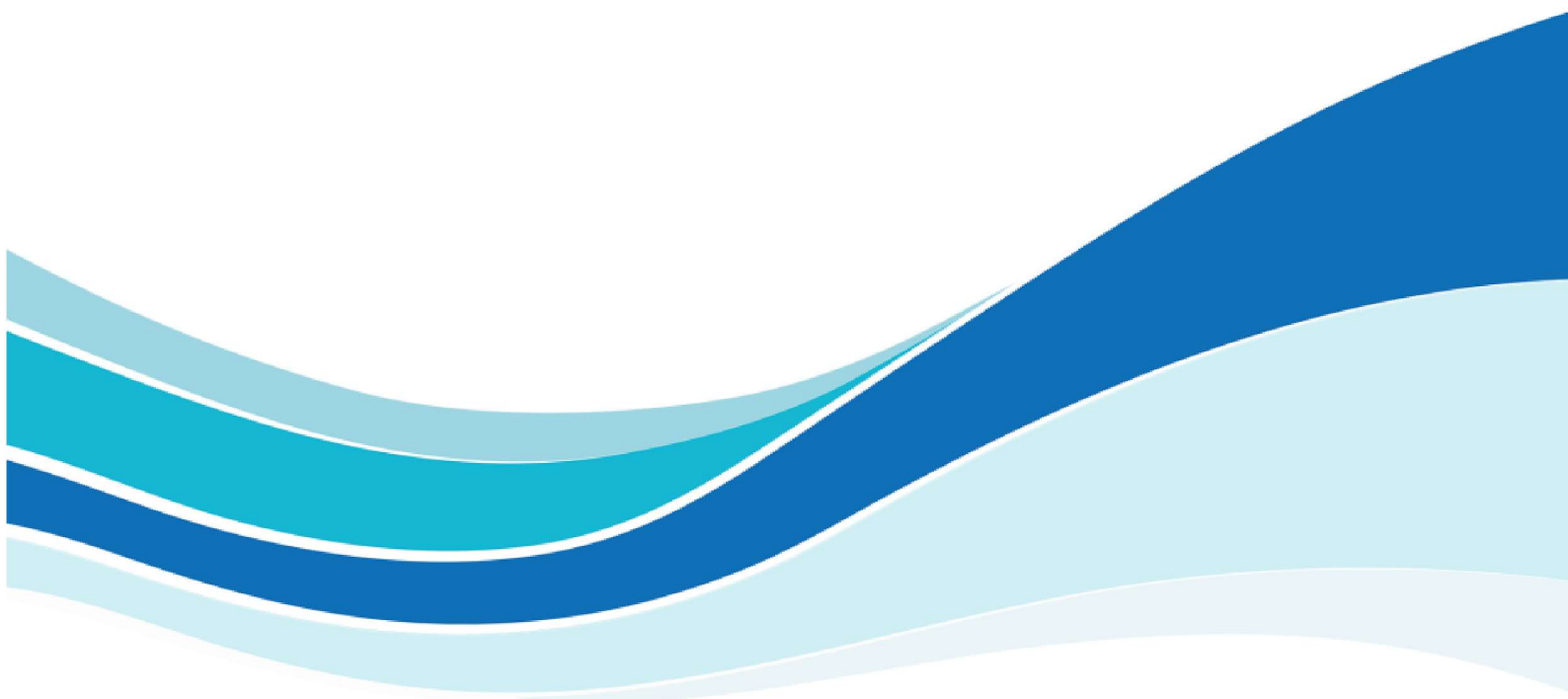


ภาคผนวกที่ 31
SSHE Management System





PTTEP

PTT Exploration and Production Public Company Limited



PTTEP SSHE Management System

11038-STD-SSHE-000-R06

Approval Register	
Document Subject	SSHE Management System
Document Number	11038-STD-SSHE-000-R06
Document Owner	Safety, Security, Health and Environment Division (CSH)
Prepared by	(Engineer, Planning and Assurance)
Effective Date	March 2023

Review		
	Name	Date
Document Custodian	VP, Process Safety and Assurance Department	21-Mar-2023
Document Reviewer	Manager, Planning and Assurance Section	22-Mar-2023
	VP, Environment Management Department	23-Mar-2023
	VP, Safety Management Department	22-Mar-2023

Approval		
	Name	Date
Document Owner	SVP, Safety, Security, Health and Environment Division	23-Mar-2023
Document Approval	Chief Executive Officer	24.03.23

This document shall be reviewed every 5 years from the date of approval or revised earlier if necessary.

SSHE Management System

Document Number: 11038-STD-SSHE-000-R06

March 2023

Revision History				
Rev.	Description of Revision	Authorized by	Effective Date	
0	New	PEP	November 2005	
1	<p>This PTTEP SSHE MS replaces the PTTEP SSHE MS – Standard.PSH.009, Rev.0 issued November 2005. Changes to the document include:</p> <ul style="list-style-type: none"> CEO accountability towards SSHE MS. SSHE organisation structure and linkage among SSHE Department, SSHE advisors and operating Assets. Roles and responsibilities of key positions as well as integration of supplementary part into the main context. Integration of the supplementary part into the main context. 	CEO	October 2008	
2	<p>This PTTEP SSHE MS Rev.2 replaces Rev.1 October 2008. Changes to the document are detailed below:</p> <ul style="list-style-type: none"> Position titles changes that reflect new organisation structure issued on 1 April 2010. SSHE Vision and Mission and SSHE Policy updates. Integration of OHSAS 18001:2007 into this Management System, especially the aspects of participation and consultation in Element 3 Organisation and Resources. (3.4 – SSHE Communication). Definitions of the roles and responsibilities of the management representative. Comprehensive changes made as a result of the SSHE MS internal audit conducted in October 2010. Customisation of SSHE MS Element 5 and 6. Exclusion of some of the previously existing content. Only clearly focused and distinctly targeted content was retained. 	CEO	December 2010	
3	<p>This PTTEP SSHE MS Rev.3 replaces Rev. 2 (Dec.2010). Significant changes to this document include:</p> <ul style="list-style-type: none"> SSHE Documentation Management Standard document structure aligned with (SSHE-106-STD-330), ARIMS and PEGS documents. 	CEO	November 2011	

Revision History				
Rev.	Description of Revision	Authorized by	Effective Date	
	<ul style="list-style-type: none"> SSHE MS elements have been revised so as to comply with the IOGP Guidelines for the Development and Application of Health, Safety and Environmental Management Systems (IOGP Report No. 6.36/210). Planning part is now highlighted in Element 5 of the SSHE MS. Titles of Element 5 and 6 have also been updated as follows: <ul style="list-style-type: none"> Element 5: Implementation and Operational Control to Planning and Operational Control. Element 6: Monitoring and Measurement to Implementation and Monitoring. SSHE Culture is now included in Element 1 – Leadership and Commitment to support the Step Change in SSHE initiative, further enabling speedier Company movement towards becoming an LTI-Free Organisation by 2013 and a TRI-Free Organisation by 2015. Updated SSHE KPI rationale (Leading and Lagging Indicators) is now included in Element 6 – Implementation and Monitoring. List of SSHE Standards and document codes referred to in each SSHE MS element and sub-element have been revised. 			
4	<p>This PTTEP SSHE MS Rev.4 replaces Revision 3.</p> <ul style="list-style-type: none"> The style of the manual was changed to explain how SSHE is managed in PTTEP. The document highlights the available SSHE Standards and their supporting SSHE Procedures and Guidelines. Updated Company SSHE Vision, Mission and Policy. Incorporated the new way SSHE is organised within the Company (SSHE Operating Model). More detail provided in Section 6.4.1 SSHE Risk Assessment. The Hazard and Effects Management Standard, SSHE-106-STD-410 has been removed as it was a duplicate of SSHE-106-STD-400 Risk Management Standard. 	CEO	November 2016	

