ketentuan pada Pasal 2.12 ini. Mereka yang tidak mematuhi Pasal 2.12 ini tidak akan diperbolehkan untuk bekerja di lingkungan Perusahaan. Tindakan disiplin yang serupa harus dilakukan oleh Kontraktor untuk setiap pelanggaran oleh karyawannya terhadap Pasal 2.12 ini.

2.12.1. Contractor shall obtain valid written consent of its personnel to search property of such personnel when Company suspects that such personnel have in their possession Prohibited Substance or any other item likely to prejudice safety or security. Company will provide a representative to attend the search.

2.12.1. Kontraktor harus memperoleh persetujuan tertulis yang sah dari personelnya untuk menggeledah harta-benda personel tersebut apabila Perusahaan mencurigai bahwa personel tersebut memiliki Zat Terlarang atau barang lain apa pun yang dapat mempengaruhi keselamatan atau keamanan. Perusahaan akan menyediakan seorang wakil untuk menyaksikan penggeledahan tersebut.

2.12.2. Contractor shall obtain valid written consent of its personnel to perform medical testing for the presence of Prohibited Substances.

2.12.2. Kontraktor harus memperoleh persetujuan tertulis yang sah dari personelnya untuk melakukan uji medis atas ditemukannya Zat Terlarang.

2.12.3. Contractor further agrees that any personnel who refuse to provide such consent or consents or withdraws such consent or consents, at Company's option, be removed from the work and shall not, at Company's option, be assigned to any future services to be provided by Contractor for Company.

2.12.3. Kontraktor selanjutnya setuju bahwa setiap personel yang menolak untuk memberikan persetujuan atau persetujuan-persetujuan tersebut atau menarik kembali persetujuan atau persetujuan-persetujuan tersebut, atas opsi Perusahaan, dikeluarkan dari pekerjaan dan tidak akan, atas opsi Perusahaan, ditugaskan untuk jasa apa pun yang akan diberikan Kontraktor kepada Perusahaan di masa yang akan datang.

2.12.4. Contractor further agrees that it shall immediately notify Company in the event that Contractor becomes aware that any of its personnel has been found in possession of Prohibited Substance. Contractor is required to notify Company in the event that any personnel provided for the work have previously been found

2.12.4. Kontraktor selanjutnya setuju bahwa Kontraktor akan segera memberitahukan kepada Perusahaan apabila Kontraktor mengetahui bahwa salah seorang personelnya telah ditemukan memiliki Zat Terlarang. Kontraktor wajib memberitahukan kepada Perusahaan apabila salah seorang personelnya yang

in possession, or have abused Prohibited Substance at the worksite. The acceptance of such personnel for the work shall be at the sole discretion of Company.

disediakan untuk kepentingan pekerjaan sebelumnya pernah ditemukan memiliki, atau menyalahgunakan Zat Terlarang di lokasi kerja. Penerimaan personel tersebut untuk kepentingan pekerjaan menjadi keputusan Perusahaan.

2.13 Environment

2.13 Lingkungan

2.13.1. Contractor shall comply with all laws, rules and regulations of governmental agencies having jurisdiction, which now exist or may be promulgated during the term of the Contract, relating to the control and prevention of damage to the environment.

2.13.1. Kontraktor harus mematuhi semua undang-undang, aturan dan peraturan instansi pemerintah yang memiliki wilayah hukum, yang ada saat ini atau mungkin diundangkan selama jangka waktu Kontrak, yang berkaitan dengan pengendalian dan pencegahan kerusakan terhadap lingkungan.

2.13.2. Contractor shall notify Company immediately with respect to any pollution, loss, damage, claim or demand (or occurrence which may give rise to same) resulting from the work performed under the Contract. Contractor shall report to Company any incidents of non-compliance with legislative and regulatory environmental requirements that occur during the performance of the work.

2.13.2. Kontraktor harus dengan segera memberitahukan kepada Perusahaan tentang polusi, kerugian, kerusakan, klaim atau tuntutan apa pun (atau peristiwa yang dapat menimbulkan hal tersebut) yang timbul dari pekerjaan yang dilakukan berdasarkan Kontrak. Kontraktor harus melaporkan kepada Perusahaan tentang setiap peristiwa ketidakpatuhan terhadap persyaratan perundang-undangan dan persyaratan pengaturan lingkungan yang terjadi selama pelaksanaan pekerjaan.

2.13.3. Without relieving Contractor of any of its obligations under Clause 2.13.1., if Contractor does not promptly proceed to perform its obligations under Clause 2.13.1, Company may take part to any degree it deems necessary in the control and removal of any pollution, dumping, spillage or contamination which is the responsibility of Contractor under the laws, rules and/or regulations mentioned in Clause 2.13.1 or which is due to any act or omission of Contractor. Contractor shall reimburse Company for costs arising from such actions of Company upon receipt of invoice from Company. Company shall have the right to deduct such costs from any sum due or becoming due to Contractor under the Contract.

2.13.3. Tanpa membebaskan Kontraktor dari kewajiban-kewajibannya berdasarkan Pasal 2.13.1., apabila Kontraktor tidak dengan segera melaksanakan kewajiban-kewajibannya berdasarkan Pasal 2.13.1 , sampai pada tingkat yang dianggap perlu dan memadai, Perusahaan dapat mengambil bagian di dalam pengendalian dan pembersihan polusi, buangan, tumpahan atau kontaminasi apa pun yang merupakan tanggung jawab Kontraktor berdasarkan undang-undang, aturan dan/atau peraturan yang disebut dalam Pasal 2.13.1 , atau yang disebabkan oleh tindakan atau kelalaian apa pun dari Kontraktor. Kontraktor harus memberikan penggantian kepada Perusahaan atas biaya yang timbul dari tindakan-tindakan Perusahaan tersebut setelah tagihan dari Perusahaan diterima. Perusahaan berhak untuk memotong biaya tersebut dari setiap jumlah yang harus dibayarkan atau menjadi harus dibayarkan kepada Kontraktor berdasarkan Kontrak.

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| <p>2.13.4. Contractor shall operate a management system that is able to demonstrate compliance with environmental laws, rules and regulations applicable to its activities, products and services.</p> | <p>2.13.4. Kontraktor harus mengoperasikan sistem manajemen yang mampu menunjukkan kepatuhan terhadap undang-undang, aturan dan peraturan tentang lingkungan yang berlaku terhadap kegiatan-kegiatan, produk-produk dan jasa-jasanya.</p> |
| <p>2.13.5. Contractor and Sub-Contractor shall take all necessary steps to ensure that the environmental impacts of their work are responsibly managed and shall take all necessary measures to ensure that:</p> <ul style="list-style-type: none"> (i) Contractor's personnel are aware of the environmental impact of the Contractor's work and are sufficiently trained and competent to perform the work. (ii) Contractor's personnel operate systems, which will ensure that significant environmental impacts of work are identified and managed in accordance with a commitment to legal compliance and continual improvement. (iii) The environmental risks associated with the work are evaluated and appropriate actions are taken to prevent accidents and reduce pollution, and that contingency plans are in place in the event of an incident. (iv) Contractor will have adequate processes for monitoring the environmental performance of their work. | <p>2.13.5. Kontraktor dan Sub-Kontraktor harus mengambil semua langkah yang diperlukan untuk memastikan bahwa dampak-dampak lingkungan dari pekerjaan mereka ditangani secara bertanggung jawab dan akan mengambil semua langkah yang diperlukan untuk memastikan bahwa:</p> <ul style="list-style-type: none"> (i) Personel Kontraktor mengetahui dampak lingkungan dari pekerjaan Kontraktor dan cukup terampil serta memiliki kompetensi untuk melaksanakan pekerjaan. (ii) Personel Kontraktor mengoperasikan sistem, yang akan memastikan bahwa dampak-dampak penting lingkungan dari pekerjaan diidentifikasi dan ditangani sesuai dengan komitmen terhadap kepatuhan hukum dan perbaikan yang berkelanjutan. (iii) Risiko lingkungan yang berkaitan dengan pekerjaan dievaluasi dan mengambil tindakan-tindakan yang tepat untuk mencegah kecelakaan dan mengurangi polusi, dan memastikan tersedianya rencana keadaan darurat apabila terjadi insiden. (iv) Kontraktor akan melakukan proses pemantauan yang memadai terhadap kinerja lingkungan dari pekerjaan mereka. |
| <p>2.13.6. Contractor shall be responsible for collecting all of their waste, rubbish, food scraps and other discarded material relating to the work onboard in Company's work site or project unit. Such activities shall be performed on a regular basis as per site specific requirement. Such material shall be appropriately disposed of in accordance with methods established by Contractor.</p> | <p>2.13.6. Kontraktor bertanggung jawab untuk mengumpulkan limbah, sampah, sisa makanan dan bahan buangan lainnya yang berkaitan dengan pekerjaan di wilayah kerja Perusahaan atau unit proyek. Kegiatan-kegiatan tersebut harus dilaksanakan secara rutin menurut aturan khusus lapangan. Bahan tersebut akan dibuang dengan baik sesuai dengan metode yang ditetapkan oleh Kontraktor.</p> |
| <p>2.13.7. Contractor shall follow all applicable government environment rregulations and site specific requirements that</p> | <p>2.13.7. Kontraktor harus mengikuti seluruh peraturan negara tentang lingkungan dan semua persyaratan khusus lapangan</p> |

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didn't mentioned in this SHE Requirements.

yang tidak disebutkan dalam Persyaratan K3LL ini.

CHAPTER 3A / BAB 3A (USED ONLY FOR NON DRILLING)
SITE SPECIFIC SHE RULES / PERATURAN K3LL KHUSUS LAPANGAN

<p>3A.1. Mandatory Training</p> <p>For Company's field personnel, mandatory trainings will be basic fire fighting & basic first aid / medical care training.</p>	<p>3A.1. Mandatory Ttraining</p> <p>Untuk para karyawan lapangan Perusahaan, pelatihan yang wajib adalah pelatihan <i>basic fire fighting & basic first aid / medical care</i>.</p>
<p>3A.2. Accident Prevention Responsibility</p> <p>Each individual is responsible for accident prevention. It is the responsibility of Company's employees, contractors, visitors, suppliers, vendors to correct and or report to their respective supervisor any unsafe conditions or practices/acts that may be observed in the workplace.</p>	<p>3A.2. Tanggung Jawab Pencegahan Kecelakaan</p> <p>Setiap orang bertanggung jawab mencegah terjadinya kecelakaan. Setiap karyawan, kontraktor, tamu, kontraktor dari Perusahaan bertanggung jawab untuk memperbaiki dan atau melaporkan kepada penyelia mereka masing-masing, setiap keadaan/kondisi atau praktek/tindakan yang tidak aman yang dapat teramati di tempat kerja.</p>
<p>3A.3. Id Badge</p> <p>A Company ID badge shall be worn within Company premises by all employees, contractors, suppliers, vendors and visitors.</p>	<p>3A.3. Tanda Pengenal</p> <p>Tanda pengenal Perusahaan harus selalu dikenakan selama berada di area Perusahaan oleh semua karyawan, Kontraktor, supplier, vendor dan tamu.</p>
<p>3A.4. Reporting Personal Injuries</p> <p>All on-the-job personal injuries, near misses, even of a minor nature, must be reported to the employee's supervisor no later than the end of the shift in which the injury occurred.</p>	<p>3A.4. Pelaporan Cidera Perorangan</p> <p>Semua cedera akibat kecelakaan kerja, atau kasus nyaris-terjadi, bahkan kejadian kecil sekalipun yang menimpa seseorang harus dilaporkan kepada penyelia karyawan yang bersangkutan, paling lambat di akhir setiap <i>shift</i> pada saat terjadinya kecelakaan.</p>
<p>3A.5. Hydrogen Sulphide</p> <p>H2S is a poisonous gas which has the potential to kill.</p> <p>Evaluate each job for H2S hazards before starting and while doing the work.</p> <p>Use H2S detection equipment anytime you suspect H2S might be present.</p> <p>Never work alone in an area where you suspect H2S might be present. Use "Buddy System".</p> <p>Do not enter the cooling tower deck, any cellars or basement without a permit</p>	<p>3A.5. Hidrogen Sulfida</p> <p>Gas H2S adalah gas beracun yang berpotensi untuk mematikan.</p> <p>Evaluasi setiap pekerjaan sehubungan dengan bahaya gas H2S sebelum dan ketika bekerja dilapangan.</p> <p>Gunakan alat pendeteksi gas H2S setiap saat anda mencurigai adanya gas H2S.</p> <p>Jangan pernah bekerja sendirian di tempat yang anda curigai gas H2S. Gunakan "Buddy System".</p> <p>Jangan memasuki dek <i>cooling tower</i>, gudang bawah tanah atau <i>basement</i> tanpa ijin dari</p>

from Operation Control Room.

Operation Control Room.

3A.6. Smoking

Smoking is prohibited in all enclosed-facilities and common work areas without exception. This includes, but is not limited to, all buildings, shops, private offices, conference and meeting rooms, lounges and eating rooms, restrooms, hallways, stairs, vehicles, and any other areas posted with "no smoking" signs. This policy applies to all employees, contractors, vendors, suppliers, and visitors.

3A.6. Merokok

Merokok dilarang di seluruh fasilitas tertutup dan area kerja, tanpa terkecuali. Yang dimaksud disini termasuk, tapi tidak terbatas pada, semua bangunan, bengkel, ruang kerja pribadi, ruang konferensi dan ruang rapat, ruang istirahat dan ruang makan, kamar kecil, lorong, tangga, kendaraan dan daerah lain yang bertanda "Dilarang Merokok". Peraturan ini berlaku untuk semua karyawan, kontraktor, vendor, supplier dan tamu.

3A.7. Safe Work Permit

A Permit-To-Work System is applied to designated operating areas, including LOTO, Confined Space Entry, Hot Work, and Excavation.

3A.7. Izin Bekerja Dengan Aman

Sistem Ijin Bekerja diberlakukan di tempat-tempat kegiatan operasi tertentu, termasuk *LOTO* (ijin penguncian), bekerja di tempat dengan akses terbatas, *Hot Work* (pekerjaan dengan potensi kebakaran/ledakan), penggalian.

3A.8. Clothing

All employees (including contractors' employees) shall be clothed in a proper manner that will not impair their safety.

3A.8. Pakaian

Semua karyawan (termasuk karyawan kontraktor) harus berpakaian dengan cara yang tepat sehingga tidak membahayakan keselamatan mereka.

3A.9. Eye And Face Protection

Eye/face protection (goggles, safety glasses, or face shield/hood) shall be worn at designated locations and work areas, dictated by the PPE procedure (i.e. doing grinding). General exceptions would also apply to some other areas that are less hazardous, such as in all building/closed facilities, vehicle, or general/public open areas (i.e. parking areas, part of wellpad). All Contractor personnel shall always be equipped with safety glasses.

3A.9. Pelindung Mata Dan Muka

Pelindung mata/wajah (kaca mata besar, kaca mata pengaman, atau penutup muka) harus selalu dikenakan di lokasi-lokasi tertentu dan area kerja yang telah ditentukan oleh prosedur APD (contohnya peng-gerinda-an). Pengecualian umum juga berlaku untuk daerah-daerah yang tidak terlalu berbahaya/rawan, misalnya semua bangunan/fasilitas tertutup, kendaraan, atau area terbuka untuk umum/publik (seperti: tempat parkir, sebagian *wellpad*).

3A.10. Hearing Protection

Hearing protection (earplug or earmuff) shall be worn when working in designated high level noise areas (i.e. gas removal system, turbine deck of Power Station), or when using tools or equipment producing high level noise. All Contractor personnel shall always be equipped with ear plugs.

3A.10. Pelindung Pendengaran

Pelindung pendengaran (penyumbat telinga atau penutup telinga) harus digunakan saat bekerja di area-area tertentu yang mempunyai tingkat kebisingan yang tinggi (misalnya: *gas removal system, turbine deck* di *Power Station*), atau ketika menggunakan peralatan atau perlengkapan yang mengeluarkan kebisingan tingkat tinggi.

3A.11. Protective Footwear

Footwear (safety shoes/boots) shall

3A.11. Sepatu Keselamatan

Sepatu (*sepatu/boot* keselamatan) harus selalu

always be worn at all times when working in all operating and or construction areas.

3A.12. Safety Hats/Helmet

Safety hats/helmet must always be worn at all times when working in all operating and or construction areas, except when in less hazardous areas, such as in all building/closed facilities, vehicle, or general/public open areas (i.e. parking areas).

3A.13. Safety Harness

Safety harnesses must be worn when working in areas more than 1.5 meters above the working surface, or as prescribed by applicable work rules or regulations.

3A.14. Hazardous Chemicals

Proper safety equipment and or PPE, as prescribed by Material Safety Data Sheet, must be utilized when handling hazardous chemicals.

Disposal of hazardous chemicals shall be in accordance with applicable Company regulatory requirements.

3A.15. Safe Driving

Each worker (including Company employees, contractors, visitors, vendors) shall drive with caution and follow traffic signs. These rules also apply within the Company Project Area when workers are commuting to and from their place of work.

Maximum speed limits are (except where stated otherwise):

- Power Station area: 20 km/h
- All roads within Company area: 30 km/h
- Road between then nearest town roads to site: 60 km/h
- Toll roads: 100 km/h

Where driving conditions are poor or vision limited, proceed with caution at a safe rate of speed and are watchful for other moving equipment.

dikenakan setiap waktu pada saat bekerja di area-area kegiatan operasi dan atau konstruksi.

3A.12. Topi Keselamatan/Helm

Topi/helm keselamatan harus selalu dikenakan pada saat bekerja di daerah kegiatan operasi dan atau konstruksi, kecuali pada saat berada di daerah-daerah yang tidak terlalu berbahaya/rawan, misalnya semua bangunan/fasilitas tertutup, kendaraan, atau area-area terbuka untuk umum/publik (seperti tempat parkir).

3A.13. Sabuk Pengaman Ketinggian

Sabuk pengaman harus dikenakan pada saat bekerja di area-area dengan ketinggian lebih dari 1,5 meter di atas permukaan kerja, atau seperti yang dijelaskan dalam aturan dan peraturan kerja yang berlaku.

3A.14. Bahan Kimia Berbahaya

Perlengkapan keselamatan diri yang baik, seperti yang sudah ditentukan dalam *Material Safety Data Sheet*, harus digunakan ketika menangani bahan-bahan kimia berbahaya.

Pembuangan bahan-bahan kimia berbahaya harus sesuai dengan persyaratan/peraturan yang berlaku di Perusahaan.

3A.15. Mengemudi Dengan Aman

Setiap karyawan (termasuk pegawai Perusahaan, kontraktor, tamu, vendor) harus mengemudi dengan hati-hati dan mematuhi rambu-rambu lalu lintas.

Kecepatan maksimal adalah (kecuali di nyatakan batas kecepatan yang berbeda):

- *Power Station* area: 20 km/jam
- Semua jalan di area Perusahaan: 30 km/jam
- Jalan antara jalan di kota terdekat ke field: 60 km/jam
- Jalan tol: 100 km/jam

Bilamana kondisi mengemudi kurang baik atau pandangan mata terbatas, jalan dengan hati – hati pada kecepatan yang aman dan waspada terhadap peralatan bergerak yang lainnya.

Drivers should check vehicles safety following a standard checking form before each trip and Contractor's supervisors should review Vehicles and Drivers on a monthly basis or when a new (different) vehicle is used. The review results shall be reported and approved by Company's representative.

Contractor warrants Contractor's drivers' performance records for safety.

Vehicle Seat Belts

All vehicles shall have seat belts installed.

Seat belts must be worn at all times by the driver and all passengers (including passengers on the rear seats where fitted).

Driving License

All drivers must have a current driving license. Drivers who are Company employees or long term contractors who drive in the ordinary course of his/her job are required to concede his/her copy of the current driving license to the designated officer in charge

Unauthorized Passengers

Drivers are not allowed to take passengers not related to Company's business purpose.

Avoidance of Night Driving

Whenever possible night driving should be avoided except for emergency purposes.

Parks the vehicle in the designated area with reverse parking way.

Use of Trucks or Pick-Ups

The rear tray of trucks or pick-ups is for material only. The use for passenger is subject to Field Manager approval on the design and structure.

Avoidance of Use of Motorbikes

Motorbikes shall not be used for business purposes within Company premises. Motorbikes may be used for commuting to and from place of work providing the motobikes comply with Government regulations and crash

Pengemudi harus memeriksa keamanan kendaraan mengikuti formulir pengecekan standar sebelum setiap perjalanan, dan penyelia dari Kontraktor harus mengevaluasi Kendaraan dan Pengemudi setiap bulannya atau apabila suatu kendaraan yang baru (berbeda) dipergunakan. Hasil evaluasi harus dilaporkan & disetujui oleh wakil Perusahaan.

Contractor menjamin catatan kinerja para pengemudi Kontraktor tentang keselamatannya.

Sabuk Pengaman Kendaraan

Seluruh kendaraan harus dilengkapi sabuk pengaman.

Sabuk pengaman harus senantiasa dikenakan oleh supir dan semua penumpangnya (termasuk penumpang di kursi belakang).

Surat Izin Mengemudi (SIM)

Semua pengemudi harus memiliki SIM yang masih berlaku. Pengemudi yang adalah karyawan Perusahaan atau kontraktor jangka panjang yang mengemudikan kendaraan karena pekerjaannya harus menyerahkan copy SIM yang masih berlaku kepada petugas yang ditunjuk bertanggung jawab.

Tumpangan

Pengemudi dilarang memberikan tumpangan kepada penumpang yang tidak ada hubungannya dengan dinas Perusahaan.

Menghindari Berkendara di Malam Hari

Apabila memungkinkan berkendara di malam hari harus dicegah kecuali untuk keperluan yang sifatnya darurat.

Parkir kendaraan di tempat yang telah ditentukan dengan posisi menghadap keluar.

Penggunaan Truk atau Pick-Up

Bak truk atau pick-up hanya untuk barang. Persetujuan Pimpinan Lapangan dalam hal desain dan struktur diperlukan jika digunakan untuk penumpang.

Menghindari Penggunaan Sepeda Motor

Sepeda motor tidak boleh digunakan untuk kepentingan bisnis di area kerja Perusahaan. Sepeda motor hanya boleh digunakan untuk perjalanan ke dan dari tempat kerja serta harus mengikuti peraturan Lalu lintas, dan helm harus digunakan baik oleh pengemudi

helmets are worn by both the rider and passenger. Each motorbike shall not be used by more than 2 (two) persons.

maupun pembonceng. Sepeda motor tidak boleh digunakan oleh lebih dari 2 (dua) orang.

<p>3A.16. Illegal Drugs & Alcoholic Beverages</p> <p>Reporting-to-work under the influence of illegal drugs and or alcohol is strictly prohibited.</p> <p>Possession or consumption of any alcoholic beverages at job-sites is prohibited.</p> <p>Possession of any illegal drugs is strictly not allowed at any field/facility.</p>	<p>3A.16. Obat-Obat Terlarang (Napza) Dan Minuman Beralkohol</p> <p>Masuk bekerja di bawah pengaruh obat-obat terlarang (napza) dan atau alkohol dilarang keras.</p> <p>Dilarang memiliki atau mengkonsumsi minuman beralkohol di lokasi kerja.</p> <p>Memiliki obat-obat terlarang (napza) dilarang keras di semua lapangan/fasilitas.</p>
<p>3A.17. Gambling</p> <p>Any kind of gambling is prohibited within Company area.</p>	<p>3A.17. Perjudian</p> <p>Perjudian dalam bentuk apapun adalah dilarang di semua area Perusahaan.</p>
<p>3A.18. Firearms/Machete</p> <p>Any kind of (unauthorized) fire arm and sword/machete is prohibited within Company area.</p>	<p>3A.18. Senjata Api/Tajam</p> <p>Dilarang membawa segala jenis senjata api dan pedang/senjata tajam (ilegal) yang tidak berhubungan dengan pekerjaan di area Perusahaan.</p>
<p>3A.19. Horseplay</p> <p>Horseplay or practical jokes are not permitted when working.</p>	<p>3A.19. Bersenda Gurau</p> <p>Dilarang bercanda dengan kasar atau bersenda gurau selama bekerja.</p>
<p>3A.20. Suspended Load</p> <p>Do not walk, work or stand under suspended loads. Attach tag lines to guide and control all suspended loads.</p>	<p>3A.20. Muatan Yang Tergantung</p> <p>Jangan berjalan, bekerja atau berdiri di bawah muatan yang tergantung. Pasang tali untuk mengarahkan dan mengontrol muatan tergantung.</p>
<p>3A.21. Electrical</p> <p>Only qualified and assigned employees are allowed to work on electrical lines and related equipment or tools.</p>	<p>3A.21. Listrik</p> <p>Hanya pekerja yang memenuhi kualifikasi dan ditugaskan, yang diijinkan bekerja pada sistem instalasi/transmisi listrik dan peralatan yang berhubungan dengannya.</p>
<p>3A.22. Machinery</p> <p>Repairs on any machinery or equipment shall not be performed until such machinery/equipment is de-energized and or isolated out from the system/process, and the potential release of hazardous stored energy is controlled.</p> <p>Lockout/Tagout procedure must be applied correctly and thoroughly.</p>	<p>3A.22. Mesin</p> <p>Perbaikan pada mesin atau peralatan apapun tidak boleh dilakukan sampai mesin/peralatan tersebut sudah dikeluarkan dan atau di-isolasi dari sistim/proses, dan potensi terlepasnya sumber tenaga berbahaya yang masih mungkin tersimpan sudah bisa dikontrol.</p> <p>Prosedur <i>Lockout/Tagout</i> harus diterapkan dengan benar dan menyeluruh.</p>
<p>3A.23. Guards</p>	<p>3A.23. Alat Pelindung</p>

<p>Guards for belts, couplings, chains, etc., must be in place before starting-up equipment.</p> <p>Guards must not be removed while equipment is in operation.</p> <p>3A.24. House Keeping</p> <p>Each employee (including contractors, visitors, vendors, suppliers) is responsible to keep all working areas (including tools and equipment) clean, neat and orderly.</p> <p>3A.25. Drills</p> <p>Each employee (including contractors / visitors / vendors / suppliers) is required to participate in any emergency drills conducted at Company project area.</p> <p>3A.26. Safety Meetings</p> <p>Each employee is required to attend and participate in Company Communication Plan. Company employees and Contractors's employees are required to attend pre-job safety meetings and routine work group safety briefings.</p> <p>Minutes of pre-job safety meetings and routine safety briefings including attendance list will be kept by each Dept/Section/Contract Supervisor.</p> <p>3A.27. Spill Notification</p> <p>All spills of brine, fuel, oil or any other hazardous/poisonous materials/chemicals must be reported immediately to your supervisor, and or to the designated person in charge.</p> <p>3A.28. Crane/Lifting Equipment</p> <p>All lifting equipment (i.e. mobile crane, overhead crane, etc.) shall regularly be inspected and certified by an authorized institution.</p> <p>Only certified operators are permitted to operate such lifting equipment.</p> <p>3A.29. Compliance With Laws And Regulations</p> <p>All employees (including contractor / visitor / vendor / supplier) shall comply with all pertinent local Company rules and</p>	<p>Alat pelindung untuk ban/sabuk, kopling, rantai, dsb., harus terpasang sebelum peralatan akan dioperasikan.</p> <p>Alat pelindung tidak boleh dilepas selama peralatan beroperasi.</p> <p>3A.24. Pemeliharaan Kebersihan</p> <p>Setiap karyawan (termasuk kontraktor, tamu, vendor, supplier) bertanggung jawab untuk memelihara semua lingkungan kerja (termasuk peralatan dan perlengkapan) bersih, rapi, dan teratur.</p> <p>3A.25. Latihan</p> <p>Setiap pekerja (termasuk kontraktor / tamu / vendor / supplier) wajib berpartisipasi dalam latihan keadaan darurat yang diadakan di lingkungan proyek Perusahaan.</p> <p>3A.26. Rapat Keselamatan Kerja</p> <p>Setiap karyawan diminta untuk hadir dan berpartisipasi dalam Rencana Komunikasi Perusahaan. Karyawan Perusahaan dan karyawan Kontraktor wajib untuk menghadiri <i>pre-job safety meeting</i> dan <i>safety briefing</i> rutin di setiap regu kerja.</p> <p>Risalah rapat dan daftar hadir akan disimpan oleh masing-masing Pengawas di Dept/Section/Penyelia Kontrak.</p> <p>3A.27. Tumpahan Bahan Berbahaya Beracun (B3)</p> <p>Semua tumpahan <i>brine</i>, bahan bakar, minyak, atau bahan-bahan berbahaya/beracun/kimia lain harus segera dilaporkan kepada penyelia yang bersangkutan, dan atau kepada orang yang ditunjuk bertanggung jawab</p> <p>3A.28. Crane/Peralatan Angkat</p> <p>Semua peralatan angkat (misalnya: <i>mobile crane</i>, <i>overhead crane</i>, dll.) harus diperiksa secara rutin, dan dilakukan sertifikasi kelaikan pakainya oleh instansi yang berwenang.</p> <p>Hanya operator-operator yang mempunyai sertifikasi yang diijinkan untuk mengoperasikan peralatan angkat tersebut.</p> <p>3A.29. Kepatuhan Pada Hukum Dan Peraturan</p> <p>Semua pekerja (termasuk kontraktor / tamu / vendor / supplier) harus mematuhi peraturan dan standar kerja Perusahaan serta hukum dan</p>
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standard Indonesian laws and regulations.

Where there are no such requirements in the above-mentioned regulations, common International safety standards and codes (i.e. OSHA, NIOSH) may be utilized as general guidelines.

3A.30. **Violations**

Employees, who violate Company work rules or this SHE Requirements or other policies/regulations that may from time-to-time be issued by either field or Jakarta management, are subject to disciplinary action including termination of employment.

Contractors, Sub-Contractors, vendors, suppliers, and visitors who violate Company work rules or this SHE Requirements or other policies/regulations will be given a warning letter through his/her company/institutions.

3A.31. **Emergency Response**

3A.31.1 **Fire**

All offices and Administration building are equipped with a fire protection system. If the alarm is ringing more than 10 seconds, evacuate at once to the safe briefing area in the parking area or adjacent to Security post.

3A.31.2 **Fires in Company Camp**

In case of structural fires occurred in Company Project area, evacuate at once to the safe briefing area in the parking yard.

3A.31.3 **Civil Unrest**

Company facility portal gate must be closed and locked in the event of civil unrest.

In case of emergency, evacuation shall be conducted under Field Manager direction assisted by Floor Wardens.

Evacuation shall be done through back door towards PLN Switchyard as the safe briefing area.

3A.31.4 **Medivac**

When accident occurred at location

peraturan perundang-undangan yang berlaku di Republik Indonesia.

Bila tidak terdapat persyaratan apa pun dalam peraturan tersebut di atas, standard dan pedoman keselamatan kerja Internasional yang umum (misal: OSHA, NIOSH) dapat digunakan sebagai pedoman umum.

3A.30. **Pelanggaran**

Karyawan, yang melanggar aturan kerja Perusahaan atau Persyaratan K3LL ini atau peraturan/kebijakan lain yang dikeluarkan dari waktu ke waktu oleh pihak manajemen lapangan atau Jakarta, akan dikenakan sanksi disiplin termasuk pemutusan hubungan kerja.

Kontraktor, Sub-Contractors, vendor, supplier, dan tamu yang melanggar aturan kerja Perusahaan, Persyaratan K3LL ini atau kebijakan/peraturan lain akan mendapat surat peringatan tertulis melalui perusahaan/institusinya.

3A.31. **Tanggap Darurat**

3A.31.1 **Kebakaran**

Semua kantor dan Gedung Administrasi dilengkapi dengan sistem perlindungan kebakaran. Bila terdengar suara sirene kebakaran lebih dari 10 detik, segera evakuasi ke daerah aman untuk berkumpul dilapangan parkir atau dekat pos Security.

3A.31.2 **Kebakaran di Kamp Perusahaan**

Bila terjadi kebakaran di lokasi proyek Perusahaan, segera evakuasi ke daerah aman untuk berkumpul di lapangan parkir

3A.31.3 **Aksi Masa/Demonstrasi**

Dalam hal terjadi aksi masa, pintu gerbang fasilitas Perusahaan akan ditutup dan dikunci.

Bila keadaan darurat, evakuasi akan dilakukan atas petunjuk *Field Manager* dibantu *Floor Warden*.

Evakuasi dilakukan melalui pintu belakang mengarah ke depan gardu induk PLN sebagai tempat aman berkumpul.

3A.31.4 **Medivac**

Bila terjadi kecelakaan di lokasi di mana

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where medical evacuation is required, contact Control Room and Company Clinic immediately.

Medivac procedures shall be done under Field Manager acknowledgement and approval.

diperlukan evakuasi medis, segera hubungi *Control Room* dan Klinik Perusahaan.

Prosedur *Medivac* dilakukan dengan sepengetahuan dan persetujuan *Field Manager*.

CHAPTER 3B/BAB 3.B

EXPLORATION AND DRILLING SITE SPECIFIC SHE RULE

PERATURAN K3LL KHUSUS LAPANGAN EKSPLORASI DAN PENGEBORAN

<p>3B.1. Mandatory Training</p> <p>For Exploration & Drilling personnel, as the minimum SHE training requirements will be basic fire fighting & basic first aid / medical care training.</p> <p>If the employees have to go to the field with a boat to cross the sea, the SEA SURVIVAL Training is needed.</p>	<p>3B.1. Mandatory Training</p> <p>Personil yang bekerja di Eksplorasi & Pengeboran harus mengikuti pelatihan <i>basic fire fighting & basic first aid / medical care</i> sebagai persyaratan minimal pelatihan K3LL.</p> <p>Bilamana lokasi exploration dan drilling diharuskan menyeberangi laut dengan kapal maka diwajibkan untuk training SEA SURVIVAL</p>
<p>3B.2. Accident Prevention Responsibility</p> <p>Each individual is responsible for accident prevention. It is the responsibility of Exploration & Drilling employees, contractors, visitors, suppliers, vendors to correct and or report to their respective supervisor any unsafe conditions or practices/acts that may be observed in the workplace.</p>	<p>3B.2. Tanggung Jawab Pencegahan Kecelakaan</p> <p>Setiap orang bertanggung jawab mencegah terjadinya kecelakaan. Setiap karyawan, kontraktor, tamu, vendor dari Eksplorasi & Pengeboran bertanggung jawab untuk memperbaiki dan atau melaporkan kepada penyelia mereka masing-masing, setiap keadaan/kondisi atau praktek/tindakan yang tidak aman yang dapat teramati di tempat kerja.</p>
<p>3B.3. Id Badge</p> <p>Company ID badge shall be worn within Exploration & Drilling premises by all employees, contractors, suppliers, vendors and visitors.</p>	<p>3B.3. Tanda Pengenal</p> <p>Tanda pengenal Perusahaan harus selalu dikenakan selama berada di area Eksplorasi & Pengeboran oleh semua karyawan, Kontraktor, supplier, vendor dan tamu.</p>
<p>3B.4. Reporting Personal Injuries</p> <p>All on-the-job personal injuries, near misses, even of a minor nature, must be reported to the employee's supervisor no later than the end of the shift in which the injury occurred.</p>	<p>3B.4. Pelaporan Cidera Perorangan</p> <p>Semua cidera akibat kecelakaan kerja, atau kasus nyaris-terjadi, bahkan kejadian kecil sekalipun yang menimpa seseorang harus dilaporkan kepada penyelia karyawan yang bersangkutan, paling lambat di akhir setiap <i>shift</i> pada saat terjadinya kecelakaan.</p>
<p>3B.5. Hydrogen Sulphide</p> <p>H2S is a poisonous gas which has the potential to kill.</p> <p>Evaluate each job for H2S hazards before starting and while doing the work.</p>	<p>3B.5. Hidrogen Sulfida</p> <p>Gas H2S adalah gas beracun yang berpotensi untuk mematikan.</p> <p>Evaluasi setiap pekerjaan sehubungan dengan bahaya gas H2S sebelum dan ketika</p>

Use H2S detection equipment anytime you suspect H2S might be present.

Never work alone in an area where you suspect H2S might be present. Use "Buddy System".

3B.6 Endemic Diseases

When it is recognized in risk assessment that in Exploration and Drilling site there are possible of endemic diseases or most local community are suffering certain diseases, a preventive measurement shall be conducted.

This preventive measurement could be done by giving information about site condition in She Induction and continued with preventive medication and vaccination.

She Induction program shall be conducted one week before departure to the endemic site to ensure that the employee have maximum protection from the diseases. Lifetime effectiveness of diseases medication such as aMalaria is one week. If the SHE induction can't be conducted within one week period, the Project leader shall gave adequate information to employee and contractor regarding endemic diseases preventive program.

If needed, vaccination shall be received by employee or contractor before depart to site to have maximum protection. If vaccination was received before, employee shall give the report to Company doctor.

3B.6 Smoking

bekerja dilapangan.

Gunakan alat pendeteksi gas H2S setiap saat anda mencurigai adanya gas H2S.

Jangan pernah bekerja sendirian di tempat yang anda curigai gas H2S. Gunakan "Buddy System".

3B.6 Penyakit-Penyakit Endemi

Bila diketahui dari hasil risk assessment didaerah Exploration and Drilling terdapat penyakit-penyakit yang bersifat Endemi atau banyak diderita penduduk kawasan tersebut maka perlu dilakukan upaya-upaya pencegahan.

Upaya-upaya pencegahan dapat dilakukan dengan memberikan informasi mengenai kondisi lapangan pada saat SHE Induction, dilanjutkan dengan pengobatan pencegahan dan vaksinasi

Program SHE Induction harus dilakukan 1 (satu) minggu sebelum berangkat ke daerah Endemik tersebut untuk memastikan bahwa karyawan mendapatkan perlindungan yang maksimal dari penyakit-penyakit Endemis. Efektifitas obat pencegahan penyakit-penyakit seperti Malaria adalah satu minggu. Bilamana SHE Induction tidak dapat dilakukan dalam satu minggu sebelumnya maka Pimpinan Proyek diharuskan memberikan informasi yang memadai ke karyawan atau kontraktor mengenai program pencegahan penyakit endemis.

Bilamana diperlukan, vaksinasi harus dilakukan oleh karyawan maupun kontraktor sebelum berangkat ke daerah kerja untuk mendapatkan perlindungan yang maksimal. Bilamana telah mendapatkan vaksinasi sebelumnya, maka pekerja diharuskan untuk memberikan catatan vaksinasi yang telah didapatkan kepada dokter perusahaan.

3B.6 Merokok

Smoking is prohibited in all enclosed-facilities and common work areas without exception. This includes, but is not limited to, all buildings, shops, private offices, conference and meeting rooms, lounges and eating rooms, restrooms, hallways, stairs, vehicles, and any other areas posted with "no smoking" signs. This policy applies to all employees, contractors, vendors, suppliers, and visitors.

Smoking is only allowed in certain room or areas in certain time that will be determined by field authority.

3B.7. Safe Work Permit

A Permit-To-Work System is applied to designated operating areas, including LOTO, Confined Space Entry, Hot Work, and Excavation.

3B.8. Clothing

All employees (including contractors' employees) shall be clothed in a proper manner that will not impair their safety.

Special for fire hazardous area such as drilling site, all workers shall wear flame retardant coverall. The coverall specification shall pass Company Requirement and have SHE Dept. approval.

3B.9. Eye And Face Protection

Eye/face protection (goggles, safety glasses, or face shield/hood) shall be worn at designated locations and work areas, dictated by the PPE procedure (i.e. doing grinding). General exceptions would also apply to some other areas that are less hazardous, such as in all building/closed facilities, vehicle, or general/public open areas (i.e. parking areas, part of wellpad). All Contractor personnel shall always be equipped with safety glasses.

3B.10. Hearing Protection

Hearing protection (earplug or earmuff) shall be worn when working in designated high level noise areas, or when using tools or equipment producing high level noise. All Contractor personnel shall

Merokok dilarang di seluruh fasilitas tertutup dan area kerja, tanpa terkecuali. Yang dimaksud disini termasuk, tapi tidak terbatas pada, semua bangunan, bengkel, ruang kerja pribadi, ruang konferensi dan ruang rapat, ruang istirahat dan ruang makan, kamar kecil, lorong, tangga, kendaraan dan daerah lain yang bertanda "Dilarang Merokok". Peraturan ini berlaku untuk semua karyawan, kontraktor, vendor, supplier dan tamu

Merokok hanya diperolehdan pada ruangan atau tempat khusus pada jam-jam tertentu yang ditentukan oleh pemimpin tertinggi dilapangan.

3B.7. Izin Bekerja Dengan Aman

Sistim Ijin Bekerja diberlakukan di tempat-tempat kegiatan operasi tertentu, termasuk LOTO (ijin penguncian), bekerja di tempat dengan akses terbatas, *Hot Work* (pekerjaan dengan potensi kebakaran/ledakan), penggalian.

3B.8. Pakaian

Semua karyawan (termasuk karyawan kontraktor) harus berpakaian dengan cara yang tepat sehingga tidak membahayakan keselamatan mereka.

Khusus untuk daerah rawan kebakaran seperti operasi pengeboran, setiap pekerja harus memakai baju coverall yang dapat menahan api. Spesifikasi baju ini harus sesuai dengan standar yang berlaku di Perusahaan dan atas persetujuan SHE Dept.

3B.9. Pelindung Mata Dan Muka

Pelindung mata/wajah (kaca mata besar, kaca mata pengaman, atau penutup muka) harus selalu dikenakan di lokasi-lokasi tertentu dan area kerja yang telah ditentukan oleh prosedur APD (contohnya peng-gerinda-an). Pengecualian umum juga berlaku untuk daerah-daerah yang tidak terlalu berbahaya/rawan, misalnya semua bangunan/fasilitas tertutup, kendaraan, atau area terbuka untuk umum/publik (seperti: tempat parkir, sebagian *wellpad*).

3B.10. Pelindung Pendengaran

Pelindung pendengaran (penyumbat telinga atau penutup telinga) harus digunakan saat bekerja di area-area tertentu yang mempunyai tingkat kebisingan yang tinggi, atau ketika menggunakan peralatan atau perlengkapan

always be equipped with ear plugs.

yang mengeluarkan kebisingan tingkat tinggi. Semua kontraktor harus menyediakan pelindung pendengarannya sendiri.

3B.11. Protective Footwear

Footwear (safety shoes/boots) shall always be worn at all times when working in all operating and or construction areas.

3B.11. Sepatu Keselamatan

Sepatu (sepatu/*boot* keselamatan) harus selalu dikenakan setiap waktu pada saat bekerja di area-area kegiatan operasi dan atau konstruksi.

3B.12. Safety Hats/Helmet

Safety hats/helmet must always be worn at all times when working in all operating and or construction areas, except when in less hazardous areas, such as in all building/closed facilities, vehicle, or general/public open areas (i.e. parking areas).

3B.12. Topi Keselamatan/Helm

Topi/helm keselamatan harus selalu dikenakan pada saat bekerja di daerah kegiatan operasi dan atau konstruksi, kecuali pada saat berada di daerah-daerah yang tidak terlalu berbahaya/rawan, misalnya semua bangunan/fasilitas tertutup, kendaraan, atau area-area terbuka untuk umum/publik (seperti tempat parkir).

3B.13. Safety Harness

Safety harnesses must be worn when working in areas more than 1.5 meters above the working surface, or as prescribed by applicable work rules or regulations.

3B.13. Sabuk Pengaman Ketinggian

Sabuk pengaman harus dikenakan pada saat bekerja di area-area dengan ketinggian lebih dari 1.5 meter di atas permukaan kerja, atau seperti yang dijelaskan dalam aturan dan peraturan kerja yang berlaku. (cari standar SNI-nya)

Life Jacket

In exploration and drilling site that using water transportation as regular transportation, employee, contractor and guest shall wear life jacket at all time when traveling over water.