Revision History			
Rev.	Description of Revision	Authorized by	Effective Date
	<ul style="list-style-type: none"> Process Safety Management Standard SSHE-106-STD-440 has replaced the Asset Integrity Management Standard SSHE-106-STD-430. Asset Integrity Management is documented in OEMS documents element 5 Reliability and Asset Integrity. Added Human Factors Engineering (Standard, SSHE-106-STD-450). Personal Protective Equipment (PPE) Standard, SSHE-106-STD-580 has been removed and the requirements have been incorporated in SSHE-106-STD-540 Operation Safety Management Standard. 6.5.7 Management of SSHE Aspects been replaced by Sections for Environment Management, Security Management, Operational Safety Management and Occupational Health Management. Added 6.5.10 PTTEP Life Saving Program. References to CMS documents have been updated. Added for clarity Appendix B Key Accountabilities Function Group and Line Partner SSHE Staff. 		
5	<ul style="list-style-type: none"> Company reorganisation (section 6.3) taken into account. References to CEO and President clarified. SSHE-SD Council becomes the SSHE Council. Section 6.6.3 Behaviour Based Safety amended to be SSHE Culture. Amendments after feedback from POS SSHE: <ul style="list-style-type: none"> Replaced ISO14001:2004 with ISO14001:2015. Section 6.3.3 amended hierarchy of meetings. Section 6.5.3 amended reference to ISO14001 Implementation and Checklist Guideline. Appendix B added responsibilities to title. 	CEO	March 2018

Revision History			
Rev.	Description of Revision	Authorized by	Effective Date
6	<ul style="list-style-type: none"> Restructured the SSHE Management System contents to align with the new SSHE Operating Model. Incorporated the SSHE Corporate oversight activities and requirements stated in the Corporate Oversight of SSHE MS Standard (Document Code: 11038-STD-SSHE-301) into this SSHE Management System. Obscured the Corporate Oversight of SSHE MS Standard (Document Code: 11038-STD-SSHE-301). Revisited and amended the correspondence between PTTEP SSHE MS requirements and other recognized standard requirements, i.e. ISO, IOPG, and PTT Group OEMS. 	CEO	March 2023

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INTRODUCTION

1.0 PURPOSE

The PTTEP's Safety, Security, Health, and Environment Management System (SSHE MS) is an integrated management tool essential to mitigate risks induced by the Company's operations or activities. The focus is on ensuring a safe work environment, preventing work-related accidents and injuries, and environmental impacts. The success of the SSHE MS requires total commitment from PTTEP staff and contractors at all levels.

This document provides an overview of how PTTEP manages SSHE and highlights the available SSHE MS documents to manage SSHE risks. The Corporate SSHE Division should conduct oversight activities to verify and validate the effectiveness of SSHE MS implementation regularly.

The PTTEP SSHE MS is aligned with the following:

- The International Association of Oil & Gas Producers (IOGP) applicable frameworks or guidelines; and
- The internationally recognized standards, e.g. ISO 14001, ISO 45001, etc.

(See the correspondence between PTTEP SSHE MS and other requirements in Appendix A)

The PTTEP SSHE MS comprises seven (7) key elements. The structure model and brief description of each element are illustrated in Figure 1 and Table 1, respectively.

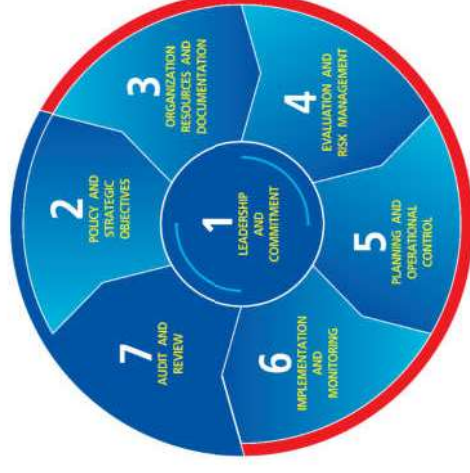


Figure 1: PTTEP SSHE Management System

Table 1: Key Elements of the PTTEP SSHE MS

SSHE MS Element	Addressing
1. Leadership and Commitment	Top-down commitment and SSHE culture essential to the success of the SSHE MS
2. Policy and Strategic Objectives	Corporate intentions, principles of action, and aspirations with respect to SSHE
3. Organization, Resources and Documentation	Organization of people, resources, and documentation for sound SSHE performance
4. Evaluation and Risk Management	Identification and evaluation of SSHE risks for activities, products, and services, and development of risk reduction measures
5. Planning and Operational Control	Planning the conduct of work activities, including planning for changes and emergency response
6. Implementation and Monitoring	Performance and monitoring of activities and how corrective action is to be taken when necessary
7. Audit and Review	Periodic assessments of SSHE MS performance, effectiveness, and fundamental suitability

2.0 SCOPE

This SSHE MS applies to all operating assets, projects, and its subsidiaries where PTTEP has control as the operator. It also covers all operations, activities, and personnel working for or on behalf of PTTEP unless otherwise specified. However, as applicable, the SSHE MS can be used as a framework for projects and other business areas that are not directly related to exploration and production activities.

Where contractors are required to perform specific activities, the PTTEP Contract Holder shall determine through the mode of contract assessment whether the PTTEP SSHE MS will apply to those activities. The same conditions will apply to all sub-contracted personnel. In all circumstances, PTTEP will attempt to positively influence SSHE aspects of the work as far as practicable.

3.0 DEFINITIONS AND ACRONYMS

3.1 TERMS AND DEFINITIONS

All terms and definitions in this document can be reached at [SSHE Intranet > SSHE MS > SSHE Terms and Definitions](#).

3.2 ACRONYMS

All acronyms in this document are available at [SSHE Intranet > SSHE MS > SSHE Acronym](#).

REQUIREMENTS

4.0 SAFETY, SECURITY, HEALTH, AND ENVIRONMENT MANAGEMENT SYSTEM

Below is an overview of how PTTEP manages SSHE by the seven (7) elements of the SSHE MS.

4.1 LEADERSHIP AND COMMITMENT

Leadership, commitment, and active support from top management (CEO, EVPs, SVPs, or other designated persons) are critical for the success of the SSHE MS and the achievement of its intended outcomes.

Top management shall apply SSHE leadership to their own areas of responsibility and support others in the organization in relevant management roles. For example, but not limited to:

- Consider SSHE risks and impacts on business direction and decision making.
- Provide necessary resources to implement SSHE MS effectively.
- Ensure compliance with all applicable legislation and other related requirements.
- Encourage SSHE communication and listen to the concerns of the workforce.
- Lead as a role model to support SSHE activities.
- Promote the right to stop work if any unsafe situation is found.
- Impel the achievement of SSHE KPI and continual improvement.

PTTEP also encourages all workforces to commit and prevent all incidents through proactive personal and process safety matters. It is the ultimate intention for achieving a zero incident organization.

Reference: Roles and responsibilities are defined in each SSHE MS document.

4.2 POLICY AND STRATEGIC OBJECTIVES

4.2.1 SSHE Policy

In an effort to improve performance, the PTTEP SSHE Policy addresses the safety, security, health, and environmental objectives, aspirations, principles of action, and commitments. It shall be formulated in accordance with the organizational context and include a commitment to:

- Manage SSHE-associated risks.
- Fulfill its compliance obligation.
- Engage the workforce participation and consultation.
- Continuously improve the SSHE MS and its performance.

The Corporate SSHE Division outlines the SSHE Policy. It shall be annually reviewed and approved or endorsed by CEO if there are any changes. Then, SSHE policy shall be communicated within the organization and be available for interested parties.

Reference: 11038-PCY-SSHE-001 SSHE Policy

4.2.2 SSHE Strategic Objectives

The Corporate SSHE Division shall develop the SSHE vision and missions that indicate the purpose statement of the organization to achieve the desired outcomes. After endorsement by the CEO, the SSHE vision and missions shall be communicated to all employees via appropriate channels.

In addition, the Corporate SSHE Division should define the strategic objectives and develop roadmaps to ensure its achievement by considering the following factors.

- Business requirements and direction
- Key focused areas from SSHE risks and aspects
- Competitive performance from industry benchmarking
- Balancing between available resources and capability
- Milestones of each strategic plan with short and long-term priorities

A designated roadmap should be considered in the annual Work Program and Budget (WPB) and communicated to SSHE focal point for acknowledgment and alignment.

To ensure the international recognition of SSHE MS, all operating assets shall certify ISO 14001 for the environmental management system.

Reference: SSHE Intranet > Home > SSHE Vision, Missions, and Policy > Vision and Missions

4.2.3 SSHE Key Performance Indicator (KPI)

SSHE KPI shall be established to measure the effectiveness of SSHE MS implementation and performance management within the organization by comparing results with a set of indicators. SSHE KPI shall be:

- Consistent with SSHE policy.
- Applicable at both company and line organization levels.
- Communicated to all concerned parties.
- Monitored its results regularly.

The Corporate SSHE Division shall establish the rationale for developing SSHE KPI and propose the annual targets to the SSHE Council for endorsement. It is recommended to set KPI targets by benchmarking with peers or other companies in the oil and gas industry (e.g. IOGP) for being a top quartile performer.

Achievement of the KPI will directly affect the staff remuneration through the performance management system. Each line management shall consider adding SSHE KPI into individual performance evaluation, as applicable.

Reference: 11038-STD-SSHE-202 Corporate SSHE Plan, SSHE KPIs and Performance Monitoring Standard

4.3 ORGANIZATION, RESOURCES AND DOCUMENTATION

4.3.1 SSHE Organization and Resources

Top Management is responsible for reviewing and setting the Company's SSHE vision, missions, policy, and strategic objectives.

SSHE is everyone's responsibility. However, to ensure the effectiveness of policy and management system implementation, the SSHE organization or SSHE operating model is established by applying the principle of PTTEP matrix organization where:

- The Corporate SSHE Division serves as the Center of Excellence to set SSHE direction, provide support for the activities that require in-depth expertise and perform corporate oversight activities.
- SSHE professionals reporting to Line Management are responsible for implementing the SSHE MS in their organization. In case additional support is required in a short period or capability limit, they may consult with or request manpower support from the Corporate SSHE Division via Service Level Agreement (SLA) or Request for Services (RFS).
- SSHE function is identified as a corporate-governed function. Thus, the SSHE professionals working at the division level, called SSHE focal points, will have a solid-line reporting directly to their Line Management and a dotted-line reporting to the Corporate SSHE Division Senior Vice President (SVP). The objective is to ensure full accountability at Line Management while allowing Corporate SSHE Division to provide guidance relating to PTTEP policy and standards and ensure compliance where necessary.

The typical structure of the PTTEP SSHE operating model is shown in Figure 2, and additional details of the model are explained in Appendix B.

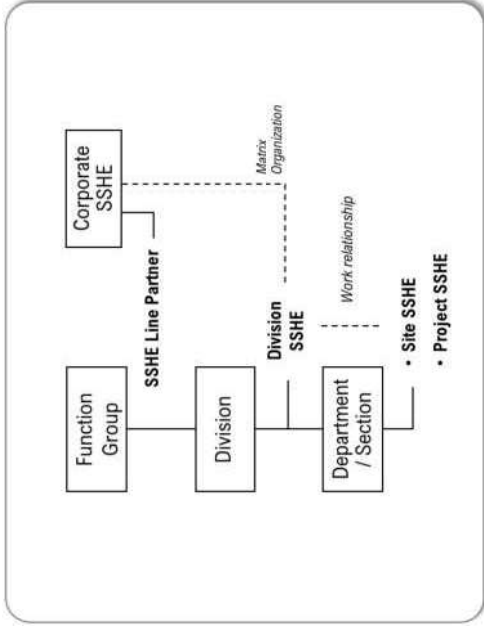


Figure 2: SSHE Operating Model at PTTEP

Furthermore, Line Management is accountable for allocating sufficient resources to support the SSHE MS implementation; refer to PTTEP Delegation of Authority and Signature (DAS). Necessary resource allocations, including personnel, budget, time, equipment, etc., are regularly reviewed to ensure continuity and effective implementation.

Interfacing roles and responsibilities with the Corporate SSHE Division are identified and demonstrated via the RACIE chart in Appendix C.

4.3.2 SSHE Contractor Management

Many activities or operations in PTTEP are carried out by contractors. Consequently, SSHE risks arising from their activities or operations shall be appropriately managed throughout all phases of the contracting process

PTTEP Contract Holder shall comply with the SSHE contractor management process and ensure the SSHE requirements are understood and implemented by contractors. The key processes start with contractor selection and execution as follows:

- Assess initial SSHE risks from the contracting activities.
- Conduct SSHE capability assessment and/or evaluation.
- Prepare contract SSHE management plan, including bridging document.
- Review the SSHE monitoring program and SSHE performance.
- Complete SSHE contract close-out evaluation.

Reference: 12148-PDR-SSHE-302/01 SSHE Contractor Management Procedure

SSHE Communication

The process of SSHE communication shall be implemented to improve personnel's knowledge that prevents at-risk behaviors and enhances safe work practices. Once the information or message is sent, the sender shall consider receiving feedback and understanding from receivers. SSHE communication process may include, but not limited to:

- Internal communication involves the communication of all necessary SSHE information that exists within PTTEP. It can be done through various means, e.g. meetings, toolbox talks/pre-job briefings, emails, publications, awareness campaigns, reports, etc.
- External communication involves communicating all-important SSHE information coming in to and going out from PTTEP. It may be with joint venture partners, government agencies, public organizations, local communities, etc.
- Participation and consultation shall engage employees and contractors in sharing their feedback or decision-making related to SSHE matters.