Rompi Keselamatan

Pada daerah-daerah eksplorasi dan pengeboran yang menggunakan transportasi air sebagai alat angkut reguler, karyawan, kontraktor dan tamu diharuskan menggunakan Life Jacket selama dalam perjalanan diatas air.

Life jacket used shall refer to standard applied and regarding its condition and hazard existed in site.

Life Jacket yang digunakan harus mengikuti standard yang berlaku sesuai dengan medan dan resiko yang ada.

Life jacket spesefication shall have approval from Company SHE Dept.

Spesifikasi dari Life Jacket ini harus mendapat persetujuan dari SHE Department Perusahaan

3B.14. Hazardous Chemicals

Proper safety equipment and or PPE, as prescribed by Material Safety Data Sheet, must be utilized when handling hazardous chemicals.

3B.14. Bahan Kimia Berbahaya

Perlengkapan keselamatan diri yang baik, seperti yang sudah ditentukan dalam *Material Safety Data Sheet*, harus digunakan ketika menangani bahan-bahan kimia berbahaya.

Disposal of hazardous chemicals shall be in accordance with applicable regulatory requirements in Exploration & Drilling.

Pembuangan bahan-bahan kimia berbahaya harus sesuai dengan persyaratan/peraturan yang berlaku di Eksplorasi & Pengeboran.

3B.15. Safe Driving

Each worker (including employees, contractors, visitors, vendors) shall drive

3B.15. Mengemudi Dengan Aman

Setiap karyawan (termasuk kontraktor, tamu, vendor) harus mengemudi dengan hati-hati dan

with caution and follow traffic signs.

Maximum speed limits are (except where stated otherwise):

- Exploration & Drilling area: 20 km/h
- public areas: 80 km/h

Where driving conditions are poor or vision limited, proceed with caution at a safe rate of speed and are watchful for other moving equipment.

Drivers should check vehicles safety following a standard checking form before each trip and Contractor's supervisors should review Vehicles and Drivers on a monthly basis or when a new (different) vehicle is used. The review results shall be reported and approved by Company's representative.

Contractor warrants Contractor's drivers' performance records for safety.

Seat Belts

All vehicles shall have seat belts installed.

Seat belts must be worn at all times by the driver and all passengers (including passengers on the rear seats where fitted).

Driving License

All drivers must have a current driving license.

Whenever possible night driving should be avoided except for emergency purposes.

Park the vehicle in the designated area with reverse parking way.

Motorbikes may be used for commuting to and from place of work providing the motobikes comply with Government regulations and certified crash helmets are worn by both the rider and passenger. Maximum of 2 people per motor bike. Motorbikes shall not be used for business purposes within Exploration & Drilling area.

The rear tray of trucks or pick-ups is for material only. If in any case it shall be

mematuhi rambu-rambu lalu lintas.

Kecepatan maksimal adalah (kecuali di nyatakan batas kecepatan yang berbeda):

- Eksplorasi & Pengeboran area: 20 km/jam
- Area umum: 80 km/jam

Bilamana kondisi mengemudi kurang baik atau pandangan mata terbatas, jalan dengan hati – hati pada kecepatan yang aman dan waspada terhadap peralatan bergerak yang lainnya.

Pengemudi harus memeriksa keamanan kendaraan mengikuti formulir pengecekan standar sebelum setiap perjalanan, dan penyelia dari Kontraktor harus mengevaluasi Kendaraan dan Pengemudi setiap bulannya atau apabila suatu kendaraan yang baru (berbeda) dipergunakan. Hasil evaluasi harus dilaporkan & disetujui oleh wakil Perusahaan.

Contractor menjamin catatan kinerjajapara pengemudi Kontraktor tentang keselamatannya.

Sabuk Pengaman

Seluruh kendaraan harus dilengkapi sabuk pengaman.

Sabuk pengaman harus senantiasa dikenakan oleh supir dan semua penumpangnya (termasuk penumpang di kursi belakang).

Surat Izin Mengemudi (SIM)

Semua pengemudi harus memiliki SIM yang masih berlaku.

Apabila memungkinkan berkendara di malam hari harus dicegah kecuali untuk keperluan yang sifatnya darurat.

Parkir kendaraan di tempat yang telah ditentukan dengan posisi menghadap keluar.

Motor beroda dua hanya boleh digunakan untuk berangkat dan pulang dari lokasi ke rumah, dengan menggunakan motor yang mengikuti standar pemerintah dengan menggunakan helm tersandar untuk pengemudi dan penumpang. Maksimal dua orang per sepeda motor. Sepeda motor tidak boleh digunakan untuk kepentingan bisnis di area Eksplorasi & Pengeboran

Bak truk atau pick-up hanya untuk barang. Jika pada suatu keperluan akan digunakan

<p>used for passenger, the design and structure shall be approved by Exploration & Drilling Manager.</p> <p>3B.16. Illegal Drugs & Alcoholic Beverages</p> <p>Reporting-to-work under the influence of illegal drugs and or alcohol is strictly prohibited.</p> <p>Possession or consumption of any alcoholic beverages at job-sites is prohibited.</p> <p>Possession of any illegal drugs is strictly not allowed at any field/facility.</p> <p>3B.17. Gambling</p> <p>Any kind of gambling is prohibited within Exploration & Drilling area.</p> <p>3B.18. Firearms/Machete</p> <p>Any kind of (unauthorized) firearm and sword/machete is prohibited within Exploration & Drilling area.</p> <p>3B.19. Horseplay</p> <p>Horseplay or practical jokes are not permitted when working.</p> <p>3B.20. Suspended Load</p> <p>Do not walk, work or stand under suspended loads. Attach tag lines to guide and control all suspended loads.</p> <p>3B.21. Electrical</p> <p>Only qualified and assigned employees are allowed to work on electrical lines and related equipment or tools.</p> <p>3B.22. Machinery</p> <p>Repairs on any machinery or equipment shall not be performed until such machinery/equipment is de-energized and or isolated out from the system/process, and the potential release of hazardous stored energy is controlled.</p> <p>Lock out/Tag out procedure must be applied correctly and thoroughly.</p> <p>3B.23. Guards</p> <p>Guards for belts, couplings, chains, etc., must be in place before starting-up</p>	<p>untuk penumpang, desain dan struktur harus mendapat persetujuan manajer Eksplorasi & Pengeboran.</p> <p>3B.16. Obat-Obat Terlarang (Napza) Dan Minuman Beralkohol</p> <p>Masuk bekerja di bawah pengaruh obat-obat terlarang (napza) dan atau alkohol dilarang keras.</p> <p>Dilarang memiliki atau mengkonsumsi minuman beralkohol di lokasi kerja.</p> <p>Memiliki obat-obat terlarang (napza) dilarang keras di semua lapangan/fasilitas.</p> <p>3B.17. Perjudian</p> <p>Perjudian dalam bentuk apapun adalah dilarang di semua area Eksplorasi & Pengeboran .</p> <p>3B.18. Senjata Api/Tajam</p> <p>Dilarang membawa segala jenis senjata api dan pedang/senjata tajam (ilegal) yang tidak berhubungan dengan pekerjaan di area Eksplorasi & Pengeboran.</p> <p>3B.19. Bersenda Gurau</p> <p>Dilarang bercanda dengan kasar atau bersenda gurau selama bekerja.</p> <p>3B.20. Muatan Yang Tergantung</p> <p>Jangan berjalan, bekerja atau berdiri di bawah muatan yang tergantung. Pasang tali untuk mengarahkan dan mengontrol muatan tergantung.</p> <p>3B.21. Listrik</p> <p>Hanya pekerja yang memenuhi kualifikasi dan ditugaskan, yang diijinkan bekerja pada sistem instalasi/transmisi listrik dan peralatan yang berhubungan dengannya.</p> <p>3B.22. Mesin</p> <p>Perbaikan pada mesin atau peralatan apapun tidak boleh dilakukan sampai mesin/peralatan tersebut sudah dikeluarkan dan atau di-isolasi dari sistim/proses, dan potensi terlepasnya sumber tenaga berbahaya yang masih mungkin tersimpan sudah bisa dikontrol.</p> <p>Prosedur <i>Lock out/Tag out</i> harus diterapkan dengan benar dan menyeluruh.</p> <p>3B.23. Alat Pelindung</p> <p>Alat pelindung untuk ban/sabuk, kopling, rantai, dsb., harus terpasang sebelum peralatan akan</p>
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<p>equipment.</p> <p>Guards must not be removed while equipment is in operation.</p> <p>3B.24. House Keeping</p> <p>Each employee (including contractors, visitors, vendors, suppliers) is responsible to keep all working areas (including tools and equipment) clean, neat and orderly.</p> <p>3B.25. Drills</p> <p>Each employee (including contractors / visitors / vendors) is required to participate in any emergency drills conducted at Exploration & Drilling project area.</p> <p>3B.26. Safety Meetings</p> <p>Each employee is required to attend and participate in Exploration & Drilling Communication Plan. Company employees and Contractors's employees are required to attend pre-job safety meetings and routine work group safety briefings.</p> <p>Minutes of pre-job safety meetings and routine safety briefings including attendance list will be kept by each Dept/Section/Contract Supervisor.</p> <p>3B.27. Spill Notification</p> <p>All spills of brine, fuel, oil or any other hazardous/poisonous materials/chemicals must be reported immediately to your supervisor, and or to the designated person in charge (i.e SHE Representative).</p> <p>3B.28. Crane/Lifting Equipment</p> <p>All lifting equipment (i.e. mobile crane, overhead crane, etc.) shall regularly be inspected and certified by an authorized institution.</p> <p>Only certified operators are permitted to operate such lifting equipment.</p> <p>3B.29. Compliance With Laws and Regulations</p> <p>All employees (including contractor / visitor / vendor) shall comply with all pertinent local Company rules and</p>	<p>dioperasikan.</p> <p>Alat pelindung tidak boleh dilepas selama peralatan beroperasi.</p> <p>3B.24. Pemeliharaan Kebersihan</p> <p>Setiap karyawan (termasuk kontraktor, tamu, vendor, supplier) bertanggung jawab untuk memelihara semua lingkungan kerja (termasuk peralatan dan perlengkapan) bersih, rapi, dan teratur.</p> <p>3B.25. Latihan</p> <p>Setiap pekerja (termasuk kontraktor / tamu / vendor) wajib berpartisipasi dalam latihan keadaan darurat yang diadakan di lingkungan proyek Exploration & Drilling</p> <p>3B.26. Rapat Keselamatan Kerja</p> <p>Setiap karyawan diminta untuk hadir dan berpartisipasi dalam Rencana Komunikasi Eksplorasi & Pengeboran. Karyawan Perusahaan dan karyawan Kontraktor wajib untuk menghadiri <i>pre-job safety meeting</i> dan <i>safety briefing</i> rutin di setiap regu kerja.</p> <p>Risalah rapat dan daftar hadir akan disimpan oleh masing-masing Pengawas di Dept/Section/Penyelia Kontrak.</p> <p>3B.27. Tumpahan Bahan Berbahaya Beracun (B3)</p> <p>Semua tumpahan <i>dari air laut</i>, bahan bakar, minyak, atau bahan-bahan berbahaya/beracun/kimia lain harus segera dilaporkan kepada penyelia yang bersangkutan, dan atau kepada orang yang ditunjuk bertanggung jawab (yaitu: <i>Perwakilan K3LL</i>)</p> <p>3B.28. Crane/Peralatan Angkat</p> <p>Semua peralatan angkat (misalnya: <i>mobile crane, overhead crane, dll.</i>) harus diperiksa secara rutin, dan dilakukan sertifikasi kelaikan pakainya oleh instansi yang berwenang.</p> <p>Hanya operator-operator yang mempunyai sertifikasi yang diijinkan untuk mengoperasikan peralatan angkat tersebut.</p> <p>3B.29. Kepatuhan Pada Hukum Dan Peraturan</p> <p>Semua pekerja (termasuk kontraktor / tamu / vendor) harus mematuhi peraturan dan standar kerja Perusahaan serta hukum dan peraturan</p>
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standard Indonesian laws and regulations.

Where there are no such requirements in the above-mentioned regulations, common International safety standards and codes (i.e. OSHA, NIOSH) may be utilized as general guidelines.

3B.30. Violations

Employees, who violate Company work rules or this SHE Requirements or other policies/regulations that may from time-to-time be issued by either field or Jakarta management, are subject to disciplinary action including termination of employment.

Contractors, Sub-Contractors, vendors, suppliers, and visitors who violate Company work rules or this SHE Requirements or other policies/regulations will be given a warning letter through his/her company/institutions.

3B.31. Emergency Response

3B.31.1 Fire

Drilling Site shall equipped with a fire protection system. If the alarm is ringing more than 10 seconds, evacuate at once to the safe briefing area in the parking area or adjacent to Security post.

3B.31.2 Fires in Drilling camp

In case of structural fires occurred in Drilling camp, evacuate at once to the safe briefing area in designated area

3B.31.3 Civil Unrest

Drilling facility portal gate must be closed and locked in the event of civil unrest.

In case of emergency, evacuation shall be conducted under Highest Leader on site direction assisted by Emergency Response Team.

3B.31.4 Medivac

Medical evacuation is needed if there is any casualties from accident or diseases that need a higher degree of treatment. This procedure shall be developed by contractor according to Company

perundang-undangan yang berlaku di Republik Indonesia.

Bila tidak terdapat persyaratan apa pun dalam peraturan tersebut di atas, standard dan pedoman keselamatan kerja Internasional yang umum (misal: OSHA, NIOSH) dapat digunakan sebagai pedoman umum.

3B.30. Pelanggaran

Karyawan, yang melanggar aturan kerja Perusahaan atau Persyaratan K3LL ini atau peraturan/kebijakan lain yang dikeluarkan dari waktu ke waktu oleh pihak manajemen lapangan atau Jakarta, akan dikenakan sanksi disiplin termasuk pemutusan hubungan kerja.

Kontraktor, Sub-Contractors, vendor, supplier, dan tamu yang melanggar aturan kerja Perusahaan, Persyaratan K3LL ini atau kebijakan/peraturan lain akan mendapat surat peringatan tertulis melalui perusahaan/institusinya.

3B.31. Tanggap Darurat

3B.31.1 Kebakaran

Lokasi pengeboran harus dilengkapi dengan sistem perlindungan kebakaran. Bila terdengar suara sirene kebakaran lebih dari 10 detik, segera evakuasi ke daerah aman untuk berkumpul dilapangan parkir atau dekat pos Security.

3B.31.2 Kebakaran di Perumahan pengeboran

Bila terjadi kebakaran di Perumahan pengeboran, segera evakuasi ke daerah aman untuk berkumpul di tempat yang telah ditentukan

3B.31.3 Aksi Masa/Demonstrasi

Dalam hal terjadi aksi masa, pintu gerbang fasilitas pengeboran akan ditutup dan dikunci.

Bila keadaan darurat, evakuasi akan dilakukan atas petunjuk *Pimpinan tertinggi di lokasi* dibantu *Emergency Response Team*.

3B.31.4 Medivac

Evakuasi medis diperlukan bila terdapat penderita baik akibat kecelakaan maupun sakit yang memerlukan penanganan lebih lanjut ke tingkat yang lebih tinggi. Prosedure evakuasi medis harus dibuat oleh kontraktor sesuai

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emergency response procedure applied on site.

Medivac procedures shall be done under the approval of the highest authority on site.

The site leader shall inform the medevac to to the *ke Emergency Management Team (refer to Crisis management procedure)*

prosedur keadaan darurat Perusahaan yang berlaku untuk lapangan tersebut.

Prosedur *Medivac* dilakukan dengan sepengetahuan dan persetujuan *Pimpinan Tertinggi dilapangan*.

Pimpinan Tertinggi dilapangan memberikan informasi segera ke *Emergency Management Team* (mengacu pada Procedure Crisis management)

CHAPTER 4/BAB 4 SHE SELECTION AND EVALUATION / SELEKSI DAN EVALUASI K3LL

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| <p>4.1 For Contracted jobs or services that considered by Company as "HIGH" risk from the Company's risk leveling or risk assessment summary result, the Contractor who will receive those job must be SHE evaluated.</p> | <p>4.1 Untuk pekerjaan atau jasa kontrak yang dianggap berisiko "TINGGI" oleh Perusahaan dari hasil ringkasan pengukuran risiko atau penilaian risiko Perusahaan, Kontraktor yang akan menerima pekerjaan tersebut harus telah menjalani evaluasi SHE.</p> |
| <p>4.2 SHE evaluation will be commenced at the following stages:</p> <ul style="list-style-type: none"> • Prior the Contract is awarded, in the pre-qualification and in the selection process, together with technical evaluation. • After Contract awarded, in the pre-job activities. • During work in progress: <ul style="list-style-type: none"> ○ Activity evaluation; ○ Program evaluation. • Final evaluation, after completion of the Contract, including KPI assessment. | <p>4.2 Evaluasi K3LL akan dimulai dengan tahapan sebagai berikut:</p> <ul style="list-style-type: none"> • Sebelum kontrak diberikan, dalam pra-kualifikasi dan dalam proses seleksi, bersamaan dengan evaluasi teknis Kontraktor. • Setelah kontrak diberikan, di dalam kegiatan-kegiatan pra-pekerjaan. • Selama pekerjaan berlangsung: <ul style="list-style-type: none"> ○ Evaluasi kegiatan; ○ Evaluasi program. • Evaluasi akhir, setelah kontrak berakhir, termasuk penilaian KPI. |

CHAPTER/BAB 5 SHE PLAN / RENCANA K3LL

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| <p>5.1. Contractor, who will complete the "HIGH" risk level contract, shall develop a project specific SHE Plan to manage the work and associated risks.</p> | <p>5.1. Kontraktor yang akan mengambil Pekerjaan dengan tingkat risiko "TINGGI", harus mengembangkan suatu Rencana K3LL khusus proyek untuk menangani pekerjaan dan risiko-risiko terkait.</p> |
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This plan shall, as minimum, address topics included in the list detail below. Where existing Contractor SHE publications detailed the topics listed, it will be sufficient to either include them verbatim, or provide reference as to where they may be found in Contractor's SHE manuals. The final project specific SHE Plan shall satisfy Contractor standards, Company requirements and applicable national SHE laws and regulations and industry best practices.

Rencana ini, setidaknya, harus mengemukakan topik-topik yang termasuk di dalam rincian daftar di bawah ini. Apabila publikasi K3LL Kontraktor yang ada menyebutkan secara rinci topik tersebut, cukup topik-topik tersebut dimasukkan kata demi kata, atau menyebutkan referensi di mana topik-topik tersebut dapat ditemukan di dalam pedoman K3LL Kontraktor. Rencana K3LL khusus proyek akhir harus memenuhi standar Kontraktor, persyaratan Perusahaan dan peraturan perundang-undangan K3LL yang berlaku secara nasional serta praktik-praktik industri terbaik.

5.2. Minimum information to be contained (or referenced) in Contractor's SHE Plan as is applicable to the work:

5.2. Informasi minimum yang harus dicantumkan (atau dirujuk) di dalam Rencana K3LL Kontraktor adalah sebagaimana berlaku terhadap pekerjaan:

5.2.1. **Leadership and commitment**

5.2.1. **Kepemimpinan dan Komitmen**

Senior management should reinforce the importance of SHE at all levels in the organization and should be seen to be setting a personal example.

Manajemen senior harus menekankan pentingnya K3LL kepada semua tingkat dalam organisasi dan harus dapat menjadi contoh.

5.2.2. **Policy and Strategic Objectives**

5.2.2. **Kebijakan dan Strategi**

Contractor has a policy that makes reference to the importance of SHE. It is formalized by the highest authority of the Company.

Kontraktor mempunyai kebijakan yang menekankan pentingnya K3LL. Kebijakan ini diformalkan oleh pemimpin tertinggi perusahaan.

5.2.3. **Organization, Responsibilities, Resources, Standards and Documentation**

5.2.3. **Organisasi, Tanggung Jawab, Sumber Daya, Standar dan Dokumentasi**

A focal point in the organization for distributing information on SHE issues to the workforce.

Adanya petugas yang bertanggung jawab untuk mendistribusikan informasi K3LL kepada pekerja lapangan.

A procedure for determining/enacting SHE training. Provision for obtaining SHE advice should this be outside the capability of the contractor's personnel.

Prosedur untuk menetapkan pelatihan K3LL. Izin untuk memperoleh saran K3LL apabila berada diluar kemampuan karyawan Kontraktor.

Simple procedure for ensuring any Sub-Contractor adheres to same SHE standards.

Prosedur sederhana untuk memastikan seluruh Sub-Kontraktor mengikuti standar K3LL yang sama.

Simple advice on the importance of the links with client (or third party) emergency services on contracts.

Saran sederhana tentang pentingnya hubungan dengan dokumen keadaan darurat klien (atau pihak ketiga) dalam kontrak.

Typical agenda for any SHE items in meetings and how to ensure they are covered effectively.

Agenda yang lazim mengenai pembicaraan K3LL di dalampertemuan dan bagaimana memastikan agenda tersebut dicakup secara efektif.

A statement of how SHE competence is assessed for personnel with SHE-critical activities to perform.

Statement of requirements for employees to indicate that they have the necessary appreciation of the SHE issues in the contractor's business activities. This should include SHE introduction sessions and SHE training. Such training may include items from the following list (as relevant to the contract):

- fire and explosion hazards;
- road transport/driving;
- first-aid;
- work procedures/PTW;
- hazard awareness and reporting;
- security;
- basic SHE rules;
- legislative requirements;
- occupational health;
- environmental protection.

5.2.4. Hazards and Effects Management

- SHE targets set in clear quantifiable terms.
- A system in place to assess workplace hazards.

5.2.5. Planning and Procedures

Contractor has a document with simple procedures/rules covering the SHE issues in his business activities with a method for review and update. This should include the following:

SHE hazard awareness:

- Basic SHE precautions to be observed in the workplace;
- SHE hazards of tasks and operations encountered in the business;
- SHE hazards of equipment used;

Pernyataan tentang bagaimana kompetensi K3LL dinilai untuk setiap personel yang melakukan aktivitas yang sensitif terhadap K3LL.

Pernyataan persyaratan bagi karyawan untuk mengindikasikan bahwa mereka mengetahui isu-isu K3LL didalam aktivitas bisnis Kontraktor. Hal ini harus mencakup sesi pengenalan K3LL dan pelatihan K3LL. Pelatihan ini dapat memasukkan item-item dari daftar berikut ini (sesuai dengan kontrak):

- bahaya kebakaran dan ledakan;
- transportasi darat/mengemudi;
- pertolongan pertama;
- prosedur kerja/izin kerja;
- kesadaran akan bahaya dan pelaporan;
- keamanan;
- peraturan dasar K3LL;
- persyaratan perundang-undangan;
- kesehatan kerja;
- lingkungan lingkungan.

5.2.4. Manajemen Bahaya dan Efek

- Target K3LL jelas dan dapat diukur.
- Terdapat sistem yang sudah berjalan untuk menilai bahaya lokasi kerja.

5.2.5. Perencanaan dan Prosedur

Kontraktor mempunyai dokumen dengan prosedur/aturan yang sederhana yang mencakup isu-isu K3LL ktivitas bisnisnya dengan metode untuk tinjauan dan *update*. Hal ini termasuk:

Kesadaran akan bahaya K3LL:

- Kewaspadaan dasar K3LL yang ditaati di tempat kerja;
- Bahaya K3LL dari pekerjaan dan operasi dalam bisnis;
- Bahaya K3LL dari peralatan yang dipakai;

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- Use of PTW system;
- Communications with supervisory personnel on site;

Contractor has a document that:

- outlines the activities of the business;
- identifies those areas that are SHE-critical;
- finds a method how individual contract scopes can be simply appraised to determine where the attention to SHE issues need to be focused;
- identifies how to determine PPE requirements; and
- identifies a simple set of steps for transportation management;

5.2.6. Implementation and Performance Monitoring

Contractor has a procedure for recording incident, for advising legislative bodies where necessary and for making annual reviews of performance.

Contractor has a procedure for investigating incidents.

5.2.7. Auditing and Review

Contractor has a method for the management to carry out simple audits of its contract operations.

- Penggunaan sistem Izin Kerja;
- Komunikasi dengan penyelia di lapangan.

Kontraktor mempunyai dokumen yang:

- menggambarkan aktivitas bisnis;
- mengidentifikasi area yang sensitif terhadap K3LL;
- menemukan suatu metode bagaimana cakupan kontrak individu dapat secara sederhana dinilai untuk menentukan ke mana perhatian terhadap isu-isu K3LL harus difokuskan;
- mengidentifikasi cara untuk menentukan persyaratan pemakaian APD; dan
- mengidentifikasi langkah sederhana untuk manajemen transportasi;

5.2.6. Pemantauan Implementasi dan Kinerja

Kontraktor mempunyai prosedur pencatatan insiden, sebagai bahan pertimbangan badan legislatif jika diperlukan dan untuk membuat tinjauan kinerja tahunan.

Kontraktor mempunyai prosedur untuk menyelidiki insiden.

5.2.7. Audit dan Tinjauan

Kontraktor mempunyai metode untuk manajemen untuk menjalankan audit sederhana terhadap operasional kontrak.

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Appendix III.2: CSMS/SL/02: SHE Plan Guideline

SHE Plan Definition Guideline

When the contracted activities are covered by a contractor SHE Management System (e.g. in line with the E&P Forum or other similar guidelines on SHE Management System), including SHE Cases for contracted installations, the SHE Plan should only address those issues that are unique for the contract under consideration. It should focus on contract specific risks and the management of controls to eliminate, to reduce or mitigate these risks. Other contract specific issues that may be addressed in the Plan are:

- Organization and personnel for the project
- Project specific procedures
- Project audit and review Plan
- Compliance with local rules and legislation

The checklist in Section 1 to 7 can be used to check the SHE Plan for the project specific issues, but can also be used to assess the SHE Management System if this has not been certified or assessed in any other manner.

When the Contractor does not have an SHE Management System, the SHE Plan should be developed in line with the principles of the E&P Forum guidelines for SHE Management System or other comparable guidelines. The SHE Plan should follow principal headings with an expansion into key checklist items given on the following pages under respective headings. The detail included in the tender should be in keeping with the complexity of the contract and should additionally include prompts for specific action plans, target dates and action parties.

SHE Management System Plan

Section 1 Leadership and Commitment	
	Checklist items
Leadership and Commitment	
Commitment to SHE aspects through leadership	Senior management should engender commitment to SHE issues at all levels through their personal style of leadership and management. Key elements include: <ul style="list-style-type: none"> • Visible expressions of commitment by senior people • SHE matters should be placed high on personal and collective. • All senior managers should set a personal example to others. They should be, and seen to be actively involved in SHE matters, e.g. attendance at SHE meetings, personal instigation of SHE audits and reviews, etc. <ul style="list-style-type: none"> • A feedback system should be established to encourage and facilitate employee feedback on SHE matters • A positive culture should be promoted at all levels • Policies and standards should be endorsed and implemented at the local level.

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Section 2 Policy and Strategic Objectives	
Checklist items	
She Policy Statement	
General	<ul style="list-style-type: none"> • Written SHE policy • Dated and signed by Chief Executive • Policy statements: <ul style="list-style-type: none"> • specific to individual parts of the contract (e.g. locations/sites/plants) • cover specialized aspects (e.g. alcohol and drugs) • consistent with Company guidelines • clear, concise and motivating
Content	<ul style="list-style-type: none"> • Importance of SHE as a contract objective. • Incidents and injuries are unacceptable. • SHE established as a line management responsibility. • Everyone is responsible for their own and their colleagues' SHE at work.
Distribution/availability	<p>SHE policy distributed to all concerned, i.e.</p> <ul style="list-style-type: none"> • handed to each employee by their line manager when issued • all new employees handed a copy by their line manager • displayed on notice boards at each company on the Contract (including sub-Contractors, suppliers and agents) • available to Company and Contractor employees in their working languages)
Discussion	Policy and its implementation when issued discussed by line managers with each employee.

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Section 3 Organization, Responsibilities, Resources, Standards and Documentation	
SHE Organization	
Key personnel	<ul style="list-style-type: none"> • Personnel responsible for the implementation of SHE objectives clearly identified in an organization chart. • Responsibility adequately covered during all phases of the Contract. • Job descriptions in place showing each team member's SHE competencies, responsibilities and function. • Organization clearly shows position of SHE professionals
Contract objectives/ accountability	<ul style="list-style-type: none"> • Defined to meet SHE objectives as well as those of time, cost and quality. • Accountability for SHE success and equally of any failure clearly stated. • Focal point within the team structure ensuring that all SHE matters have been identified. • Designated team leader to produce SHE objectives, tasks and targets for the Contract. • Targets, etc. to be realistic and consistent. • Establish procedures for distribution, reporting and reviewing SHE issues.
Manning/ communications	<ul style="list-style-type: none"> • Manpower philosophy. • Manpower level to be defined correctly so as not to compromise SHE. • Effective means to communicate SHE issues to the Company, Contractor and sub-Contractors. • Organization staffed by competent personnel with sufficient appreciation of SHE where necessary with specific training in the issues involved. • Establish procedures for distribution, reporting and reviewing SHE issues involved.
Corporate structure/ responsibility	<ul style="list-style-type: none"> • Company's expectations on SHE management to be communicated in depth. • Access of Contractor's line management to their corporate management structure on SHE issues to be defined. • Level of handling project SHE issues by the Contractor corporate structure (middle or senior management or board level). • In the Contractor's corporate organization, individuals charged with responsibility for SHE at middle senior manager or board member level • Access to specialist SHE advice for line management e.g. <ul style="list-style-type: none"> - Provision of SHE documentation for small contracts. - Employment of SHE documentation for small contracts. - Employment of SHE specialist for large contracts.
SHE Professionals	
Job definition	<ul style="list-style-type: none"> • Role of the Contractor's SHE advisers well defined • Job definition drafted.
Reporting/ follow-up	<ul style="list-style-type: none"> • Reporting relationship with line management. • Direct access to the Chief Executive. • Does line management follow-up on advice offered.
SHE department	<p>Contractor's SHE department involved in:</p> <ul style="list-style-type: none"> ▪ preparing and monitoring departmental action plans ▪ formulation and suitability of SHE rules ▪ planned inspections and audits together with line management ▪ promotional material ▪ SHE training ▪ sub-Contractor assessment ▪ training and auditing ▪ health risk assessment, health performance monitoring and health

	<ul style="list-style-type: none"> surveillance ▪ environmental monitoring ▪ supporting incident investigation by line management ▪ Guidance given by the Contractor's SHE management in preparing and implementing: <ul style="list-style-type: none"> ▪ operating and emergency manuals ▪ emergency plans ▪ training for fire fighting teams, first-aiders etc ▪ emergency drills and exercises ▪ protective equipment and rescue <p>Contact and liaison with government departments maintained.</p>
Sub-Contractor	
Management	<ul style="list-style-type: none"> • To be well integrated and identified in contract SHE Plan. • Have own plans if carrying out a large portion of the work. • SHE Plan to be vetted for suitability by main Contractor. • Main Contractor to communicate that sub-Contractor subject to the same rigorous SHE standards as main Contractor.
Identification/ vetting	<ul style="list-style-type: none"> • Sub-Contractors to be identified at this stage of the project. • Method of vetting those still to be identified to be stated. • Vetting of past sub-Contractor records. • Maintenance of approved sub-Contractor lists where SHE has been considered.
SHE professionals	
Coverage/ awareness	<ul style="list-style-type: none"> • Set up appropriate lines of communication to handle SHE issues, e.g. such items as: <ul style="list-style-type: none"> • direct access to emergency services • nearest hospital • Helicopter availability • air ambulance, etc. • Authorization and implementation procedures fully understood • Emergency services: those organizations that would be expected to provide support in a major incident aware of requirements briefed as to their likely role.
External links	<ul style="list-style-type: none"> • Lines established to communicate externally incidents that may endanger those on a site. • Individual responsibilities and procedures for the Company and Contractor(s) to make government agency reports have been agreed upon and clearly defined. • Contractor able to communicate with his entire workforce in an emergency. • Communications take into account the diversity of languages amongst the workforce. • Ability of base to mobilize in an emergency, e.g. doctors, hospital facilities.
Emergency communication	<ul style="list-style-type: none"> • Appropriate for incidents envisaged. • Strengthened, duplicated or backed up by other means.
SHE Meeting Program	
Scheduling	<ul style="list-style-type: none"> • Contractor to establish a regular schedule for SHE meetings. • Define responsible management person for scheduling such meetings. • Procedure to maintain records of personnel attendance of personnel attendance.
Management participation	<p>Managers seen to be involved by employees in:</p> <ul style="list-style-type: none"> ▪ SHE activities, objective setting and monitoring ▪ taking action and providing resources to support their stated policies and objectives
Meeting structure	<ul style="list-style-type: none"> • SHE meeting structure. • Effective to manage and communicate on SHE. • Allow employees full involvement and own ideas to be heard.

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Follow-up actions	<ul style="list-style-type: none"> • Typical agenda and meeting formats. • Meeting actions. • Where action is agreed, is it seen to be carried out? • Where action is not agreed, is it explained why?
Communication	<ul style="list-style-type: none"> • Results of SHE activities, both successful and less successful, openly communicated to all employees. • Meeting program consistent with the rest of the management structure to communicate effectively SHE issues. • Meetings recorded clearly and consistently. • Structured to include health, safety and environment items.
SHE Promotion and Awareness	
Techniques	<ul style="list-style-type: none"> • Appropriate communications techniques used to make the personnel aware of SHE issues. • How this is to be implemented, e.g. <ul style="list-style-type: none"> • personal contact • interactive video • notice-boards • newsletters (suitable for large sites) • bulletins • posters
Performance	SHE performance boards (e.g. at worksite gates).
Promotional methods	<p>Possibilities include:</p> <ul style="list-style-type: none"> • small 'give-away' with the SHE message • competitions • suggestion schemes
Part of business	SHE activities seen as an intrinsic part or running an efficient business rather than a costly and time-consuming 'extra'.
SHE Competence Requirements	
Fitness of personnel	Confirmation of medical fitness from a recognized and approved medical facility of all proposed employees for contract.
SHE Orientation Program	
Approach	<ul style="list-style-type: none"> • Provision of a comprehensive handbook for all new employees. • On-the-job orientation for supervisory staff. • Established procedure in relation to follow-up of all new employees at the worksite.
New employees	<ul style="list-style-type: none"> • Adequately trained and confident of their own abilities. • Coached to improve their work practices rather than blamed for mistakes.
Accountability	<ul style="list-style-type: none"> • Employees know they are accountable for SHE performance. • Aware that their SHE performances part of the Contractor's appraisal and reward system. • Know that flagrant or frequent breaks of published SHE rules will result in disciplinary action.
Procedures	Required for new employee orientation consistent with existing Company guidelines.
Re-appraisal	Program subject to appraisal and review.
SHE Training (general)	
Contract standards	Statement on the current standard of workforce and training requirements to meet contract standard.
Established training program	<p>Including:</p> <ul style="list-style-type: none"> • SHE management • Job procedures • Road safety • Health (first-aid health hazards, medical services, alcohol and drugs, health

	<p>promotion, use of PPE)</p> <ul style="list-style-type: none"> • Auditing • Incident investigation and reporting • SHE adviser skills • Supervisory development • SHE meetings • Environmental protection
Supervisory training	Supervisory development training promotes man-management skills and communication skills.
Formalized program	<ul style="list-style-type: none"> • Formal SHE orientation program for employees working on site. • Records kept of employees who have been through the program. • Employees trained before starting work. • Training covers those joining as a contract is being implemented.
Coverage	<p>SHE training of employees coverage (including):</p> <ul style="list-style-type: none"> • safety • fire and explosion • road transport/driving • first-aid • work procedures/PTW • hazard awareness and reporting • occupational health • security • basic SHE rules • legislative requirements • environmental protection
Supervisors' participation	Supervisors required to brief and debrief staff before and after training course.
Course content	<ul style="list-style-type: none"> • Effective system for establishing the need for and the content of training courses. • Determining course effectiveness and relevance of training assessed.
Specialized training	<ul style="list-style-type: none"> • Relevant training given to personnel prior to the execution or hazardous operations. • Training gained through course attendance supplemented by on-the-job training as necessary. • Records kept of attendees of the training courses and qualifications gained by employees.
Emergency training	Training covers the actions to be implemented and the employees' responsibilities in an emergency.
SHE content in other courses	<p>SHE included in:</p> <ul style="list-style-type: none"> • induction courses • craft training • supervisory training • line management training • auditing techniques
SHE Training (professionals)	
Selection	<ul style="list-style-type: none"> • Procedure in place for introducing competent SHE personnel on to the contract. • Criteria used by the Contractor to select his SHE supervisory staff (e.g. career development, professional status).
Training	<ul style="list-style-type: none"> • Training is received by SHE professional. • Required specialization (e.g. drilling, radiation, chemicals) • Appropriate levels of: <ul style="list-style-type: none"> - institute training - SHE management

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Qualifications	Knowledge and experience of the Contractor's SHE professional: <ul style="list-style-type: none"> • match for competence for the job being carried out • match for the advice required
SHE Legislation	
Coverage	<ul style="list-style-type: none"> • SHE Plan to include: <ul style="list-style-type: none"> • a comprehensive list of applicable legislation • government, national and international codes • Company regulations, codes and standards • Contractor's identification of regulations, codes and standards • Hierarchical precedence stated. • Definition of the legislation, codes, standards, etc. reflecting the Company's previous experience. • For contracts carried out in separate countries: <ul style="list-style-type: none"> • different legislation requirements • Company assistance for foreign Contractors
Waivers	Procedure for seeking waivers indicated
SHE Standards	
Availability	<ul style="list-style-type: none"> • Contractor in possession of SHE manual/set of standards. • Identifying minimum criteria for achievement during contract implementation. • Available in writing to all users in consistent, concise and clear form. • Users involved in the development. • Standards in line with Company requirements.
Control/ authorization	<ul style="list-style-type: none"> • Controlled documents • Updated regularly • Approval level indicated • Procedure for obtaining deviations from standards • Responsibility for authorization • Standards in line with Company requirements
Coverage	<ul style="list-style-type: none"> • Clear reference to national and international standards. • Setting minimum requirements on health, safety and environmental issues.

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Section 4 Evaluation and Risk Management	
Methods and Procedures for Hazards and Effects Management	
Coverage	Company assessment used as a starting point with additional hazards identified by the Contractor. Contractor's assessment carried out in accordance with his formal methods and procedures. Analysis techniques used in preliminary form where appropriate. Contract covers all parts of the contract with assessments for the specific scope and location of the contract.
Experience and awareness	Contractor able to use material from previous similar projects and demonstrate awareness from past experience.
Assessment of Exposure of Workforce to Hazard and Effects	
Coverage	Contractor develops assessment of the scope and degree of exposure of workforce to hazards from the hazards and effects management process.
Handling of Chemicals	
Coverage	Contractor demonstrates availability and distribution of guidance/information on the safe handling of chemicals, likely to be encountered in the contract, and proposals for confirming adherence to guidance during contract.
Hazards and Effects Management and The Assessment of PPE Requirements	
Hazard assessment/PPE requirements	<ul style="list-style-type: none"> • All processes identified that require use of PPE. • Statutory requirements similarly identified. • Procedure in place for recording issue to personnel together with follow-up inspection and replacement/re-certification • Storage of PPE adequate and secure with procedure for ensuring adequacy of stock.
PPE instruction/training	<ul style="list-style-type: none"> • Requirements identified for all personnel. • Instruction and training in its use provided where needed. • Procedure for checking its use specified.
Renewal/replacement	<ul style="list-style-type: none"> • Schedule and criteria for renewing PPE. • Schedule for re-certification. • Responsibility for payment.

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Section 5 Planning and Procedures	
SHE Procedures	
Availability/ control	<ul style="list-style-type: none"> Written procedures available to cover hazardous operations on SHE. Include SHE precautions to be taken. Consistent with Company guidelines. Controlled documents. Appropriate level. Coverage: include health and environment. Written procedures: <ul style="list-style-type: none"> familiar to all employees including sub-Contractors available in their working language contents related to individual job descriptions
Deviations	<ul style="list-style-type: none"> Procedure for obtaining. Responsibility and level. Recording of authorized deviations.
Omissions	<ul style="list-style-type: none"> Identify whether there are any areas where procedures for hazardous operations are not drafted. Commitment to prepare.
Permit to work (PTW).	<ul style="list-style-type: none"> System in place. If the Contractor's own system is utilized, is it consistent with industry norms and in line with Company guidelines?
Training/ qualification	Training standards and qualifications set for personnel allowed to implement procedures.
Basic SHE Procedures	
Availability	<ul style="list-style-type: none"> Set of rules available and distributed to all employees. Users acknowledge receipt. New employees given a copy before starting work Method of discussion and verifying understanding
Coverage	<ul style="list-style-type: none"> Covers health and environment as well as safety. Set of rules provided tailored to specific contracts. Identify hazards likely to be encountered. Address basic housekeeping and hygiene. Cover signals that will be encountered on site.
Production/ updating	<ul style="list-style-type: none"> Structure for producing updating and disseminating rules. Frequency. Personnel participation. Involvement of users.
Emergency Response Procedures	
Coverage	<ul style="list-style-type: none"> Identification of potential major emergency scenarios, and procedures to use in such scenarios, e.g. <ul style="list-style-type: none"> fire abandon rig/location storm oil/chemical, spill aircraft incident emergency communications Medical Evacuation blow-out diving emergency search and rescue (SAR) explosions

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	<ul style="list-style-type: none"> • H₂S • well control • man overboard • evacuation • terrorism • Potential use of Company guidelines
Awareness	<p>By employees of procedures</p> <ul style="list-style-type: none"> • Orientation • Schedule of drills and testing • Medical contingency Plan included • Review frequency • Responsibility of employees for own and colleagues' SHE • Monitoring mechanism • Drills to be carried out without warning
Plans	<ul style="list-style-type: none"> • Contingency plans allowed for in emergency situations. • Recovery procedures in place to be activated in event of emergency scenarios. • Drills to be held to demonstrate preparedness for response.
SHE Equipment and Equipment SHE Inspection	
SHE equipment	<ul style="list-style-type: none"> • List drawn up of all SHE equipment to be used on the project. • Identified by type, capacity and reference to standards. • Requirements identified for each item of SHE equipment, including: <ul style="list-style-type: none"> • registry • classification • licensing • survey • test certification
Critical items for SHE inspection	<ul style="list-style-type: none"> • List drawn up of critical items of equipment that must be the subject of an SHE inspection. • Procedure established for carrying out SHE inspection of equipment (covering health, safety and environmental aspects to be reviewed). • Procedure established for checking standards where tools have been provided personally by tradesmen.
Schedule	<ul style="list-style-type: none"> • SHE equipment inspection schedule established for the duration of the project. • Inspection frequency clearly identified for critical items of plant.
Occupational Health	
Facilities available	<ul style="list-style-type: none"> • Facilities defined as part of contract <ul style="list-style-type: none"> • identify hazards • assess hazards • Control hazards, e.g. engineering controls, procedural controls, PPE, vaccinations, etc. • maintain emergency procedures • Appropriate for the site conditions. • Welfare program meets the needs of isolated sites. • Local medical facilities evaluated in detail to assess: <ul style="list-style-type: none"> • range and quality of equipment and supplies • hygiene standards • administration procedures and standards • transportation and communication • Sufficient for day-to-day needs and consistent with relevant health programs. • Adequate provision for supply of drugs, antidotes, etc.
Staffing	<ul style="list-style-type: none"> • Availability of adequately trained, experienced staff. • Access to medical treatment facilities (if external).
Contingency,	Defined for possible incidents beyond capability of site facilities.