Reference: 11038-STD-SSHE-303 SSHE Communication Standard

4.3.3 SSHE Documentation Management

The hierarchy of the SSHE documents complies with the PTTEP document management requirements. The documentation hierarchy is categorized based on the level of enforcement, approval authority, and the levels of detailed content illustrated in Figure 3. In conflicts between documents from different tiers, the higher-tier document prevails. Legal requirements in the country where PTTEP operates shall be complied with at all times. Each SSHE MS document shall be:

- Created in a consistent and reliable format with accurate content.
- Maintained to ensure continued accuracy and validity.
- Reviewed periodically to ensure its sufficiency for use.
- Communicated to all related parties.
- Accessible from designated locations.

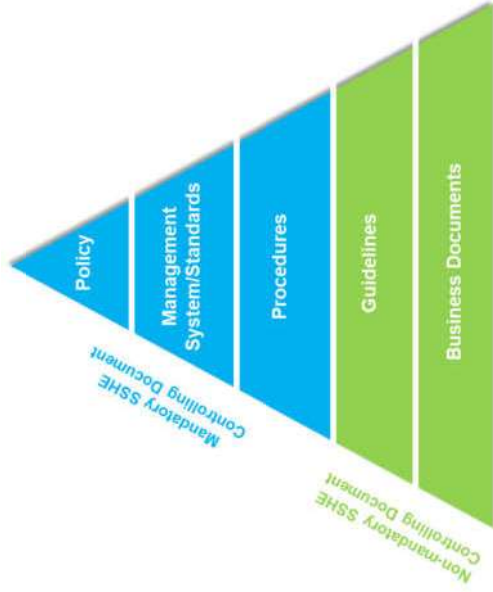


Figure 3: Document Hierarchy

Reference: 11038-PDR-SSHE-304/01 SSHE Documentation Management Procedure

4.3.4 SSHE Training and Competency

Both employees and contractors shall be able to perform work safely and meet SSHE expectations with adequate knowledge, competency, and experience. The competency management process involves an assessment of the worker for defined work elements. A gap identified will enable an individual development plan containing actions (training, coaching, assignment, etc.)

The Corporate SSHE Division shall outline the minimum requirements of SSHE training as a standard reference. At the same time, each Site/Asset/Project can develop its specific requirements depending on the local regulations and working environments. The key requirements of SSHE training are as follows:

- Determination of training needs shall consider factors, including regulations, tasks, workplaces, risk exposures, etc.
- Each training course shall have an evaluation method by appropriate means for measuring the effectiveness and quality of learning outcomes.
- Training records shall be available and accessible to each individual.
- The percentage of training validation shall be regularly monitored and updated to line management.

Reference: 11038-STD-SSHE-305 SSHE Training and Competency Standard

4.3.5 SSHE Regulatory Compliance

PTTEP shall ensure the status of compliance with applicable compliance obligations and the effectiveness of prevailing controls, covering SSHE legal of the country where PTTEP operates and other requirements which PTTEP has to or prefer to comply with, e.g. ISO 14001, ISO 45001, etc.

The key processes shall be put in place, including but not limited to:

- Update and register SSHE compliance obligations.
- Review and determine the applicability to PTTEP's operations.
- Communicate the requirements to all concerned stakeholders.
- Take into account when implementing SSHE MS.
- Conduct compliance evaluation.

Reference: 11038-STD-SSHE-306 SSHE Regulatory Compliance Standard

4.4 EVALUATION AND RISK MANAGEMENT

4.4.1 SSHE Risk Management

All activities and business processes throughout the project lifecycle, from acquisition to abandonment, shall apply the Hazard and Effects Management Process (HEMP) to effectively manage the SSHE risks, environmental aspects and effects associated with PTTEP's activities. The overall process comprises as follows:

- Risk Assessment: the process covers hazard identification, risk analysis, and risk evaluation.
 - Hazard Identification: the process of identifying the potential source of harm to people, the environment, or the asset.
 - Risk Analysis: the systematic process, either qualitative or quantitative, to analyze the consequences and frequency of occurrences of any potentially harmful events.
 - Risk Evaluation: the process by which acceptability of the estimated risk is judged in comparison with the PTTEP Risk Assessment Matrix (RAM) or risk acceptance criteria.
- Risk Management: the process of managing the risk by applying a hierarchy of control, i.e. elimination, substitution, engineering controls, administrative controls, and personal protective equipment.

Reference: 11038-STD-SSHE-401 SSHE Risk Management Standard

4.4.2 Safety Case

The Safety Case is the means of ensuring and demonstrating that suitable and sufficient measures are in place to prevent a Major Accident Event (MAE) and reduce the effects of these events should they occur. An MAE is classified as those accidents that may cause multiple fatalities or equivalent environmental damage, production loss, plant damage, and reputation damage as per consequences rated severity level 5 in RAM.

All PTTEP facilities and activities with identified potential MAE shall have a safety case to demonstrate that all risks have been reduced to ALARP. The key requirements of the safety case are as follows:

- Facilities and operations/activities are at all times run in accordance with the arrangements defined in the Safety Case for the facility or activity.
- Able to demonstrate all MAE barriers are functioning by using appropriate means, i.e. safety critical elements and/or safety critical tasks.
- Safety case shall be updated throughout the life cycle of the facility.

Reference: 11038-STD-SSHE-402 Safety Case Standard

4.5 PLANNING AND OPERATIONAL CONTROL

4.5.1 Operational Control

PTTEP shall define the SSHE requirements and work processes to manage SSHE risks and opportunities. They typically describe how things are consistently implemented by authorized and competent persons. Each step of activity execution should lead to the desired result.

The Corporate SSHE Division and line organization shall plan, implement, control, and maintain the processes to meet SSHE strategic objectives in the operations by:

- Establishing the requirements for the processes.
- Implementing the processes in accordance with SSHE requirements.
- Maintaining documents or other information to ensure the processes have been carried out as planned.

A systematic approach to SSHE management through the management of operational and verification controls can provide the organization with information to enhance the SSHE performance to achieve the intended outcomes. Examples of processes to be established are, but not limited to:

- Operational safety management includes, e.g. Permit to Work (PTW), Job Safety Analysis (JSA), contractor management, incident management, etc.
- Security management includes, e.g. security risk and threat assessment, security alert level, site security plan, etc.
- Process safety management includes, e.g. hazard and effect management tool, process safety information, operating manual, asset integrity, LOPC prevention, etc.

- Occupational health management includes, e.g. health risk assessment, fitness to work, medical emergency management, etc.
- Environmental management includes, e.g. environmental impact assessment, climate change, use of natural resources, pollution control, biodiversity and ecosystem services, etc.

PTTEP shall encourage a culture where everyone understands their SSHE responsibilities and be able to exercise "Stop Work" if an unsafe situation is observed.

In addition, it is required to collect and report both lagging and leading indicators according to the methodology and frequency specified in relevant documents. These data shall be analyzed and addressed the weakness and opportunities for improvement.