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plans	
Accommodation and catering facilities	<ul style="list-style-type: none"> Where provided, facilities to meet normally accepted standards of hygiene at site location. Facilities to be operated in line with government hygiene regulations and to meet Company guidelines. Rules in force to maintain cleanliness of site and other facilities.
Promotion	<ul style="list-style-type: none"> Promotional material available to assist in maintaining standards. Appropriate for the Contractor's workforce in terms of: <ul style="list-style-type: none"> Language. Clarity, etc.
Hygiene and housekeeping	Procedures on on-site cleanliness and maintenance.
Environmental	
Awareness	Workforce aware of requirement to protect the environment whilst executing contract
Control	<ul style="list-style-type: none"> Identify potential environmental hazards. Develop procedures for handling materials and performing operations that may damage the environment. Contingency plans.
Aims	<ul style="list-style-type: none"> Focus for the environmental protection team. At what level Line management responsibility for environmental protection defined as well as other job objectives. Development and enhancement of environmental impact statements for the contract.
Monitoring/restoration	<ul style="list-style-type: none"> Environmental monitoring to gauge the impact of operations. Plans appropriate and sufficiently detailed. Recovery and restoration of site after contract completion.
Audits	<ul style="list-style-type: none"> Environmental audits of operations during the contract. Carried out by experienced individuals or companies.
Road Transport	
Drivers:	
Competence and selection	<ul style="list-style-type: none"> Assess physical, mental and psychological capability Character and background Qualities and experience, medical examination, document checks, driving tests Special skills such as terrain and climatic experience and first-aid Should record personal and employment details, types of vehicle licensed to drive and types of cargo licensed to carry.
Driving Permits	
Driver induction	<ul style="list-style-type: none"> Local area characteristics and regulations
Driver training	<ul style="list-style-type: none"> This should test vehicle operation and use, operating conditions (terrain, climate), off-loading and positioning, emergency situations, and vehicle inspection.
Driver Improvement	<ul style="list-style-type: none"> Techniques should identify deficiencies; analyses cause and select appropriate retraining.
Selection	<ul style="list-style-type: none"> Ensure correct type, capacity and size for facilities Good maneuverability and serviceability
Vehicle specification	<ul style="list-style-type: none"> The job description should be clearly defined before the vehicle is chosen, to ensure work operations do not exceed the manufacturer's specifications

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Passenger	<ul style="list-style-type: none"> • Is the vehicle designed to carry passengers? • Design of vehicle and load limits
Freight	<ul style="list-style-type: none"> • Segregation, positioning and securing of freight
Vehicle maintenance	<ul style="list-style-type: none"> • Conducted on a regular basis
Ops management: need and approval	<ul style="list-style-type: none"> • Define the journey and justify the need. • Awareness of hazards involved. • Allocation of vehicles, written authorization, verification of employees' driving standards
Journey routing and scheduling Journey management	<ul style="list-style-type: none"> • Full awareness of route (hazards, conditions) • Realistic schedules • Logging of actions
Roles and responsibilities	<ul style="list-style-type: none"> • Roles and responsibilities defined for management, supervisors, drivers, and passenger.
Contracting	<ul style="list-style-type: none"> • Pre-Qualification of Contractors and Contractor SHE management treating road transport with equal importance to main activity. • Standards for scope of operations included in tender operation. • Control and review mechanisms included in contracts. • Policy of no subcontracting without written authority.
Procedures	<ul style="list-style-type: none"> • Ensure procedures are in place for all transport operations. • Monitor and review mechanisms in place.
Emergency service	<ul style="list-style-type: none"> • In place and tested

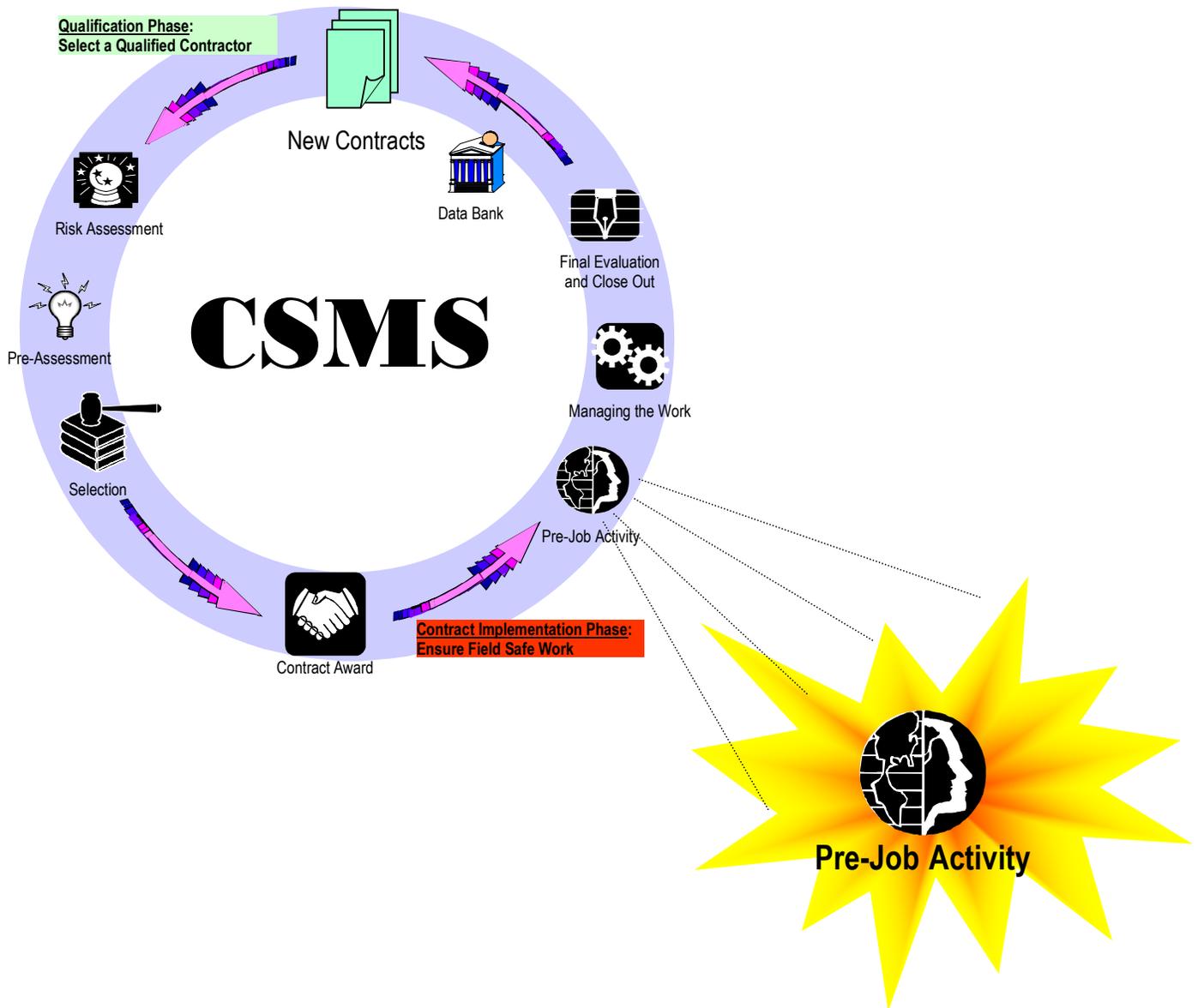
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<p>Section 6 Implementation and Performance Monitoring</p> <p>SHE Performance – General</p>	
Measurement	<p>Proposed plan to measure performance, i.e.</p> <ul style="list-style-type: none"> • performance indicators • progress against targets, • SHE initiatives/incentive schemes, • achievement of milestones, • numbers and types of training courses • numbers and results of audits • clearance of action items <p>Use will be made of reactive statistical indicators, e.g.</p> <ul style="list-style-type: none"> • Lost Time Injury Frequency/Total Recordable Incident Rate • Numbers of first-aid and minor injuries. • material losses • vehicle incidents • spillages • occupational illnesses • sickness absenteeism
Feedback/analysis	<ul style="list-style-type: none"> • Availability and use of performance records. • Feedback/review/discussion at SHE meetings. • Presentation and distribution to employees.
Comparison of performance	<p>Comparison of performance:</p> <ul style="list-style-type: none"> • With other similar contract work • Frequency specified • Involvement of Company personnel
<p>Incident Investigation</p>	
Coverage	<ul style="list-style-type: none"> • Reporting procedure for the contract • Covering not only injuries to and time lost by personnel but also: <ul style="list-style-type: none"> • Health incidents (diseases, exposures to hazardous substances, near misses, etc.) • Environmental incidents (Spill, releases, contamination, etc.) • other safety incidents (safety equipment failures, loss of capital equipment) • material loss
Methods	<ul style="list-style-type: none"> • Incident investigation method established to determine and correct causes. • Incidents first reported to the direct supervisor. • Incident investigation teams led by the relevant managers. • Differentiation made between numbers of first-aid treatments and other minor injuries. • Procedure in place on vehicle incidents. • Methods to be used for collecting incident statistics.

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Section 7 Audit and Review	
SHE Auditing	
Availability	Established SHE procedure outlining responsibilities, frequency, methods and follow-up.
Scope	Compliance with the SHE Plan including: <ul style="list-style-type: none"> • SHE Management • departmental personnel SHE • technical personnel SHE • sub-Contractor • occupational health • unsafe acts • audit training • environmental • own activities and those of his sub-Contractors
Coverage	<ul style="list-style-type: none"> • Consistent with Company guidelines. • Schedule for full contract duration. • Involvement of personnel in audit teams from outside the location. • Carried out by a wide cross-section of the workforce including Company and sub-Contractor personnel.
Effectiveness	<ul style="list-style-type: none"> • How verified • Involvement of the Contractor's corporate management in review of findings. • Intention to publish findings. • Discussion with personnel on contract and SHE meetings, • Lessons used to improve operations across the contract.
Follow-up	<ul style="list-style-type: none"> • Any numerical treatment made of findings. • Frequency of review of implementation progress. • Rejections of audit findings properly authorized and documented.

Appendix IV: Pre-Job Activity Form



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Appendix IV.1.CSMS/PJA/01: Pre-Job Activity Checklist

PRE-JOB ACTIVITY CHECKLIST

Date :

Project Period :

Job Title :

Contract No :

Work Location :

Contractor's Name :

Address :

Contractor Reps: _____
(Name/Date)

Company Reps: _____
(Name/Date)

Acknowledged by: _____
(Name/Date)

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PRE-JOB ACTIVITY CHECKLIST

No	ITEM	YES	NO	N/A	REMARKS
I. WORK PLAN					
1.1	Has the SHE issue been addressed in the work program or procedure and reviewed with the Contractor?				
1.2	Has the Contractor reviewed the Company SHE Handbook and Permit System?				
1.3	Has the contractor's equipment, related to the job to be performed, passed safety inspection?				
1.4	Are all critical works identified and analyzed?				
1.5	Are the procedures for critical works written and reviewed with the contractor before the work begins?				
1.6	Are materials handling equipment and procedures available?				
1.7	Is the facility schedule available? (e.g. camp, warehousing, delivery of construction materials or equipment on site, contractor responsibility for loading, unloading, storing of contractor / Company furnished materials)				
1.8	Contractor's competent person as the SHE representative :				
	1.8.1. Is he / she available?				
	1.8.2. Does he/she have sufficient authority to implement change?				

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PRE-JOB ACTIVITY CHECKLIST

No	ITEM	YES	NO	N/A	REMARKS
I. WORK PLAN (cont'd)					
1.9	Does the Contractor have the following minimum SHE Program and provide tools to ensure its implementation :				
	1.9.1. Supervisor SHE background and experience?				
	1.9.2. Indoctrination of new employees?				
	1.9.3. SHE meetings?				
	1.9.4. SHE inspections?				
	1.9.5. SHE promotion?				
	1.9.6. Has the Supervisor and employees fully communicated about SHE issues?				
	1.9.7. Emergency drills?				
	1.9.8. Accident Investigation/reporting?				
	1.9.9. Other _____?				
1.10	Does the Contractor have incentive programs for an effort to reduce occupational injuries, illnesses and environmental damages?				
1.11	Does the Contractor have disciplinary action programs in case of non-compliance?				

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PRE-JOB ACTIVITY CHECKLIST

No	ITEM	YES	NO	N/A	REMARKS
II. POTENTIAL HAZARDS					
2.1	Does the Contractor provide a system for potential hazard identification (e.g. for unsafe acts and/or conditions) and ensure its implementation?				
2.2	Does the Contractor provide a proper hazard control system for the following items and verify their implementation?				
	2.2.1. Housekeeping?				
	2.2.2. Machine guarding?				
	2.2.3. Chemicals?				
	2.2.4. Flammable and explosive materials?				
	2.2.5. Radioactive materials?				
	2.2.6. Waste-trash collection?				
	2.2.7. Maintenance of equipment, guards, tools, etc.?				
	2.8. Work permit system?				
	2.9. Personal protective equipment (PPE)?				
	2.10. Other _____?				

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PRE-JOB ACTIVITY CHECKLIST

No	ITEM	YES	NO	N/A	REMARKS
III. EMERGENCY RESPONSE PLANS AND PROCEDURES					
3.1	Are the Contractor's employees aware of their role in an emergency?				
3.2	Do they know how to report an emergency?				
3.3	Have they received specific instructions about vehicle use during and after an emergency?				
3.4	Does the Contractor have personnel trained to administer first aid and cardiopulmonary resuscitation (CPR)?				
3.5	Are adequate first aid supplies available?				
3.6	Have the first aid kits been approved by a physician?				
3.7	Have arrangements been made with Company, ambulance service, hospital, or others to handle medical care ranging from first aid to life-threatening injuries and illnesses?				
3.8	Is Contractor's Contact Person available during emergency?				
3.9	Does the Contractor provide its own medical doctor?				
IV. PRE-JOB SAFETY MEETING					
4.1	Is a pre-job SHE meeting scheduled to be conducted before commencing the work?				
4.2	Is the meeting attended by suitable contractor representation?				

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PRE-JOB ACTIVITY CHECKLIST

No	ITEM	YES	NO	N/A	REMARKS
V. SITE ORIENTATION					
5.1	Site conditions under which the work will have to be performed:				
	5.1.1 Is access to the project and the work area available?				
	5.1.2 Is (Are) contractor lay-down area(s) sufficient?				
	5.1.3 Are communication links for on the job and external-to-job available?				
	5.1.4 Are disposal areas available for cleanup purposes and are there cleanup areas where more than one contractor is working?				
5.2	Are the alarm systems available and the Contractor employees made aware of them?				
5.3	Have exit routes and gathering areas been established; where head counts are to be performed in case of an emergency?				
5.4	Availability of emergency reporting equipment:				
	5.4.1. Paging system?				
	5.4.2. Radio system?				
	5.4.3. Telephone system?				
	5.4.4. Others _____?				
5.5	Are emergency telephone numbers posted throughout the site?				

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No	ITEM	YES	NO	N/A	REMARKS
VI. FINALIZED ALL SHE REQUIREMENTS					
6.1	Have all SHE requirements and issues (ref. to Company's SHE requirements and applicable Indonesian Government Rules and Regulations) concerning the work been reviewed and finalized by Company and the Contractor?				
6.2	Have affected parties been notified of any changes to these SHE requirements by the responsible party?				
VII. SHE TRAINING					
7.1	Does the contractor ensure that works requiring certification are performed by workers who possess the appropriate documentation and certificates?				
7.2	Does the contractor provide training for its managers and supervisors to ensure that they are capable of administering the SHE program?				
7.3	Is there a training plan for contractor employees?				
7.4	Is the training plan addressed?				

PRE-JOB ACTIVITY CHECKLIST

No	ITEM	YES	NO	N/A	REMARKS
VII.	SHE TRAINING (Cont'd)				
	7.4.1 SHE?				
	7.4.2 Material Safety Data Sheets and hazard communication program?				
	7.4.3 SHE orientation?				
	7.4.4 First aid and cardiopulmonary resuscitation (CPR)?				
	7.4.5 Fire fighting?				
	7.4.6 Fire watch?				
	7.4.7 Water survival?				
	7.4.8 Hydrogen sulfide?				
	7.4.9 Transportation and storage of hazardous materials?				
	7.4.10 Transportation and storage of radioactive materials?				
	7.4.11 Transportation and storage of explosive materials?				
	7.4.12 Fall protection?				
	7.4.13 Drug and alcohol policy?				
	7.4.14 Forklift and crane operations?				
	7.4.15 Housekeeping?				

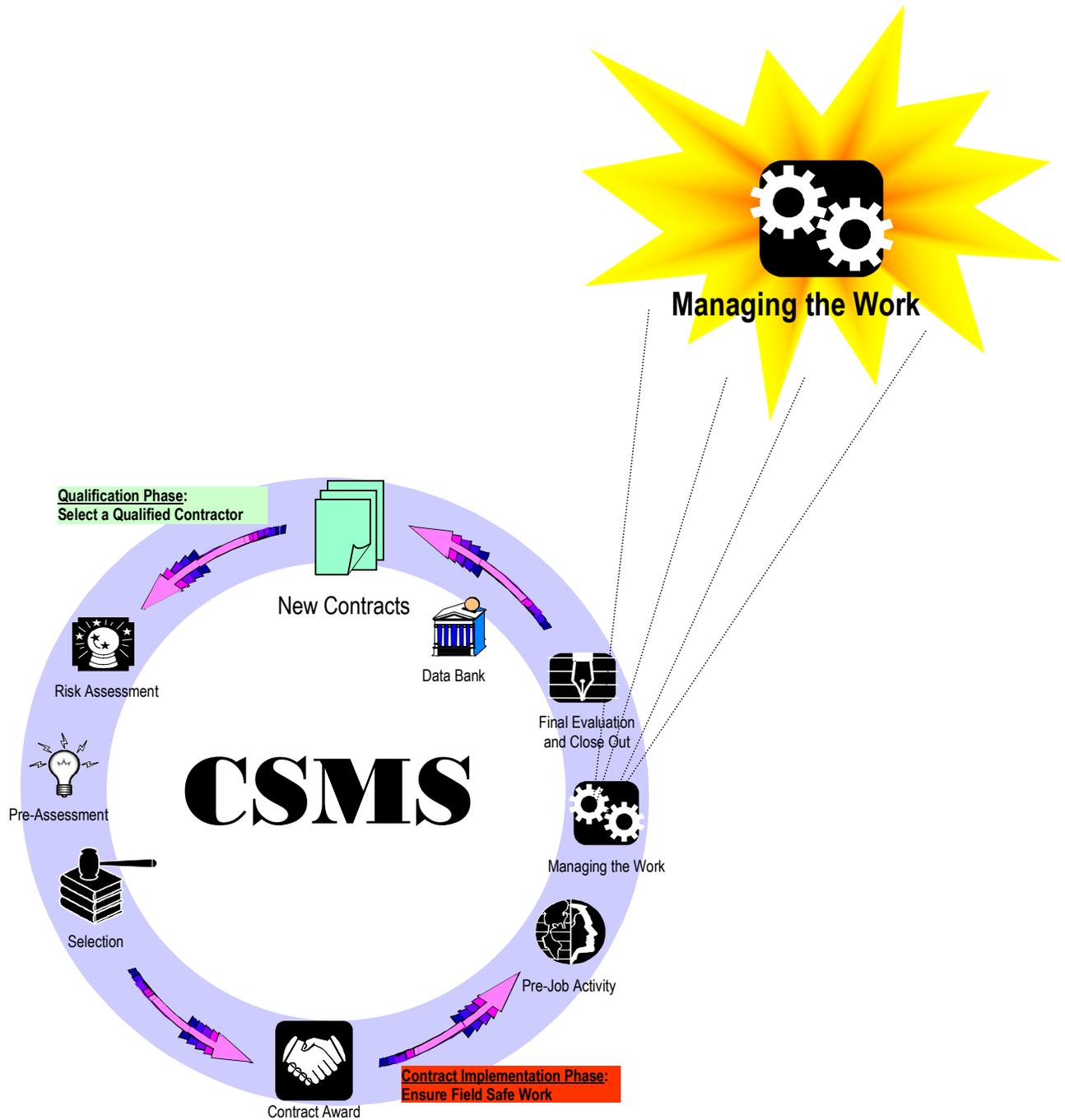
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PRE-JOB ACTIVITY CHECKLIST

No	ITEM	YES	NO	N/A	REMARKS
VII. SHE TRAINING (Cont'd)					
	7.4.16 Entry into confined spaces and requirements for standby personnel?				
	7.4.17 Permit systems?				
	7.4.18 Abrasive blasting and hydro blasting?				
	7.4.19 Respiratory protection?				
	7.4.20 Use of personnel protective equipment (PPE)?				
	7.4.21 Control of hazardous energy sources?				
	7.4.22 Excavating, shoring and trenching?				
	7.4.23 Emergency response plan?				
7.5	Is there documentation on file to verify that the training has been completed?				
7.6	Is there a method available to determine the understanding of the Contractor employees concerning the training materials (written or verbal examination, walk-through demonstrations, on-the-job evaluations, etc.)?				
VIII. CONTRACTOR'S MANAGEMENT COMMITMENT					
8.1	Have all SHE issues been communicated to the Contractor's upper management?				

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Appendix V: Managing the Work Forms



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Appendix V.1: Form CSMS/WIP/01: SHE Inspection Checklist

SHE INSPECTION CHECKLIST

Date :

Period :

Job Title :

Contract No :

Work Location :

Contractor's Name :

Address :

Average Rating :

Contractor Reps: _____
(Name/Date)

Company Reps: _____
(Name/Date)

Acknowledged by: _____
(Name/Date)

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SHE INSPECTION CHECKLIST

No	ITEM	N/A	10	20	30	40	50
I. HOUSEKEEPING							
1.1	Job-site looks neat						
1.2	Raw materials stored properly						
1.3	Walking surfaces neat and clean						
1.4	Escape routes clean and clear						
1.5	“No Smoking” properly posted						
1.6	Trash emptied regularly						
1.7	Materials not in danger of falling						
1.8	Nails removed from wood planks /scrap						
1.9	Lighting adequate						
1.10	Healthy work place and environment						
I. Housekeeping (Rating)		TOTAL / (No.Item – N/A)					

Rating Scale	
N/A	Not Applicable Equipments and/or conditions do not relate to the job.
10	Very Poor / Not available Equipments and/or conditions do not exist or are informal. No awareness observed in the workforce or Equipments and/or conditions have been defined but no plan established.
20	Poor / Not meeting requirements Equipments and/or conditions do not exist or are informal. Little awareness observed in the workforce or Equipments and/or conditions have been defined and a plan is in place but compliance is inconsistent.
30	Fair / Meeting requirements Equipments and/or conditions required to meet the expectation are in place. Compliance with processes and procedures is good.
40	Very Good / Exceeds requirements Equipments and/or conditions required to meet the expectation are in place and compliance is assured. Best in class performance is demonstrated.
50	Excellent Equipments and/or conditions required to meet the expectation are in place and compliance is assured. Best in class performance is demonstrated. Procedure is good.

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SHE INSPECTION CHECKLIST

No.	ITEMS	N/A	10	20	30	40	50
II. PERSONAL PROTECTIVE EQUIPMENT (PPE)							
2.1	Hard hats in use						
2.2	Proper footwear worn						
2.3	Hearing protection where needed						
2.4	Eye/face protection where needed						
2.5	Gloves/protective clothing where needed						
2.6	Inspection procedures for PPE						
2.7	Proper shirts worn						
2.8	Proper respirators where needed						
2.9	Fit-tests for respirator						
2.10	Respirators cleaned, stored properly						
2.11	Respirators individually assigned						
2.12	Fall protection for work over 6 feet high						
2.13	Explosimeters work properly						
II. Personal Protective Equipment (PPE) (Rating)		TOTAL / (No.Item – N/A)					

Rating Scale	
N/A	Not Applicable Equipments and/or conditions do not relate to the job.
10	Very Poor / Not available Equipments and/or conditions do not exist or are informal. No awareness observed in the workforce or Equipments and/or conditions have been defined but no plan established.
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SHE INSPECTION CHECKLIST

No.	ITEMS	N/A	10	20	30	40	50
III. FIRE PREVENTION AND FIRE PROTECTION							
3.1	Proper fire extinguishers available for use						
3.2	Fire extinguishers inspected, tagged						
3.3	Employees trained in procedures						
3.4	Wooden material stored properly						
3.5	Flammable materials stored properly						
3.6	Used rags in metal cans with covers						
3.7	Fuel cans FM approved						
3.8	Hot work permits						
III. Fire Prevention and Fire Protection (Rating)		TOTAL / (No.Item – N/A)					
IV. SIGNS, SIGNALS, AND BARRICADES							
4.1	Hazards barricaded properly						
4.2	Hazards marked appropriately						
4.3	Unsafe tools tagged						
IV. Signs, Signals, and Barricades (Rating)		TOTAL / (No.Item – N/A)					

Rating Scale	
N/A	Not Applicable Equipments and/or conditions do not relate to the job.
10	Very Poor / Not available Equipments and/or conditions do not exist or are informal. No awareness observed in the workforce or Equipments and/or conditions have been defined but no plan established.
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SHE INSPECTION CHECKLIST

No.	ITEMS	N/A	10	20	30	40	50
V. HAZARD COMMUNICATION							
5.1	Written program						
5.2	List of hazardous chemicals						
5.3	MSDS file maintained						
5.4	Chemicals properly labeled						
5.5	Emergency spill control materials available						
V. Hazard Communication (Rating)		TOTAL / (No.Item – N/A)					
VI. HAZARDOUS MATERIAL (WASTE, LEAD, ASBESTOS, RADIOACTIVE, EXPLOSIVE)							
6.1	Site specific SHE Plan						
6.2	Employees trained, certified, licensed						
VI. Hazardous material (Rating)		TOTAL / (No.Item – N/A)					

Rating Scale	
N/A	Not Applicable Equipments and/or conditions do not relate to the job.
10	Very Poor / Not available Equipments and/or conditions do not exist or are informal. No awareness observed in the workforce or Equipments and/or conditions have been defined but no plan established.
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SHE INSPECTION CHECKLIST

No.	ITEMS	N/A	10	20	30	40	50
VII. HAND AND POWER TOOLS							
7.1	Equipment inspected regularly						
7.2	Damaged equipment removed from service						
7.3	Grounding is not defeated						
7.4	GFCI use in wet, outside, or metallic areas						
7.5	Proper switches on tools working						
7.6	Tools stored securely when not in use						
7.7	Double insulated tools used						
7.8	Power actuated tool operators licensed						
7.9	Guards are in place						
VII. Hand and Power tools (Rating)		TOTAL / (No.Item – N/A)					

Rating Scale	
N/A	Not Applicable Equipments and/or conditions do not relate to the job.
10	Very Poor / Not available Equipments and/or conditions do not exist or are informal. No awareness observed in the workforce or Equipments and/or conditions have been defined but no plan established.
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SHE INSPECTION CHECKLIST

No.	ITEMS	N/A	10	20	30	40	50
VIII. ELECTRICAL SAFETY							
8.1	Precautions taken near overhead lines						
8.2	Temporary lights guarded						
8.3	Non-metal ladders used near electricity						
8.4	Signs and tags to warn of electrical hazards						
8.5	Non-conductive head protection used						
8.6	Containers of flammable materials bonded						
8.7	Electrical cords checked for damage						
8.8	Flexible cord not used for fixed wiring						
8.9	Lock out / tag out procedures in place						
VIII. Electrical safety (Rating)		TOTAL / (No.Item – N/A)					

Rating Scale	
N/A	Not Applicable Equipments and/or conditions do not relate to the job.
10	Very Poor / Not available Equipments and/or conditions do not exist or are informal. No awareness observed in the workforce or Equipments and/or conditions have been defined but no plan established.
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SHE INSPECTION CHECKLIST

No.	ITEMS	N/A	10	20	30	40	50
IX. Welding, Cutting, and Grinding							
9.1	Hoses checked for leaks, damage						
9.2	Ground to welder checked prior to use						
9.3	Welders wear long-sleeved cotton/leather						
9.4	Goggles and eyeshades used						
9.5	Welding areas isolated, protected						
9.6	Fire watch and extinguishers in attendance						
9.7	Welding area free from fire hazards						
9.8	Torches lighted by friction lighters						
IX. Welding, Cutting, and Grinding (Rating)		TOTAL / (No.Item – N/A)					

Rating Scale	
N/A	Not Applicable Equipments and/or conditions do not relate to the job.
10	Very Poor / Not available Equipments and/or conditions do not exist or are informal. No awareness observed in the workforce or Equipments and/or conditions have been defined but no plan established.
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SHE INSPECTION CHECKLIST

No.	ITEMS	N/A	10	20	30	40	50
X. Compressed Gases							
10.1	Cylinders secured properly						
10.2	Oxygen, gas cylinders separated						
10.3	Contents marked on all cylinders						
10.4	Valve caps on when transported/not in use						
10.5	Flashback arrestors on torches						
X. Compressed Gases (Rating)		TOTAL / (No.Item – N/A)					
XI. Confined spaces							
11.1	Entry permit procedures followed						
11.2	Air monitoring performed						
11.3	Ventilation used						
11.4	Respiratory protection used						
11.5	Harness, lifeline, and hoisting apparatus used						
XI. Confined spaces (Rating)		TOTAL / (No.Item – N/A)					

Rating Scale	
N/A	Not Applicable Equipments and/or conditions do not relate to the job.
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50	Excellent

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	Equipments and/or conditions required to meet the expectation are in place and compliance is assured. Best in class performance is demonstrated. Procedure is good.
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SHE INSPECTION CHECKLIST

No.	ITEMS	N/A	10	20	30	40	50
XII. LADDERS							
12.1	Appropriate for use						
12.2	Non-slip safety feet						
12.3	Ladder tied off						
12.4	Ladders long enough for use						
12.5	Pitch less than 1:4						
12.6	Ladder inspected for condition						
XII. Ladders (Rating)		TOTAL / (No.Item – N/A)					
XIII. SCAFFOLDS							
13.1	Guard-rails and toe boards in place						
13.2	Correctly anchored						
13.3	Proper flooring						
13.4	Flooring secured to scaffold structure						
13.5	Barricades installed around scaffold areas						
XIII. Scaffolds (Rating)		TOTAL / (No.Item – N/A)					

Rating Scale	
N/A	Not Applicable Equipments and/or conditions do not relate to the job.
10	Very Poor / Not available Equipments and/or conditions do not exist or are informal. No awareness observed in the workforce or Equipments and/or conditions have been defined but no plan established.
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class performance is demonstrated. Procedure is good.

SHE INSPECTION CHECKLIST

No.	ITEMS	N/A	10	20	30	40	50
XIV. EXCAVATIONS							
14.1	Competent person on-site						
14.2	Employee protection from cave-ins						
14.3	Egress w/in 25' (7,6 m) of employees						
14.4	Air monitoring over 4' (1,2 m)						
14.5	Material 2' (0,6 m) from edge						
14.6	Underground installations located, marked						
14.7	Excavations properly barricaded						
14.8	Employees not exposed to falling loads						
14.9	Bridges/walkways w/standard rails						
XIV. Excavations (Rating)		TOTAL / (No.Item – N/A)					

Rating Scale	
N/A	Not Applicable Equipments and/or conditions do not relate to the job.
10	Very Poor / Not available Equipments and/or conditions do not exist or are informal. No awareness observed in the workforce or Equipments and/or conditions have been defined but no plan established.
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SHE INSPECTION CHECKLIST

No.	ITEMS	N/A	10	20	30	40	50
XV. Mechanized Equipment							
15.1	Seat belts installed and used						
15.2	Rollover protection installed						
15.3	Equipped with horn						
15.4	Fuelling at safe locations						
15.5	Fire extinguishers in every place						
15.6	Equipment stored properly when not used						
15.7	Back-up alarms operating						
XV. Mechanized Equipment (Rating)		TOTAL / (No.Item – N/A)					
XVI. CRANES AND HOISTS							
16.1	Inspections on cranes documented						
16.2	Load rating chart in cab						
16.3	Hand signals posted						
16.4	Swing radius guarded						
16.5	Overhead power lines protected						

Rating Scale	
N/A	Not Applicable Equipments and/or conditions do not relate to the job.
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SHE INSPECTION CHECKLIST

No.	ITEMS	N/A	10	20	30	40	50
XVI. CRANES AND HOISTS (Cont'd)							
16.6	Ropes, slings, chains, hooks inspected daily						
16.7	Safety hooks used						
16.8	Safe working loads determined						
16.9	Tag lines used on all lifts						
XVI. Cranes and Hoists (Rating)		TOTAL / (No.Item – N/A)					
XVII. WALL OPENINGS							
17.1	Openings, holes, chutes, skylights protected						
17.2	Standard rails provided						
17.3	Floor over 4 feet (1,2 m) high guarded						
17.4	Screen provided where necessary						
XVII. Wall Openings (Rating)		TOTAL / (No.Item – N/A)					

Rating Scale	
N/A	Not Applicable Equipments and/or conditions do not relate to the job.
10	Very Poor / Not available Equipments and/or conditions do not exist or are informal. No awareness observed in the workforce or Equipments and/or conditions have been defined but no plan established.
20	Poor / Not meeting requirements Equipments and/or conditions do not exist or are informal. Little awareness observed in the workforce or Equipments and/or conditions have been defined and a plan is in place but compliance is inconsistent.
30	Fair / Meeting requirements Equipments and/or conditions required to meet the expectation are in place. Compliance with processes and procedures is good.
40	Very Good / Exceeds requirements Equipments and/or conditions required to meet the expectation are in place and compliance is assured. Best in class performance is demonstrated.
50	Excellent Equipments and/or conditions required to meet the expectation are in place and compliance is assured. Best in class performance is demonstrated. Procedure is good.

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Appendix V.2: CSMS/WIP/02: SHE Program Checklist

SHE PROGRAM CHECKLIST

Date :

Period :

Job Title :

Contract No :

Work Location :

Contractor's Name :

Address :

Average Rating :

Contractor Reps: _____
(Name/Date)

Company Reps: _____
(Name/Date)

Acknowledged by: _____
(Name/Date)

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SHE PROGRAM CHECKLIST

No.	ITEMS	N/A	10	20	30	40	50
<i>I. LEADERSHIP AND COMMITMENT</i>							
1.1	<u>Commitment to SHE aspects through leadership :</u> 1.1.1. Senior management should engender commitment to SHE issues at all levels through their personal style of leadership and management. Key elements include: <ul style="list-style-type: none"> • Visible expressions of commitment by senior people • SHE matters should be placed high on personal and collective. • All senior managers should set a personal example to others. 						
	1.1.2. They should be, and seen to be actively involved in SHE matters, e.g. attendance at SHE meetings, personal instigation of SHE audits and reviews, etc. <ul style="list-style-type: none"> • A feedback system should be established to encourage and facilitate employee feedback on SHE matters • A positive culture should be promoted at all levels • Policies and standards should be endorsed and implemented at the local level. 						
I. Leadership and Commitment (Rating)		TOTAL / (No.Item – N/A)					

Rating Scale	
N/A	Not Applicable Equipments and/or conditions do not relate to the job.
10	Very Poor / Not available Equipments and/or conditions do not exist or are informal. No awareness observed in the workforce or Equipments and/or conditions have been defined but no plan established.
20	Poor / Not meeting requirements Equipments and/or conditions do not exist or are informal. Little awareness observed in the workforce or Equipments and/or conditions have been defined and a plan is in place but compliance is inconsistent.
30	Fair / Meeting requirements Equipments and/or conditions required to meet the expectation are in place. Compliance with processes and procedures is good.
40	Very Good / Exceeds requirements Equipments and/or conditions required to meet the expectation are in place and compliance is assured. Best in class performance is demonstrated.
50	Excellent Equipments and/or conditions required to meet the expectation are in place and compliance is assured. Best in class performance is demonstrated. Procedure is good.

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No.	ITEMS	N/A	10	20	30	40	50
II. POLICY AND STRATEGIC OBJECTIVES							
2.1	<u>General :</u> <ul style="list-style-type: none"> • Written SHE policy • Dated and signed by Chief Executive • Policy statements: <ul style="list-style-type: none"> ~ Specific to individual parts of the contract (e.g. locations/sites/plants) ~ Cover specialized aspects (e.g. alcohol and drugs) ~ Consistent with company guidelines ~ Clear, concise and motivating 						
2.2	<u>Content :</u> <ul style="list-style-type: none"> • Importance of SHE as a contract objective • Incidents and injuries are unacceptable • SHE established as a line management responsibility • Everyone is responsible for their own and their colleagues' SHE at work 						
2.3	<u>Distribution/ availability :</u> SHE policy distributed to all concerned, i.e. <ul style="list-style-type: none"> • Handed to each employee by their line manager when issued • All new employees handed a copy by their line manager • Displayed on notice boards at each company on the contract (including subcontractors, suppliers and agents) • Available to company and contractor employees in their working languages) 						
2.4	<u>Discussion :</u> Policy and its implementation when issued discussed by line managers with each employee.						
II. Policy and Strategic Objectives (Rating)		TOTAL / (No.Item – N/A)					

Rating Scale	
N/A	Not Applicable Equipments and/or conditions do not relate to the job.
10	Very Poor / Not available Equipments and/or conditions do not exist or are informal. No awareness observed in the workforce or Equipments and/or conditions have been defined but no plan established.
20	Poor / Not meeting requirements Equipments and/or conditions do not exist or are informal. Little awareness observed in the workforce or Equipments and/or conditions have been defined and a plan is in place but compliance is inconsistent.
30	Fair / Meeting requirements Equipments and/or conditions required to meet the expectation are in place. Compliance with processes and procedures is good.
40	Very Good / Exceeds requirements Equipments and/or conditions required to meet the expectation are in place and compliance is assured. Best in class performance is demonstrated.
50	Excellent Equipments and/or conditions required to meet the expectation are in place and compliance is assured. Best in class performance is demonstrated. Procedure is good.

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No.	ITEMS	N/A	10	20	30	40	50
III. ORGANIZATION, RESPONSIBILITIES, RESOURCES, STANDARDS AND DOCUMENTATION							
SHE Organization							
3.1	<u>Key personnel :</u> <ul style="list-style-type: none"> Personnel responsible for the implementation of SHE objectives clearly identified in an organization chart. Responsibility adequately covered during all phases of the contract. Job descriptions in place showing each team member's SHE competencies, responsibilities and function. Organization clearly shows position of SHE professionals 						
3.2	<u>Contract objectives/ accountability :</u> <ul style="list-style-type: none"> Defined to meet health, safety and environmental objectives as well as those of time, cost and quality. Accountability for SHE success and equally of any failure clearly stated. Focal point within the team structure ensuring that all SHE matters have been identified. Designated Vice President to produce SHE objectives, tasks and targets for the contract. Targets, etc. to be realistic and consistent <p>Establish procedures for distribution, reporting and reviewing SHE issues.</p>						

Rating Scale	
N/A	Not Applicable Equipments and/or conditions do not relate to the job.
10	Very Poor / Not available Equipments and/or conditions do not exist or are informal. No awareness observed in the workforce or Equipments and/or conditions have been defined but no plan established.
20	Poor / Not meeting requirements Equipments and/or conditions do not exist or are informal. Little awareness observed in the workforce or Equipments and/or conditions have been defined and a plan is in place but compliance is inconsistent.
30	Fair / Meeting requirements Equipments and/or conditions required to meet the expectation are in place. Compliance with processes and procedures is good.
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50	Excellent Equipments and/or conditions required to meet the expectation are in place and compliance is assured. Best in class performance is demonstrated. Procedure is good.

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SHE PROGRAM CHECKLIST

No.	ITEMS	N/A	10	20	30	40	50
III. ORGANIZATION, RESPONSIBILITIES, RESOURCES, STANDARDS AND DOCUMENTATION (cont'd)							
SHE Organization (cont'd)							
3.3	<u>Manning/ communications :</u> <ul style="list-style-type: none"> • Manpower philosophy. • Manpower level to be defined correctly so as not to compromise SHE. • Effective means to communicate SHE issues to the company, contractor and subcontractors. • Organization staffed by competent personnel with sufficient appreciation of SHE where necessary with specific training in the issues involved. <p>Establish procedures for distribution, reporting and reviewing SHE issues involved.</p>						
3.4	<u>Corporate structure/ responsibility :</u> <ul style="list-style-type: none"> • Company's expectations on SHE management to be communicated in depth. • Access of contractor's line management to their corporate management structure on SHE issues to be defined. • Level of handling project SHE issues by the contractor corporate structure (middle or senior management or board level). • In the contractor's corporate organization, individuals charged with responsibility for SHE at middle senior manager or board member level • Access to specialist SHE advice for line management e.g. <ul style="list-style-type: none"> ~ Provision of SHE documentation for small contracts. ~ Employment of SHE documentation for small contracts. ~ Employment of SHE specialist for large contracts. 						

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SHE PROGRAM CHECKLIST

No.	ITEMS	N/A	10	20	30	40	50
III. ORGANIZATION, RESPONSIBILITIES, RESOURCES, STANDARDS AND DOCUMENTATION (cont'd)							
SHE Professionals							
3.5	<u>Job definitions :</u> <ul style="list-style-type: none"> • Role of the contractor's SHE advisers well defined Job definition drafted.						
3.6	<u>Reporting/ follow-up :</u> <ul style="list-style-type: none"> • Reporting relationship with line management. • Direct access to the Chief Executive. Does line management follow-up on advice offered.						
3.7	<u>SHE department</u> 3.7.1. Contractor's SHE department involved in: <ul style="list-style-type: none"> • Preparing and monitoring departmental action plans • Formulation and suitability of SHE rules • Planned inspections and audits together with line management • Promotional material • SHE training • Subcontractor assessment • Training and auditing • Health risk assessment, health performance monitoring and health surveillance • Environmental monitoring • Supporting incident investigation by line management 						

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SHE PROGRAM CHECKLIST

No.	ITEMS	N/A	10	20	30	40	50
III. ORGANIZATION, RESPONSIBILITIES, RESOURCES, STANDARDS AND DOCUMENTATION (cont'd)							
SHE Professionals (cont'd)							
	3.7.2. Guidance given by the contractor's SHE management in preparing and implementing: <ul style="list-style-type: none"> • Operating and emergency manuals • Emergency plans • Training for fire fighting teams, first-aiders etc. • Emergency drills and exercises • Protective equipment and rescue 3.7.3. Contact and liaison with government departments maintained						
Subcontractor							
3.8	<u>Management :</u> <ul style="list-style-type: none"> • To be well integrated and identified in contract SHE Plans. • Have own plans if carrying out a large portion of the work. • SHE Plans to be vetted for suitability by main contractor. Main contractor to communicate that subcontractor subject to the same rigorous SHE standards as main contractor.						
3.9	<u>Identification/ vetting :</u> <ul style="list-style-type: none"> • Subcontractors to be identified at this stage of the project. • Method of vetting those still to be identified to be stated. • Vetting of past subcontractor records. • Maintenance of approved subcontractor lists where SHE has been considered. 						

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No.	ITEMS	N/A	10	20	30	40	50
III. ORGANIZATION, RESPONSIBILITIES, RESOURCES, STANDARDS AND DOCUMENTATION (cont'd)							
Subcontractor (cont'd)							
3.10	<u>Coverage/ awareness:</u> <ul style="list-style-type: none"> • Set up appropriate lines of communication to handle SHE issues, e.g. such items as: <ul style="list-style-type: none"> ~ Direct access to emergency services ~ Nearest hospital ~ Helicopter availability ~ Air ambulance, etc. ~ Authorization and implementation procedures fully understood • Emergency services: those organizations that would be expected to provide support in a major incident aware of requirements briefed as to their likely role. 						
SHE Meeting Program							
3.11	<u>External links:</u> <ul style="list-style-type: none"> • Lines established to communicate externally incidents that may endanger those on a site. • Individual responsibilities and procedures for the company and contractor(s) to make government agency reports have been agreed upon and clearly defined. • Contractor able to communicate with his entire workforce in an emergency. • Communications take into account the diversity of languages amongst the workforce. • Ability of base to mobilize in an emergency, e.g. doctors, hospital facilities. 						
3.12	<u>Emergency communication:</u> <ul style="list-style-type: none"> • Appropriate for incidents envisaged. • Strengthened, duplicated or backed up by other means. 						

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SHE PROGRAM CHECKLIST

No.	ITEMS	N/A	10	20	30	40	50
III. ORGANIZATION, RESPONSIBILITIES, RESOURCES, STANDARDS AND DOCUMENTATION (cont'd)							
SHE Meeting Program (cont'd)							
3.13	<u>Scheduling :</u> <ul style="list-style-type: none"> • Contractor to establish a regular schedule for SHE meetings. • Define responsible management person for scheduling such meetings. • Procedure to maintain records of personnel attendance of personnel attendance. 						
3.14	<u>Management participation</u> Managers seen to be involved by employees in: <ul style="list-style-type: none"> • SHE activities, objective setting and monitoring • Taking action and providing resources to support their stated policies and objectives. 						
3.15	<u>Meeting structure :</u> <ul style="list-style-type: none"> • SHE meeting structure. • Effective to manage and communicate on SHE. • Allow employees full involvement and their own-ideas to be heard. Typical agenda and meeting formats.						
3.16	<u>Follow-up actions :</u> <ul style="list-style-type: none"> • Meeting actions. • Where action is agreed, is it seen to be carried out? • Where action is not agreed, is it explained why? 						

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SHE PROGRAM CHECKLIST

No.	ITEMS	N/A	10	20	30	40	50
III. ORGANIZATION, RESPONSIBILITIES, RESOURCES, STANDARDS AND DOCUMENTATION (cont'd)							
SHE Meeting Program (cont'd)							
3.17	<u>Communication :</u> <ul style="list-style-type: none"> • Results of SHE activities, both successful and less successful, openly communicated to all employees. • Meeting program consistent with the rest of the management structure to communicate effectively SHE issues. • Meetings recorded clearly and consistently. Structured to include health, safety and environment items.						
SHE Promotion and Awareness							
3.18	<u>Techniques :</u> <ul style="list-style-type: none"> • Appropriate communications techniques used to make the personnel aware of SHE issues. • How this is to be implemented, e.g. <ul style="list-style-type: none"> ○ Personal contact ○ Interactive video ○ Notice-boards ○ Newsletters (suitable for large sites) ○ Bulletins ○ Posters 						
3.19	<u>Performance :</u> SHE performance boards (e.g. at worksite gates).						
3.20	<u>Promotional methods</u> Possibilities include: <ul style="list-style-type: none"> • Small 'give-away' with the SHE message • Competitions Suggestion schemes						

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SHE PROGRAM CHECKLIST

No.	ITEMS	N/A	10	20	30	40	50
III. ORGANIZATION, RESPONSIBILITIES, RESOURCES, STANDARDS AND DOCUMENTATION (cont'd)							
SHE Promotion and Awareness (cont'd)							
3.21	<u>Part of business :</u> SHE activities seen as an intrinsic part or running an efficient business rather than a costly and time-consuming 'extra'.						
SHE Competence Requirements							
3.22	<u>Fitness of personnel :</u> Confirmation of medical fitness from a recognized and approved medical facility of all proposed employees for contract.						
SHE Orientation Program							
3.23	<u>Approach :</u> <ul style="list-style-type: none"> • Provision of a comprehensive handbook for all new employees. • On-the-job orientation for supervisory staff. • Established procedure in relation to follow-up of all new employees at the worksite. 						
3.24	<u>New employees :</u> <ul style="list-style-type: none"> • Adequately trained and confident of their won abilities. • Coached to improve their work practices rather than blamed for mistakes. 						
3.25	<u>Accountability :</u> <ul style="list-style-type: none"> • Employees know they are accountable for SHE performance. • Aware that their SHE performances part of the contractor's appraisal and reward system. Know that flagrant or frequent breaks of published SHE rules will result in disciplinary action.						

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No.	ITEMS	N/A	10	20	30	40	50
III. ORGANIZATION, RESPONSIBILITIES, RESOURCES, STANDARDS AND DOCUMENTATION (cont'd)							
SHE Orientation Program (cont'd)							
3.26	<u>Procedures :</u> Required for new employee orientation consistent with existing company guidelines.						
3.27	<u>Re-appraisal :</u> Program subject to appraisal and review.						
SHE Training – General							
3.28	<u>Contract standards :</u> Statement on the current standard of workforce and training requirements to meet contract standard.						
3.29	<u>Established training program</u> Including: <ul style="list-style-type: none"> • SHE management • Job procedures • Road safety • Health (first-aid health hazards, medical services, alcohol and drugs, health promotion, use of PPE) • Auditing • Incident investigation and reporting • SHE adviser skills • Supervisory development • SHE meetings • Environmental protection 						
3.30	<u>Supervisory training :</u> Supervisory development training promotes management skills and communication skills.						

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No.	ITEMS	N/A	10	20	30	40	50
III. ORGANIZATION, RESPONSIBILITIES, RESOURCES, STANDARDS AND DOCUMENTATION (cont'd)							
SHE Training – General (cont'd)							
3.31	<u>Formalized program :</u> <ul style="list-style-type: none"> • Formal SHE orientation program for employees working on site. • Records kept of employees who have been through the program. • Employees trained before starting work. • Training covers those joining as a contract is being implemented. 						
3.32	<u>Coverage :</u> SHE training of employees coverage (including): <ul style="list-style-type: none"> • Safety • Fire and explosion • Road transport/driving • First-aid • Work procedures/PTW • Hazard awareness and reporting • Occupational health • Security • Basic SHE rules • Legislative requirements • Environmental 						
3.33	<u>Supervisors' participation :</u> Supervisors required to brief and debrief staff before and after training course.						
3.34	<u>Course content :</u> <ul style="list-style-type: none"> • Effective system for establishing the need for and the content of training courses. • Determining course effectiveness and relevance of training assessed. 						

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SHE PROGRAM CHECKLIST FOR MAJOR CONTRACT

No.	ITEMS	N/A	10	20	30	40	50
III. ORGANIZATION, RESPONSIBILITIES, RESOURCES, STANDARDS AND DOCUMENTATION (cont'd)							
SHE Training – General (cont'd)							
3.35	<u>Specialized training :</u> <ul style="list-style-type: none"> • Relevant training given to personnel prior to the execution or hazardous operations. • Training gained through course attendance supplemented by on-the-job training as necessary. Records kept of attendees of the training courses and qualifications gained by employees.						
3.36	<u>Emergency training :</u> Training covers the actions to be implemented and the employees' responsibilities in an emergency.						
3.37	<u>SHE content in other courses</u> SHE included in: <ul style="list-style-type: none"> • Induction courses. • Craft training. • Supervisory training. • Line management training. • Auditing techniques. 						
3.38	<u>Selection :</u> <ul style="list-style-type: none"> • Procedure in place for introducing competent SHE personnel on to the contract. • Criteria used by the contractor to select his SHE supervisory staff (e.g. career development, professional status). 						

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SHE PROGRAM CHECKLIST

No.	ITEMS	N/A	10	20	30	40	50
III. ORGANIZATION, RESPONSIBILITIES, RESOURCES, STANDARDS AND DOCUMENTATION (cont'd)							
SHE Training – Professionals							
3.39	<u>Training :</u> <ul style="list-style-type: none"> • Training is received by SHE professional. • Required specialization (e.g. drilling, radiation, chemicals). • Appropriate levels of: <ul style="list-style-type: none"> ~ Institute training. SHE management.						
3.40	<u>Qualification</u> Knowledge and experience of the contractor's SHE professional: <ul style="list-style-type: none"> • Match for competence for the job being carried out. • Match for the advice required. 						
SHE Legislation							
3.41	<u>Coverage :</u> <ul style="list-style-type: none"> • SHE Plan to include: <ul style="list-style-type: none"> ~ A comprehensive list of applicable legislation ~ Government, national & international codes ~ Company regulations, codes and standards ~ Contractor's identification of regulations, codes & standards • Hierarchical precedence stated. • Definition of the legislation, codes, standards, etc. reflecting the company's previous experience. • For contracts carried out i separate countries: <ul style="list-style-type: none"> ~ Different legislation requirements Company assistance for foreign contractors						
3.42	<u>Waivers :</u> Procedure for seeking waivers indicated						

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No.	ITEMS	N/A	10	20	30	40	50
III. ORGANIZATION, RESPONSIBILITIES, RESOURCES, STANDARDS AND DOCUMENTATION (cont'd)							
SHE Standards							
3.43	<u>Availability :</u> <ul style="list-style-type: none"> Contractor in possession of SHE manual/set of standards. Identifying minimum criteria for achievement during contract implementation. Available in writing to all users in consistent, concise and clear form. Users involved in the development. Standards in line with company requirements. 						
3.44	<u>Control/ authorization :</u> <ul style="list-style-type: none"> Controlled documents. Updated regularly. Approval level indicated. Procedure for obtaining deviations from standards. Responsibility for authorization. Standards in line with company requirements. 						
3.45	<u>Coverage :</u> <ul style="list-style-type: none"> Clear reference to national and international standards. Setting minimum requirements on health, safety and environmental issues. 						
III. Organization, Responsibilities, Resources, Standards and Documentation (Rating)		TOTAL / (No.Item – N/A)					

Rating Scale	
N/A	Not Applicable Equipments and/or conditions do not relate to the job.
10	Very Poor / Not available Equipments and/or conditions do not exist or are informal. No awareness observed in the workforce or Equipments and/or conditions have been defined but no plan established.
20	Poor / Not meeting requirements Equipments and/or conditions do not exist or are informal. Little awareness observed in the workforce or Equipments and/or conditions have been defined and a plan is in place but compliance is inconsistent.
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SHE PROGRAM CHECKLIST FOR MAJOR CONTRACT

No.	ITEMS	N/A	10	20	30	40	50
IV. EVALUATION AND RISK MANAGEMENT							
Methods and Procedures for Hazards and Effects Management							
4.1	<u>Coverage :</u> <ul style="list-style-type: none"> • Company assessment used as a starting point with additional hazards identified by the contractor. • Contractor's assessment carried out in accordance with his formal methods and procedures. • Analysis techniques used in preliminary form where appropriate. • Contract covers all parts of the contract with assessments for the specific scope and location of the contract. 						
4.2	<u>Experience and awareness :</u> Contractor able to use material from previous similar projects and demonstrate awareness from past experience.						
Assessment of Exposure of Workforce to Hazard and Effects							
4.3	<u>Coverage :</u> Contractor develops assessment of the scope and degree of exposure of workforce to hazards from the hazards and effects management process.						
Handling of Chemicals							
4.4	<u>Coverage :</u> Contractor demonstrates availability & distribution of guidance/information on the safe handling of chemicals, likely to be encountered in the contract, and proposals for confirming adherence to guidance during contract.						

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No.	ITEMS	N/A	10	20	30	40	50
IV. EVALUATION AND RISK MANAGEMENT (Cont'd)							
Hazards and Effects Management and the Assessment of PPE Requirements							
4.5	<u>Hazard assessment/PPE requirements :</u> <ul style="list-style-type: none"> All processes identified that require use of PPE. Statutory requirements similarly identified. Procedure in place for recording issue to personnel together with follow-up inspection and replacement/re-certification. Storage of PPE adequate and secure with procedure for ensuring adequacy of stock. 						
4.6	<u>PPE instruction/ training :</u> <ul style="list-style-type: none"> Requirements identified for all personnel. Instruction and training in its use provided where needed. Procedure for checking its use specified. 						
4.7	<u>Renewal/ replacement :</u> <ul style="list-style-type: none"> Schedule and criteria for renewing PPE. Schedule for re-certification. Responsibility for payment. 						
IV. Evaluation and Risk Management (Rating)		TOTAL / (No.Item – N/A)					

Rating Scale	
N/A	Not Applicable Equipments and/or conditions do not relate to the job.
10	Very Poor / Not available Equipments and/or conditions do not exist or are informal. No awareness observed in the workforce or Equipments and/or conditions have been defined but no plan established.
20	Poor / Not meeting requirements Equipments and/or conditions do not exist or are informal. Little awareness observed in the workforce or Equipments and/or conditions have been defined and a plan is in place but compliance is inconsistent.
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SHE PROGRAM CHECKLIST

No.	ITEMS	N/A	10	20	30	40	50
V. PLANNING AND PROCEDURES							
SHE Procedures							
5.1	<u>Availability/ control :</u> <ul style="list-style-type: none"> • Written procedures available to cover hazardous operations on SHE. • Include SHE precautions to be taken. • Consistent with company guidelines. • Controlled documents. • Appropriate level. • Coverage: include health and environment. • Written procedures: <ul style="list-style-type: none"> ~ Familiar to all employees including subcontractors. ~ Available in their working language. ~ Contents related to individual job descriptions. 						
5.2	<u>Deviations :</u> <ul style="list-style-type: none"> • Procedure for obtaining. • Responsibility and level. • Recording of authorized deviations. 						
5.3	<u>Omissions :</u> <ul style="list-style-type: none"> • Identify whether there are any areas where procedures for hazardous operations are not drafted. • Commitment to prepare. 						
5.4	<u>Permit to work (PTW) :</u> <ul style="list-style-type: none"> • System in place. If the contractor's own system is utilized, is it consistent with industry norms and in line with company guidelines?						
5.6	<u>Training/ qualification :</u> Training standards and qualifications set for personnel allowed to implement procedures.						

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SHE PROGRAM CHECKLIST

No.	ITEMS	N/A	10	20	30	40	50
PLANNING AND PROCEDURES (cont'd)							
Basic SHE Procedures							
5.7	<u>Availability :</u> <ul style="list-style-type: none"> • Set of rules available and distributed to all employees. • Users acknowledge receipt. • New employees given a copy before starting work. • Method of discussion and verifying understanding. 						
5.8	<u>Coverage :</u> <ul style="list-style-type: none"> • Covers health and environment as well as safety. • Set of rules provided tailored to specific contracts. • Identify hazards likely to be encountered. • Address basic housekeeping and hygiene. • Cover signals that will be encountered on site. 						
5.9	<u>Production/updating :</u> <ul style="list-style-type: none"> • Structure for producing updating and disseminating rules. • Frequency. • Personnel participation. • Involvement of users. 						
Emergency and Response Procedures							
5.10	<u>Coverage :</u> <ul style="list-style-type: none"> • Identification of potential major emergency scenarios, and procedures to use in such scenarios, e.g.: fire, abandon rig/location, storm, oil/chemical, spill, aircraft incident, emergency communications, medivac, blow-out, diving emergency, search and rescue (SAR), explosions, H₂S, well control, man overboard, evacuation, terrorism. Potential use of company guidelines.						

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SHE PROGRAM CHECKLIST

No.	ITEMS	N/A	10	20	30	40	50
PLANNING AND PROCEDURES (cont'd)							
Emergency and Response Procedures (cont'd)							
5.11	<u>Awareness</u> By employees of procedures : <ul style="list-style-type: none"> • Orientation. • Schedule of drills and testing. • Medical contingency Plan included. • Review frequency. • Responsibility of employees for own and colleagues' SHE. • Monitoring mechanism. • Drills to be carried out without warning. 						
5.12	<u>Plans :</u> <ul style="list-style-type: none"> • Contingency plans allowed for in emergency situations. • Recovery procedures in place to be activated in event of emergency scenarios. • Drills to be held to demonstrate preparedness for response. 						
SHE Equipment and Equipment SHE Inspection							
5.13	<u>SHE Equipment :</u> <ul style="list-style-type: none"> • List drawn up of all SHE equipment to be used on the project. • Identified by type, capacity and reference to standards. • Requirements identified for each item of SHE equipment, including: <ul style="list-style-type: none"> ~ Registry. ~ Classification. ~ Licensing. ~ Survey ~ Test certification 						

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SHE PROGRAM CHECKLIST

No.	ITEMS	N/A	10	20	30	40	50
PLANNING AND PROCEDURES (cont'd)							
SHE Equipment and Equipment SHE Inspection (cont'd)							
5.14	<u>Critical items for SHE inspection :</u> <ul style="list-style-type: none"> • List drawn up of critical items of equipment that must be the subject of an SHE inspection. • Procedure established for carrying out SHE inspection of equipment (covering health, safety and environmental aspects to be reviewed). • Procedure established for checking standards where tools have been provided personally by tradesmen. 						
5.15	<u>Schedule :</u> <ul style="list-style-type: none"> • SHE equipment inspection schedule established for the duration of the project. • Inspection frequency clearly identified for critical items of plant. 						
Occupational Health							
5.16	<u>Facilities available :</u> <ul style="list-style-type: none"> • Facilities defined as part of contract : <ul style="list-style-type: none"> ~ Identify hazards. ~ Assess hazards. ~ Control hazards, e.g. engineering controls, procedural controls, PPE, vaccinations, etc. ~ Maintain emergency procedures. • Appropriate for the site conditions. • Welfare program meets the needs of isolated sites. • Local medical facilities evaluated in detail to assess : <ul style="list-style-type: none"> ~ Range and quality of equipment and supplies. ~ Hygiene standards. ~ Administration procedures and standards. ~ Transportation and communication. • Sufficient for day-to-day needs and consistent with relevant health programs. • Adequate provision for supply of drugs, antidotes, etc. 						

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SHE PROGRAM CHECKLIST

No.	ITEMS	N/A	10	20	30	40	50
V. PLANNING AND PROCEDURES (cont'd)							
Occupational Health (cont'd)							
5.17	<u>Staffing :</u> <ul style="list-style-type: none"> • Availability of adequately trained, experienced staff. Access to medical treatment facilities (if external).						
5.18	<u>Contingency plans :</u> Defined for possible incidents beyond capability of site facilities.						
5.19	<u>Accommodation and catering facilities :</u> <ul style="list-style-type: none"> • Where provided, facilities to meet normally accepted standards of hygiene at site location. • Facilities to be operated in line with government hygiene regulations and to meet company guidelines. Rules in force to maintain cleanliness of site and other facilities.						
5.20	<u>Promotion :</u> <ul style="list-style-type: none"> • Promotional material available to assist in maintaining standards. • Appropriate for the contractor's workforce in terms of : <ul style="list-style-type: none"> ~ Language ~ Clarity, etc. 						
5.21	<u>Hygiene and housekeeping :</u> Procedures on on-site cleanliness and maintenance.						

Rating Scale	
N/A	Not Applicable Equipments and/or conditions do not relate to the job.
10	Very Poor / Not available Equipments and/or conditions do not exist or are informal. No awareness observed in the workforce or Equipments and/or conditions have been defined but no plan established.
20	Poor / Not meeting requirements Equipments and/or conditions do not exist or are informal. Little awareness observed in the workforce or Equipments and/or conditions have been defined and a plan is in place but compliance is inconsistent.
30	Fair / Meeting requirements Equipments and/or conditions required to meet the expectation are in place. Compliance with processes and procedures is good.
40	Very Good / Exceeds requirements Equipments and/or conditions required to meet the expectation are in place and compliance is assured. Best in class performance is demonstrated.
50	Excellent Equipments and/or conditions required to meet the expectation are in place and compliance is assured. Best in class performance is demonstrated. Procedure is good.

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No.	ITEMS	N/A	10	20	30	40	50
V. PLANNING AND PROCEDURES (cont'd)							
Environmental							
5.22	<u>Awareness :</u> <ul style="list-style-type: none"> Workforce aware of requirement to protect the environment whilst executing contract. 						
5.23	<u>Control :</u> <ul style="list-style-type: none"> Identify potential environmental hazards. Develop procedures for handling materials and performing operations that may damage the environment. Contingency plans. 						
5.24	<u>Aims :</u> <ul style="list-style-type: none"> Focus for the environmental protection team. At what level? Line management responsibility for environmental protection defined as well as other job objectives. <p>Development and enhancement of environmental impact statements for the contract.</p>						
5.25	<u>Monitoring restoration :</u> <ul style="list-style-type: none"> Environmental monitoring to gauge the impact of operations. Plans appropriate and sufficiently detailed. <p>Recovery and restoration of site after contract completion.</p>						
5.26	<u>Audits :</u> <ul style="list-style-type: none"> Environmental audits of operations during the contract. <p>Carried out by experienced individuals or companies.</p>						

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SHE PROGRAM CHECKLIST

No.	ITEMS	N/A	10	20	30	40	50
V. PLANNING AND PROCEDURES (cont'd)							
Road Transport							
5.27	<u>Drivers :</u> 5.27.1. Competence and selection <ul style="list-style-type: none"> • Assess physical, mental and psychological capability. • Character and background. • Qualities and experience, medical examination, document checks, driving tests • Special skills such as terrain and climatic experience and first-aid knowledge • Should record personal and employment details, types of vehicle licensed to drive and types of cargo licensed to carry 						
	5.27.2. Driving Permits <ul style="list-style-type: none"> • Local area characteristics and regulations 						
	5.27.3. Driver induction This should test vehicle operation and use, operating conditions (terrain, climate), off-loading and positioning, emergency situations, and vehicle inspection						
	5.27.4. Driver training Techniques should identify deficiencies; analyses cause and select appropriate retraining						
	5.27.5. Driver Improvement <ul style="list-style-type: none"> • Ensure correct type, capacity and size for facilities • Good maneuverability and service ability 						

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No.	ITEMS	N/A	10	20	30	40	50
V. PLANNING AND PROCEDURES (cont'd)							
Road Transport (cont'd)							
	5.27.6. Selection The job description should be clearly defined before the vehicle is chosen, to ensure work operations do not exceed the manufacturer's specifications						
	5.27.7. Vehicle specification <ul style="list-style-type: none"> • Is the vehicle designed to carry passengers? • Design of vehicle and load limits • Segregation, positioning and securing of freight 						
	5.27.8. Passenger <ul style="list-style-type: none"> • Conducted on a regular basis 						
	5.27.9. Freight						
	5.27.10. Vehicle maintenance						
	5.27.11. Ops management: need and approval <ul style="list-style-type: none"> • Define the journey and justify the need. • Awareness of hazards involved. • Allocation of vehicles, written authorization, verification of employees' driving standards 						
	5.27.12. Journey routing and scheduling <ul style="list-style-type: none"> • Full awareness of route (hazards, conditions) 						
	5.27.13. Journey management <ul style="list-style-type: none"> • Realistic schedules • Logging of actions 						
	5.27.14. Roles and responsibilities <ul style="list-style-type: none"> • Roles and responsibilities defined for management, supervisors, drivers, and passenger. 						

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No.	ITEMS	N/A	10	20	30	40	50
V. PLANNING AND PROCEDURES (cont'd)							
Road Transport (cont'd)							
5.28	<u>Contracting :</u> <ul style="list-style-type: none"> • Pre-Qualification of contractors and contractor SHE management treating road transport with equal importance to main activity. • Standards for scope of operations included in tender operation. • Control and review mechanisms included in contracts. • Policy of no subcontracting without written authority. 						
5.29	<u>Procedures :</u> <ul style="list-style-type: none"> • Ensure procedures are in place for all transport operations. • Monitor and review mechanisms in place. 						
5.30	<u>Emergency service :</u> In place and tested.						
V. Planning and Procedures (Rating)		TOTAL / (No.Item – N/A)					

Rating Scale	
N/A	Not Applicable Equipments and/or conditions do not relate to the job.
10	Very Poor / Not available Equipments and/or conditions do not exist or are informal. No awareness observed in the workforce or Equipments and/or conditions have been defined but no plan established.
20	Poor / Not meeting requirements Equipments and/or conditions do not exist or are informal. Little awareness observed in the workforce or Equipments and/or conditions have been defined and a plan is in place but compliance is inconsistent.
30	Fair / Meeting requirements Equipments and/or conditions required to meet the expectation are in place. Compliance with processes and procedures is good.
40	Very Good / Exceeds requirements Equipments and/or conditions required to meet the expectation are in place and compliance is assured. Best in class performance is demonstrated.
50	Excellent Equipments and/or conditions required to meet the expectation are in place and compliance is assured. Best in class performance is demonstrated. Procedure is good.

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SHE PROGRAM CHECKLIST

No.	ITEMS	N/A	10	20	30	40	50
VI. IMPLEMENTATION AND PERFORMANCE MONITORING							
SHE Performance – General							
6.1	<u>Measurement :</u> 6.1.1. Proposed plan to measure performance, i.e. : <ul style="list-style-type: none"> • Performance indicators. • Progress against targets. • SHE initiatives/incentive schemes. • Achievement of milestones. • Numbers and types of training courses • Numbers and results of audits. • Clearance of action items. 6.1.2. Use will be made of reactive statistical indicators, e.g. : <ul style="list-style-type: none"> • Lost Time Injury Frequency/Total Recordable Incident Rate. • Numbers of first-aid and minor injuries. • Material losses. • Vehicle incidents. • Spillages. • Occupational illnesses. • Sickness absenteeism. 						
6.2	<u>Feedback/analysis :</u> <ul style="list-style-type: none"> • Availability and use of performance records. • Feedback/review/discussion at SHE meetings. • Presentation and distribution to employees. 						
6.3	<u>Comparison of performance :</u> <ul style="list-style-type: none"> • With other similar contract work. • Frequency specified. • Involvement of company personnel. 						

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No.	ITEMS	N/A	10	20	30	40	50
VI. IMPLEMENTATION AND PERFORMANCE MONITORING (cont'd)							
SHE Performance – General (cont'd)							
6.4	<u>Coverage :</u> <ul style="list-style-type: none"> • Reporting procedure for the contract. • Covering not only injuries to and time lost by personnel but also: <ul style="list-style-type: none"> ~ Health incidents (diseases, exposures to hazardous substances, near misses, etc.). ~ Environmental incidents (spoilages, releases, contamination, etc.). ~ Other safety incidents (safety equipment failures, loss of capital equipment). ~ Material loss. 						
6.5	<u>Methods :</u> <ul style="list-style-type: none"> • Incident investigation method established to determine and correct causes. • Incidents first reported to the direct supervisor. • Incident investigation teams led by the relevant managers. • Differentiation made between numbers of first-aid treatments and other minor injuries. • Procedure in place on vehicle incidents. Methods to be used for collecting incident statistics.						
VI. Implementation and Performance Monitoring (Rating)		TOTAL / (No.Item – N/A)					

Rating Scale	
N/A	Not Applicable Equipments and/or conditions do not relate to the job.
10	Very Poor / Not available Equipments and/or conditions do not exist or are informal. No awareness observed in the workforce or Equipments and/or conditions have been defined but no plan established.
20	Poor / Not meeting requirements Equipments and/or conditions do not exist or are informal. Little awareness observed in the workforce or Equipments and/or conditions have been defined and a plan is in place but compliance is inconsistent.
30	Fair / Meeting requirements Equipments and/or conditions required to meet the expectation are in place. Compliance with processes and procedures is good.
40	Very Good / Exceeds requirements Equipments and/or conditions required to meet the expectation are in place and compliance is assured. Best in class performance is demonstrated.
50	Excellent

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	Equipments and/or conditions required to meet the expectation are in place and compliance is assured. Best in class performance is demonstrated. Procedure is good.
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No.	ITEMS	N/A	10	20	30	40	50
VII. AUDIT AND REVIEW							
SHE Auditing							
7.1	<u>Availability</u> : Established SHE procedure outlining responsibilities, frequency, methods and follow-up.						
7.2	<u>Scope</u> Compliance with the SHE Plan including : <ul style="list-style-type: none"> • SHE Management. • Departmental personnel SHE. • Technical personnel SHE. • Subcontractor. • Occupational health. • Unsafe acts. • Audit training. • Environmental. • Own activities and those of his subcontractors. 						
7.3	<u>Coverage</u> : <ul style="list-style-type: none"> • Consistent with company guidelines. • Schedule for full contract duration. • Involvement of personnel in audit teams from outside the location. • Carried out by a wide cross-section of the workforce including company and subcontractor personnel. 						

Rating Scale	
N/A	Not Applicable Equipments and/or conditions do not relate to the job.
10	Very Poor / Not available Equipments and/or conditions do not exist or are informal. No awareness observed in the workforce or Equipments and/or conditions have been defined but no plan established.
20	Poor / Not meeting requirements Equipments and/or conditions do not exist or are informal. Little awareness observed in the workforce or Equipments and/or conditions have been defined and a plan is in place but compliance is inconsistent.
30	Fair / Meeting requirements Equipments and/or conditions required to meet the expectation are in place. Compliance with processes and procedures is good.
40	Very Good / Exceeds requirements Equipments and/or conditions required to meet the expectation are in place and compliance is assured. Best in class performance is demonstrated.
50	Excellent Equipments and/or conditions required to meet the expectation are in place and compliance is assured. Best in class performance is demonstrated. Procedure is good.

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No.	ITEMS	N/A	10	20	30	40	50
VII. AUDIT AND REVIEW (cont'd)							
SHE Auditing (cont'd)							
7.4	<u>Effectiveness :</u> <ul style="list-style-type: none"> • How verified. • Involvement of the contractor's corporate management in review of findings. • Intention to publish findings. • Discussion with personnel on contract and SHE meetings. • Lessons used to improve operations across the contract. 						
7.5	<u>Follow-up :</u> <ul style="list-style-type: none"> • Any numerical treatment made of findings. • Frequency of review of implementation progress. • Rejections of audit findings properly authorized and documented. 						
VII. Audit and Review (Rating)		TOTAL / (No.Item – N/A)					

Rating Scale	
N/A	Not Applicable Equipments and/or conditions do not relate to the job.
10	Very Poor / Not available Equipments and/or conditions do not exist or are informal. No awareness observed in the workforce or Equipments and/or conditions have been defined but no plan established.
20	Poor / Not meeting requirements Equipments and/or conditions do not exist or are informal. Little awareness observed in the workforce or Equipments and/or conditions have been defined and a plan is in place but compliance is inconsistent.
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50	Excellent Equipments and/or conditions required to meet the expectation are in place and compliance is assured. Best in class performance is demonstrated. Procedure is good.

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Appendix V.3: CSMS/WIP/03 Interim Evaluation Checklist

INTERIM EVALUATION CHECK LIST

Date :

Period :

Job Title :

Contract No :

Work Location :

Contractor's Name :

Address :

Contractor Reps: _____
(Name/Date)

Company Reps: _____
(Name/Date)

Acknowledged by: _____
(Name/Date)

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INTERIM EVALUATION CHECKLIST

No	ITEM	RATING	COMMENTS
<i>SHE INSPECTION</i>			
1.	Housekeeping		
2.	Personal Protective Equipment (PPE)		
3.	Fire Prevention and Fire Protection		
4.	Signs, Signals and Barricades		
5.	Hazard Communication		
6.	Hazardous Material		
7.	Hand and Power Tools		
8.	Electrical Safety		
9.	Welding, Cutting, and Grinding		
10.	Compressed Gases		
11.	Confined Spaces		
12.	Ladders		
13.	Scaffolds		
14.	Excavations		
15.	Mechanized Equipment		
16.	Cranes and Hoists		
17.	Wall Opening		
AVERAGE RATING			

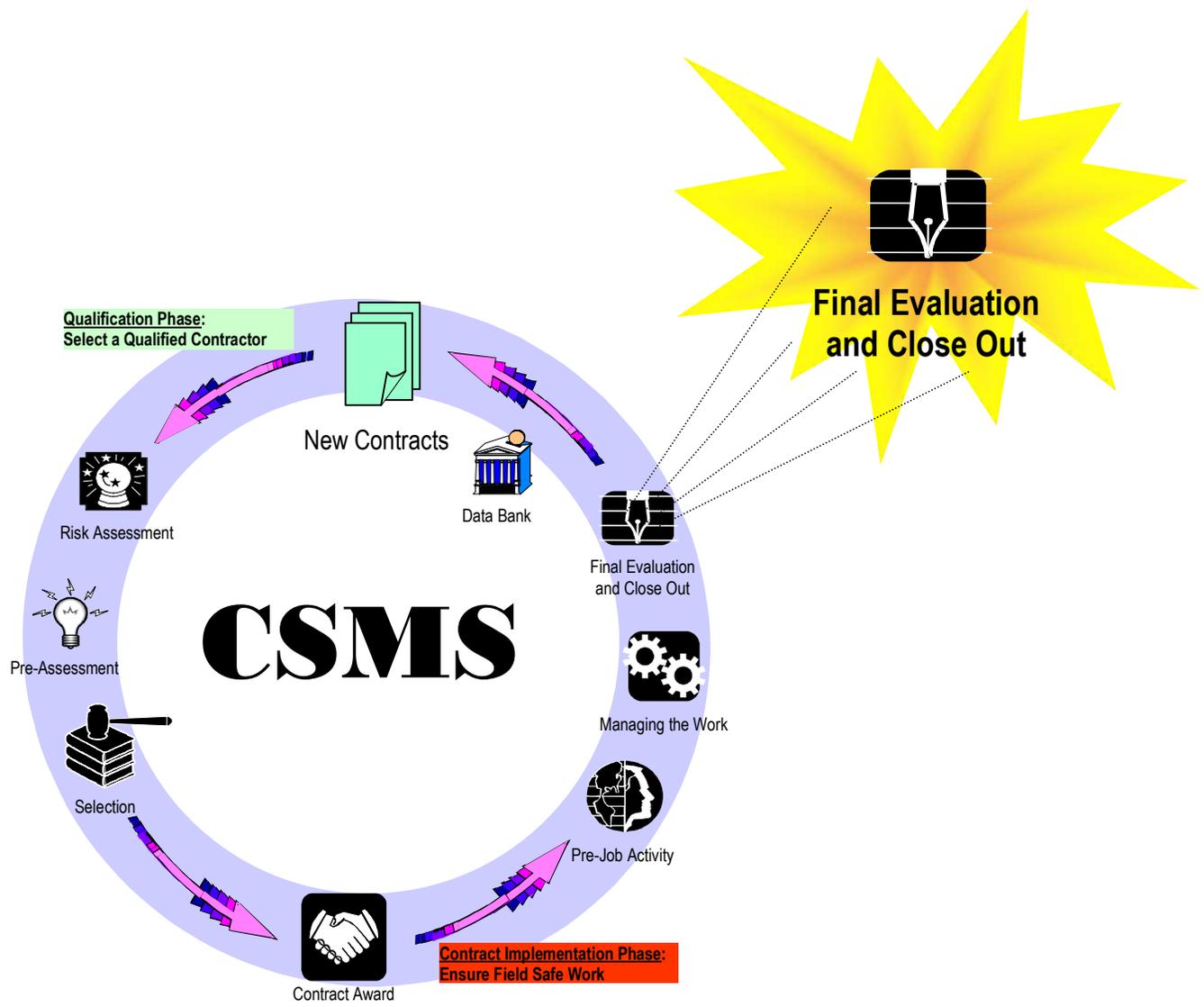
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INTERIM EVALUATION CHECKLIST

No.	ITEM	RATING	COMMENTS
SHE PROGRAM			
1.	Leadership and Commitment		
2.	Policy and Strategic Objectives		
3.	Organization, Responsibilities, Resources, Standards and Documentation		
4.	Evaluation and Risk Management		
5.	Planning and Procedures		
6.	Implementation and Performance Monitoring		
7.	Audit and Review		
AVERAGE RATING			
<p style="text-align: center;">SHE PERFORMANCE</p> 1. No of First Aids : _____ 2. No of Recordable Cases : _____ 3. No of Lost Workday Cases : _____ 4. No of Equipment Damage Incidents : _____ 5. No of Spills / non-Compliance Cases : _____		<p>Contractor Reps:</p> _____ Name/Title _____ Signature/Date <p>Company Reps:</p> _____ Name/Title _____ Signature/Date	

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Appendix VI: Final Evaluation and Close Out Form



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Appendix VI.1: CSMS/FE/01 Final Evaluation and Close Out Checklist

FINAL EVALUATION CHECKLIST

Date :

Period :

Job Title :

Contract No :

Work Location :

Contractor's Name :

Address :

Contractor Reps: _____
(Name/Date)

Company Reps: _____
(Name/Date)

Acknowledged by: _____
(Name/Date)

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FINAL EVALUATION CHECKLIST

No	ITEM	RATING	COMMENTS
SHE INSPECTION			
1.	Housekeeping		
2.	Personal Protective Equipment (PPE)		
3.	Fire Prevention and Fire Protection		
4.	Signs, Signals and Barricades		
5.	Hazard Communication		
6.	Hazardous Material		
7.	Hand and Power Tools		
8.	Electrical Safety		
9.	Welding, Cutting, and Grinding		
10.	Compressed Gases		
11.	Confined Spaces		
12.	Ladders		
13.	Scaffolds		
14.	Excavations		
15.	Mechanized Equipment		
16.	Cranes and Hoists		
17.	Wall Opening		
FINAL RATING			

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FINAL EVALUATION CHECKLIST

No.	ITEM	RATING	COMMENTS
SHE PROGRAM			
1.	Leadership and Commitment		
2.	Policy and Strategic Objectives		
3.	Organization, Responsibilities, Resources, Standards and Documentation		
4.	Evaluation and Risk Management		
5.	Planning and Procedures		
6.	Implementation and Performance Monitoring		
7.	Audit and Review		
FINAL RATING			
<p style="text-align: center;">SHE PERFORMANCE</p> 1. No of First Aids : _____ 2. No of Recordable Cases : _____ 3. No of Lost Workday Cases : _____ 4. No of Equipment Damage Incidents : _____ 5. No of Spills / non-Compliance Cases : _____		<p>Contractor Reps:</p> <p style="text-align: center;">_____</p> <p style="text-align: center;">Name/Title</p> <p style="text-align: center;">_____</p> <p style="text-align: center;">Signature/Date</p> <p>Company Reps:</p> <p style="text-align: center;">_____</p> <p style="text-align: center;">Name/Title</p> <p style="text-align: center;">_____</p> <p style="text-align: center;">Signature/Date</p>	

Appendix VI.2: CSMS/FE/02: Contractor Performance Evaluation

Contractor Performance Evaluation (CPE) Form
Sheet – 1

Contract No. :
 Name of Services :
 Contract Period :
 Contractor :
 Prepared by :

No	Performance Criteria	Evaluation of Performance Criteria				Remarks
		Not applicable	Poor/Not meeting requirements	Acceptable/ Meeting requirements	Exceeds requirements	
A Personnel						
A.1	Experienced					
A.2	Skills					
A.3	Competencies/ Capabilities					
A.4	Medically Fit					
A.5	Discipline and Responsibility					
A.6	Full awareness of SHE procedure					
A.7	Professional certification					
A.8	Prompt Attendance					
A.9	Good Communication					
Personnel Result: Poor if there is at least 1 Poor in all criteria; Acceptable if it has no Poor and less than 3 Exceeds in all criteria; Exceeds if there is no Poor and at least 3 Exceeds in all criteria						
B Equipment/Tools						
B.1	Function for purpose					
B.2	Well maintained					
B.3	Timely replace required equipment					
B.4	Equipment certification					
B.5	Availability of Equipment/Tools					

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Equipment/Tools Result: Poor if there is at least 1 Poor in all criteria; Acceptable if it has no Poor and less than 2 Exceeds in all criteria; Exceeds if there is no Poor and at least 2 Exceeds in all criteria	
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

C Services						
C.1	Service quality as per requirement					
C.2	On Schedule					
C.3	Comprehensive and Timely prepared Report					

Services Result: Poor if there is at least 1 Poor in all criteria; Acceptable if it has no Poor and less than 2 Exceeds in all criteria; Exceeds if there is no Poor and at least 2 Exceeds in all criteria	
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

D Safety, Health, and Environmental

SHE Result: SHE aspects result is obtained from CSMS Final Evaluation result (refer to Appendix VI.1)	
-----------------------------------------------------------------------------------------------------------------	--

E KPI For Work Performance

KPI Result: Score is taken from agreed KPI if KPI Result is Poor then the overall CPE Result is Poor	
-------------------------------------------------------------------------------------------------------------------	--

OVERALL RESULT Poor if there is at least 1 Poor; Acceptable if there is no Poor and less than 2 Exceeds; Exceeds if no Poor, and at least 2 Exceeds	
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

Originated by: (Process Owner)	Reviewed by: (CSMS Team)
Signature:	Signature:
Name:	Name:
Date:	Date:
Approved by: (Line Manager)	Acknowledged by: (Contractor Reps.)
Signature:	Signature:
Name:	Name:
Date:	Date:
Received by: (Procurement Manager)	
Signature:	
Name:	
Date:	

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Appendix VII: Roles and Responsibilities (RACI) for All Processes

	Originator/End User/Process Owner	SHE Representative	Line Manager	Contractor	Procurement	CSMS Team
PLANNING AND RISK ASSESSMENT	<p>Analyses the inherent hazards associated with the work, complete, and sign the checklist. These activities may be delegated down as necessary.</p> <p>However, responsibility for signing the checklist lies with the respective Line Manager.</p>	<p>Verifies the risk assessment upon request.</p>	<p>Approves the Risk Assessment Resume.</p>	<p>Not Applicable</p>	<p>Ensures Risk Assessment Resume has been filled, appropriately signed, and attached to the MSR prior to processing it.</p>	<p>Ensures that the Risk Assessment Resume is verified and recorded into the CSMS database.</p>
	RACI	Responsible	Consult	Accountable	-	Informed
	Originator/End User/Process Owner	SHE Representative	Line Manager	Contractor	Procurement	CSMS Team
PRE-QUALIFICATION	<p>Prepares SHE requirements for inclusion into the Bid Document.</p> <p>Involved in inspection activities.</p>	<p>Verifies pre-qualification packages, if necessary.</p> <p>Educates Contractor to understand the pre-qualification form, and successful criteria to meet Company SHE requirements.</p> <p>If necessary, participates in inspections, audits activities, provides SHE assurance, produces the necessary recommendations, and monitors follow-ups of the recommendation.</p>	<p>Determines the necessity of continuing with the pre-qualification process when no candidates meet the minimum SHE scores.</p> <p>Monitors inspection and audit activities.</p>	<p>Responds to questionnaires and provides SHEMS information.</p> <p>Provides clarifications, if requested.</p> <p>Obligated to undergo SHE inspections and audits.</p>	<p>Prepares pre-qualification package for work classified as high risk:</p> <ul style="list-style-type: none"> • Instructions to Bidders • Questionnaire • Evaluation criteria <p>Checks Contractor CSMS history during the evaluation process.</p> <p>If necessary, participates in inspections.</p> <p>Develops Bidder List based on the pre-qualification results. Assists all pre-qualification evaluation results are well documented and easy to locate.</p> <p>Provides feedback to Contractor that</p>	<p>Coordinate pre-qualification documents submitted by Bidders and inputs the initial results into the CSMS database.</p> <p>Coordinate inspection activities and inputs the results into the CSMS database.</p> <p>Issues CSMS PQ certificate to pre-qualified Contractor.</p>



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					fails the pre-assessment.	
RACI	Responsible	Consult	Responsible	Responsible	Responsible	Accountable
	Originator/End User/Process Owner	SHE Representative	Line Manager	Contractor	Procurement	CSMS Team
SELECTION	<p>Develops SHE evaluation criteria specific to each work type and weighting system (if applied).</p> <p>Involve in bid evaluation, including inspection process if required.</p>	<p>Assists in developing weighting system (if applied).</p> <p>Provides SHE assurance and produces the necessary recommendation and monitors follow-up of the recommendation.</p>	<p>Approves bid evaluation and recommendation for award as Bid Committee member.</p>	<p>Not Applicable</p>	<p>Coordinates bid evaluation process.</p>	<p>Advises and assists on SHE related matters during selection process.</p>
RACI	Responsible	Consult	Responsible	-	Accountable	Responsible
	Originator/End User/Process Owner	SHE Representative	Line Manager	Contractor	Procurement	CSMS Team
PRE-JOB ACTIVITIES	<p>Works together with Contractor to initiate Pre- Job Activities: Sets schedule of inspections, kick-off meeting, site orientations and SHE briefings, pre-mob evaluation and meetings.</p> <p>Evaluates Contractor's SHE Plan and assures adequacy of Contractor's SHE Plan.</p> <p>Finalizes SHE Plan, Contractor's Performance contract and target (KPI).</p> <p>Communicates SHE Plan to all involved personnel both Company and Contractor.</p> <p>Complete Pre-Job Activities SHE records.</p>	<p>Assists the Line Managers or Process Owner to facilitate all CSMS Pre-Job Activities processes until they are completed.</p> <p>Provides necessary input and verifies final drafts of SHE Plan.</p> <p>Conducts necessary SHE Audits, and onsite inspections along with related parties.</p> <p>Provides SHE assurance and produces the necessary recommendations and monitors follow-up of the recommendation.</p>	<p>Ensures that CSMS pre-job activities are well planned established and meet SHE requirement, including Sub-contractor if any.</p> <p>Signs and approves Contractor's KPI, which have already been set to meet Company's targets.</p> <p>Line Manager or his/her authorized delegate should conduct SHE inspections and audits at points of mobilization and decide whether mobilization can proceed or not.</p>	<p>Works closely along with Company Process Owner to conduct all series of CSMS Pre-Job Activities.</p> <p>Participates in inspections, kick-off meeting, site orientations and SHE briefings.</p> <p>Completes all CSMS Pre-Job Activities requirements.</p> <p>Completes any gaps identified during the pre-mobilization activities.</p> <p>Mobilizes equipment.</p> <p>Assures SHE Plan is communicated to all involved personnel both Company and Contractor</p>	<p>Advises Line Manager or Process Owner if there are special concerns about Contract obligations, conditional acceptances, rewards and penalties, etc.</p>	<p>Verify and secure that results are recorded into the CSMS database.</p> <p>Input Pre-Job Activities SHE records into CSMS Database.</p>
RACI	Responsible	Consult	Accountable	Responsible	Consult	Responsible



CSMS MANUAL

No.