Reference: 11038-STD-SSHE-403 Process Safety Management Standard

11038-STD-SSHE-503 Environmental Management Standard

11038-STD-SSHE-504 Security Management Standard

11038-STD-SSHE-505 Operational Safety Management Standard

11038-STD-SSHE-507 Occupational Health Management Standard

4.5.2 SSHE Plan

SSHE Plan is a summary of focused SSHE activities or practical actions that are clearly defined, time-bound, and have allocated responsibilities. SSHE Plan shall be considered the following information.

- Requirements of SSHE MS and compliance obligations
- Management of significant SSHE risks
- Support the achievement of SSHE KPI

The annual SSHE Plan shall be developed by Corporate SSHE Division and other line organizations undertaking operational activities with some SSHE risks, e.g. drilling, logistics, engineering and construction, and production operations (as applicable). SSHE Plan shall be approved and monitored its progress by the top authority in the line organization.

Reference: 11038-STD-SSHE-202 Corporate SSHE Plan, SSHE KPIs and Performance Monitoring Standard

4.5.3 Management of Change

Management of Change (MOC) is specified for systematically managing permanent and temporary changes to any work processes, facilities, operations, organizations, or regulatory requirements. It ensures that any risks or hazards arising from that changes are identified, assessed, and controlled and that business activities are not overlooked.



These changes shall require the multi-discipline or competent team (including Technical Authority or TA) to review the details of the proposed changes and impacts on SSHE objectives. Once changes are approved, all proposed mitigations and recommendations shall be in place prior to implementing those changes until close out.

Each responsible department in the organization shall establish the appropriate methodology to manage all changes associated with SSHE risks, e.g. product, workforce, knowledge, technology, etc., depending on the nature of the proposed changes.

Reference: 11038-STD-SSHE-508 Management of Change Standard

4.5.4 Emergency and Crisis Management

Preparedness and planning for an emergency or crisis are essential to preventing fatalities and injuries and reducing damages to the environment, property, and reputation. The ultimate objective of emergency and crisis management is to accelerate the resumption of normal operations.

Asset/Project/Site shall prepare the necessary resources, i.e. specific emergency response procedures, facilities, and personnel which specify roles and responsibilities and work scope to be followed. The emergency and crisis drills shall be conducted periodically. In addition, the recommendations from exercises/drills shall be completed to ensure the readiness of resources with different potential scenarios based on operational risks specific to each facility.

PTTEP defines the structure of emergency and crisis management at 3-Tier response levels according to their severity and potential impact as follows:

- Tier-1: Can be handled by an onsite Emergency Response Team (ERT).
- Tier-2: May request an external assistant from local authorities in the impact area resulting in the activation of the Emergency Management Team (EMT).
- Tier-3: May request an external assistant above from Tier-2 (e.g. international resources), resulting in the activation of the Crisis Management Team (CMT).

Business Continuity Management (or BCM) is an essential process to recover function quickly in the adverse situation affecting business interruption.

Reference: 11038-STD-SSHE-501 Emergency and Crisis Management Standard

4.6 IMPLEMENTATION AND MONITORING

4.6.1 Incident Management

All incidents are preventable, and if an incident occurs, the effort shall be undertaken to prevent their recurrence and occurrence.

The key requirements of incident management are as follows at a minimum.

- The incident shall be immediately notified to all relevant persons as per severity criteria.
- The incident shall be reported through provided means of communication.



- The incident investigation shall be conducted by an appropriate and competent investigation team as soon as possible when the scene is secured and safe to execute.
- The recommendations for corrective and preventive actions shall be followed up and closed out within the agreed timeline.
- Lessons learned from the incident shall be communicated to all concerned parties to prevent the reoccurrence of the incident.
- The incident statistics shall be recorded and analyzed.

Reference: 11038-STD-SSHE-601 Incident Management Standard

4.6.2 SSHE Culture

The SSHE culture of an organization is the product of individual and group values, attitudes, perceptions, competencies, and patterns of behavior that determine the commitment to SSHE. To ensure the safe behavior of the employees, it requires strong, consistent, and systematic driving by leadership commitment at all levels through appropriate tools and techniques which suit the organizational culture.

The key aspects of an effective SSHE culture comprise of:

- Periodic SSHE culture survey and SSHE improvement plan.
- Behavior-Based Safety (BBS) observation and intervention tools.
- Encouragement of reporting culture.
- Incentive and disciplinary schemes.

Reference: 11038-STD-SSHE-603 SSHE Culture Management Standard.

4.7 AUDIT AND REVIEW

SSHE audit is a process used to verify if the SSHE MS and other compliance obligations are appropriately understood and executed. The organization shall

- Establish the audit program at planned intervals.
- Conduct the audit by competent persons.
- Take action to address nonconformities.

SSHE MS and its performance shall be regularly reviewed to ensure the achievement of the intended outcomes. Both audit and review processes shall be used to reinforce continuous efforts to improve SSHE performance.

Reference: 11038-STD-SSHE-701 Audit and Review Standard

5.0 OVERSIGHT ACTIVITIES

The Corporate SSHE division shall manage the oversight of SSHE MS to verify and validate the SSHE MS implementation executed by the line organization. This process shall focus on the specific subject based on performance and the concerned issues in each discipline. Then, a coaching program should be provided to the line organization that has a signal of ineffective SSHE MS implementation. In addition, SSHE focal points identified in the SSHE operating model can apply this process to manage oversight activity in their own disciplines.

Examples of oversight mechanisms are, but not limited to:

- Arrangement of Top Management Visit
- Engagement in SSHE KPI and plan setting
- Technical review of SSHE MS documents
- Participation in contractor audits
- Validation of the percentage of training programs
- Verification of SSHE operational controls
- Observation and participation in the emergency exercises
- System to check the accuracy of SSHE data reporting
- Process to review the quality of Incident investigations
- Involvement in developing the SSHE culture improvement plan

Oversight activities can be specified in the details of each SSHE MS document.

ROLES AND RESPONSIBILITIES

Roles	Responsibilities
Line Management (Manager, Vice President, Senior Vice President, Executive Vice President, and Chief Executive Officer)	Line Management shall provide sufficient resources and support for SSHE MS implementation.
Senior Vice President, Corporate SSHE Division	<ul style="list-style-type: none"> • Formulate PTTEP SSHE Policy, MS standards, procedures, guidelines, corporate SSHE strategic objectives, annual SSHE plan; and ensure compliance with related regulations and industrial standard • Formulate SSHE risk assessment profile and mitigation plan; as well as crisis management strategy • Oversee and ensure proactive measurement towards preventing possible SSHE incidents by using effective SSHE communication methods • Take advisory role and be company representative on any SSHE issues, incidents, and activities as defined by law and ensure the information provided is accurate
SSHE Focal Point/Division SSHE	<ul style="list-style-type: none"> • Manage SSHE-related risks by effectively implementing SSHE MS and compliance obligation within line organization • Establish and implement SSHE program in alignment with corporate strategic direction to improve SSHE performance of asset operation activities • Monitor and analyze SSHE performance to ensure effectiveness and progress of SSHE plan/SSHE MS/SSHE Program Implementation and develop improvement plan • Take advisory role and be line organization's representative to manage any SSHE issues, incidents, and activities