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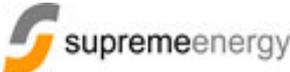
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	Originator/End User/Process Owner	SHE Representative	Line Manager	Contractor	Procurement	CSMS Team
MANAGING THE WORK	<p>Works together with Contractor to conduct regular joint Audit/ inspections during the Contractor's work.</p> <p>Ensures all work in progress activities/ joint audits, inspections are well documented using the checklist available as minimum.</p> <p>Monitors and evaluates Contractor SHE performance, assure inspections, feedback to Contractor and follow up findings or gaps identified are conducted.</p> <p>Produces Interim Evaluation reports signed by both Contractor and Company Reps. Ensures those reports are well documented.</p> <p>Follow up Company SHE Reps. Recommendation</p>	<p>Provides SHE assurance and produces the necessary recommendation and monitors follow up of the recommendation.</p>	<p>For high risk and high value work, it is the mandatory requirement for the Line Manager accountable for the work to carry out visits at Company premises where the Contractor is performing the work within 14 (fourteen) calendar days after work commencement.</p> <p>Assures follow up actions.</p> <p>Conducts SHE observation.</p>	<p>Works closely together with Company Managers/ Process Owner to conduct regular Joint audit/ inspections during the work including Senior Management visits.</p> <p>Provides feedback and follow up actions following findings on joint audits in an expeditious manner.</p> <p>Signs interim evaluation reports.</p> <p>Complies with SHE Plan and KPI.</p> <p>Performs the contracted work.</p> <p>Fills gaps identified during inspections according to the time frame.</p> <p>Seeks formal approvals from Process Owner for any proposed deviations from or amendments to the SHE Plan.</p>	<p>Involved in developing Managing the Work schedule upfront and regular progress meetings.</p>	<p>Maintains CSMS Managing the Work database.</p> <p>Joint effort with Process Owner and Contractor's Management to develop Managing the Work schedule upfront.</p> <p>Ensures all reports are well documented and recorded in database.</p>
RACI	Responsible	Consult	Accountable	Responsible	Informed	Informed
	Originator/End User/Process Owner	SHE Representative	Line Manager	Contractor	Procurement	CSMS Team
FINAL EVALUATION AND CLOSE OUT	<p>Conducts final Contractor SHE performance evaluations, based on interim evaluations.</p> <p>Provides feedback to Contractor.</p>	<p>Provides necessary assurance and verifications to the final evaluation based on the proper CSMS processes.</p>	<p>Reviews and approves final Contractor SHE evaluations.</p>	<p>Receives and provides feedback of evaluations.</p> <p>Acknowledge CPE result.</p>	<p>Closes out Contract.</p>	<p>Ensure CSMS Final Evaluation and Close Out report is recorded into CSMS database.</p> <p>Keep the original</p>

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	Submits results to the CSMS Team for recording and assessment of CSMS database. Reviews final Contractor SHE evaluations.					document.
<i>RAI</i>	<i>Responsible</i>	<i>Consult</i>	<i>Accountable</i>	<i>Informed</i>	<i>Informed</i>	<i>Responsible</i>

	SAFETY HEALTH AND ENVIRONMENT EMERGENCY PREPAREDNESS	PROCEDURE
CORPORATE	JAKARTA OFFICE EMERGENCY PROCEDURE	SE-MSHE-EMP-PRO-0002 Revision: 1

APPROVAL

	POSITION	NAME	SIGNATURE	DATE
Prepared by	SHE Engineer	Akhmad Wahyudi Ardhi		05/07/17
Reviewed By	Sr. SHE Manager	M. Arief Tarunaprawira		02/09/17
Approved By	VP Relation & SHE	Priyandaru Effendi		19/09/17

REVISION HISTORY

REV	DATE	BY	REVIEWED	APPROVED	DESCRIPTION
1	19/07/17	AWA	MAT	PE	Change of address and ERT members

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1 INTRODUCTION

Emergency situations can happen at any time and at any place in our office, and therefore we must be prepared to manage them when they occur.

The Jakarta Office is located at Menara Sentraya - 23rd Floor, Jl. Iskandarsyah Raya No.1A Kebayoran Baru Jakarta Selatan 12160. It accommodates staff of the companies PT Supreme Energy Muara Laboh, PT Supreme Energy Rajabasa, and PT Supreme Energy Rantau Dedap and PT Supreme Energy.

Being prepared for an emergency is essential in order to react adequately when such situation, by definition unpredictable, effectively occurs. The organization, management, training and guidelines to follow in case of different types of emergencies which may occur in the Jakarta Office are the subject of this document.

2 JAKARTA OFFICE EMERGENCY RESPONSE TEAM

The Jakarta Office Emergency Response Team is outlined below.

This Emergency Response Team (ERT) structure and membership are subject to revision at any time, as required.

3 PERSONNEL LISTING

List of all office personnel complete with his/her phone numbers will be maintained and kept by the Emergency Response Team Leader (ERT-L) and Floor Warden.

This list will be used to check the employee status in case of emergency through the “role-call action” following the gathering of all personnel at the “**Muster Point**” or “**Assembly Area**”.

4 EMERGENCY ALARM

If you hear the Emergency Alarm, please pay close attention. If you are instructed to evacuate the building, please take the following actions:

- Stay calm and do not panic
- Secure important documents
- Switch off and disconnect all electrical equipment
- Do not make unnecessary telephone calls, including mobile phone calls
- Listen carefully to the announcement made by Building Management through the Public Address system
- Follow the instructions provided by the Emergency Evacuation Team

Membership of ERT	Name
Emergency Response Team Leader	Bagus Permadi
Deputy - 1 Emergency Response Team Leader	Leksono

Deputy - 2 Emergency Response Team Leader	Reyga Rivaldi
Floor Warden - South Side	Evans Satya (alt. Ketut Murniata)
Floor Warden – North Side	Begawan Manik (alt. Demas Seto)
Men First Aider	Faishal Dwi Ismail Indra Teguh H
Women First Aider	Aprilia Hermansyah Rizka Amalia
Ground Coordinator – South Side	Christian Limbong Bima Aryaputra Y
Ground Coordinator – North Side	Fadlis Barnaji Yundith H Hermawan
Security Manager / Security Guard On-duty	M. Yunus / Any Security Guard who is on duty when the Emergency happens

5 EMERGENCY SITUATION

If you find an Emergency Situation or accident where assistance is required, please contact **021-2934-2056 or 0811-162-5212** (Emergency Response Team Leader's telephone No.) or **021-2934-2092 or 0812-856-3798** (SHE Department).

5.1 Medical Emergency

If a serious illness or injury occurs to someone in the office:

- Contact his/her Supervisor and the Men First Aider or Women First Aider
- The Men First Aider and Women First Aider and/or Medical Officer (when available) shall assist in:
 - Giving initial treatment to the injured / ill persons.
 - Arranging an ambulance or car to take such persons to the nearest hospital if necessary.
 - Contact hospital or medical service providers

Below is the List of Ambulance and Hospital for medical assistance which is arranged on priority basis:

No	Name	Location	Phone
1	RSPP Pertamina Pusat	Jl. Kyai Maja 43, Jakarta Selatan	+62-21-720 0290
2	RSAL Dr. Mintoardjo	Bendungan Hilir, Jakarta Pusat	+62-21-570 3081 - 5
3	RS MRCCC Siloam Hospitals	Jl. Garnisun Kav.2-3 Karet Semanggi, Setiabudi, Jakarta Selatan	+62-21-2996-2789
3	RS Jakarta	Jl. Sudirman, Jakarta Selatan	+62-21-5732241 Ext. 117
4	RS. Harapan Kita	Jl. S. Parman, Slipi, Jakarta	+62-21-5684085

5	RS MMC	Jl. Rasuna Said Kav C.21	+62-21-520 3435 / 522 5201
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The first priority shall be Rumah Sakit Pertamina Pusat (RSPP). In case it is not possible to take the person to RSPP, e.g. due to hard traffic condition, the next shall be RSAL Dr. Mintohardjo. Thereafter, subsequent hospital based on the above priority order shall be contacted.

5.2 Fire Emergency

- When smoke or fire is noticed, keep calm and call for help: **“Fire Fire Fire ...!!”**
- Activate the nearest Fire Emergency Button by pushing-in and pulling down the button.

The Fire Emergency Buttons are located above the Fire Equipment Cabinets on each floor of the Menara Sentraya..

If the fire can potentially be extinguished and if you are trained, please:

- Extinguish fire using the nearest fire extinguisher (fire extinguishers are located in the Fire Cabinets, see *Appendix A*).
- Close all doors around the fire.
- Alert anyone in the area to leave immediately.
- Alert / call Floor Warden
- Inform Building Management (+62-21- 2788-1881 or 2788-1887).

If you are un-trained:

- Call Security Guard On-duty to fight the fire.
- Contact Floor Warden.
- Inform Building Management (+62-21- 2788-1881 or 2788-1887).

5.3 Do’s and Don’t

- Do not use lifts, use emergency stairways only
- Report to ground coordinator when you arrive at the muster point.
- Do not panic or run.
- For personal car owners, do not try to exit the building with your car.
- If caught in smoke:
 - take short breaths, cover your mouth and nose with handkerchief or cloth.
 - crawl to escape.

5.4 Bomb Threat Procedure

Bomb threat methods could be:

- call or message
- suspicious letter or package

If you receive a bomb threat:

- Be calm and do not panic.
- Obtain information from caller as detailed as possible (Use Bomb Threat Answering Checklist).
- Inform Security Guard On-duty, Floor Warden and/or Emergency Response Team Leader.
- Emergency Response Team Leader will inform Building Management.
- Do not attempt to find the bomb. Be prepared to evacuate from building.
- Listen to the announcement through building's Public Address system.
- Conduct quick inspection of your workstation area if possible, observing any suspicious objects.
- Do not touch or try to move any suspicious objects.
- Leave the building by following instructions from the Floor Warden.
- Leave doors open behind you (except fire doors) as you exit the building

If Discovering Suspicious Letter or Package:

- Call Security Guard On-duty immediately and inform Floor Warden
- Do not touch or try to move the object.
- Observe quickly to remember the characteristic of the letter / package.
- In case the package/letter is in your hand, lay it gently on the nearest stable surface.

Floor Warden shall inform Emergency Response Team Leader and will coordinate with Building Management after instruction from Emergency Response Team Leader.

Security Guard On-duty shall isolate the place from the reach of any person until the Police or Building Management's representative comes.

5.5 Procedure in Case of Earthquake

- Please stay put. Do not attempt to leave the office and definitely do not use the elevators during the earthquake.
- Wait for an announcement from your Floor Warden, who will receive instructions from Building Management.

If you notice that some parts of the Building such as ceiling or windows are beginning to crack or fall down, follow these recommended actions:

- Get under a table or any piece of substantial furniture which will provide :
 - protection
 - air space.
- Move close to a building support column or into the Fire Escape stairs which may provide a safe place from falling pieces of ceiling.

- Stay away from windows, bookshelves, ceiling lamps, filing cabinets and other heavy objects which may fall over during the quake.
- If you are in the elevator, try to get off immediately at any floor. If trapped, don't panic, push the emergency button and call for help.
- If you are in the lobby, don't rush outside - stay in the building to avoid falling glass. Wait for further instructions.
- If you are outside, stay as far as possible away from all high-rise buildings.

“BREAKING GLASS, FALLING OBJECTS ARE VERY DANGEROUS”

IN CASE WE HAVE TO EVACUATE FROM THE OFFICE, PLEASE FOLLOW THIS EVACUATION PROCEDURE:

6 EVACUATION PROCEDURE

- Evacuation command will be announced through the Public Address system along with activation of the building emergency alarm.
- In any case of Emergency situation, final decision to evacuate or not will be made by Emergency Response Team Leader. If the Emergency Response Team Leader and Deputy Emergency Response Team Leader are neither available nor possible to contact, evacuation decision shall be made by Floor Warden.
- In case evacuation has to be made, leave the building immediately following instructions from the Floor Warden, via the stairway following the EXIT signs, as instructed by the Floor Warden.
- Do not enter the Parking Lot and do not try to take your car out of the building.
- Do not wait for the lifts to come (for a bomb threat, we may use the Lifts if available, however do not wait for lift availability if it means delaying your evacuation).
- The safety of your visitors is your responsibility, so you are instructed to take the visitor with you when evacuating the building.
- Ladies are advised not to wear high-heeled shoes and stocking during evacuation (keep a pair of flat shoes in the office for such emergency).
- Handicapped persons or pregnant women should ask for assistance from the First Aider (please report your health conditions to Floor Warden).
- Gather at designated Muster Point.
- Once you reach the Muster Point, report to Ground Coordinator, and then wait for further information.
- Familiarize yourself with the escape route and alternative escape routes from your normal working area.
- If you can not account for someone who you believe was in the building at the time of evacuation, please inform your Floor Warden.

**“DO NOT RETURN TO THE BUILDING FOR ANY REASON UNLESS
FLOOR WARDEN HAS ANNOUNCED ALL CLEAR”**

7 ROLES AND RESPONSIBILITIES

7.1 Emergency Response Team Leader

1. Will be in overall command of the evacuation
2. Coordinate with Menara Sentraya Building Management through Floor Warden regarding an emergency response; and ensure that Building Management has contacted emergency services
3. Coordinate the Muster Point with Building Management during and after evacuation
4. Proceed to the Muster Point to supervise the personnel Roll Call.

7.2 Deputy Emergency Response Team Leader

1. Will be the first member of the Team to descend the emergency exit stair to ensure that the Evacuation Routes up to Muster Point are safe.
2. Will supervise the Roll Call in the Muster Point.
3. Assists the Emergency Response Team Leader.
4. Acts as Emergency Response Team Leader, if required or during ERT-L absence.

7.3 Floor Warden

1. Will command evacuation from an individual floor (as guided by Building Management or Emergency Response Team Leader).
2. After alerting his floor, instructs employees / visitors to go downstairs.
3. Floor Warden will stand by at the emergency exit door and make a head count of number of people who have exited the floor.
4. Will report to the Emergency Response Team Leader that the floor was cleared after all people have exited.
5. Is responsible for evacuation of all Supreme Energy personnel and visitors on his floor.
6. Ensures that fire extinguishers are available for remedial action.
7. Determines which employees are capable of operating fire extinguishers to attack fire.
8. Supports Emergency Response Team Leader to contact and coordinate with Building Management, and to ensure that Building Management has contacted Emergency Services.
9. Ensures all personnel and visitors have been evacuated safely.
10. Will search for personnel or visitors who may not be aware of the emergency situation (in rest rooms, file rooms and other hidden areas). Submits a missing personnel list to the Ground Coordinator and/or Emergency Response Team Leader.

7.4 Men First Aider and Women First Aider

1. Give initial treatment to the injured / ill person.
2. Assist disabled, sick personnel and pregnant women during evacuation.
3. List all missing personnel in the area and submit the list to Floor Warden.
4. Assist Floor Warden in smoothing the evacuation and other emergency response.
5. Search for any personnel that may be in rest room, file rooms, and other hidden areas.
6. Arrange an ambulance or car to take the person to nearest hospital if necessary.

7.5 Ground Coordinator

1. Will be the first person from the floor to walk downstairs and coordinate the Muster Point holding the floor flag.
2. Watches, instructs and directs the "evacuated people" to the Muster Point after arriving at the Ground Floor.
3. Ensures and assists overall safety at the Muster Point during the emergency evacuation.
4. Ensures escape routes to Muster Point are free of any obstacles and other tripping hazards.
5. Assists the Floor Warden in smoothing the evacuation and other emergency responses.
6. Conducts the Roll Call in Muster Point.

7.6 Security Manager

1. As focal point to be contacted by Security on Duty in case of emergency out of office hours.
2. As Company Representatives to building and local authorities (police, etc.) in case of security matters.

8 TRAINING, BRIEFING AND DRILL

To improve capability of Employees in handling any emergency situation, Company shall conduct Emergency Evacuation Procedure Orientation and request Employees to undergo several kinds of trainings.

The trainings may include, but not limited to, Safety Induction Training, Basic First Aid, Cardio Pulmonary Resuscitation (CPR) Training, as well as Fire Prevention and Basic Fire Fighting Training.

In order to improve awareness and preparedness of employees in any emergency situation, and to apply the know-how they have obtained from the trainings, all employees must participate in emergency evacuation drills.

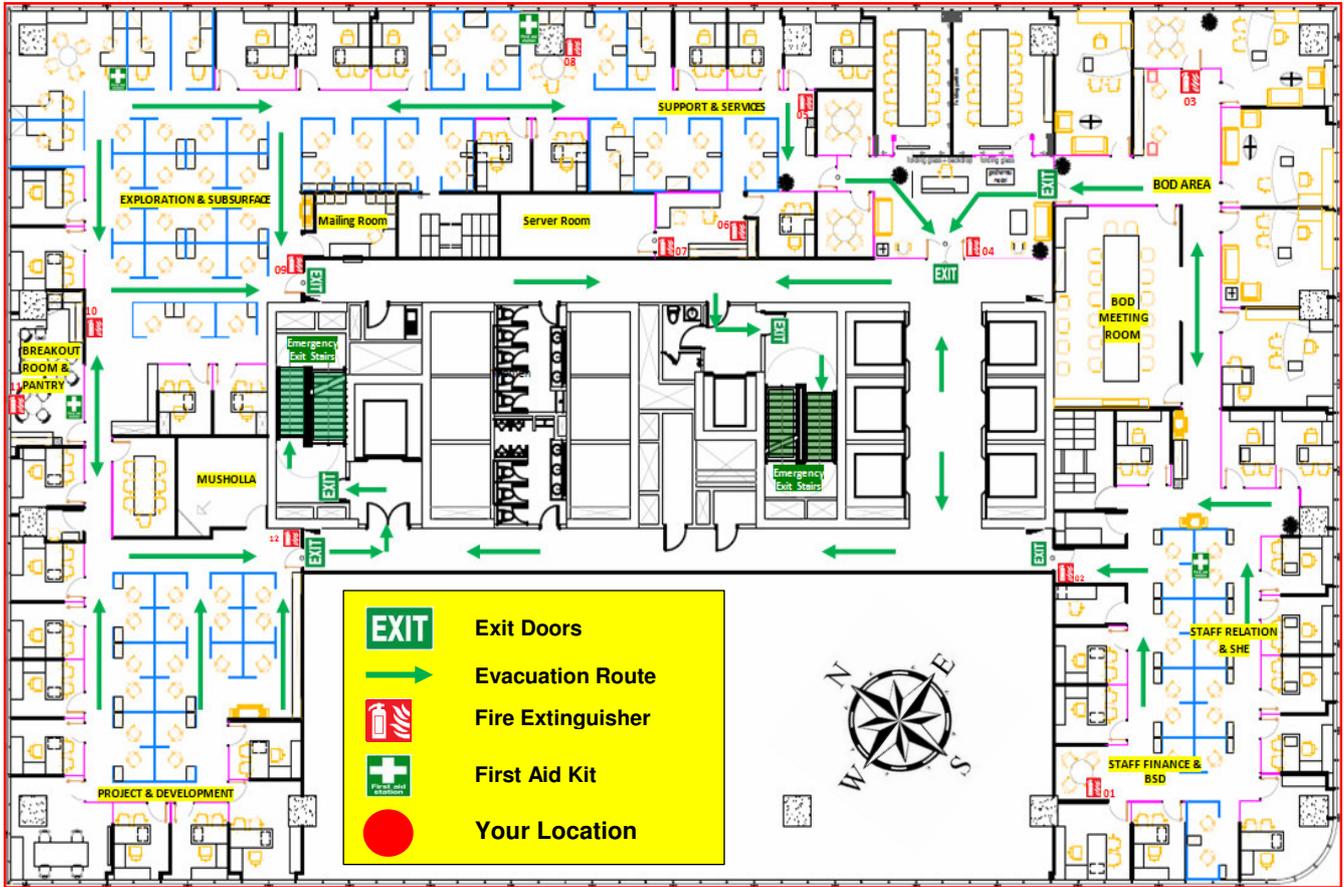
Evacuation Drill carried out either by Company or Building Management.

For the safety of the Company's visitor in case of emergency, each employee who is receiving a visitor shall conduct Emergency Evacuation Briefing or Orientation to the visitor prior to the meeting.

9 APPENDIX

- Appendix A : 23rd floor Evacuation Route Map
- Appendix B : Assembly Area Route Map
- Appendix C : Bomb Threat Checklist
- Appendix D : Equipment List of ERT Members
- Appendix E : List of Telephone Personnel

9.1 APPENDIX A : 23RD FLOOR EVACUATION ROUTE MAP (GENERAL)



9.2 APPENDIX B : ASSEMBLY AREA ROUTE MAP



9.3 APPENDIX C : BOMB THREAT CHECKLIST

BOMB THREAT CHECKLIST

INSTRUCTION: Be calm, do not panic, be courteous, listen intently and do not interrupt the call, keep talking as long as possible.

Date/ tanggal:

Time/ jam:

1. Source of call/phone number/ nomor penelepon:

2. Call received by/ diterima oleh:

3. Message (exact words)/ Pesan (asli) yang diterima:

.....

.....

.....

4. Ask/ tanyakan:

When will it go off? Kapan akan diledakan?:

Where is it? Dimana Bom diletakan?:

What does it look like? Seperti apa bentuknya?

Why are you doing this? Apa alas an Anda?

Who are you? Siapakah Anda?(dari kelompok mana)

Apa yang bisa membuat bomb itu meledak?

5. Caller Identity/ Identitas Penelepon:

Male/ Pria

Adult/ Dewasa

Intoxicated/ Mabuk

Female/ Wanita

Child/ Anak-anak

Age/ Usia :

Accent/ Logat :

Speech Impediment (Susah bicara) :

Other (specify)/ Lain-lain (jelaskan) :

6. Background noise/ Suara Latar :

Music/ Musik

Children/ Anak-anak

Talk/ Orang bicara

Machine/ Mesin

Aircraft/ Pesawat udara

Typing/ Mesin Tik

Traffic/ Lalu-lintas

Laughter/ Tertawa

Calm/ Tenang

Others/lainnya (jelaskan) :

7. Any other information/ Informasi penting lainnya :.....

.....

Reported by/ dilaporkan oleh :

Acknowledge/ Mengetahui:

.....

.....

9.4 APPENDIX D : EQUIPMENT LIST OF EMERGENCY RESPONSE TEAM MEMBERS

Task Title	Equipment	Amount	Holder's Name
ERT Leader	Handy Talky	1.ea	Bagus Permadi
	Flashlight	1.ea	
	Megaphone		
Deputy ERT Leader	Flag code	1.ea	Leksono / Reyga Rivaldi
Floor Warden	Handy Talky	1.ea	Evans Satya / Ketut Murniata / Begawan Manik / Demas Seto
		1 ea	
Ground Coordinator	Flag code	1.ea	Christian Limbong/ Fadlis Barnaji / Yundith H Hemawan
	Handy Talky	1.ea	
	Megaphone	1 ea	
Men First Aider	First Aid Backpack	1.ea	Faishal Dwi Ismail / Indra Teguh H
Women First Aider	First Aid Backpack	1.ea	Aprilia Hermansyah / Rizka Amalia
		1 ea	
Security Guard On Duty	Flashlight	1.ea	Any Security Guard who is on duty when the emergency situation happens
	Handy Talky	2 ea	

9.5 APPENDIX E : LIST OF TELEPHONE NUMBER OF JAKARTA OFFICE PERSONNEL

<u>SOUTH SIDE</u>				
No.	Name	Ext. No.	HP No.	Position in ERT
1	Supramu Santosa	2001	0811-130341	
2	Radikal Utama	2002	0811- 195028	
3	Armita Suryandari Tjokronegoro	2004	0816-897314	
4	Vitrya Aryany	2090	0816-560777	
5	Victor van der Mast	2008	0811-9592395	
6	Akio Kajimoto	2060		
7	Hisahiro Takeuchi	2069		
8	Harunaga Yokoji	2104		
9	Abadi Purnomo	2108		
10	Prijandaru Effendi	2021	0811-849266	
11	Yulnofrins Napilus	2028	0811-918008	
12	Ismoyo Argo	2022	0811-188027	
13	Erwin Patrisa Floris	2092	0813-83138667	
14	Leila Rima	2027	0813-10024043	
15	Airin Divayanti	2096	0813-11119120	
16	Muhammad Arief Tarunaprawira	2091	0811-858361	
17	Andreas Avelinus Dwi Hartono	2093	0812-13007870	
18	Bima Aryaputra Yudhistiranto	2094	0817-0015875	<i>Ground Coordinator – South Side</i>
19	Akhmad Wahyudi Ardhi	2092	0812-856-3798	
20	Muhammad Yunus	2023	0811-2110468	
21	Leksono	2011	0812-9668128	<i>Deputy ERT Leader</i>
22	Indra Teguh Hattatilan	2013	0816-1343753	<i>Men First Aider</i>
23	Ahmad Reza Zakaria	2017	0818-07377977	
24	Christian Limbong	2095	0812-9022271	<i>Ground Coordinator – South Side</i>

25	Ketut Murniata	2012	0817-877863	<i>Floor Warden – South Side</i>
26	Otty Sere Mian	2114	0813-88037823	
27	Aprillia Hermansyah	2115	0877-77789084	<i>Women First Aider</i>
28	Terti Aprinine	2116	0812-8091983	
29	Farica Sukma	2117		
30	Nisriyanto	2003	0812-8136912	
31	Evans Satya Irwandhie	2128	0812-8300188	<i>Floor Warden – South Side</i>
32	Robby Pradana	2129	0812-83885802	
33	Sahala Simanjuntak	2007		
34	Reyga Rivaldi	2014	0811-975663	<i>Deputy ERT Leader</i>

NORTH SIDE

<i>No.</i>	<i>Name</i>	<i>Ext. No.</i>	<i>HP No.</i>	<i>Position in ERT</i>
1	Win Sukardi	2081	0811-1554565	
2	Yadi Rusmaryadi Ruswandi	2052	0815-7139880	
3	Agung Udiyono	2053	0815-9105566	
4	Eko Hardiananto	2054	0813-19105985	
5	Hardinald Aslam	2033	0818-488355	
6	Ayu Kusuma Wardhani	2030	0812-82091342	
7	Putri Rizqiyah	2032	0856-92401317	
8	Jundy Fadhillah	2186	0818-06903444	
9	Hary Wibowo	2084	0811-865944	
10	Frank M Tungka	2083	0812-8782-0164	
11	Sally Edwina Prajoga	2088	0818-183060	
12	Christina Sandy M Sahetapy	2184	081385621788	
13	Demas Seto Ardhiwirawan	2183	0817-156599	<i>Floor Warden - North Side</i>
14	Meidina Dwisavira R	2085	0856-7071796	

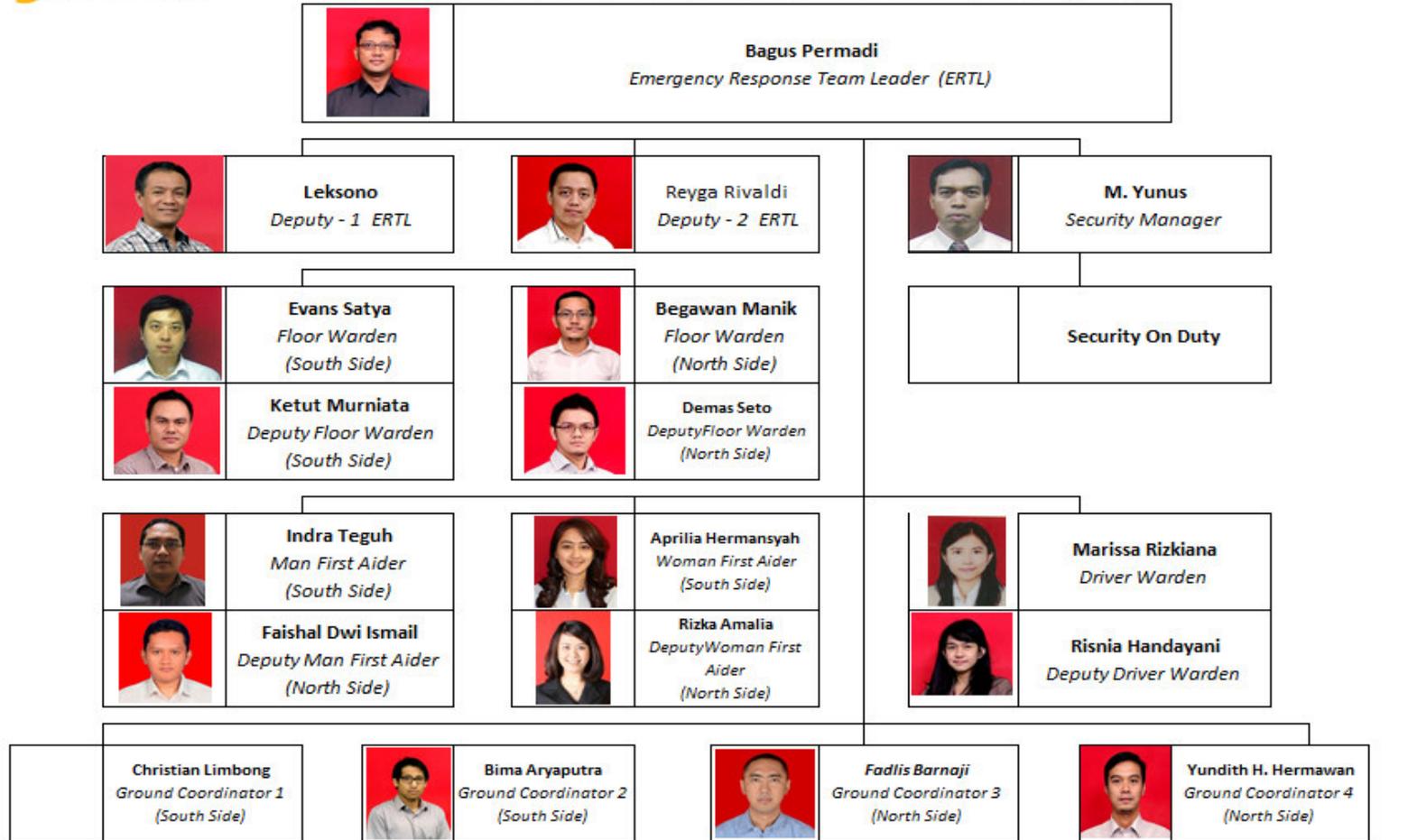
	Achmad Novianto M Putra	2182	0812-80998660	
	Faishal Dwi Ismail	2087	0812-81168086	<i>Men First Aider</i>
	Muamar Ganesya Firdausi	2185	0818-919-194	
	Teddy Wahyudi	2082	0811-8887515	
	Ismail Martian	2086	0811-1802846	
	Risnia Handayani	2025	0811-1000136	<i>Driver Warden</i>
	Bagus Permadi	2056	0811-1625212	<i>ERT Leader</i>
	Marissa Rizkiana	2057	0818-641103	<i>Driver Warden</i>
	Novi Ganefianto	2041	0811-2220-211	
	Rudy Martikno	2164	0899-7128858	
	Muhammad Tamrin Humaedi	2166	0857-22056841	
	Robi Irsamukhti	2168	0852-22789007	
	Alfianto Perdana Putra	2042	0812-19947370	
	Herwin Azis	2065	0813-95239493	
	Alfiady	2047	0856-58258790	
	Irvan Ramadhan	2044	0821-22251363	
	Nurul Aulia	2162	0856-2218584	
	Astari Anggia Putri	2068	0812-87812791	
	Sonny Santana	2049	0815-6017151	
	Dayinta Adi Dyaksa	2167	0821-30197931	
	Ridwan Permana Sidik	2169	0821-20200046	
	Wildan Mussofan	2063	0813-11192015	
	Marino Christiano Baroek	2043		
	Mauliate Agustinus Hamonangan Sihotang	2061	0813-22265686	
	Bambang Setyo Roesdyoko	2062	0811-104514	

41	Dodi Akhmad Gauzali	2064	0811-8001223	
42	Paul Iskandar Asaari	2149	0811-1662989	
43	Yundit Harum Hermawan	2048	0813-19809166	
44	Gilang Rifki Arif	2144	0811-237909	
45	Begawan Manik	2147	0856-7739005	<i>Floor Warden – North Side</i>
46	Yonna Adriani Achmad	2142	0821-11116596	
47	Rizka Nurilmi Amalia	2145	0817-6708721	<i>Women First Aider</i>
48	Paul Austin Taylor	2076	0812-2024200	
49	Wahyu Mulyana	2073		
50	Yoza Jamal	2177	0811-355467	
51	Ruswanto	2122	0813-68888013	
52	Muhamad Tarmizi	2124	0812-9611467	
53	Caspar Alphons Franz Ziegler	2172	0811-2209875	
54	Elga Riska Moya	2123		
55	Munggang HP	2173		
56	Stefanus Wisanto	2175		
57	Alexander Nainggolan	2079	0813-87333213	
58	Elvera Juniarti Sutarso	2078	0812-8828756	
59	Citra Dwimantika	2075	0878-88180601	
60	Ralph Hoellman	2077	0812-1124371	
61	Marchella Ariesanty	2125	0815-85858717	
62	Fadlis Barnaji	2174	0817-9039032	<i>Ground Coordinator – North Side</i>
63	Hany Yusmita	2176	0813-80685504	

9.6 APPENDIX D : EMERGENCY RESPONSE TEAM MEMBERS



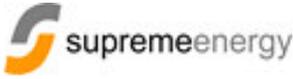
SUPREME ENERGY JAKARTA OFFICE EMERGENCY RESPONSE TEAM



Emergency Response Team Leader Ext : 2056

Emergency Response Operator Ext. : 2000

Security On Duty Ext. : 2130

	SAFETY HEALTH & ENVIRONMENT WASTE MANAGEMENT	PROCEDURE
CORPORATE	WASTE MANAGEMENT STANDARD	SE-MSHE-WAM-PRO-0001 Revision: 0

APPROVAL

	POSITION	NAME	SIGNATURE	DATE
Prepared by	Head of Environment	Andreas Hartono		10/08/2017
Reviewed By	Sr. SHE Manager	M. Arief Tarunaprawira		12/09/2017
Approved By	VP. Relation & SHE	Priyandaru Effendi		19/09/2017

REVISION HISTORY

REV	DATE	BY	REVIEWED	APPROVED	DESCRIPTION
0					For Use

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1 PURPOSE

This standard provides guideline for management of waste at Supreme Energy's (SE) operations.

2 SCOPE

This standard applies to all Company facilities which include but are not limited to exploration surveys, drilling, completion, work-over activities, production, purchasing and project planning at all Company Facilities.

Waste management includes proper handling and segregation, packaging, labeling, collecting and temporary storage, manifesting, transportation, treatment, disposal/recycling, reporting of the waste generated.

Waste Management aspects related to produced water and gaseous emission will be detailed further in Appendix 1 of this standard.

This standard is designed to comply with applicable environmental laws and regulations of Indonesia, and conform to Company's SHE Policy and Manual.

3 DEFINITIONS

<i>Bio-hazardous waste</i>	Material that could be infected with blood-borne pathogens or other infectious bodily fluids (e.g., used bandages, needles, sharps, and blood) originated from clinic.
<i>Camp & office waste</i>	Includes household garbage, paper, plastic, cardboard, packaging material, food waste, pallets, empty paint cans, and uncontaminated debris. Note: clinic waste is grouping under the "camp & office including clinic waste", but is handled separately.
<i>Expired medicine</i>	Medicine that has gone past its shelf life for consumption.
<i>Hazardous waste</i>	Solids, semi solids and liquids wastes that due to its characteristics (ignitable, corrosive, reactive or toxic), and its amount that may pose a substantial or potential hazard directly or indirectly to human health and survival of humans and other living creatures, or has the potential to directly or indirectly pollute or destroy the environment and/ or endanger the environment when improperly managed. Also, any unknown waste, and waste listed at the Indonesian hazardous waste regulation and/ or by Supreme Energy requirement would be fall under the category of hazardous waste, until it is proven otherwise or if it is regulated under other regulation. Note: clinic waste is a bio-hazardous waste, radioactive and norm is a radioactive waste and expire explosive is an explosive waste. These wastes are also listed as a hazardous waste at the Indonesian hazardous waste regulation.
<i>Landfill</i>	A site used for disposal facility by dumping/burial the waste, however this definition is not including a land treatment facility, a surface impoundment or an injection well.
<i>Non hazardous waste</i>	Material that is not dangerous to human beings.
<i>Radioactive waste</i>	Any radioactive substance and/or any material and equipment that has been contaminated by radioactive substances.

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<i>Toxicity test</i>	Consist of TCLP or toxicity concentration of leaching procedures for 53 parameters, LD50 or lethal concentration at 50% of the tested animals, as listed in PP 18/ 1999 & PP 85/ 1999, or 96hrs LC50 or lethal concentration at 50% of the tested animal after 96 hours exposure as listed in PERMEN 45/2006 regarding the management of drilling mud in oil & gas and geothermal activities.
<i>Treatment</i>	The reduction of the volume or relative toxicity of generated waste
<i>Waste manifest</i>	The shipping document (paper trail) which accompanies hazardous waste shipments and is originated and signed by the generator.
<i>Waste Characteristic</i>	Relevant hazard and or attribute associated with the wastes
<i>TENORM and NORM (Naturally Occurring Radioactive Material)</i>	Natural occurring radioactive material (NORM) and Technology Enhanced Natural occurring radioactive material (TENORM) is commonly identified when the naturally-occurring radionuclide is present in sufficient quantities or concentrations to require control for purposes of radiological protection of the public or the environment (which may presence in scale products, corrosion products, produced sand, pigging waste and other oil & gas related wastes.
<i>Gaseous Emission</i>	Gaseous release to the environment generated from production and supporting facilities
<i>Produced water</i>	Brine water which is carried over to the upper layer which contains hydrocarbon during oil and gas production activities, including formation water, injected water, drilling water and chemicals used for oil and water separation.
<i>Waste transportation</i>	Process of moving waste from the generator to the collector and/or to the processor, including the place of final disposal using transportation facilities.

4 APPLICABLE REGULATIONS OR GUIDELINES

All facilities and activities that are performing waste management related activities at their facilities shall identify and comply with relevant legal requirement concerning waste management aspects by referring to the applicable statutory requirements/regulations. This process should also cover, but not limited to, application and obtaining permit and or consent from relevant government institution.

Applicable regulations include:

- Act No. 32 of 2009 (was no 23/1997) regarding Environmental Protection and Management.
- Act no 18 year 2008 regarding Domestic Waste Management
- Government Regulation No. 101 of 2014 regarding Hazardous and Toxic Waste Management.
- Government Regulation No. 81 of 2012 regarding Domestic Waste Management.
- Government Regulation No. 82 of 2001 regarding Water Quality Management
- Government Regulation No. 27 of 2002 Concerning Radioactive Waste Management.
- PerMen ESDM no 21/2017 – Regulation of Ministry of Energy and Mineral Resources of Republic Indonesia regarding Drilling Cutting Management in Geothermal.
- Kepmen LH no 19/2010 (was no 04/2007) regarding Standard for Liquid Waste Discharge for Oil & Gas and Geothermal activity

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- Kepmen LH no no 112/MENLH/2003 regarding Standard for the Domestic Liquid Waste.
- PerMen LH no 12/2006 regarding Requirement of Disposal wastewater to the sea.
- PerMen LH no 13/2007 regarding Requirement and Guidelines for Effluent Management from Oil and Gas Activity and Geothermal by Injection
- PerMen LH no 13/2008 regarding Hazardous waste labelling
- PerMen LH no 05/2014 regarding Threshold limit value of Wastewater
- Decree of the Head of BAPEDAL KEP-01/BAPEDAL/09/1995 regarding the Use of Technical Conditions on Storage and Collection of Hazardous Waste.
- Decree of the Head of BAPEDAL KEP-02/BAPEDAL/09/1995 regarding Guidelines to Prepare Hazardous Waste Documents.
- Decree of the Head of BAPEDAL KEP-03/BAPEDAL/09/1995 regarding Technical Requirements for Processing Hazardous Waste.
- Decree of the Head of BAPEDAL KEP-05/BAPEDAL/09/1995 regarding Hazardous Waste Symbols and Labels

5 ROLES AND RESPONSIBILITY

- **All VPs and Senior Managers (Operations ; Subsurface, Drilling & Completion; Project; Supply Chain Management; Exploration & Exploitation)**
 - Accountable for ensuring this standard applies to personnel in their respective areas of responsibility.
 - Accountable for ensuring that the requirements of this standard are being met.
- **SHE Senior Manager**
 - Accountable for providing advice and guidance on matters relating to the environmental protection, and maintenance of this standard. He is also accountable for internal liaison with Legal and other related departments/section, and external liaison with related parties to obtain permits and/or certificates where applicable.
- **Managers and Supervisors**
 - All Managers and Supervisors are accountable for the implementation of, and adherence to, the requirements of this standard in their workplace. They will be committed to, and seek the active participation of all employees in achieving this standard's purpose and conduct all activities in accordance with this standard. They are further responsible and accountable for providing the necessary resources to achieve the above requirements.
 - Managers and Supervisors are to ensure that this Waste Management standard is consistently communicated to all employees, contractors and other parties under their respective responsibilities. Managers and Supervisors are to ensure that employees and contractors are adequately trained in the Waste Management standard.
 - Managers are responsible to include Waste Management into job performance expectation of all related employees.