REFERENCES

Document Number	Document Title
PTTEP Controlling Documents	
-	SSHE Vision and Missions
11038-PCY-SSHE-001	SSHE Policy
Other Reference Documents	
-	PTT Group OEMS Level 2 Manual Version 2.9; March 2022
IOGP Report 510	Operating Management System Framework for controlling risk and delivering high performance in the oil and gas industry; International Association of Oil and Gas Producers (IOGP); 2014
ISO 14001	Environmental Management Systems - Requirements with Guidance for Use; International Organization for Standardization; 2015
ISO 45001	Occupational health and safety management systems - Requirements with guidance for use; International Organization for Standardization; 2018



APPENDICES

APPENDIX A: CORRESPONDENCE BETWEEN PTTEP SSHE MANAGEMENT SYSTEM AND OTHER REQUIREMENTS

ISO 14001:2015	4.1 Understanding the organization and its context 4.2 Understanding the needs and expectations of interested parties	4.3 Determining the scope of the environmental management system 4.4 Environmental management system	5.1 Leadership and commitment 5.2 OH&S policy	Element 1 – Commitment and accountability Element 2 – Policies, standards, and objectives	1.1 SSHE Policy 1.2 Visible Leadership	SSHE Vision, Missions, and Policy	000 SSHE Management System
ISO 45001:2018	4.1 Understanding the organization and its context 4.2 Understanding the needs and expectations of workers and other interested parties	4.3 Determining the scope of the OH&S management system 4.4 Environmental management system	5.3 Organizational roles, responsibilities and authorities	Element 3 – Organization, resources, and capability	1.3 Resources	000 SSHE Management System	

ISO 14001:2015	ISO 45001:2018	IOGP Report 510 (2014)	PTT OEMS SSHE Level 2	PTTEP SSHE MS
5.4 Consultation and participation of workers	6.1 Actions to address risks & opportunities	Element 5 – Risk assessment and control	1.12 Legal & regulatory requirements	303 SSHE Communication Standard
6.1 Actions to address risks & opportunities	6.2 Environmental objectives and planning to achieve them		401 SSHE Risk Management Standard 402 Safety Case Standard 503 Environmental Management Standard	306 SSHE Regulatory Compliance Standard 401 SSHE Risk Management Standard 402 Safety Case Standard 503 Environmental Management Standard
7.1 Resources	6.2 OH&S objectives and planning to achieve them		202 Corporate SSHE Plan, SSHE KPI's and Performance Monitoring Standard	000 SSHE Management System
7.2 Competence	7.1 Resources			305 SSHE Training and Competency Standard
7.3 Awareness	7.2 Competence			

ISO 14001:2015	ISO 45001:2018	IOGP Report 510 (2014)	PTT OEMS SSHE Level 2	PTTEP SSHE MS
7.4 Communication	7.4 Communication	Element 4 – Stakeholders and customers		303 SSHE Communication Standard
7.5 Documented information	7.5 Documented information	Element 7 – Plans and procedures		304 SSHE Documentation Management Procedure
8.1 Operational planning and control	8.1 Operational planning and control	Element 6 – Asset design and integrity	1.5 Security of Personnel and Asset	302 SSHE Contractor Management Standard
		Element 8 – Execution of activities	1.6 Occupational Health and Asset	403 Process Safety Management Standard
			1.7 Environmental Management	504 Security Management Standard
			1.10 Employee Engagement, Behavior, and Culture	505 Operational Safety Management Standard
				507 Occupational Health Management Standard
				508 Management of Change Standard
				510 Life-Saving and Process Safety Rules Standard
				603 SSHE Culture Management Standard

APPENDIX B: SSHE OPERATING MODEL

The SSHE operating model aims to define a framework for managing SSHE activities between the Corporate SSHE Division and Line Management of other functions, including Operating Assets. It ensures that SSHE policy, objectives, strategic direction, management system requirements, and initiatives are effectively cascaded, aligned, and implemented throughout the organization.

It is intended that the SSHE operating model delivers effective SSHE management among work group and improve SSHE performance. However, the model is only a supporting framework. In order to achieve the zero-incident organization, a generative SSHE culture is still a foundation that requires the involvement and accountability of PTTEP staff and contractors at all levels.

SSHE operating model addresses the following areas:

- Roles and responsibilities of SSHE professionals in PTTEP's organization.
- Structure of SSHE professionals in each function group.
- Matrix organization principle.

Roles and responsibilities of SSHE professionals in PTTEP's organization

The Corporate SSHE Division is responsible for setting SSHE vision and missions, as well as SSHE-related policies, for providing strategic direction in managing SSHE in PTTEP. The requirements are then translated into the SSHE Management System (SSHE MS), with which all Function Groups, development projects, operating assets, and support functions are required to strictly comply. Line management is accountable for SSHE implementation and performance.

To ensure the effectiveness of SSHE MS implementation as well as a clear understanding of roles and responsibilities among SSHE functions, the Corporate SSHE Division, by working with Line Management and HR, will develop/maintain related documentation to be a tool of communication which will periodically be updated according to the changed circumstances, i.e. Organization Function Description, SSHE RACIE, etc. In summary, the roles and responsibilities of SSHE professionals assigned to line organization are described using a simple three-tiered approach as follows:

Organization	Defined Concept	Main Roles
Corporate SSHE Division	Center of Excellence (Tier 3)	<ul style="list-style-type: none">• SSHE Direction and Framework• Expert Service for Complex Tasks
Function Group	SSHE Line Partner	<ul style="list-style-type: none">• Executive Coordination• SSHE Alignment
Division	Division SSHE (Tier 2)	<ul style="list-style-type: none">• Advisory and Focal Point• Execution and Compliance

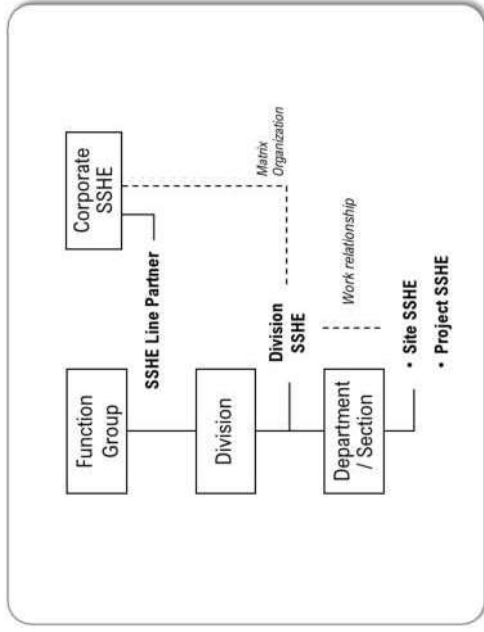
ISO 14001:2015	ISO 45001:2018	IOGP Report 510 (2014)	PTT OEMS SSHE Level 2	PTTEP SSHE MS
8.2 Emergency preparedness and response	8.2 Emergency preparedness and response		1.9 Emergency and Crisis Management	501 Emergency and Crisis Management Standard
9.1 Monitoring, measuring, analysis and evaluation	9.1 Monitoring, measuring, analysis and performance evaluation			202 Corporate SSHE Plan, Monitoring Standard
9.2 Internal audit	9.2 Internal audit			701 Audit and Review Standard
9.3 Management review	9.3 Management review			701 Audit and Review Standard
10.1 General	10.1 General	Element 9 – Monitoring, reporting and learning	1.4 Management Review	601 Incident Management Standard
10.2 Nonconformity and corrective action	10.2 Incident, nonconformity and corrective action	Element 10 – Assurance, review and improvement	1.8 Incident Management	701 Audit and Review Standard
10.3 Continual improvement	10.3 Continual improvement		1.11 Inspections and Audits	701 Audit and Review Standard

Organization	Defined Concept	Main Roles
Department	Project SSHE	<ul style="list-style-type: none"> Project Support High-Risk Contractor Management
Section	Site SSHE (Tier 1)	<ul style="list-style-type: none"> Daily SSHE Operations Emergency Response

The full details of roles and responsibilities shall be identified in each relevant SSHE MS documents.

Structure of SSHE professionals in each function group

Based on SSHE risks and SSHE activities in each Function Group, the SSHE structure is designed per the model shown below.



At Function Group Level, Corporate SSHE Division nominates a SSHE Line Partner [(Sr.) Engineer/ (Sr.) Officer] to provide executive support in SSHE MS alignment and related coordination as well as to advise and manage SSHE activities in each function group. He/she will have a solid line of reporting to VPs in the Corporate SSHE Division.

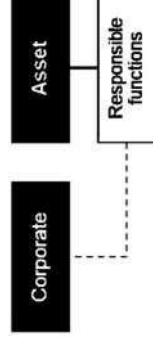
For Function Group, where its operations expose to high SSHE risks and require continuous SSHE support and close monitoring of SSHE performance, there will be a Division SSHE Team Leader/ (Sr.) Engineer defined by line organization as a focal point in providing advice and managing SSHE MS implementation and compliance in their areas. He/she reports directly to Division SVP with dotted-line reporting to SVP, Corporate SSHE Division. The examples of defined functions include, but are not limited to:

- Production Asset Group (Domestic and International)
- Engineering, Development, and Maintenance Group
- Operations Support Group

To ensure the appropriate SSHE Structure in each Function Group, the Corporate SSHE Division, with support from HR Team, will timely monitor the effectiveness of the operating model based on SSHE risks and activities, as well as the corporate direction. The revision of the model shall be reviewed and approved by the SSHE Council, EVPs and/or Management Committee (if required), while the personnel movement of SSHE professionals shall be approved by Job Family Champion, according to PTTEP Delegation of Authority & Signature (DAS).

Matrix Organization Principle

The reporting line of Division SSHE personnel under the SSHE structure follows PTTEP matrix organization principles. SSHE operating model is classified as Corporate-governed Function, which means a function with solid-line reporting directly to line management in his/her functions and dotted-line reporting to Corporate SSHE Division. Its purpose is to ensure accountability at Asset/Function while allowing the Corporate SSHE Division to provide guidance on PTTEP policy and standards and to ensure compliance and conformance where necessary.



Both Solid-line Management and Dotted-line Management shall provide direction and key input to a function with dual line reporting (SSHE Focal Point) for getting mutual agreement during the work plan and KPI development process. During execution, it is recommended that both parties should communicate periodically, and dotted line management should monitor the performance/progress in a timely manner and may provide consultation as necessary.

For more details on the Matrix Organization Principle, please consult with Organization Development Department.

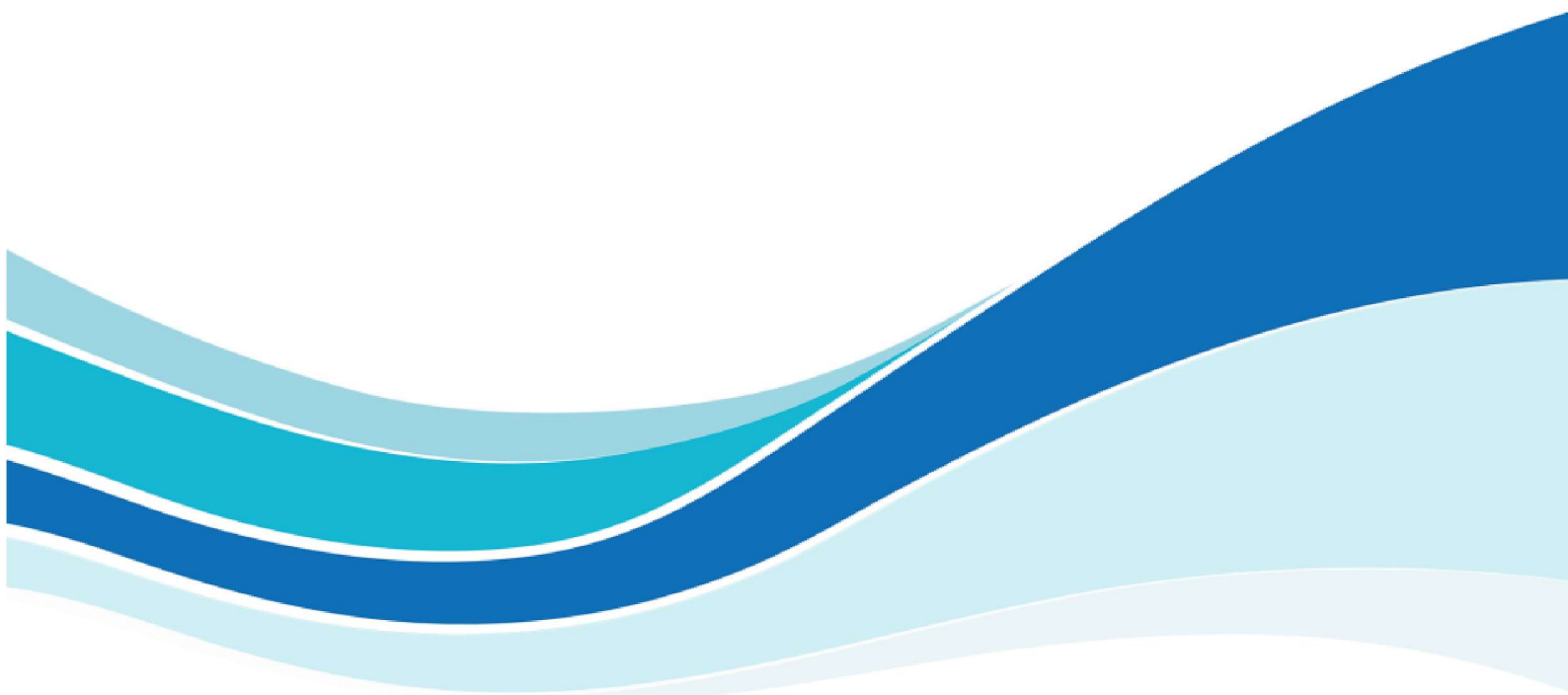


APPENDIX C: INTERFACING ROLES AND RESPONSIBILITIES WITH CORPORATE SSHE DIVISION

The Interfacing Roles and Responsibilities with Corporate SSHE Division can be downloaded from [SSHE Intranet > SSHE MS > SSHE MS Documents > Corporate Tools > Appendix – SSHE Management System](#).