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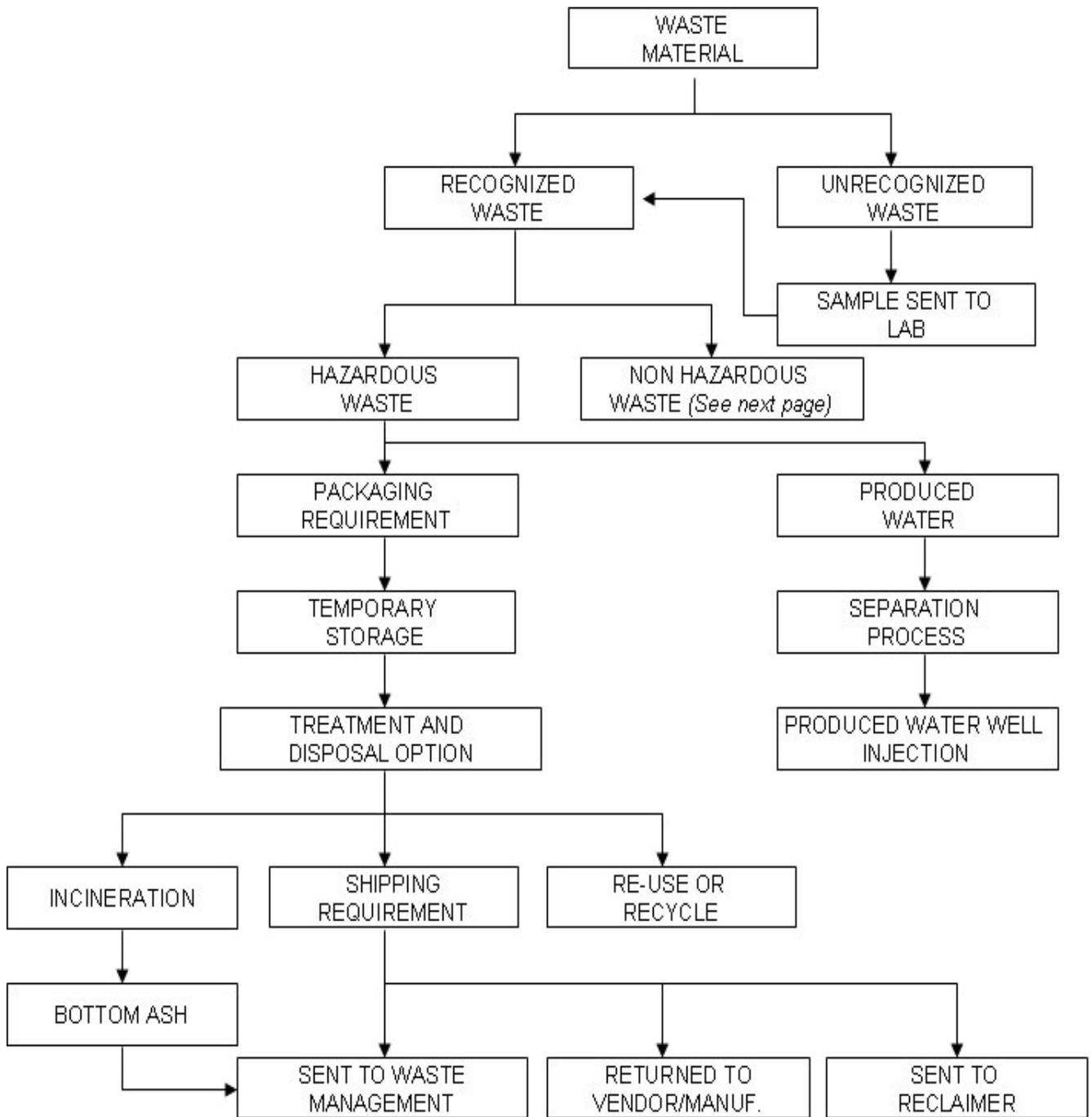
- **Employees**
 - All employees are required to actively participate in the implementation of this standard. All employees are responsible and/or accountable for ensuring that their activities are in compliance with the standard.

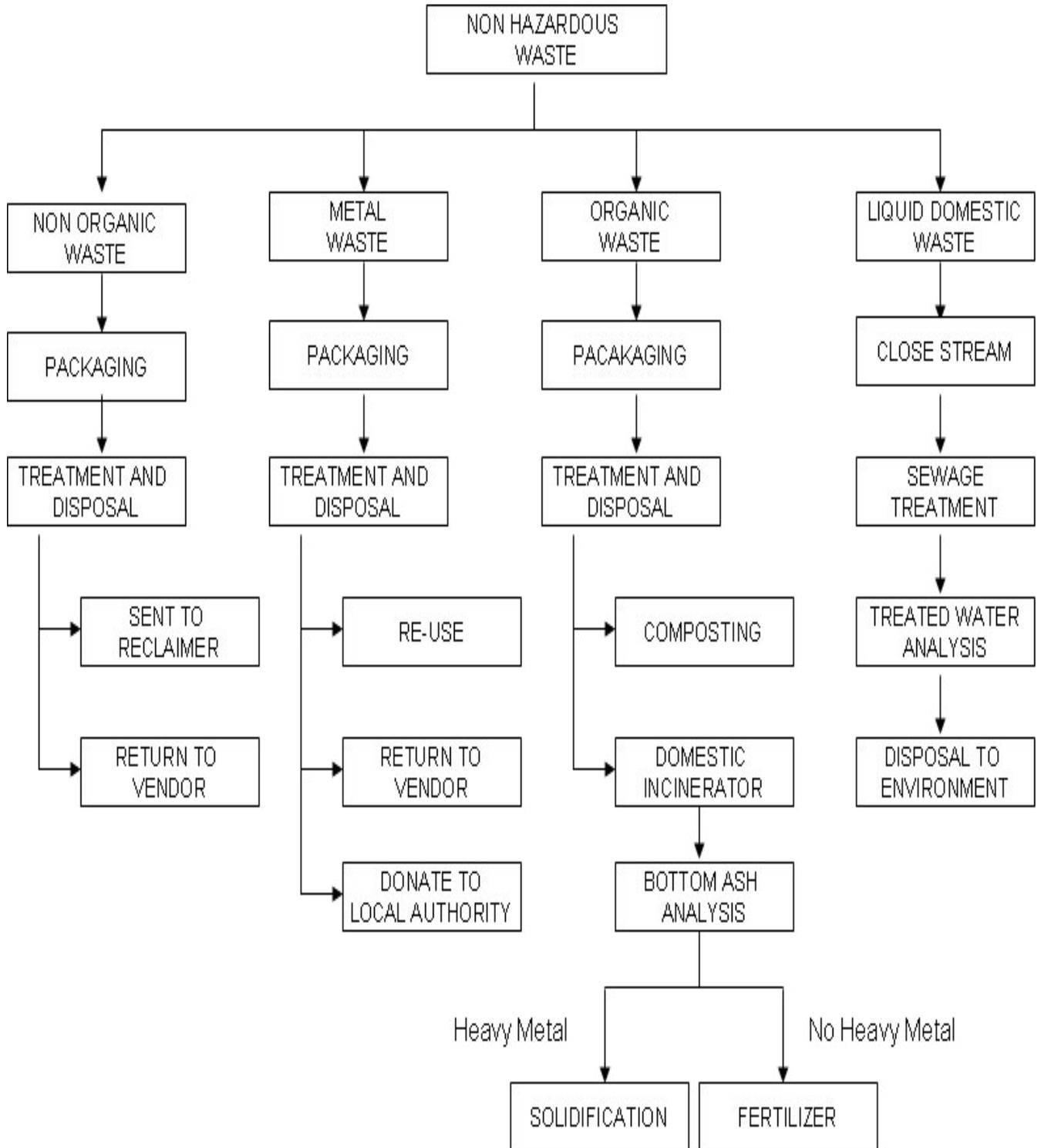
- **Contractors**
 - Contractors are required to provide their services in accordance with requirements set forth in this procedure. Contractor’s performance with respect to Waste Management issues will be an important factor in selection, retention, evaluation, and continued utilization of Contractor.
 - Contractors responsible for waste generation are required to submit a **Waste Management Plan** prior to conducting any activities. If a contractor’s Waste Management plan is not as comprehensive as **Company’s Waste Management Plan**, then it has to adopt and implement Company’s Waste Management Plan.

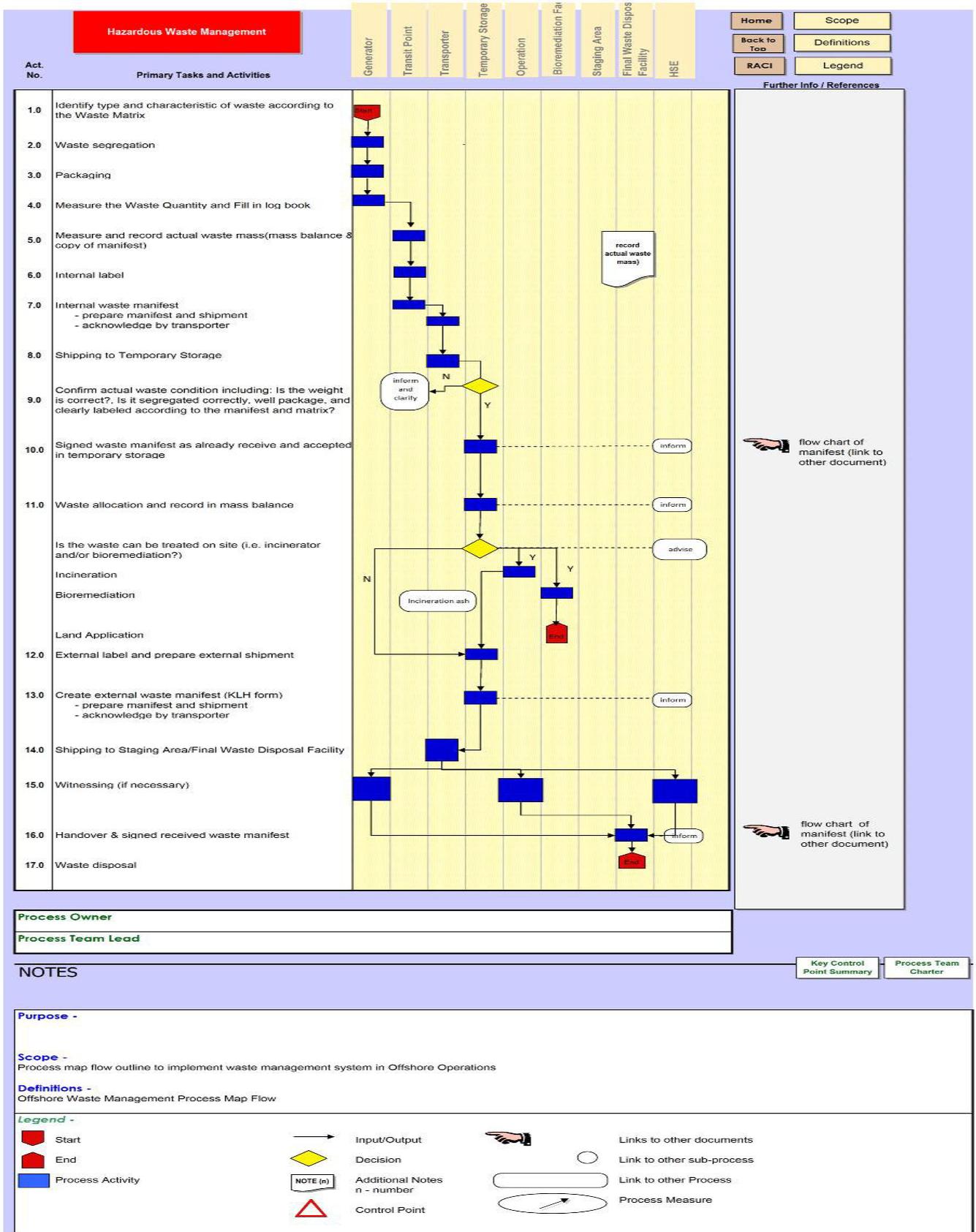
6 REQUIREMENTS

6.1 SIMPLIFIED WASTE MANAGEMENT PROCESS

The below flowcharts describe Company Waste Management Plans :







6.2 WASTE IDENTIFICATION

Waste generated by Company operations shall be identified as inline with applicable regulations and referring to the requirement as stipulated in relevant standards.

Each type of waste is detailed more according to specific identity and characteristic of wastes. The detail information of this waste identification is described in the Appendix 1 of this standard.

6.3 WASTE HANDLING

6.3.1 Segregation, Packaging and Labeling

All wastes generated from any facility within Company facilities must be segregated according to their specific or respective characteristics, as well as considering final treatment and/or disposal of wastes.

Incompatible waste should be stored separately or in a manner that prevents commingling in the event of a spill. This requirement can be met i.e. by providing adequate space between incompatibles or physical separation such as walls or containment curbs. Characteristics of compatibility charts shall be considered in this segregation practice, which is described in Appendix 1B of this standard.

The segregated wastes shall be packaged using materials that:

- are appropriate to the nature of wastes (not reactive with the waste)
- are durable and robust to retain the wastes and remain intact during handling, storage, transportation and disposal, so as to prevent leaks, littering, spills and injuries.

Volume of waste stored in containers should take into consideration an increase in volume, gas formation or an increase in pressure during storage:

- Liquid waste should consider the increase in volume and formation of gas.
- Reactive waste should not have any empty space in the container to prevent accumulation of gas.
- Explosive waste should be stored in a container that can withstand pressure.

The exhibit of recommended packaging practices is detailed in Appendix 2 of this standard.

Label and symbol shall be unique and patched on each package of waste to describe minimum information on:

- waste identity and characteristic
- date of generator or date of stored in a waste bin
- source of waste (waste generator identity)
- amount of waste (in kg and liter)

Ensure that label and symbol does not peel off from the container, since date of generation of the waste until the date of transfer for further treatment.

Detail guidelines of labeling are described in the Appendix 3 of this standard.

6.3.2 Measurement

Having put in designated bin/collection unit, the waste shall be measured in weight unit (kg) for solid wastes or volumetric (liter) and weight unit (kg) for liquid wastes. Such requirement would not be applied for any bulk container of wastes (i.e. iso tank, etc.) considering practicability in the field. This measurement shall be noted in waste label and also recorded in waste database and/or logbook. The waste generator shall keep the record of this measurement.

Exhibit of recommended waste measurement schemes are described in the Appendix 4.

6.3.3 Collection

All wastes are required to be collected and stored in dedicated container/waste bin according to segregation guideline. The container or waste bin shall:

- the package size, shape and packaging material meet requirement of mechanical lifting standard
- has been approved for use
- be put on a support base to: facilitate loading –unloading process and monitor spill/leakage.

A label shall be attached into each container to provide information on:

- source of waste (waste generator)
- date of delivery when transferred to temporary storage location.

An exhibit of recommended waste container/bin and support base is described in Appendix 5 of this standard.

6.3.4 Storing at Site

Waste generators would have to store temporarily their waste at transfer point within its facility before transferring them to temporary storage waste facility. During this period, the Waste Generators are held responsible to maintain environmentally approved condition of storage practices and put label and symbol in each container. Once the container is full, Waste Generators shall transfer the waste to temporary storage less than 90 days since the waste was labeled and dropped into waste container/bin. To prevent accumulation of hazardous waste more than the initiated date, all facilities should keep an inventory of waste generated. In this way, the facility can ensure proper tracking of waste storage on site.

This facility in minimum shall consider:

- geological stability (earthquake, landslide, etc)
- natural perils exposure (lightning, weather condition, typhoon, tsunami, etc)
- environmental proximity (distance to nature conservation area, local community / employee residential / activity area)
- measures / requirements to minimize environmental pollution (secondary containment, distance from drainage system)
- applicable legal requirement

These criteria and measures are also referred to Section 5.4.3 of this standard.

6.4 TRANSFERRING TO TEMPORARY STORAGE

Waste Generator must ensure following minimum requirements are followed:

- Complete the internal Waste Manifest form before handing over this waste to the transporter. The detail information regarding this Waste Manifest is described in Section 6.2 Waste Manifest section.
- Maintain inventory in their waste mass balance of the incoming and out going waste. Detail waste mass balance sheet described in Section 6.1 Waste Record.

Waste Transporter shall meet following requirements:

- has relevant permit .

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- acknowledges the internal manifest from Waste Generator
- hands over the manifest to the responsible person or his/her designated at temporary storage facility
- ensuring all waste are safely arrived at temporary storage.

6.5 TEMPORARY STORAGE

6.5.1 Temporary Storage for Non-Hazardous Wastes

- The generator of domestic solid waste shall ensure all domestic solid wastes are properly segregated, handled, stored and disposed of in appropriate manner.
- Metal can/tin waste (except metal scrap), glass, wood/pallets and rubber waste shall be collected in separate location for temporary storage to determine further disposal options.

6.5.2 Requirements for Hazardous Waste Storage Building

The warehouse or building for storage of hazardous waste should:

- be designed to be suitable with the type, characteristics and amount of waste
- have sufficient space to store the wastes for anticipating 90 days storage period.
- be designed to protect direct or indirect entry of rainwater.
- be designed without a ceiling and have a ventilation system to prevent the accumulation of gases or vapors at the storage areas.
- have nets or other material that can prevent birds or other small animals from gaining access to the storage area.
- have sufficient lighting to operate and inspect the storage area, including lamps placed one meter above the stack with the “stop contact” placed at the outside of the building.
- be equipped with a lightning conductor.
- have a sign using appropriate symbols posted on the outside of the building in accordance with the type of waste stored.
- have a strong, even, water-tight floor, free of cracks, with a slope of no greater than 1% to flow rainwater away from the storage area towards a catch basin.
- be equipped with drains / gutters and the floor around the building and be constructed with a slope of no greater than 1% to flow rainwater away from the storage area, in the direction of the catch basin

If the building holds more than 1 (one) type of hazardous waste, the storage area should:

- have different compartments, with each compartment storing waste of compatible characteristics.
- be separated by a wall between the compartments to prevent any mixing of the waste at the storage area in case of spillage.
- have a containment ditch with adequate volume to hold the waste being stored between compartments.
- have drainage system capable of draining liquids rapidly into the containment ditch

The warehouse or building should have the following features:

- An alarm system.
- A fire extinguishing system.
- A safety fence.
- A source of reliable electricity.
- First aid facilities.
- Communication equipment.

- A store room to store the waste handling tools and equipment.
- An emergency exit.

Minimum requirements for bulk liquid waste storage facility should:

- be equipped with emergency response and communications equipment in case of fire.
- be made of construction material that is suitable for the characteristics of the waste stored.
- be flood-free.
- have a floor that is crack-free and even, sloping with a maximum of 1% in the direction of the containment ditch.
- have roof to prevent rainwater.
- be equipped with drains/gutters that lead to a catch basin, which is impermeable with capacity to contain 110% the volume of the largest tank stored.

An illustration of recommended warehouse building, bulk liquid storage and stacking/placement arrangement are described in Appendix 6 of this standard

6.5.3 Requirements for Waste Storage Location

The location of the containers or tanks, the building that stores the containers and the building that contains the tanks should:

- be located outside water catchment area, especially for drinking water.
- be designed to be flood-free.
- be at least 50 metres away from the main facility.
- be in an area specifically built for this purpose or in a designated area within the facility.
- have access to waste storage areas is limited to authorized and trained employees.
- be clearly identified and marked on the facility map or site plan.
- have signage as required under Indonesian regulations.
- specifically for underground waste tanks, (if any) be equipped with secondary containment structures

Above requirements are also applicable for waste storing at site as described in section 5.3.4.

6.6 TRANSPORTATION OF WASTE

Followings are minimum requirement for waste transportation:

- Prior to shipment, containers must be properly closed and sealed for transport.
- For hazardous waste transportation, the transporter shall have a permit from Departemen Perhubungan (Dinas Perhubungan Laut for ships/sea transportation modes and Dinas Perhubungan Darat for land transportation)
- For hazardous waste transported by air, Company should refer to IATA (Civil Aviation Regulations for applicable requirements).

6.7 FINAL TREATMENT OR DISPOSAL

Final treatment (including recycling options) and/or disposal of wastes should:

- comply with applicable regulation
- minimize environmental impacts considering the hierarchy of waste minimization efforts (from reduction at source to disposal)
- limit potential future liability
- be cost effective

Company shall use waste treatment, storage, disposal, and recycling facilities that:

- Have the technical capability to manage the waste in a manner that reduces immediate and future impact to the environment.
- Have all required permits, certifications, approvals, etc. of applicable government authorities.
- Have been secured through the use of formal procurement agreements (return to vendor or manufacturer).
- Have been evaluated by SHE Department for conformance with the above requirements.

Several alternatives of these methods are described in Appendix 7 that identifies list of conventional waste management options in order of preference.

6.8 TRAINING

Personnel who are directly involved with waste handling shall receive Waste Management and Hazardous Material Handling training that will minimize risks when handling waste and to ensure adherence to this Company Waste Management Standard.

Details on Waste Management training requirements are outlined in **SHE Training Standard XXX**.

6.9 EMERGENCY RESPONSE

Emergency situation in relation to all waste management practices shall refer to relevant procedures for spill handling and Emergency Response Plan as applied in respective field / asset.

A brief of typical emergency response plan regarding waste management is detailed in Appendix 8 of this standard, while the full set documentation could refer to the relevant Site Specific Procedures.

7 WASTE DOCUMENTATION, RECORDS AND REPORTING

7.1 WASTE MATRIX

Each field is responsible to develop site specific waste matrix, and being accountable for maintaining a current list of wastes generated, based on:

- Waste description generated
- Waste stream ID
- The prevailing total volume
- Waste characteristics information
- Waste handling (packaging & segregation methods)
- Waste disposal, reuse or recycle options employed by the specific facility can be included in the site specific waste matrix.
- Waste matrix is used as guidance for implementing and controlling of waste management implementation at each site.

Waste matrix list shall be reviewed and revised as necessary, e.g. due to changes in activities or processes.

Appendix 9 – features an example of site specific waste matrix to be used within Company facilities.

7.2 WASTE MANIFEST

7.2.1 Internal Manifest

- An internal Waste Manifest is required when transferring waste within the COPI location (from point of Waste Generators / collections to temporary storage and or final treatment or disposal within Company facilities).

7.2.2 External Manifest

- An external B3 Waste Manifest is required when shipping hazardous waste from any Company facilities to any destination that is an approved third party disposal facility by *Kementerian Negara Lingkungan Hidup*.

Refers to [Appendix 10](#) regarding further information of this manifest requirement.

7.3 WASTE RECORDS

Waste data shall be properly recorded and maintained by Waste Generators at respective facility.

The waste data includes but not limited to hazardous waste temporary storage inventory, total amount of waste being incinerated at B3 and domestic incinerator, non-hazardous wastes record, waste log book, waste manifest documentation and mass balance.

7.4 REPORTING

All data and document waste record shall be submitted at least every 6 months to relevant government institutions and regency and shall be maintained and reviewed by SHE Department.

8 WASTE MANAGEMENT AUDIT

8.1 COMPANY WASTE MANAGEMENT AUDIT PROGRAM

A systematic audit approach is required so the audit covers all aspects of the materials' life cycle from materials purchasing, through materials utilization, waste minimization efforts, waste handling, storage & transportation, and waste treatment & disposal.

Waste management relevant audit program shall refer to SHE Audit and audit protocols from Governmental Bodies (BPMIGAS/ MIGAS/ *Kementerian Negara Lingkungan Hidup/ Bapedalda*).

8.1.1 Auditing of Third Party (Contractor) Waste Recycling/ Reclaim and Disposal Facilities

The HSE Department will perform an annual audit of each third-party (contractor) waste recycle/ reclaim/ disposal facility used during the previous 12 months. The purpose of the audit is to assure that the third-party contractor does not present an unacceptable risk to Company in terms of future liability for remediation or other actions, which could arise to the Company. Standards which are used for this audit may include the applicable legal and permit requirements and/or the implementation of the Contractor's owned procedures.

Refer to **SHE Standard no XX SHE Auditing Procedure** for a suggested format for conducting such audits.

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9 WASTE MANAGEMENT REVIEW

Waste Management review is conducted on at least annual basis to support the efforts of continual improvement in implementation of waste management. Scope of this review will be determined considering the functional units that intend to perform such review.

10 APPENDIX

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10.1 APPENDIX 1 - SE WASTE MANAGEMENT PLAN

No & waste Code	Waste name	Waste Category	Handling, symbol & Labelling	Storage & Transport	Waste minimization effort	Treatment & Disposal
PRODUCTION RELATED WASTE						
1.	Explosive-expired	Hazardous due to its potential explosion	<ul style="list-style-type: none"> • use appropriate PPE • certain activities should be conducted only by personnel with special training and qualification on working with explosive (use only approved contractors) • symbol: explosive • - label: explosive, hazardous 	<ul style="list-style-type: none"> - accumulate in a sealed drum and store in the explosive bunker/storage - complete waste manifest 	<ul style="list-style-type: none"> - return to vendor 	<ul style="list-style-type: none"> - explode the unused explosive materials in controlled manner - backfill the ashes as residue from the explosion - or dispose at an approved sanitary landfill - send to approved waste management facility
2.	Drilling cutting	Solid Waste Not listed in GOI no. 101 / 2014 as a hazardous waste	<ul style="list-style-type: none"> - use appropriate PPE, eye and skin protection - respiratory protection may be required 	<ul style="list-style-type: none"> - store in bunker - use proper containment/ transportation 	<ul style="list-style-type: none"> - use of environmental friendly water base drilling mud - Scrutinize MSDS - reuse water drilling mud if possible if not possible to reuse, the drilling mud shall be dried, then shall be mixed with top soils and fertilizer as of plantation/ reclamation media. - minimize use of water - prevent seepage and lost circulation 	<ul style="list-style-type: none"> • <u>Drilling cutting waste shall be used as additional material for building/ road/ other purpose for construction activities.</u> <u>Drilling cutting waste will be incorporated into the final disposal area followed with applicable legislation.</u> backfill the HDPE along with cuttings at the drilling reserve pit, that has compacted clay as a liner or use HDPE as a liner; or use tanks as the alternative consideration should be given not to allow releasing drilling related wastes with TDS>1000 mg/l and TSS>100 mg/l to ensure no impact to environment

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No & waste Code	Waste name	Waste Category	Handling, symbol & Labelling	Storage & Transport	Waste minimization effort	Treatment & Disposal
3.	Produced water	Non hazardous Regulated by GOI under PerMen LH no 19 / 2010 - regarding Liquid Waste Discharge	<ul style="list-style-type: none"> - use appropriate PPE, eye and skin protection - respiratory protection may be required - may contain flammable or combustible compounds including H₂S and ammonia 	<ul style="list-style-type: none"> - put in a proper container for storage and transportation , or for further treatment - make sure the tank is properly sealed prior to shipment 	<ul style="list-style-type: none"> - use for production purpose - inject produced water for zero discharge 	<ul style="list-style-type: none"> - discharge as per PerMenLH no. 19 / 2010 - inject to designated disposal well - consideration should be given not to allow releasing produced water with TDS>1000 mg/l and TSS>100 mg/l to ensure no impact to environment
4.	Well work-over/ well-service fluids (including brine and well stimulation fluids)	Hazardous if contain solvent, acid, base and oil, which are listed as hazardous waste in GOI Regulation no. 101/2014	<ul style="list-style-type: none"> - use appropriate PPE, eye and skin protection - respiratory protection may be required - may contain flammable or combustible compounds including H₂S and ammonia 	<ul style="list-style-type: none"> - put in a proper container for storage and transportation for further treatment considered as hazardous waste - make sure the tank is properly sealed prior to shipment 	<ul style="list-style-type: none"> - use more environmental friendly products to perform well work-over/ well services and well stimulation , wherever practicable - if possible, use all of the well work-over/ well services and stimulation fluids by injecting them into the well and produced it back along with well fluids 	<ul style="list-style-type: none"> - manage as per PerMen ESDM no. 045/2006, if it is not a hazardous waste - send to approved waste management facility if it is considered as hazardous waste - inject to designated disposal well - consideration should be given not to allow releasing work-over/ well-service related wastes with TDS>1000 mg/l and TSS>100 mg/l to ensure no impact to environment

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No & waste Code	Waste name	Waste Category	Handling, symbol & Labelling	Storage & Transport	Waste minimization effort	Treatment & Disposal
5.	Soil contaminated with oil (weathered / dead oil, slop oil, fuel oil, paraffin)	Hazardous if contain oil >1%TPH Hydrocarbon contaminated wastes is listed as hazardous waste in GOI Regulation no. 101 / 2014	<ul style="list-style-type: none"> - use appropriate PPE, eye and skin protection - may also require respiratory equipment - handle as crude oil - pick up oil promptly to prevent weathering and return to Production stream - consider use of oil absorbent compounds near leak prone areas - symbol: toxic & flammable - label: soil, oil, hazardous 	<ul style="list-style-type: none"> - accumulate in an open top poly propylene or steel drums, or in appropriate bulk containers - soil contaminated may be stored temporarily on site in area with dike with an impermeable liner (HDPE) to prevent contamination of ground water, surface water, air and soil - contain any leakage <p><u>If to be sent to approved waste management facility :</u></p> <ul style="list-style-type: none"> - accumulate in a closed top steel drums, or in an appropriate sealed container for transportation and preparation for disposal - store in a temporary hazardous waste storage - complete waste manifest 	<ul style="list-style-type: none"> - conduct oil recovery process to result in saleable oil (recycle to production stream) - reuse as fuel at permitted cement factory, etc. 	<ul style="list-style-type: none"> - conduct bioremediation to reduce TPH to 1%; and reuse the bio remediated soil for greening; or backfill on site. Refer to KepMen LH no. 128/ 2003 - send to approved waste management facility.

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No & waste Code	Waste name	Waste Category	Handling, symbol & Labelling	Storage & Transport	Waste minimization effort	Treatment & Disposal
6.	Glycol – spent	Hazardous Listed as hazardous waste in GOI Regulation no. 101 / 2014	<ul style="list-style-type: none"> - use appropriate PPE, eye and skin protection. Use chemically resistant gloves, if required - may also require respiratory equipment, and protective clothing - refer to MSDS - symbol: toxic & flammable - label: glycol, hazardous 	<ul style="list-style-type: none"> - accumulate separately in a sealed plastic container or in a closed steel drums - store in a temporary hazardous waste storage - complete waste manifest 	<ul style="list-style-type: none"> - conduct usage control to prevent unnecessary waste generation - return to vendor for the containers and the un-used material 	<ul style="list-style-type: none"> - send to approved waste management facility
7.	Tank bottom, sludge and/ or basic sediment/ produced sand,dried cooling tower sludge	Hazardous Hydrocarbon contaminated wastes is listed as hazardous waste in GOI Regulation no. 101 / 2014	<ul style="list-style-type: none"> - use appropriate PPE, eye and skin protection. Use chemically resistant gloves, if required - may also require respiratory equipment, and protective clothing - may be poisonous, avoid inhalation by using respirator with proper filtration canisters - may be commingled with other oily wastes -- provided that the wastes are compatible - pick up oil promptly to prevent weathering and stored in an approved containers after dewatering - consider use of oil absorbent compounds near leak prone areas - symbol: toxic & flammable - label: tank bottom, hazardous 	<ul style="list-style-type: none"> - accumulate in an open top poly-propylene or steel drums, or in appropriate bulk containers - tank bottom may be stored temporarily on site in area with dike with an impermeable liner (HDPE) to prevent contamination of ground water, surface water, air and soil - contain any leakage - accumulate in a closed top steel drums, or in an appropriate sealed container for transportation and preparation for disposal - store in a temporary hazardous waste storage - complete waste manifest 	<ul style="list-style-type: none"> - conduct oil recovery process - reuse as fuel at permitted cement factory, etc. - if possible, maintain turbulent flow in tank to reduce tank bottom generation/ prevent sedimentation - if possible, apply heat or add appropriate chemicals to reduce tank bottom generation 	<ul style="list-style-type: none"> - conduct bioremediation to reduce TPH to 1%; and reuse the bio remediated soil for field greening; or backfill on site. Refer to KepMen LH no. 128/ 2003 - burn in a hazardous waste incinerator, as suggested by applicable permit, and sent the ashes to approved waste management facility - send to approved waste management facility

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No & waste Code	Waste name	Waste Category	Handling, symbol & Labelling	Storage & Transport	Waste minimization effort	Treatment & Disposal
8.	Scale and/ or corrosion products and/ or pigging wastes (oily, no Naturally Occurring Radioactive Materials / NORM)	Hazardous if contain oil >1%TPH Hydrocarbon contaminated wastes is listed as hazardous waste in GOI Regulation no. 101/ 2014 May be hazardous if contain oil more than 1% TPH and/ or contain NORM more than 25 micro-rems/ hour	<ul style="list-style-type: none"> - use appropriate PPE, eye and skin protection - respiratory protection may be required - add water to prevent explosion of pyrite (fes) due to auto ignition when pigging the gas line - the waste (scale and/ or corrosion products) should be examined for the presence of NORM before any work could be performed. Refer to waste no. 9 down below - symbol: toxic, flammable - label: scale products, hazardous; corrosion products, hazardous; pigging wastes, hazardous 	<ul style="list-style-type: none"> - for transporting any scale and/ or corrosion products and/ or pigging wastes refer to waste no. 9 - If applicable, add water to prevent explosion of pyrite (fes) due to auto ignition when pigging gas line 	use corrosion and scale inhibitor to prevent formation of scale and corrosion	<ul style="list-style-type: none"> - conduct bioremediation to reduce TPH to 1%; and reuse the bio remediated soil for field regreening; or backfill on site. Refer to KepMen LH no. 128 / 2003 - conduct special backfill on site as per recommendation from BATAN / BAPETEN (national atomic energy institution), if NORM > 25 micro-rems/ hour - send to approved waste management facility

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No & waste Code	Waste name	Waste Category	Handling, symbol & Labelling	Storage & Transport	Waste minimization effort	Treatment & Disposal
9.	TENORM (Technology Enhance Naturally Occurring Radioactive Materials) – including the scale and corrosion products, pigging wastes, etc.	Hazardous - may be hazardous if contain more than 1% TPH and/ or more than 25 micro rems/ hour.	<ul style="list-style-type: none"> - use appropriate PPE, eye and skin protection - respiratory protection may be required - any scale and corrosion products and pigging wastes and other suspicious oily solids waste materials should be examined for its NORM - if NORM (> 25 micro-rems/ hour), special worker protection procedures must be followed. Certain activities involving NORM should be conducted only by personnel with special training on working with NORM (use only approved contractors) - any metals that have been in contact with produced fluids (oil, gas, and/or water) must be examined for NORM before it is taken out of service and properly handled. Precautions must be taken to avoid inhalation, ingestion, or prolonged skin contact with NORM - if the material is reusable, it should be decontaminated at a specially permitted and previously approved NORM decontamination facility - NORM scrap metal should be accumulated separately from other waste. Small and medium size pieces of NORM scrap metal should be placed in a special approved bulk container or in a special epoxy-lined 200-liter drum - symbol: radioactive - label: NORM, hazardous 	<ul style="list-style-type: none"> - prior to shipping any NORM contaminated equipment or tubing, all openings must be completely isolated. Fully closed thread protectors are required for tubing. For irregular openings, duct tape is recommended. If external contamination is present, the entire piece of equipment or tubing must be completely wrapped and taped securely in place. - after being decontaminated: sell to salvage/ scrap dealer (metal re-claimer) or use as pipe support at field - accumulate in drums, and store in a temporary hazardous waste storage - complete waste manifest 	reuse the materials if possible (e.g. for metals contaminated with NORM). But, it should be decontaminated first at a permitted and approved (by BATAN / BAPETEN) NORM decontamination facility	<ul style="list-style-type: none"> - all NORM must be stored at a special backfill site in the field as per recommendation from BATAN / BAPETEN (national atomic energy institution), or - send to approved waste management facility

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No & waste Code	Waste name	Waste Category	Handling, symbol & Labelling	Storage & Transport	Waste minimization effort	Treatment & Disposal
10.	Amine - spent	Hazardous listed as hazardous waste in GOI Regulation no. 101 / 2014	<ul style="list-style-type: none"> - use appropriate PPE, eye and skin protection - respiratory protection and protective clothing may be required - refer to MSDS - symbol: toxic & corrosive - label: amine, hazardous 	<ul style="list-style-type: none"> - as a basic waste, separately stored from acid waste - accumulate separately in a closed, sealed plastic container or drums - store in a temporary hazardous waste storage - complete waste manifest 	<ul style="list-style-type: none"> - conduct usage control to prevent unnecessary hazardous waste generation - return to vendor for the containers and the unused material 	<ul style="list-style-type: none"> - dispose of at approved waste management facility
11.	Excess / expired production chemicals (demulsifier, scale / corrosion inhibitor, biocide, etc)	Hazardous listed as hazardous waste in GOI Regulation no.101/ 2014	<ul style="list-style-type: none"> - use appropriate PPE, eye and skin protection - respiratory protection and protective clothing may be required - refer to MSDS; may contain flammable or combustible compounds - symbol: toxic & corrosive; toxic & flammable - label: original label, hazardous 	<ul style="list-style-type: none"> - drums should be banded together on wooden pallets and closed properly prior to shipment - accumulate in approved open-top or closed-top polypropylene or steel drums (or in appropriate bulk containers, if necessary), and store in a temporary hazardous waste storage - complete waste manifest 	<ul style="list-style-type: none"> - utilize the excess/ expired production chemicals as much as possible - return to vendor for the containers and the unused materials 	<ul style="list-style-type: none"> - dispose of at approved waste management facility
12.	Excess cement (well cementing)	Non hazardous	<ul style="list-style-type: none"> - use appropriate PPE, eye and skin protection - refer to MSDS - proper packaging must be considered for delivery of the excess cement 	<ul style="list-style-type: none"> - store in dry area, protected from rain - use sealed container to avoid dust release 	<ul style="list-style-type: none"> - conduct usage control to prevent unnecessary waste generation 	<ul style="list-style-type: none"> - backfill on site - Re-use as ground consolidation

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No & waste Code	Waste name	Waste Category	Handling, symbol & Labelling	Storage & Transport	Waste minimization effort	Treatment & Disposal
13.	Oily waste water (pit water, floor drain liquid, vacuum truck rinse waste)	Non hazardous	<ul style="list-style-type: none"> - use appropriate PPE, eye and skin protection - respiratory protection and protective clothing may be required - refer to MSDS - may contain flammable or combustible compounds including H₂S, and ammonia 	<ul style="list-style-type: none"> - if contains any free oil (or if it fails oil & grease test), it must be properly containerized (approved containers) for transport and disposal. - Ensure the approved containers is properly sealed prior to shipment. Care should be taken when handling these materials to minimize the possibility of spills 	<ul style="list-style-type: none"> - minimize use of rinse water for floor and car washing - minimize use of vacuum truck rinse water 	<ul style="list-style-type: none"> - discharge to a stream, as per PerMenLH no. 19 / 2010, or - inject to designated disposal well with reference to PerMen LH 13/ 2007 regarding Requirement and Guidelines for Effluent Management from Oil and Gas Activity and Geothermal by Injection - consideration should be given not to allow releasing work-over/ well-service related wastes with TDS>1000 mg/l and TSS>100 mg/l to ensure no impact to environment
Industrial waste						
14.	Asbestos and ceramic fibre	Hazardous listed as hazardous waste in GOI Regulation no.101/ 2014	<ul style="list-style-type: none"> - use appropriate PPE, eye and skin protection - respiratory protection and protective clothing may be required - refer to MSDS - symbol: toxic - label: asbestos; ceramic fibre 	<ul style="list-style-type: none"> - accumulate in approved open-top or closed-top polypropylene or steel drums (or in appropriate bulk containers, if necessary). Store in a sheltered area, avoid rain - drums should be banded together on wooden pallets and closed properly prior to shipment - accumulate in drums, store in a temporary hazardous waste storage - complete waste manifest 	<ul style="list-style-type: none"> - do not use new equipment containing asbestos and ceramic - plan to replace existing equipment containing asbestos and ceramic 	<ul style="list-style-type: none"> - send to approved waste management facility

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No & waste Code	Waste name	Waste Category	Handling, symbol & Labelling	Storage & Transport	Waste minimization effort	Treatment & Disposal
15.	Batteries (acid / lead - used) - dry or wet cell	Hazardous listed as hazardous waste in GOI Regulation no.101/ 2014	<ul style="list-style-type: none"> - use appropriate PPE, eye and skin protection. Wear chemical gloves - respiratory protection and protective clothing may be required - refer to MSDS - lead acid batteries contain sulphuric acid; extremely corrosive - place in leak-proof containers, metal baskets, place on pallets - if in metal drums, pack to prevent short-circuiting (arching) against the drum - if broken, place in hermetically sealed container with absorbent materials - symbol: toxic & corrosive - label: batteries, acid, hazardous 	<ul style="list-style-type: none"> - off the ground in a shaded, dry, covered area, avoid rain - pack individually in wooden or fibreboard boxes; or if several packed together, then it should be securely cushioned - accumulate in drums, store in a temporary hazardous waste storage - complete waste manifest 	<ul style="list-style-type: none"> - specify vendor pick-up of used lead/ acid batteries (return to vendor for recycle) 	<ul style="list-style-type: none"> - send to approved waste management facility

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No & waste Code	Waste name	Waste Category	Handling, symbol & Labelling	Storage & Transport	Waste minimization effort	Treatment & Disposal
16.	Chemical, hazardous – unused / expired	Hazardous listed as hazardous waste in GOI Regulation no.101/ 2014	<ul style="list-style-type: none"> - use appropriate PPE, eye and skin protection. Wear chemical gloves - respiratory protection and protective clothing may be required - refer to MSDS - must be packed in good quality container, properly labeled as a hazardous waste - refer to Kepbapedal-05/ 1995 	<ul style="list-style-type: none"> - put the drum on the wooden pallet and it should be banded together properly prior to shipment - use sealed container, use approved land or sea transport company only - refer to kepapedal-01/ 1995 - accumulate in drums, and store in a temporary hazardous waste storage - complete waste manifest 	<ul style="list-style-type: none"> - conduct usage control especially for field production chemical testing to prevent unnecessary waste generation - return to vendor - use them all up in a well, if possible, if it is a production chemicals 	<ul style="list-style-type: none"> - send to approved hazardous waste management facility - if in doubt test for TCLP parameters and LD50 and if not hazardous, backfill on site or send to an approved sanitary landfill
17.	Chemical - non hazardous - unused/ expired	Non hazardous	<ul style="list-style-type: none"> - use appropriate PPE, eye and skin protection. Wear chemical gloves if required - respiratory protection and protective clothing may be required - refer to MSDS - pack in good quality containers which are clearly labeled - symbol: non-hazardous waste - label: original label, non-hazardous 	<ul style="list-style-type: none"> - store in dry area, protected from rain, in good sealed container to avoid dust release - no special transportation is required 	<ul style="list-style-type: none"> - conduct usage control to prevent unnecessary waste generation - return to vendor - use them all up, if possible 	<ul style="list-style-type: none"> - send to an approved sanitary landfill, or - backfill on site

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No & waste Code	Waste name	Waste Category	Handling, symbol & Labelling	Storage & Transport	Waste minimization effort	Treatment & Disposal
18.	Debris, refuse and materials contaminated with chemicals and used lube oil	<p>Hazardous</p> <p>Hazardous if Contaminant is a hazardous materials/ a hazardous waste</p> <p>The chemical contaminant may be listed as hazardous waste in GOI Regulation no.101/ 2014</p>	<ul style="list-style-type: none"> - use appropriate PPE, eye and skin protection. Wear chemical gloves if required - respiratory protection and protective clothing may be required - refer to MSDS of the chemical contaminant - provide label depending on the chemical contaminant - symbol: toxic - label: debris, hazardous; refuse, hazardous, lube oil - label: debris, non-hazardous ; refuse, non-hazardous (if non-hazardous) 	<ul style="list-style-type: none"> - store in accordance with the proper measures depending on the chemical contaminant - transport in accordance with the proper measures depending on the chemical contaminant - accumulate in drums, and store in a temporary hazardous waste storage - complete waste manifest - segregate before placing in bin, leak-proof containers - use liner to prevent accumulated waste from sitting directly on ground - protect from rain; close and seal container prior to transport 	<ul style="list-style-type: none"> - prevent contamination 	<p>dispose in accordance with the most hazardous chemical contaminant</p> <p><u>Hazardous:</u></p> <ul style="list-style-type: none"> - send to Approved waste management company <p><u>Non-hazardous:</u></p> <ul style="list-style-type: none"> - send to an approved sanitary landfill - if in doubt, assume it as a hazardous waste

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No & waste Code	Waste name	Waste Category	Handling, symbol & Labelling	Storage & Transport	Waste minimization effort	Treatment & Disposal
19.	Empty drums/ cans/ containers – of the hazardous waste	Hazardous listed as hazardous waste in GOI Regulation no.101/ 2014	<ul style="list-style-type: none"> - use appropriate PPE, eye and skin protection. Wear chemical gloves if required - respiratory protection and protective clothing may be required - refer to MSDS; if previous content is unknown, then treat as a hazardous waste - label with sufficient information to ensure proper use and/ or disposal and to allow selection of MSDS; use weather resistant marking and labelling should be used - symbol: toxic - label: drum, hazardous, etc. - label: empty (for empty drums) 	<ul style="list-style-type: none"> - segregate based on its contents; cover, avoid storage on bare soil (ground) - band together for shipment to avoid accidental falling or spilling - accumulate in drums, store in a temporary hazardous waste storage - complete waste manifest 	<ul style="list-style-type: none"> - return to vendor - where practical and feasible, bulk containers should be used instead of drums for high volume materials - send to re-claimer company for recycling 	<ul style="list-style-type: none"> - crush after triple rinsing or washing and send to approved waste management facility
20.	Drums/ cans/ containers - of the non-hazardous waste	Non hazardous	<ul style="list-style-type: none"> - use appropriate PPE, eye and skin protection, avoid cuts from rusty drums - refer to MSDS - drums should be free of corrosion, severe dents, and bulging head and should have good seals on bungs; drums should be properly labeled and marked with weather-proof marking - symbol: non- hazardous waste - label: original, non-hazardous; drum, etc. 	<ul style="list-style-type: none"> - segregate based on contents; cover, avoid storage on bare soil (ground) - band together for shipment 	<ul style="list-style-type: none"> - return to vendor - where practical and feasible, bulk containers should be used instead of drums for high volume materials - send to re-claimer company for recycling - reuse drum to collect for oil spill, etc. 	<ul style="list-style-type: none"> - crush the drums for reducing the size - send to an approved sanitary landfill

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No & waste Code	Waste name	Waste Category	Handling, symbol & Labelling	Storage & Transport	Waste minimization effort	Treatment & Disposal
21.	Filter – media & cartridge - hazardous waste (oily, lube oil, propane, fuel gas, glycol, dry gas, mercury guard bed, molecular sieve, amine carbon, cartridge filter)	Hazardous listed as hazardous waste in GOI Regulation no.101/ 2014	<ul style="list-style-type: none"> - use appropriate PPE, eye and skin protection. Wear chemical gloves if required - respiratory protection and protective clothing may be required - refer to MSDS - may contain hazardous material such as VOC, hydrocarbon and Hg - containers should be properly labeled and sealed prior to shipment - symbol: toxic - label: as per type materials stored inside the drums 	<ul style="list-style-type: none"> - accumulate and store separately, do not mix with other materials - accumulate in drums, and store in a temporary hazardous waste storage - complete waste manifest 	<ul style="list-style-type: none"> - conduct material selection and usage control - reduce filter bed and media consumption by using better materials, with longer expected life - state in the contract that vendor will pick up (handle) the used filter bed and media 	Please refer further detail of treatment and disposal plan for this specific waste in Appendix 1.a
22.	Filter – media & cartridge – non-hazardous waste (air filters, sand filter & carbon filter for potable water)	Non hazardous	<ul style="list-style-type: none"> - use appropriate PPE, eye and skin protection - containers should be labeled and sealed prior to shipment - symbol: non-hazardous waste - label: filter media, non-hazardous, etc. 	<ul style="list-style-type: none"> - store in dry area, protected from rain - accumulate in original packaging or drums and sealed 	<ul style="list-style-type: none"> - conduct usage control - require vendor to take back the used filter bed and media 	<ul style="list-style-type: none"> - send to recycling company, or - send to an approved sanitary landfill

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No & waste Code	Waste name	Waste Category	Handling, symbol & Labelling	Storage & Transport	Waste minimization effort	Treatment & Disposal
23.	Incinerator ash - hazardous waste incinerator	Hazardous listed as hazardous waste in GOI Regulation no.101/ 2014	<ul style="list-style-type: none"> - use appropriate PPE, eye, respiratory and skin protection - containers should be properly labeled and sealed prior to shipment - symbol: mix waste - label: ash, hazardous 	<ul style="list-style-type: none"> - accumulate and store separately, do not mix with other materials - accumulate in drums, and store in a temporary hazardous waste storage - complete waste manifest 		<ul style="list-style-type: none"> - send to approved waste management facility
24.	Incinerator ash – non-hazardous waste incinerator	Non hazardous	<ul style="list-style-type: none"> - use appropriate PPE, eye, respiratory and skin protection - containers should be labeled and sealed prior to shipment - symbol: non-hazardous waste - label: ash, non-hazardous 	<ul style="list-style-type: none"> - store in dry area, protected from rain - accumulate in drums and sealed 		<ul style="list-style-type: none"> - backfill on site, or - send to an approved sanitary landfill

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No & waste Code	Waste name	Waste Category	Handling, symbol & Labelling	Storage & Transport	Waste minimization effort	Treatment & Disposal
25	Liquid Mercury (including elemental mercury)	Hazardous listed as hazardous waste in GOI Regulation no.101/ 2014	<ul style="list-style-type: none"> - use appropriate PPE, eye and skin protection. Wear chemical gloves if required - respiratory protection and protective clothing may be required - refer to MSDS - containers should use HDPE bottles/material and put inside HDPE drum/containers - it is recommended to fill up the upper part of HDPE bottle with water as seal - symbol: toxic waste - label: liquid Hg or elemental Hg waste 	<ul style="list-style-type: none"> - accumulate and store separately, do not mix with other materials - complete waste manifest - transfer to temporary storage 		- send to an approved waste management facility

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No & waste Code	Waste name	Waste Category	Handling, symbol & Labelling	Storage & Transport	Waste minimization effort	Treatment & Disposal
26	Laboratory waste (used reagent and remain samples)	<p>Hazardous</p> <p>May be listed as hazardous waste in GOI Regulation no. 101/2014</p> <p>Few may be non-hazardous such as salt (NaCl; CaCl₂; CaCO₃, etc.)</p>	<ul style="list-style-type: none"> - use appropriate PPE, eye and skin protection. Wear chemical gloves - respiratory protection and protective clothing may be required - refer to MSDS - may contain hazardous material such as VOC, hydrocarbon and Hg - segregate used reagent and remain sample based on its characteristics and stored in proper container (refer to MSDS) - containers should be properly labeled and sealed prior to shipment - laboratory solid waste such as glassware, filter paper, etc. Is not expected to be a hazardous waste. The waste should be stored in covered skips, or similar, prior to disposal in an approved sanitary landfill, or recycled - Symbol: toxic & corrosive - label: lab waste, hazardous - label: lab waste, non hazardous (if non hazardous) 	<ul style="list-style-type: none"> - accumulate and store in leak proof container, sealed and covered - accumulate and store separately, do not mix if not compatible with other materials - accumulate in drums and/or containers and store in a temporary hazardous waste storage - use only approved land and sea transportation with appropriate permit - complete waste manifest 	<ul style="list-style-type: none"> - sent only appropriate amount of samples to laboratory - conduct materials selection and usage control for the laboratory reagent 	<p><u>Hazardous:</u></p> <ul style="list-style-type: none"> - first rinse of the remain sample and used reagent shall also be assumed as a hazardous waste - send to approved waste management facility <p><u>Non-hazardous:</u></p> <ul style="list-style-type: none"> - send to an approved sanitary landfill - if in doubt, assume it as a hazardous waste

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No & waste Code	Waste name	Waste Category	Handling, symbol & Labelling	Storage & Transport	Waste minimization effort	Treatment & Disposal
27.	Metals, scraps (piping, tanks, wire-line, junk spare-part, scrap casing & tubing connection, metal thread protectors, scrap structural steel)	Non hazardous	<ul style="list-style-type: none"> - use appropriate PPE, eye and skin protection. Handle rusty metals with care - any metals which have been in contact with produced fluids (oil, gas, and/ or water) and containing scale and corrosion product, must be surveyed for NORM before handling. Any metals which have NORM above 25 micro-rem/ hour is considered as NORM contaminated materials - label: metals, scrap, non-hazardous 	<ul style="list-style-type: none"> - small and medium size pieces should be placed in a special baskets - transport small and medium size pieces in baskets; large pieces should be transported intact, taking precautions so that they do not come apart during transport - scrap pipe should be bundled for transport safety 	<ul style="list-style-type: none"> - conduct material selection and usage control - send to salvage or scrap dealer (metal re-claimer), or reuse at field such as for pipe support - donate to local government, ensure that it does not contain NORM above 25 micro-rem/ hours 	<p>Verify for NORM concentration before deciding for disposal this scrap waste at an approved sanitary landfill.</p> <p>Ensure all relevant requirement regarding write-off has been followed/fulfilled.</p>
28.	Oil – used lube oil	Hazardous listed as hazardous waste in GOI Regulation no.101/ 2014	<ul style="list-style-type: none"> - use appropriate PPE, eye and skin protection - respiratory protection may be required - refer to MSDS - used lube oil is flammable and toxic - containers should be properly labeled and sealed prior to shipment - symbol: toxic - label: lube oil, hazardous 	<ul style="list-style-type: none"> - store separately from oxidizing material, avoid from heat exposure, store on the pallet and properly banded - accumulate in sealed and leak proof drums and/ or metal containers and store in a temporary hazardous waste storage - use only approved land or sea transportation with appropriate permit - complete waste manifest 	<ul style="list-style-type: none"> - conduct usage control to prevent unnecessary waste - return to vendor or re-claimer company for recycling - change the oil based on test instead of based on engine running hours 	send to approved waste management facility

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No & waste Code	Waste name	Waste Category	Handling, symbol & Labelling	Storage & Transport	Waste minimization effort	Treatment & Disposal
29.	Paint – excess	<p>Hazardous</p> <p>Hazardous if it contains lead, chromium, zinc and/ or solvent, etc.</p> <p>The additive use may be listed as hazardous waste in GOI Regulation no.101/ 2014</p>	<ul style="list-style-type: none"> - use appropriate PPE, eye and skin protection. Wear chemical gloves - respiratory protection may be required (it could be ignitable and toxic) - refer to MSDS - paint brush is considered non-hazardous if to use water based paint. This paint brushes should be properly cleaned and dried first prior to put in a trash bin - paint brush is considered hazardous if to use solvent based and lead based paint, and also if to use to paint tanks, pipelines, other vessel & other oil & gas field related equipment - symbol: toxic & flammable - label: paints, hazardous 	<ul style="list-style-type: none"> - the paint cans should be emptied until no more than 3% by weight of the total capacity remains. If possible use them all up - once dry, the lid should be closed tightly - close and seal drums prior to shipment - accumulate in poly propylene drums, and store in a temporary hazardous waste storage - complete waste manifest 	<ul style="list-style-type: none"> - estimate amount of paint required carefully to minimize paint excess - require suppliers to pick up paint surplus - prefer to use water based paint and restrict the use of lead based paint - use all paint 	<ul style="list-style-type: none"> - send the non-hazardous excess and/ or surplus paint and/ or paint brush to an approved sanitary landfill - send the hazardous excess and/ or surplus paint and/ or paint brush to approved waste management facility
30.	Pallets / wooden boxes / sacks	Non hazardous	<ul style="list-style-type: none"> - use appropriate PPE, eye, hand and skin protection 	<ul style="list-style-type: none"> - bind together for shipment to avoid accidental falling 	<ul style="list-style-type: none"> - conduct usage control to prevent unnecessary wastes 	<ul style="list-style-type: none"> - burn in a non-hazardous waste incinerator and backfill the ashes on site - send the pallet to an approved sanitary landfill

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No & waste Code	Waste name	Waste Category	Handling, symbol & Labelling	Storage & Transport	Waste minimization effort	Treatment & Disposal
31.	Refractory brick or ceramic insulation (of incinerator and boiler)	Hazardous May be hazardous, may contain NORM and may be listed as hazardous waste in GOI Regulation no.101/ 2014	<ul style="list-style-type: none"> - use appropriate PPE, eye and skin protection - must be packed in good quality container and properly labeled - use appropriate PPE, respiratory protection and rubber gloves. If necessary use protective clothing - symbol: mix waste - label: refractory brick, hazardous; ceramic. 	<ul style="list-style-type: none"> - use sealed container and use only approved land and sea transportation with appropriate permit - accumulate in drums, and store in a temporary hazardous waste storage - complete waste manifest 	<ul style="list-style-type: none"> - conduct usage control to prevent unnecessary wastes 	<ul style="list-style-type: none"> - send to approved waste management facility - if proved non-hazardous send to approved sanitary landfill or backfill on site
32.	Soil contaminated with lube oil/ used lube oil and/ or chemicals/ used chemicals	Hazardous listed as hazardous waste in GOI Regulation no.101/ 2014	<ul style="list-style-type: none"> - use appropriate PPE, eye and skin protection. Wear chemical gloves if required - respiratory protection may be required - refer to MSDS of the chemicals contaminated in the soil and prevent direct contact with skin and eyes - symbol: refer to chemical characteristics - label: soil, lube oil, hazardous 	<ul style="list-style-type: none"> - remove free liquids prior to containerization, managed and disposed-of accordingly - seal containers prior to shipping - accumulate in drums, and store in a temporary hazardous waste storage - complete waste manifest 	<ul style="list-style-type: none"> - take measures to prevent spills. For example, use containment devices in chemical storage areas. - develop procedures to prevent or reduce the contamination of soils, e.g. drip pans or secondary containment around compressors, pumps, gearboxes and chemical drums & storage to reduce spills 	<ul style="list-style-type: none"> - send to approved waste management facility or bioremediation site (refer to KepMen LH no. 128/ 2003).

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No & waste Code	Waste name	Waste Category	Handling, symbol & Labelling	Storage & Transport	Waste minimization effort	Treatment & Disposal
33.	Solvent or thinner - chlorinated or non- chlorinated	Hazardous listed as hazardous waste in GOI Regulation no.101/ 2014	<ul style="list-style-type: none"> - use appropriate PPE, eye and skin protection. Wear chemical gloves - respiratory protection and protective clothing is required - refer to MSDS. Read warning labels on containers. Avoid inhalation by using respirator with proper filtration canisters. May be highly flammable. - symbol: toxic & flammable - label: solvent, hazardous 	<ul style="list-style-type: none"> - store separately. Do not mix with other materials. Small containers such as cans or aerosol sprayers should be accumulated separately - store in a temporary hazardous waste storage - complete waste manifest 	<ul style="list-style-type: none"> - conduct usage control to prevent unnecessary waste - return to vendor especially for the empty containers - put into production stream if possible - use water-based solvents or soap cleaners when possible - minimize the amount of solvents being lost during cleaning or maintenance. Use drip pans or other means such as secondary containment to catch any leaking solvent 	<ul style="list-style-type: none"> - send to an approved waste management facility
34.	Tire - used	Non hazardous	<ul style="list-style-type: none"> - use appropriate PPE - pack it in a containers with a clear label - symbol: non-hazardous waste - label: used tire 	<ul style="list-style-type: none"> - no special requirement but ensure that there is no oil on the used tire 	<ul style="list-style-type: none"> - conduct usage control to prevent unnecessary waste - return to vendor - send to re-claimer company for recycling - reuse for coral reef 	<ul style="list-style-type: none"> - burn in a non-hazardous waste incinerator and backfill the ashes on site - send to an approved sanitary landfill

Camp & office waste including clinic

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No & waste Code	Waste name	Waste Category	Handling, symbol & Labelling	Storage & Transport	Waste minimization effort	Treatment & Disposal
35.	Aerosol cans	Non hazardous Community waste – domestic garbage	<ul style="list-style-type: none"> - use appropriate PPE - do not puncture or burn - pack in a good containers with a clear and appropriate label - this is a domestic garbage waste but due to safety concern of the possibility to explode if puncture, heat or burn, it is recommended to manage it as a hazardous waste - symbol: explosive (pressure) - label: aerosol can, hazardous 	<ul style="list-style-type: none"> - store separately, avoid heat source > 600 c and transport it in a closed, sealed drums - accumulate in an open-top drums, and store in a temporary hazardous waste storage - complete waste manifest 	<ul style="list-style-type: none"> - use non-aerosol cans - conduct usage control to prevent unnecessary wastes - return to vendor - send to re-claimer company for recycling 	<ul style="list-style-type: none"> - send to an approved sanitary landfill, or - send to approved waste management facility. <p>Due to safety concern of the possibility to explode if puncture or burn, it is recommended to send it to approved waste management facility</p>
36.	Carton boxes/ card board/ paper	Non hazardous Community waste - domestic garbage	<ul style="list-style-type: none"> - use appropriate PPE - accumulate in special trash bin or box which is used for this carton boxes/ card board/ paper/ domestic garbage 	<ul style="list-style-type: none"> - use special trash bin or box to accumulate and store these materials - Containers should be equipped with lids or nets to ensure that waste cannot escape from the container during storage or transport. 	<ul style="list-style-type: none"> - select materials with less packaging if possible - conduct usage control to prevent unnecessary wastes - send to re-claimer company for recycling 	<ul style="list-style-type: none"> - send it to approved sanitary landfill
37.	Toner (used toner) for copy & fax machine and Cartridge printer	Hazardous may contain solvent and lead from the toner, which are listed as hazardous waste in GOI Regulation no.101/ 2014	<ul style="list-style-type: none"> - use appropriate PPE - use gloves - accumulate in original packaging or drums - used cartridge printer may be toxic due to its Pb contents of this toner - symbol: toxic - label: cartridge printer, fax, copier. 	<ul style="list-style-type: none"> - accumulate in drums, and store in a temporary hazardous waste storage - complete waste manifest 	<ul style="list-style-type: none"> - conduct usage control to prevent unnecessary waste - return to vendor - send to re-claimer company for recycling 	<ul style="list-style-type: none"> - send to approved waste management facility

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No & waste Code	Waste name	Waste Category	Handling, symbol & Labelling	Storage & Transport	Waste minimization effort	Treatment & Disposal
38.	Clinic waste-solid waste (e.g. Expired medicine, syringe, etc)	Hazardous Biohazard (infectious) and toxic wastes listed as hazardous waste in GOI Regulation no.101/ 2014	<ul style="list-style-type: none"> - use appropriate PPE, eye and skin protection (biohazard waste, clinical solid waste) - containers should be properly labeled and sealed prior to shipment - symbol: bio hazard - label: clinic solid waste, bio hazardous 	<ul style="list-style-type: none"> - accumulate in a plastic bag that is used exclusively for the clinical solid waste, and then put it in a wooden box, or in an open-top drums, or in a sealed drum and store in a temporary hazardous waste storage - complete waste manifest 	<ul style="list-style-type: none"> - conduct usage control to prevent unnecessary wastes 	<ul style="list-style-type: none"> - incinerate in a hazardous waste incinerator and send the ashes to approved waste management facility - send it to an approved medical incinerator
39.	Clinic waste – liquid waste (e.g. Blood sample, urine, expired infusion) and also domestic liquid waste from clinic (pantry, sink and toilet)	May be hazardous Biohazard (infectious) wastes if blood sample, urine and expired infusion Domestic liquid waste (if waste from pantry, sink and toilet)	<ul style="list-style-type: none"> - use appropriate PPE, eye and skin protection (biohazard, infectious clinical liquid waste) - if to put in a container, than the containers should be properly labeled and sealed prior to shipment - symbol: bio hazard - label: clinic liquid waste, bio hazardous 	<ul style="list-style-type: none"> - if necessary, accumulate in a plastic bag that is used exclusively for the clinical liquid waste such as for blood samples - complete waste manifest (i.e. For liquid waste put in a plastic bag such as for blood sample) 	<ul style="list-style-type: none"> - reduce water consumption to reduce unnecessary waste 	<p><u>Medical Wastes:</u></p> <ul style="list-style-type: none"> - incinerate in a hazardous waste incinerator and send the ashes to approved waste management facility - send to approved medical incinerator <p><u>Liquid waste:</u></p> <ul style="list-style-type: none"> - treat in a separate septic tank or other biological treatment prior to treat along with other domestic liquid waste and discharge to surrounding environment as per PerMen LH 19 / 2010
40.	Domestic liquid waste	Non hazardous	<ul style="list-style-type: none"> - use appropriate PPE, eye and skin protection (biohazard, infectious liquid waste) 		<ul style="list-style-type: none"> - reduce water consumption to reduce liquid waste generation 	<ul style="list-style-type: none"> - Treat in a septic tank or other biological treatment and discharge to the surrounding environment or to a stream as per Kepmen LH 112/2003 <p>Note: sludge generated is a non-hazardous waste that could be disposed of at an approved sanitary landfill</p>

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No & waste Code	Waste name	Waste Category	Handling, symbol & Labelling	Storage & Transport	Waste minimization effort	Treatment & Disposal
41.	Domestic solid waste, (food waste, yard waste, office trash)	Non hazardous	- use appropriate PPE, eye and skin protection (biohazard, infectious solid waste)	- use special covered trash bin or box to accumulate and store these materials - containers should be equipped with lids or nets to ensure that waste cannot escape from the container during storage or transport	- conduct usage control to prevent unnecessary wastes - conduct waste segregation to reduce unnecessary waste: organic, paper, plastic, aluminum, glass, metal - send to re-claimer company for recycling such as for paper, plastic, aluminum, glass and metal - donate for fish and animal food feeding	- composting, especially for organic solids waste and reuse for field and site re-vegetation - burn in a non- hazardous waste incinerator and backfill the ashes on site - send to an approved sanitary landfill - Food waste: after grinding, it can be used for animal / fish feeding
42.	Glass (and bottles), including aluminum can	Non hazardous	- use appropriate PPE and consider to use leather gloves and goggles when handling glass	- there is no special requirement is required	- conduct usage control to prevent unnecessary wastes - conduct waste segregation to reduce unnecessary waste - send to re-claimer company for recycling	- send to an approved sanitary landfill

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No & waste Code	Waste name	Waste Category	Handling, symbol & Labelling	Storage & Transport	Waste minimization effort	Treatment & Disposal
43.	Pesticide & herbicide (and it cans & container)	Hazardous listed as hazardous waste in GOI Regulation no.101/ 2014	<ul style="list-style-type: none"> - use appropriate PPE, eye and skin protection. Wear chemical gloves - respiratory protection and protective clothing is required - refer to MSDS. Read warning labels on containers. Avoid inhalation by using respirator with proper filtration canisters. May be flammable. - symbol: toxic - label: pesticide, hazardous; herbicide, hazardous 	<ul style="list-style-type: none"> - accumulate in a sealed drum and store in a temporary hazardous waste storage - complete waste manifest 	<ul style="list-style-type: none"> - conduct usage control to prevent unnecessary wastes - return to vendor especially for the can - use them all prevent any left over 	<ul style="list-style-type: none"> - send to approved waste management facility <u>For the can:</u> - crush after triple rinsing or washing and send to approved waste management facility
44.	Plastic & Styrofoam	Non hazardous	<ul style="list-style-type: none"> - use appropriate PPE, eye protection if burn, it could release carcinogenic substances 	<ul style="list-style-type: none"> - accumulate and store separately from other materials 	<ul style="list-style-type: none"> - use non plastic/ Styrofoam materials whenever alternatives exist - use biodegradable plastic/ Styrofoam - send to re-claimer company for recycling 	<ul style="list-style-type: none"> - burn in a hazardous waste incinerator and send the ashes to approved waste management facility, or - send to approved waste management facility
45.	Tubular lamp, glass lamp (TL lamp), fluorescent lamp containing Hg	Hazardous Mercury is listed as hazardous waste in GOI Regulation no.101/ 2014	<ul style="list-style-type: none"> - use appropriate PPE, eye and skin protection. May contained mercury (Hg) - Symbol: toxic - label: tubular lamp, hazardous; glass lamp, hazardous 	<ul style="list-style-type: none"> - accumulate in a special containers (wooden boxes or drums) exclusively for tubular lamp - store in a temporary hazardous waste storage - complete waste manifest 	<ul style="list-style-type: none"> - Use LED light type. 	<ul style="list-style-type: none"> - send to approved waste management facility

10.1.1 Appendix 1B – Segregation of Wastes according to Waste Incompatibility Charts

No.	Reactivity Group	1	2	3	4	5	6	7	8
1	Acids, Mineral, Non-oxidizing	----							
2	Alcohols and Glycols	H	----						
3	Caustics	H		----					
4	Cyanides and Sulfides	GT GF			----				
5	Halogenated Organics	H GT		H GF	H	----			
6	Metals and Metal Compounds, Toxic	S		S			----		
7	Combustible and Flammable Materials, Miscellaneous	H G						----	
8	Oxidizing Agents, Strong	H GT	H F		H E GT	H GT		H F G	----

H	-	Heat generation
F	-	Fire
GT	-	Toxic gas generation
GF	-	Flammable gas generation
E	-	Explosion
G	-	Innocuous and non-flammable gas generation
S	-	Solubilization of toxic substances

Directions for Using this Appendix : To determine potential consequences of mixing two different chemicals, locate the box which represents the intersection of the chemical group in the rows on the left with a chemical identified in the columns across the top. For example, mixing oxidizing agents, strong (8) with acids, mineral non-oxidizing (1) will result in the generation of heat (H) and toxic gases (GT).

10.2 APPENDIX 2 - PACKAGING RECOMMENDATION

Characteristic	Type Of Packaging																				Remarks				
	Drum						Jerrican						Box						Bag						
	Steel		Aluminium		Fibre	Plastic (HDPE)		Metal		Steel		Aluminium		Plastic (HDPE)		Steel	Aluminium	Wooden	Fibre	Plastic		Plastic / Woven Plastic			
1	2	1	2		1	2	1	2	1	2	1	2	1	2			1	2	1	2	1	3	4		
Explosive	√		√			√		√		√		√		√		√		√		√		√			•Box & bag are not allowed for substances extremely flammable •For Bag shall not exceed 50 kg
Flammable liquids	√	*	√	*	o	√	*	√	*	√	*	√	*	√	*	o	o	o	o	o	o	o	o	o	•Special packaging for substance with water or alcohol content: - shall designed to prevent the loss of water or alcohol - shall constructed and close so as to avoid an explosive overpressure or pressure build-up of > 300 kPa •effectively closed
Flammable solids, self-reactive substances	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	•Box & bag are not allowed for substances liable to spontaneous combustion •For Bag shall not exceed 50 kg •For wet waste, necessary shall be provided with a suitable inner coating or treatment (shift-proof & teraproof) •For wet metal (with a visible excess of liquid) --> metal packaging a venting devices is required •Bag shall not be used for packaging group II in powder/dust phase	
Substances liable to spontaneous combustion	√	*	√	*	o	√	*	√	*	√	*	√	*	√	*	o	o	o	o	o	o	o	o	•For Bag shall not exceed 50 kg •For wet waste, necessary shall be provided with a suitable inner coating or treatment (shift-proof & teraproof)	
Substances which, in contact with water, emit flammable gases	√	*	√	*	o	√	*	√	*	√	*	√	*	√	*	o	o	o	o	o	o	o	o	•For Bag shall not exceed 50 kg •For wet waste, necessary shall be provided with a suitable inner coating or treatment (shift-proof & teraproof)	
Oxidizing substances	√	*	√	*	o	√	*	√	*	√	*	√	*	√	*	√	o	o	o	o	o	o	o	•For Bag shall not exceed 50 kg •Drum (steel, aluminium, metal) max. capacity 250 Kg •Drum (fibreboard, plywood) fitted inner liners with max. capacity 200 Kg	
Organic peroxides	√	√*	√	√*	o	√	√*	√	√*	√	√*	√	√*	√	√*	√	o	o	o	o	o	o	o	•Effectively closed	
Toxic substances	√	√*	√	√*	o	√	√*	√	√*	√	√*	√	√*	√	√*	√	o	o	o	o	o	o	o		
Infectious substances																√	√	√	√		√	√	√	•Inside woden box shall lined with aluminium, metal, plastic to prevent leak of any liquid •Liquid form shall contained in shift-proof •For sharps & piercing waste shall not be packed in bags	
Radioactive material	√	√	√	√	√	√	√	√	√						√	√	√	√						•Packaging may, in particular, consist of one or more receptacles, absorbent materials, spacing structures, radiation shielding and service equipment for filling, emptying, venting and pressure relief; devices for cooling, absorbing mechanical shocks, handling and tie-down, thermal insulation; and service devices integral to the package. •Packaging requirements refer to Kep. Ka BAPETEN No. 04/Ka-BAPETEN/V-99, Bab I no. 113 - 114	
Corrosive substances	√	√			√	√	√			√	√			√	√	√	√	√		√		√	√	•For used batteries : shall be protected from short circuit	

Note :
 * shall not be used for substance of packaging group I that may beome liquid during carriage
 o shall not be used when substance being may become liquid during carriage
 f These packaging shall only be used for packaging group II when carried in a closed vehicle or container

1 : Non-Removable Head
 2 : Removable Head
 3 : Shift-Proof
 4 : Water Resistant

4.1.1.1 The packaging shall :

- shall be strong enough to withstand : the shocks and loadings normally encountered during carriage, removal from a pallet or overpack
- shall be constructed and closed so as to prevent any loss of contents when :prepared for transport which might be caused under normal conditions of transport, by vibration, or by changes in temperature, humidity or pressure (resulting from altitude, for example)
- No dangerous residue shall adhere to the outside of packagings

4.1.1.2 Parts of packagings which are in direct contact with dangerous goods :

- shall not be affected or significantly weakened by those dangerous goods
- shall not cause a dangerous effect e.g. catalysing a reaction or reacting with the dangerous goods
- Where necessary, they shall be provided with a suitable inner coating or treatment

4.1.1.4 When filling packagings with liquids, sufficient ullage (outage) shall be left to ensure that neither leakage nor permanent distortion of the packaging occurs as a result of an expansion of the liquid caused by temperatures likely to occur during transport.

4.1.1 Liquids may only be filled into inner packagings which have an appropriate resistance to internal pressure that may be developed under normal conditions of carriage. Where pressure may develop in a package by the emission of gas from the contents (as a result of temperature increase or other cause), the packaging may be fitted with a vent, provided that the gas emitted will not cause danger on account of its toxicity, its flammability, the quantity released, etc. A venting device shall be fitted if dangerous overpressure may develop due to normal decomposition of substances. The vent shall be so designed that, when the packaging is in the attitude in which it is intended to be carried, leakages of liquid and the penetration of foreign matter are prevented under normal conditions of carriage.

4.1.3 Packing groups :

- Packing group I: Substances presenting high danger;
- Packing group II: Substances presenting medium danger;
- Packing group III: Substances presenting low danger

In general, above packaging requirement could be summarized as follows:

Hazardous waste containers should:

- Be free of rust and leaks.
- Be suitable for the characteristics of the hazardous waste stored in the container;
- Be made of plastic (HDPE, PP or PVC) or metal (Teflon, Carbon Steel, Stainless Steel) as long as the materials do not react with the waste type.
- Have a tight cover to prevent any spillage during transfer or off-site transportation.

Each hazardous waste should be placed in a container that will be exclusively used for the purpose of accumulating a specific hazardous waste. Each location should maintain a small supply of containers that can be used for storing solid and hazardous waste.

Storage containers used can vary in volume.

The filled hazardous waste container should:

- Be labeled with the appropriate symbol.
- Always kept closed and only opened when the waste is being taken out or added into the container.

The filled hazardous containers should be inspected at least once a week. Each site will develop an inspection checklist based on the types of waste generated, the various areas for inspection, etc.

If any leak occurs, the content of the containers should be transferred to a more suitable container. The spill should be collected; and kept in a separate container the area cleaned.

The hazardous waste containers can be re-used to store other hazardous waste if the characteristics of the new waste are the same or compatible with the previous waste stored. If it's not compatible, the containers are not recommended to be re-used.

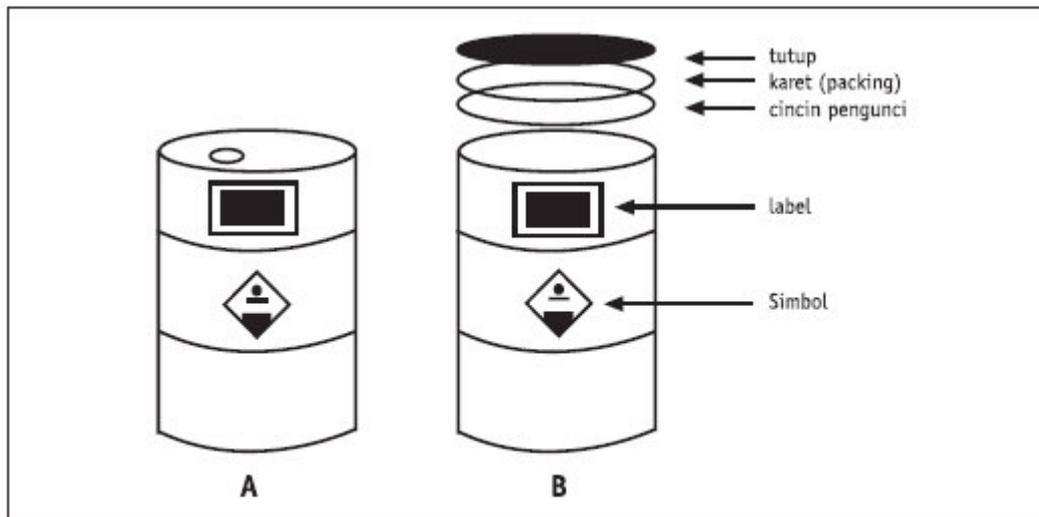


Illustration of waste packaging using drum for: (A) liquid hazardous waste; and (B) sludge or solid hazardous waste

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10.3 APPENDIX 3- GUIDELINE FOR LABELING AND PLACING SYMBOLS FOR HAZARDOUS WASTE HANDLING

- All waste containers for storage and transportation should be labeled in conformance to prevailing Indonesian regulations.
- All waste containers should be labeled with the waste hazard warning symbols shown below:

Waste Label

<h1 style="color: red; margin: 0;">PERINGATAN!</h1>	
<h2 style="margin: 0;">LIMBAH BAHAN BERBAHAYA DAN BERACUN</h2>	
PENGHASIL	:
ALAMAT	:
TEL	: FAX:
NAMA LIMBAH	:
KOD LIMBAH	:
JENIS LIMBAH	: <input type="checkbox"/> CAIR <input type="checkbox"/> PADAT
JUMLAH LIMBAH (ton/kg/m ³)	:
SIFAT LIMBAH	: <input type="checkbox"/> MUDAH TERBAKAR <input type="checkbox"/> BERACUN <input type="checkbox"/> MUDAH MELEDAK <input type="checkbox"/> BAHAYA BIOLOGI <input type="checkbox"/> PENGOKSIDASI <input type="checkbox"/> KOROSIF <input type="checkbox"/> REAKTIF <input type="checkbox"/> RADIOAKTIF <input type="checkbox"/> GAS BERTEKANAN <input type="checkbox"/> LAIN-LAIN :
TGL PENGEMASAN	:
CATATAN	: KONTAINER NO. :
	: MANIFEST NO. :
	:
<h1 style="color: red; margin: 0;">TANGANI DENGAN HATI-HATI !</h1>	
LIHAT PROSEDUR PENANGANAN LIMBAH UNTUK DETIL LEBIH JELAS	

- At the minimum, the following information should be included on the label for hazardous waste:
 - The symbol should be suitable for the characteristics of the waste stored. If the waste has more than one hazard class, the label should reflect the more dominant characteristics that pose the greater degree of hazard. If there is more than one dominant characteristic, the container should be labeled with a mixed characteristic symbol.
 - Each hazardous waste container has a minimum 10 cm x 10 cm symbol of the predominant characteristic of the waste.
 - The label should be made of material that can withstand chemical corrosion and the fastenings are strong on the surface of the container.
 - The labels are fastened on the sides of the container and are not blocked from view by the other containers stored.
 - The fastened symbol should not be detached before the content of the container is removed and cleaned.
 - The label on top of the container should have a minimum 7 cm x 15 cm arrows (2) symbol to indicate the position of its cover.

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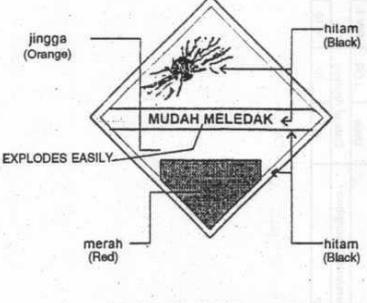
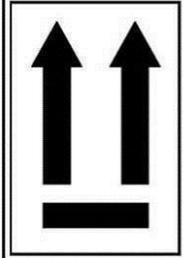
SYMBOL on the Hazardous Waste Building

The symbol attached to the hazardous waste building should adhere to the following requirements:

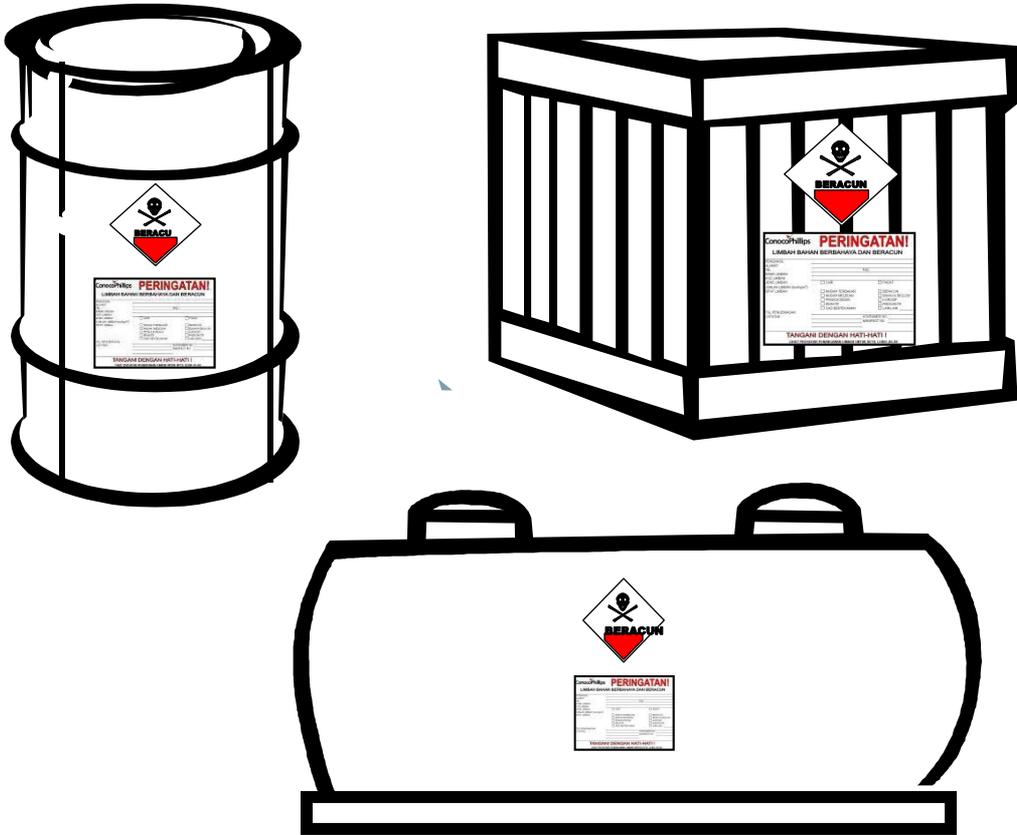
- The symbol should be placed on every door and on the outer wall of the building, and it should not be blocked.
- The type of symbol should be suitable to the characteristic of the stored waste.
- The minimum size of the symbol is 25 cm x 25 cm or bigger and should be visible from a distance of at least 20 meters.
- The label should be made of material that can withstand chemical corrosion or any other material that it comes in contact with.
- As long as the building is being used for hazardous waste storage purposes, the symbol should not be taken out or replaced unless the building is going to be used to store wastes of different characteristics.

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10.3.1 APPENDIX 3A : Waste Hazard Warning Symbols (based on Indonesian Regulation)

 <p>Symbol for B3 waste that can easily explode</p>		
Symbol B3 Waste that can easily explode	Symbol for reactive B3 Waste	Symbol for poisonous B3 Waste
		
Symbol for flammable B3 Waste		Symbol for corrosive B3 Waste
		
Symbol for infectious B3 Waste		Label Showing the Position on the Hazardous Waste Covers
		
Symbol for Empty HAZARDOUS Waste Containers		Symbol for a mixture B3 Waste

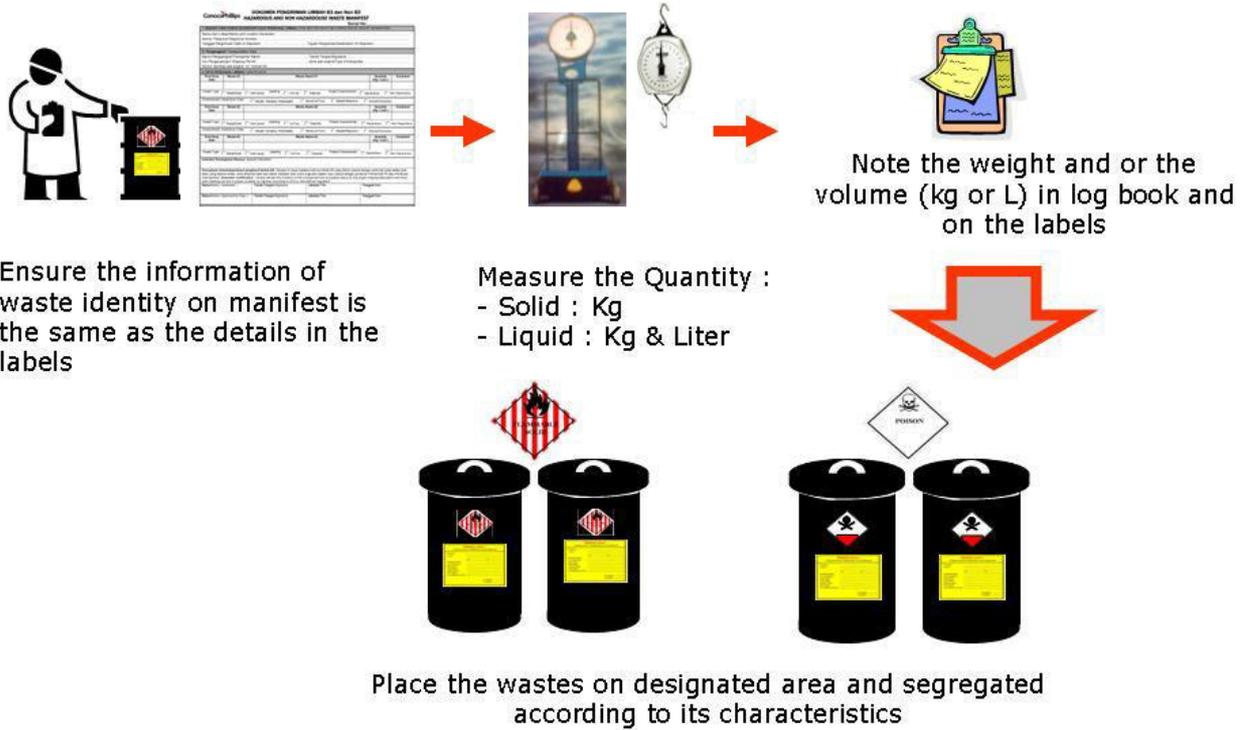
PROCEDURE	WASTE MANAGEMENT STANDARD	SE-MSHE-WAM-PRO-0001 Revision: 0
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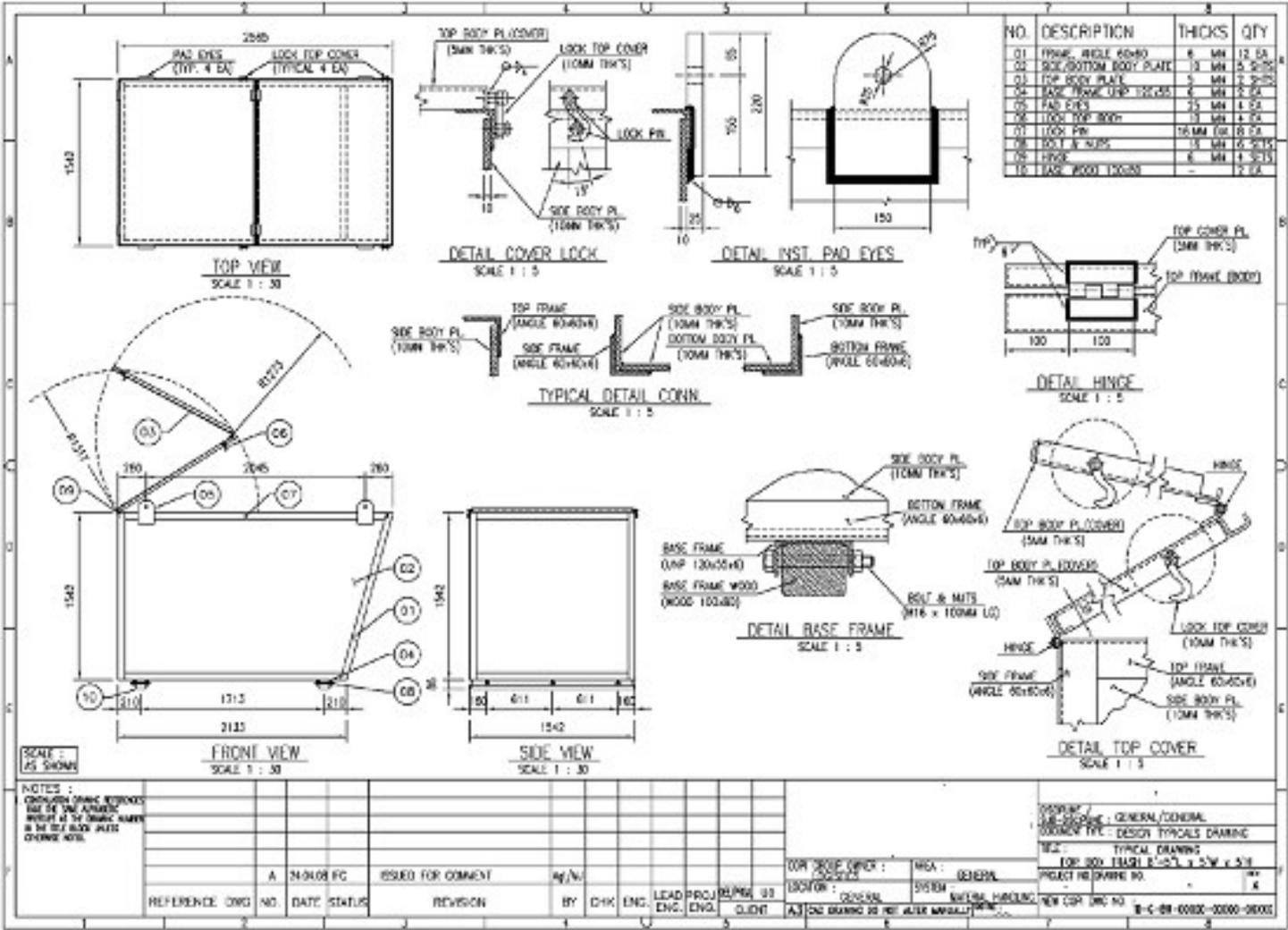
An Illustration on proper placement of symbol and label of hazardous waste

10.4 APPENDIX 4 - SCHEME OF MEASUREMENT PRACTICES

Measurement of Waste Quantity



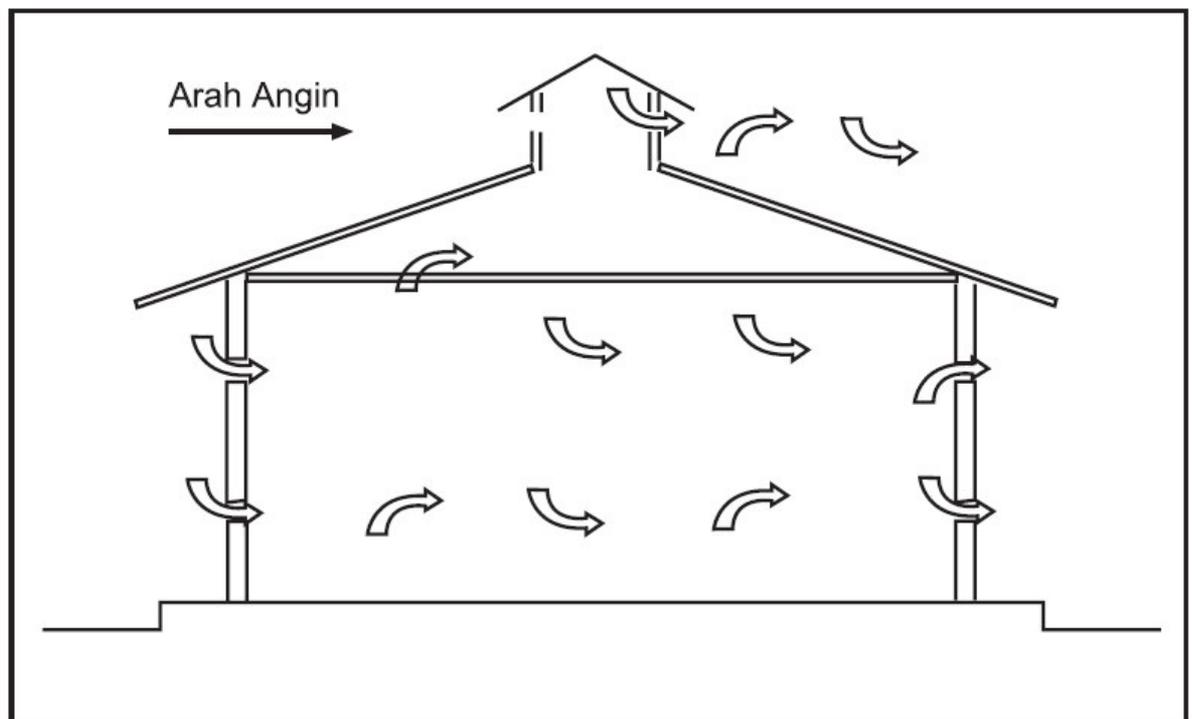
10.5 APPENDIX 5 – RECOMMENDED WASTE CONTAINER OR WASTE BIN



10.6 APPENDIX 6 - STORAGE METHODS FOR HAZARDOUS WASTE

The requirements stated below are defined for the “Temporary Hazardous (B3) Waste Storage” facilities in the field/offshore support base locations.

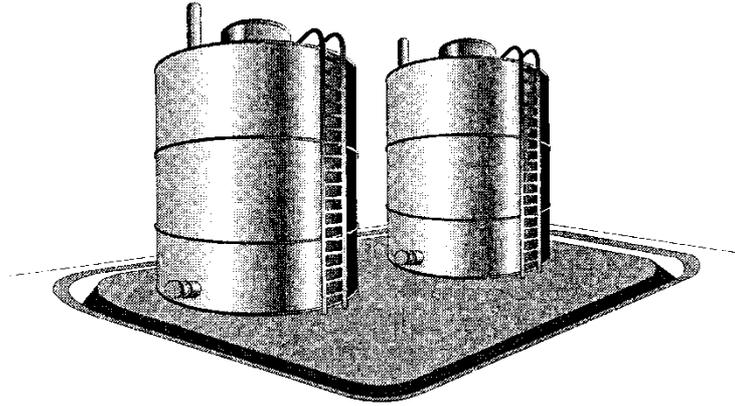
Note: The term “Temporary B3 Waste Storage” is not specifically defined in the regulations, but it is inferred from the regulatory context to mean interim storage either outside of the generator’s facility or in any part of the facility other than the formal, longer-term storage facilities (shall be no more than 90 days storage and will require KEMENTERIAN NEGARA LINGKUNGAN HIDUP approval for another 90 days extension with a valid reason/ justification) [Refer to Decree of the Head of BAPEDAL KEP-01/BAPEDAL/09/1995].



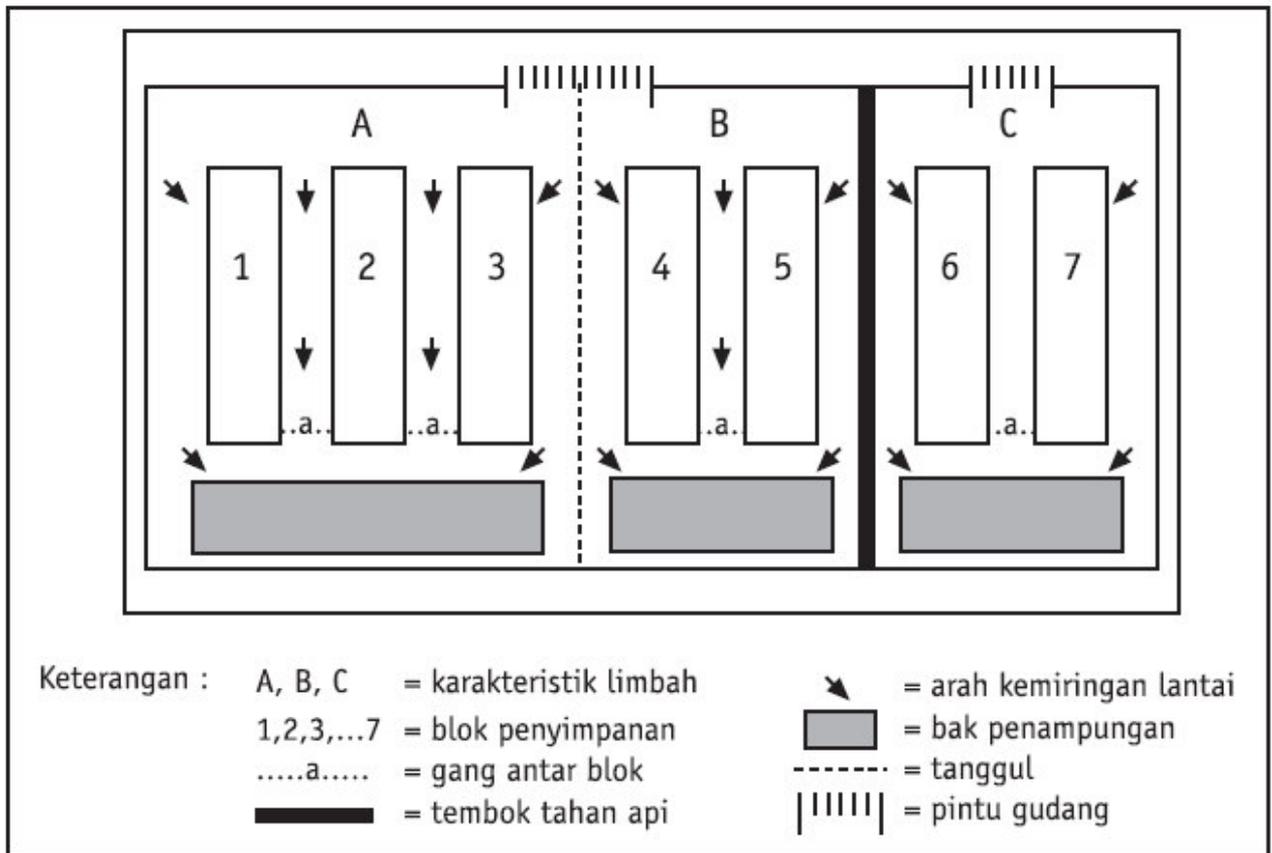
Picture 1 : Ventilation System Inside the HAZARDOUS Waste Temporary Storage Building

Storage of hazardous waste tanks should be maintained in the following manner:

- The tanks must have secondary containment with drains/ gutters leading to a containment ditch (Picture 2).
- The containment ditch should be water-tight, and is able to hold 110% capacity of the maximum tank volume.
- The tanks should be arranged in a manner that if a tank fails, it will remain within the containment area and will not give any effect to the other tanks around it.
- The tanks used for must be protected from direct sunlight and infiltration of rainfall.



Picture 2 : Tanks to store large volumes of hazardous waste



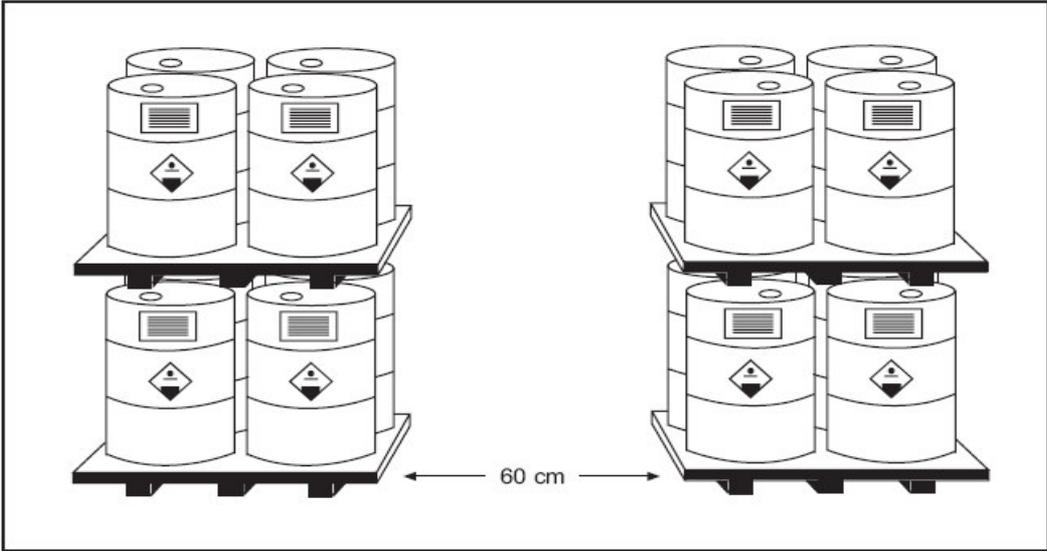
Picture 3 : Segregated Compartments for the Different Waste Types.

Storage of hazardous waste containers should be maintained in the following manner:

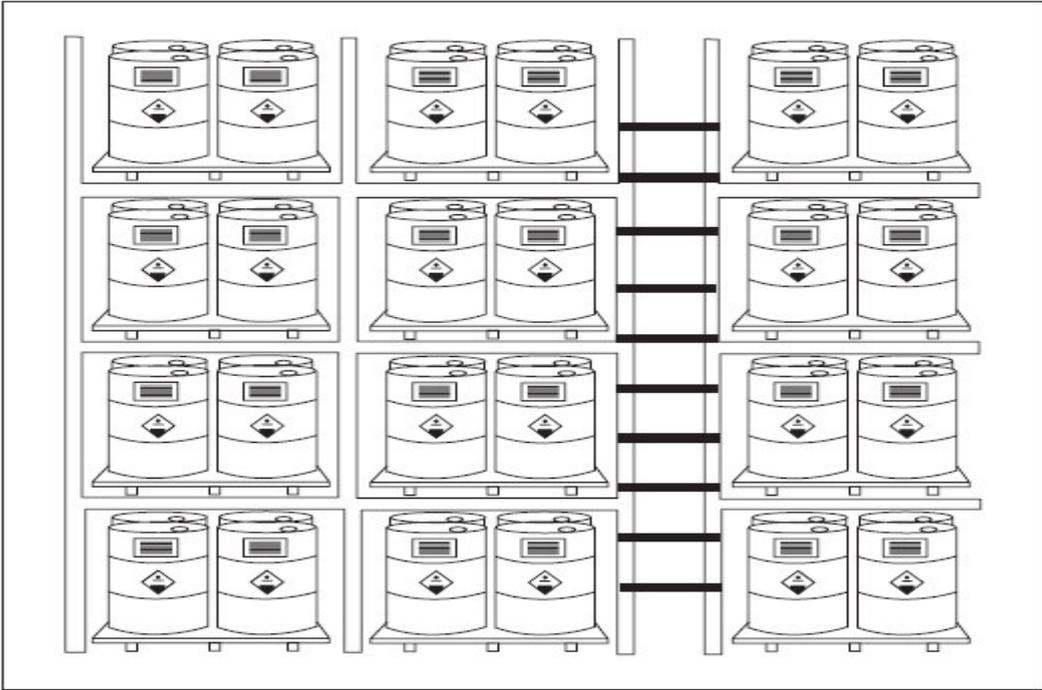
- Containers (i.e. metal drums) are stored in block systems. Each block consists of 2 x 2 drums (Picture 4), and is kept in a manner that will ease inspection of the drums.
- The minimum width between the blocks should be 60 cm for human passage and suitable for the movement of transportation vehicles; e.g., fork-lifts.
- Storage methods should take into consideration the stability of the stacked drums. If the containers are metal drums (200 liters), they should be stacked on pallets in groups of four, no more than three levels high. If the drums are stacked more than three levels high, they should be stacked on racks/ shelving units, with a ladder providing access to the drums (Picture 5).
- The distance between the highest stacked drum and the roof and the distance between the most outer drum and the wall of the storage room should be not less than one meter.

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- Incompatible waste containers should be stored separately, not in one block and not in the same storage section. They should also be stored in a manner that prevents the mixing of incompatible waste in the containment area in case of a spillage.



Picture 4: Storage Methods of Drums on the Pallets with a Minimum Distance between the Blocks



Picture 5: Storage of Hazardous Waste Drums Using Racks or Shelving Units

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10.7 APPENDIX 7- FINAL TREATMENT OR DISPOSAL OF WASTE

Selection of final waste treatment and or disposal alternatives is key element of an organization's environmental management system. Efficient management of wastes can reduce operating costs and potential liabilities. Selection of final treatment or disposal methods should consider:

- hierarchy of waste minimization efforts (from reduction at source to disposal)
- Apply the 3R concepts of: Reduce, Reuse, Recycle.
- When options of recycling, reuse or reduction are not available, practical or technically feasible, operating unit locations shall consider final treatment and disposal methods which permanently alter, neutralize, de-toxicity or destroy waste so as to minimize the impact to human health and the environment and limit potential future liability.
- Use 3rd party waste management facility which has been considered to be qualified
- In the absence of qualified 3rd party waste treatment, storage, disposal and recycling facilities (due to consideration of area location and transportation requirements), each location shall:
 - consider installation of on-site waste treatment or recycling processes (except for the Hazardous Waste Landfills) that conform to with applicable requirements
 - implement long term storage on-site until such time that qualified vendors have become available.
- potential liability issues (covering the aspects of applicable regulation; environmental sensitive areas; health and safety hazards/risks)
- technologically proven to be environmentally friendly
- costs effective

Site operational units may select alternate equivalent waste management technologies consistent with the hierarchy of waste management and using best engineering judgment and with recommendation from Field HSE Advisor or Environmental Advisor.

The depositing of waste in an on-site landfill shall be prohibited unless the site has fulfilled requirements listed under Government Regulation No. 18/ 1999 concerning Hazardous and Toxic Waste Management, Article 36 to 39.

The use of underground injection wells for hazardous waste would be considered not recommended. Consult HSE Dept. for more details.

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Waste that is generated shall be managed: in accordance with the hierarchy of waste management options and using best engineering judgment.

Re-use

Waste that can be used for other than their original purpose/ usage/ form, such as:

- Used / Junk Tubing for the Pipe Support of the Other Pipeline
- Spilled oil / Tank Bottom for the Field Road Asphalt
- Used Tires for a Coral Reef growing (Artificial Reef)

Recycling or Recovery

Recycling is an effort to use the waste for the same purpose/ usage/ form again (and again). Treatment applied will be able to do this conversion of waste into the exactly the same usable materials and/ or extraction of energy from the materials and/ or from the waste. Examples include the following process of recycling:

- P**
- Used Battery as a new Battery
 - Scrap Metals as a new Steel
- R**
- Drilling Water Based Mud used at Other Wells
- I**
- Produced Water Injected for Enhanced Oil Recovery and return as a new Produced Water
- O**
- Plastics as a new Plastic
 - Broken Glass as a new Glass

Return to Vendor or Manufacture

- Unused Chemical, Bulk Container (Drum), Used Batteries, etc. should be able to be returned to the Vendor or Manufacturer for a reason, such as: Impurities, Surplus, Waste, etc. This may required a special arrangement with the vendor/ manufacturer and most likely have to be spelled-out in the contract/ re-purchase agreement.

Donate to Local Authority/ Community/ NGO

Specific waste such as for a certain non hazardous waste can be donated to the local authority/ community/ NGO after preparing a Write Off Procedure (WOP) and receiving approval from BPMigas. Examples include:

- Junk Pipes, Beams, Steel Scrap.
- Used Tires.
- Junk Wellheads;
- All for a Coral Reef growing (as an Artificial Reefs).

Send to a Junk Dealer (Waste Re-Claimer)

- Scrap such as: Steel Scrap, Junk Drums, Plastic Scrap, Aluminum cans, etc., can be sent to junk dealer (waste re-claimer) for recycling.

Treatment

- This includes the treatment, destruction, detoxification and/or neutralization of residues through processes such as:

- biological methods: composting, tank based degradation
- thermal methods: incineration, thermal desorption or use of waste as fuel in combustion processes and thermal destruction. Note: Energy Recovery from incineration process may be preferable treatment in some cases
- chemical methods: neutralization, stabilization
- physical methods: filtration, centrifugation

Responsible Disposal

In general, non-hazardous solid waste shall be incinerated using the domestic waste incinerator. The combustible hazardous wastes may be incinerated in hazardous waste incinerator as long as the incinerator permit includes this waste category.

For remote areas where non-hazardous solid waste incineration is not possible, a controlled landfill disposal may be implemented, which requires a site assessment to ensure that this alternative does not pose significant risks to the environment. This landfill shall be covered and monitored in daily basis

Disposal of wastes on land or in water should consider implementing methods that are appropriate for a given situation. These disposal methods include alternative for underground injection.



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The potential ecological sensitivity of the location of operations is the key to the selection of an appropriate management practice for a specific waste. This may require information on geology, hydrology, hydro-geology, climate conditions and biological habitats.

Note:

Waste Hand-Over Agreement

Waste that will be: donated to a local authority; disposed of at a proper facility; sent to junk dealer; returned to vendor; or otherwise transferred to a third party, must be accompanied by a properly executed waste hand-over agreement signed by Company and third parties or the receiver. The purpose of this document is to provide a record of the agreed transaction and to ensure correct transfer of all future liabilities pertaining to the transferred waste.

10.8 APPENDIX 8- AN ILLUSTRATION OF EMERGENCY RESPONSE PREPAREDNESS IN RELATION TO WASTE MANAGEMENT INCIDENT

One person should be designated as responsible person for handling emergencies situation, including coordination of action, reporting to Incident Commanders and regulators, and liaising with emergency response team. A deputy should be appointed to act in case of absence.

In establishment of Emergency Response, spillage of hazardous waste is probably the most common type of emergency involving infectious or other hazardous material or waste. Implementation of Emergency Response procedure shall cover below minimum requirements:

- The waste management plan is respected;
- Contaminated areas are clean and, if necessary disinfected/isolated;
- Exposure of workers is limited as much as possible during the clearing up operation;
- The impact on patients, medical and other personnel, and the environment is as limited as possible.

Following actions would be considered as steps in managing any emergency situation related to hazardous waste incident/spillage:

- The witness inform to emergency call
- Evacuate the contaminated area
- Inform or notify Incident Commander
- Compile all information of spills including MSDS
- Evacuate all the people not involved in cleaning up if the spillage involves a particularly hazardous substance.
- Provide first aid and medical care to injured persons
- Assess all information determine action to be taken
- Instruct appropriate party to investigate.
- Determine if spill is a threat to the facility and personnel, take action and wash over the side if necessary.
- Request additional resources as required from Company IMT.
- Isolate sources of leak & initiate clean up
- Notify relevant personnel when incident over
- Maintain a detail log of the events.

More detail emergency procedures, shall be further developed by each respective area considering site specific requirement and needs, but should be still within the framework of complying with and conforming to applicable standards/procedures.

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10.9 APPENDIX 9 - SITE SPECIFIC WASTE MATRIX (SAMPLE)



WASTE MATRIX

Waste Name / Operation	Waste Type	B-3/Non B-3	Total Vol/Wt	Waste Description	Waste Stream ID	Waste Segregation	Disposal and Reuse/Recycle Options
Production Facility Waste							
Used Lube Oil	Liquid	B-3	Unknown	May be a characteristic hazardous waste due to heavy metals or flammability	LB-001	HZ-02	Collect and put into Belanak facilities and processed with crude (check its compatibility first)
Waste Paint or Paint Solvent	Liquid	B-3	Unknown	Due to ignitability	LW-002	HZ-02	Small quantities of paint solvents maybe amenable to putting into slop oil system
Waste Paint or Paint Solvent Cans/Pails	Solid	B-3	Unknown	Due to ignitability	SW-002	HZ-01, separate waste plastic bags	Allow waste paint containers to dry and handle as hazardous waste
Spent Dry Batteries	Solid	B-3	Unknown	Hazardous waste due to acid and heavy metal	SP-005	HZ-01, separate waste plastic bags	Bring to onshore facility and scraped or incinerated
Acid Wet Batteries	Liquid, Solid	B-3	Unknown	Hazardous waste due to acid and heavy metal	SP-006	HZ-01, separate cardboard	Bring to onshore facility and scraped or incinerated
Used Fluorescent Lamp	Solid	B-3	Unknown	Hazardous waste due to heavy metal	SP-007	HZ-01, separate container	Bring to onshore facility and scraped or incinerated
Drilling							
Drilling Mud	Liquid	B-3	Unknown	Waste based system with few additive, potential to contain heavy metals, high pH, hydrocarbon and inorganic salts	SP-001	N/A	Repumped it to downhole or dump to overboard
Cuttings	Solid	B-3	Unknown	Drilled solids	SP-002	N/A	Same as for drilling mud Reinject to downhole or collect and treat in onshore facility
Waste Completion Fluids	Liquid	B-3	Unknown	Contain hydrocarbon, inorganic salts, pplymer residues, etc.	SP-003	N/A	Reinjected to Belanak facility, check its compatibility first
Waste Work Over Fluids	Liquid	B-3	Unknown	Same as completion fluids with slightly more oil	SP-004	N/A	Reinjected to Belanak facility, check its compatibility first

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10.10 APPENDIX 10 - WASTE MANIFEST FORMS

Internal Waste Manifest Forms:

- The Manifest Form consists of 5 copies and shall be filled out accordingly by the Waste Generator (Company), waste transporters and the temporary storage facility.
- Waste Generators at the respective work areas (i.e. representatives from the generators/collection point) shall complete Internal Manifest Forms (which will then need to be filled out by the transporters and representative from temporary storage facilities).
- SHE Department is responsible for compiling B3 waste manifest generated by operations as they are responsible for delivering the B3 waste to approved third party collector or disposal facilities.
- Representatives of temporary storage shall return the completed manifest as immediately as possible from the date when the waste was shipped to the collector. A copy of the Internal Waste Manifest Form is shown in Appendix 10A.
- HSE Department will use this internal manifest as a base for calculation of waste mass balance.
- For non hazardous waste, the internal waste manifest is also used for controlling the waste disposal process.

External Waste Manifest Forms

- An external hazardous waste manifest (known as KNLH Waste Manifest) is required when shipping or transporting hazardous waste from any Company location to any destination that is an approved third party collector or disposal facility by KEMENTERIAN NEGARA LINGKUNGAN HIDUP.
- The external hazardous waste manifest form consists of 7 copies and shall be filled out accordingly by the Waste Generator (Company), waste transporter and the collector or waste disposal facility.
- The hazardous waste disposal facility or collector shall return the completed manifest (Manifest no 7 – purple color) within 120 days from the date when the waste was shipped or transported to the collector or waste disposal facility.
- Waste Generators, in this case is the exit point from the respective work areas (location of temporary storage) shall complete external Manifest Forms (filled out by all third parties-generators, transporters and disposal facilities). Once every six (6) months, the Manifest Forms shall be submitted to KEMENTERIAN NEGARA LINGKUNGAN HIDUP or the District BAPEDALDA.

In general, the manifest consist of three sections that have to be filled out in following order:

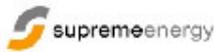
- Section I : filled by the generator
- Section II : filled by the transporter
- Section III : filled by the waste management facility

Distribution method for each document and responsibility for acknowledgement/signing are described below

Colour of Copy	Page No	Signature by	To be kept by
White	Original	Generator	Generator
Yellow	2	Transporter	Local BAPEDALDA sent by Generator
Green	3	Transporter	Generator
Pink	4	Generator	WM Facility sent by Transporter
Blue	5	WM Facility	Relevant institution sent by the WM facility
Cream	6	WM Facility	Local Authority, sent by the WM Facility
Purple	7	WM Facility	Generator after completed and sent by the WM Facility

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10.10.1 Appendix 10A - Internal Waste Manifest Forms



DOKUMEN PENGIRIMAN LIMBAH B3 dan Non B3 HAZARDOUS AND NON HAZARDOUS WASTE MANIFEST

Serial No:.....

1. BAGIAN YANG HARUS DILENGKAPI OLEH PENGHASIL LIMBAH (THIS SECTION MUST BE COMPLETED BY WASTE GENERATOR)				
Nama dan Lokasi/Name and Location Generator:				
Nomor Telepon/Telephone Number:.....				
Tanggal Pengiriman/ Date of Shipment Tujuan Pengiriman/Destination Of Shipment.....				
Pernyataan lokasi/department penghasil limbah B3: Dengan ini saya nyatakan bahwa limbah B3 yang dikirim sesuai dengan perincian pada daftar isian baku yang disebut diatas, serta dikemas label dan dalam keadaan baik untuk angkutan di jalan raya, sesuai dengan peraturan Pemerintah RI atau Peraturan Internasional. Generator certification: I hereby declare the contents of this consignment are accurately above by the proper shipping description and have been labeling and are in proper condition by highway according to GOI or International regulation				
Nama/Name (Generator)		Tanda Tangan/Signature	Jabatan/Title	Tanggal/Date
Nama/Name (Approved by Supv.)		Tanda Tangan/Signature	Jabatan/Title	Tanggal/Date
2. DATA PENGHASIL LIMBAH / WASTE DATA				
First Drop Date	Waste ID	Waste Name 01	Quantity (Kg / Liter)	Container
Waste Type: <input type="checkbox"/> Padat/Solid <input type="checkbox"/> Cair/Liquid Labeling <input type="checkbox"/> Ya/Yes <input type="checkbox"/> Tidak/No Waste Characteristic : <input type="checkbox"/> Hazardous <input type="checkbox"/> Non Hazardous				
Characteristic Hazardous Class <input type="checkbox"/> Mudah Terbakar /Flammable <input type="checkbox"/> Beracun/Toxic <input type="checkbox"/> Reaktif/Reactive <input type="checkbox"/> Korosif/Corosive				
First Drop Date	Waste ID	Waste Name 02	Quantity (Kg / Liter)	Container
Waste Type: <input type="checkbox"/> Padat/Solid <input type="checkbox"/> Cair/Liquid Labeling <input type="checkbox"/> Ya/Yes <input type="checkbox"/> Tidak/No Waste Characteristic : <input type="checkbox"/> Hazardous <input type="checkbox"/> Non Hazardous				
Characteristic Hazardous Class <input type="checkbox"/> Mudah Terbakar /Flammable <input type="checkbox"/> Beracun/Toxic <input type="checkbox"/> Reaktif/Reactive <input type="checkbox"/> Korosif/Corosive				
First Drop Date	Waste ID	Waste Name 03	Quantity (Kg / Liter)	Container
Waste Type: <input type="checkbox"/> Padat/Solid <input type="checkbox"/> Cair/Liquid Labeling <input type="checkbox"/> Ya/Yes <input type="checkbox"/> Tidak/No Waste Characteristic : <input type="checkbox"/> Hazardous <input type="checkbox"/> Non Hazardous				
Instruksi Penanganan Khusus/ Special Instruction:				
3. Pengangkutan/ Transportation Data				
Nama Pengangkut/Transporter Name Tanda Tangan/Signature :.....				
Izin Pengangkutan/ Shipping Permit..... Jenis alat angkut/Type of transporter :.....				
Nomor Identitas alat angkut/ Id. Vehicle No:				
4. BAGIAN YANG HARUS DILENGKAPI OLEH PENGUMPUL SEMENTARA LIMBAH B3. THIS SECTION MUST BE COMPLETED BY THE TEMPORARY COLLECTOR				
4.a. Nama Lokasi pengumpul sementara limbah B3. Name Location temporary Collector			Nomor telepon. E-mail:	
4.b. Nama/Name (Received by)		Tanda Tangan/Signature	Jabatan/Title	Tanggal/Date
4.c. Nama/Name (Approved by Supv.)		Tanda Tangan/Signature	Jabatan/Title	Tanggal/Date
Pernyataan pengumpul sementara limbah B3: Dengan ini saya menyatakan bahwa saya telah menerima kiriman limbah B3 dengan jenis dan jumlah seperti tersebut diatas dan bahwa limbah tersebut akan ditempatkan sesuai dengan peraturan Pemerintah RI atau peraturan internasional. Collector certification: I hereby declare that have received the type and quantity of waste as described above by the generator and that if will keep according to GOI or international regulation				
5. Pengangkutan/ Transportation Data				
Nama Pengangkut/Transporter Name Tanda Tangan/Signature :.....				
Izin Pengangkutan/ Shipping Permit..... Jenis alat angkut/Type of transporter :.....				
Nomor Identitas alat angkut/ Id. Vehicle No:				
6. BAGIAN YANG HARUS DILENGKAPI OLEH PENGUMPUL AKHIR LIMBAH B3. THIS SECTION MUST BE COMPLETED BY FINAL COLLECTOR				
6.a. Nama Lokasi pengumpul akhir limbah B3. Name Location End Collector			Nomor telepon. E-mail:	
6.b. Nama/Name (Received by)		Tanda Tangan/Signature	Jabatan/Title	Tanggal/Date
6.c. Nama/Name (Approved by Supv.)		Tanda Tangan/Signature	Jabatan/Title	Tanggal/Date
6.d. Catatan pengolahan/pembuangan/pemanfaatan limbah B3/ Note of treatment/disposal/utilization of hazardous waste :				
Tanggal/Date :		Tujuan/Place :	Volume/Jumlah/Quantity :	No Manifest :
Waste Name 01
Waste Name 02
Waste Name 03
Pernyataan pengumpul sementara limbah B3: Dengan ini saya menyatakan bahwa saya telah menerima kiriman limbah B3 dengan jenis dan jumlah seperti tersebut diatas dan bahwa limbah tersebut akan ditempatkan sesuai dengan peraturan Pemerintah RI atau peraturan internasional. Collector certification: I hereby declare that have received				

Copy 1: Pengumpul Akhir Limbah/ Final Collector, Copy 2: Pengumpul Sementara Limbah/ Temporary Collector, Copy 3: Pengangkut Limbah/ Transporter
Copy 4: Penghasil Limbah/Waste Generator Collector, Copy 5: Pengangkut Limbah / Transporter

10.10.2 Appendix 10B - External Waste Manifest Forms



Surat Keputusan
Kepala Bagian Pengendalian
Dampak Lingkungan
No. Kep. 02/Bapedal/09/1995
Tanggal 5 September 1995
NO : 200 - TD - F115

NOMOR
AA 00 **111709**

**DOKUMEN LIMBAH B3
(HAZARDOUS WASTE MANIFEST)**

Diisi dengan huruf cetak dan jelas

BAGIAN YANG HARUS DILENGKAPI OLEH PENGHASIL/PENGUMPUL LIMBAH B3 (THIS SECTION MUST BE COMPLETED BY THE GENERATOR/COLLECTOR)

1. Nama dan alamat perusahaan penghasil/pengumpul* limbah B3 (Generator/Collector name and mailing address) COROCORPHILIPS INDONESIA INC. LTD Wilayah 46 - Kota BILUL 20 - 24 Jalan Jenderal Sudirman Kav. 1 Jakarta, J.L.		2. Lokasi Pemuatan bila berbeda dari alamat perusahaan (Shipment location if different from mailing address): GRISIK Telp/Fax:	
4. Data pengiriman limbah B3 (Shipping Description): A. Jenis Limbah B3 (Physical state): Liquid B. Nama Teknik, bila ada (Technical name if applicable): JUNK CHEMICAL LIQUID C. Karakteristik limbah (Hazardous class): 0.0 D. Kode limbah B3 (Hazardous waste code): 02201 E. Kode UN/NA (UN/NA code): NA3082		3. Nomor penghasil (Generator registration No.): XXX	
F. Kelompok kemasan (Packing group):	G. Satuan ukuran (Unit of): Berat (Weight): Isi (Volume):	H. Jumlah kemasan (Quantity of packages): Ton x Drum M x X	I. Kemasan (Container) Nomor (No): Jenis (Type):
5. Keterangan tambahan untuk limbah B3 yang tersebut diatas (Additional descriptions for material listed above): XXX No. Profil Wps #: 5415			
6. Instruksi penanganan khusus dan keterangan tambahan (Special handling instruction and additional information): XXX			
7. Nomor telepon yang dapat dihubungi dalam keadaan darurat (Emergency response contact Phone No.): (021) 867 3333			
8. Tujuan pengangkutan ke (Shipping purpose to) PT. PPLI Pengumpul (Collector) Pengolah (Processor) Pemanfaat (Exploiter)*			
Catatan/Note : Jika pengisian formulir ini adalah pengumpul limbah B3 maka sebutkan nama penghasil limbah yang limbahnya akan diangkut disertai lampiran salinan dokumen limbah yang dikirim penghasil ke pengumpul. (If the party filling this form is the collector list the name of the generator whose waste will be transported, furnished with the appendix to copy of the document sent by the generator to the collector.)			
Pernyataan perusahaan penghasil/pengumpul limbah B3: Dengan ini saya menyatakan bahwa limbah B3 yang diirimkan sesuai dengan perincian pada daftar isian baku yang tersebut diatas, serta dikemas label dan dalam keadaan baik untuk angkutan di jalan raya, sesuai dengan peraturan Pemerintah RI atau peraturan Internasional (Producer/Collector certification: I hereby declare that contents of this consignment are accurately described above by the proper shipping description and have been and labelled and are in proper condition for transport by highway according to GOI or International regulation).			
9. Nama (Name): Sambutan Harna	10. Tanda Tangan (Signature):	11. Jabatan (Title): DIREKTUR SUKSES	12. Tanggal (Date): 21/10/09

BAGIAN YANG HARUS DILENGKAPI OLEH PENGANGKUT LIMBAH B3 (THIS SECTION MUST BE COMPLETED BY THE TRANSPORTER)

13. Nama dan alamat perusahaan pengangkutan limbah B3 (Transporters name and address): PT. PPLI Desa Nambo - Cileungsi - Bogor		16. Nomor pendaftaran Bapedal (bapedal registration No.): KEP 1676/DEPIV/LH/06/2002	
14. Nomor telepon (Phone No.): (021) 8673333	15. Nomor Fax (Fax No.): (021) 8674043	17. Identitas kendaraan (Vehicle Identity): Nomor truk (Truck No.): Nama Kapal (Ship Name): Izin Pengangkutan (Shipping Permit):	
18. Nama (Name):	19. Tanda Tangan (Signature):	20. Jabatan (Title):	21. Tanggal Pengangkutan (Shipping date) 22. Tanggal tandatangan (Sign date)
13. Nama dan alamat perusahaan pengangkutan limbah B3 (Transporters name and address): XXX		16. Nomor pendaftaran Bapedal (bapedal registration No.): KEP 1676/DEPIV/LH/06/2002	
14. Nomor telepon (Phone No.):	15. Nomor Fax (Fax No.):	17. Identitas kendaraan (Vehicle Identity): Nomor truk (Truck No.): Nama Kapal (Ship Name): Izin Pengangkutan (Shipping Permit):	
18. Nama (Name):	19. Tanda Tangan (Signature):	20. Jabatan (Title):	21. Tanggal Pengangkutan (Shipping date) 22. Tanggal tandatangan (Sign date)
13. Nama dan alamat perusahaan pengangkutan limbah B3 (Transporters name and address): XXX		16. Nomor pendaftaran Bapedal (bapedal registration No.): KEP 1676/DEPIV/LH/06/2002	
14. Nomor telepon (Phone No.):	15. Nomor Fax (Fax No.):	17. Identitas kendaraan (Vehicle Identity): Nomor truk (Truck No.): Nama Kapal (Ship Name): Izin Pengangkutan (Shipping Permit):	
18. Nama (Name):	19. Tanda Tangan (Signature):	20. Jabatan (Title):	21. Tanggal Pengangkutan (Shipping date) 22. Tanggal tandatangan (Sign date)

BAGIAN YANG HARUS DILENGKAPI OLEH PERUSAHAAN PENGOLAH/PENGUMPUL/PEMANFAAT LIMBAH B3 (THIS SECTION MUST BE COMPLETED BY THE PROCESSOR/COLLECTOR/EXPLOITER)

23. Nama dan alamat perusahaan Pengolah/Pengumpul/Pemanfaat* limbah B3 (Processor/Collector/Exploiter name and address): PT. PPLI - Desa Nambo - Cileungsi - Bogor		24. Nomor telepon (Phone No.): (021) 8673333	
25. Nomor Fax (Fax No.): (021) 8674043		26. Nomor Pendaftaran Bapedal (Bapedal registration No.): KEP676/BAPEDAL/05/1994	
Pernyataan perusahaan/Pengolah/Pengumpul/Pemanfaat* limbah B3: dengan ini saya menyatakan bahwa saya telah menerima limbah B3 dengan jenis dan jumlah seperti tersebut di atas dan bahwa limbah tersebut akan diproses sesuai dengan peraturan Pemerintah RI atau peraturan Internasional (Processor/Collector/Exploiter certification: I hereby declare that have received the type and quantity of waste as describe above by the Generator/Collector/Exploiter and that it will be processed according to GOI or international regulations).			
27. Nama (Name): Sambutan Harna	28. Tanda Tangan (Signature):	29. Jabatan (Title): DIREKTUR SUKSES	30. Tanggal (Date): 21/10/09
Pernyataan ketidaksesuaian limbah: setelah dianalisa, limbah yang disebutkan tidak memenuhi syarat sehingga selanjutnya akan dikembalikan kepada perusahaan penghasil limbah: (discrepancy notification: The following waste is not being accepted and will be return and will be returned to the generator)			
31. Jenis limbah (Type of waste)	32. Jumlah (Quantity)	33. Nomor Pendaftaran Bapedal (Bapedal Reg. No.)	34. Alasan penolakan (Reason for rejection): 35. Tanggal pengembalian (Date returned) 36. Tanda Tangan (Processor/Collector signature)

* Coret yang tidak perlu (Cross out where not applicable)

SALINAN 2: Penghasil Mengirim ke Bapedal
COPY 2 : Producer Mails to Bapedal

QA / QC PASSED

Bagian I : diisi oleh Penghasil

Bagian II : diisi oleh Pengangkut

Bagian III : diisi oleh Pengolah