ภาคผนวกที่ 32

ตัวอย่างใบอนุญาตทำงาน การวิเคราะห์งาน
เพื่อความปลอดภัย และการพูดคุยเรื่องความปลอดภัย



GAS TEST RECORD

NOTE / OTHER RECOMMENDATIONS

Form No.: 12148-SUP-SSHE-FRM-002-R01



SPR - Job Safety Analysis (JSA)

Status: Approved

Job: เก็บตัวอย่างน้ำจากกระบวนการผลิตและถ่ายรูป (Produce water sampling and take photo)

JSA No. SPR-JOB-2021-00043

Work Location : ฐานหลุมผลิต (Wellsite)

General Safety Precaution/Resources required for the job:

JSA team member:






1. All personnel must wear basic PPE required for the job.
2. Conduct and maintain housekeeping and make the area safe to work.
3. To apply stop-work authority for unsafe act/condition and report to Supervisor.
4. Ensure all colleagues are fit to work and not under drug & alcohol influence.
5. Inspect tools and equipment before use.


1. Ms Suthiluk Phaisun
2. Miss Keadyupa Tongprom
3. Ms Chamaiporn Sommoh



Work Step	Work Activities	Potential Hazards	Top Event	Initial Risk	Barriers & Mitigation	Residual Risk	Action Party	Verified By
การเตรียมอุปกรณ์และขนย้ายอุปกรณ์	การเตรียมอุปกรณ์และขนย้ายอุปกรณ์	Slip, trip, fall	Loss of control	HIGH (3E)	<ul style="list-style-type: none"> - Hazard control measures communication - Supervision by team leader - ดูแล รักษาความปลอดภัยพื้นที่ปฏิบัติงานให้อยู่ในสภาพที่ปลอดภัย ไม่มีสิ่งกีดขวาง 	MEDIUM (2D)	ผู้ปฏิบัติงาน	
การเก็บตัวอย่างน้ำจากกระบวนการผลิต และการจัดเก็บตัวอย่าง	การขับรถเดินพ่วงเข้าเก็บตัวอย่างน้ำจากกระบวนการผลิต	Manual materials handling	Incorrect manual handling	HIGH (3E)	<ul style="list-style-type: none"> - Establish proper work plan - Provide adequate manpower - Provide job rotation /team work/alteration of workplace 	MEDIUM (2D)	ผู้ปฏิบัติงาน	
		On-land transportation (Driving)	Lossing control over the vehicle	HIGH (4E)	<ul style="list-style-type: none"> - Driver competency, license - Safety belt - Speed limit - Vehicle inspection and maintenance - Anti-lock braking system (ABS) - Safety Airbag - Weather forecast communication 	LOW (3A)	ผู้ปฏิบัติงาน	

Work Step	Work Activities	Potential Hazards	Top Event	Initial Risk	Barriers & Mitigation	Residual Risk	Action Party	Verified By
การเก็บตัวอย่างน้ำจากกระบวน การผลิต และการจัดเก็บตัวอย่าง	การขับรถเดินทางเข้าเก็บ ตัวอย่างน้ำจากกระบวนการ ผลิต	Hydrocarbon gas	Ignition	HIGH (3E)	<ul style="list-style-type: none"> - Emergency response plan - Ensure communication among working team - Portable gas detection - No Naked Flame Hot Work In vicinity - Site supervision - ไม่ขับรถเข้าไปในบริเวณพื้นที่อันตราย (Hazardous Zone) 	LOW (1B)	ผู้ปฏิบัติงาน	
	การเข้าเก็บตัวอย่างน้ำใต้ดิน ภายในพื้นที่ฐาน	Slip, trip, fall	Loss of control	HIGH (3E)	<ul style="list-style-type: none"> - Hazard control measures communication by team leader - Supervision by team leader - ดูแล รักษาความปลอดภัยที่ปฏิบัติงานให้อยู่ในสภาพที่ปลอดภัย ไม่มีสิ่งกีดขวาง 	MEDIUM (2D)	(ผู้ปฏิบัติงาน	
		Poisonous animals and insects (snakes, scorpions, lizards, bees)	Exposure to biological hazards	HIGH (3E)	<ul style="list-style-type: none"> - Provide proper house keeping program - Regular communicate on relevant hazards and mitigation measures 	MEDIUM (2D)	ผู้ปฏิบัติงาน	
		Pandemic e.g. SARS, MERS, COVID-19 etc.	Expose to infected person	HIGH (3E)	<ul style="list-style-type: none"> - Provide proper house keeping program - Regular communicate on relevant hazards and mitigation measures - Routine hygiene inspection - Supervision by team leader - สวมใส่หน้ากาก/อยู่ห่างกัน/ล้างมือด้วยสบู่และแอลกอฮอล์/ไม่กินอาหารร่วมกัน/วัดไข้ 	MEDIUM (2D)	ผู้ปฏิบัติงาน	
		Physical condition e.g. pinch point, sharp object etc.	Others	HIGH (3E)	<ul style="list-style-type: none"> - Hazard control measures communication - Supervision by team leader 	MEDIUM (2D)	ผู้ปฏิบัติงาน	


Work Step	Work Activities	Potential Hazards	Top Event	Initial Risk	Barriers & Mitigation	Residual Risk	Action Party	Verified By
การเก็บตัวอย่างน้ำจากกระบวนการผลิต และการจัดเก็บตัวอย่าง	การเข้าเก็บตัวอย่างน้ำใต้ดินภายในพื้นที่ฐาน	Overhead load, objects or equipment Carcinogenicity	Dropped object Difficulty in breathing	HIGH (3E) HIGH (3E)	- PTW - สวมใส่หมวกนิรภัย - SDS available at working area - Provide natural ventilation system - Restricted work access to unauthorized person - Provide chemical awareness training - Strictly follow working procedure / SDS - Use proper PPE e.g. respiratory protective equipment - Worksite inspection to ensure safe working procedures are followed	MEDIUM (2C) LOW (2B)	ผู้ปฏิบัติงาน ผู้ปฏิบัติงาน	 
การถ่ายรูปแบบภาพขณะเก็บตัวอย่าง	การถ่ายรูปแบบภาพขณะเก็บตัวอย่าง	Hydrocarbon gas	Ignition	HIGH (3E)	- Emergency response plan - Ensure communication among working team - Portable gas detection - No Naked Flame Hot Work In vicinity - Site supervision - ก่อนทำการถ่ายรูปรต้อง ปิดแฟลชก่อนทุกครั้ง	LOW (1B)	ผู้ปฏิบัติงาน	
การทำตามสะอาดพื้นที่หน้างาน	การทำตามสะอาดเก็บความเรียบร้อย พื้นที่หน้างาน	Dusts (particulate)	Others	MEDIUM (2E)	- สวมใส่หน้ากากป้องกันทุกครั้งก่อนปฏิบัติงาน	LOW (1B)	ผู้ปฏิบัติงาน	
		ขยะ	พื้นที่สกปรก	MEDIUM (2E)	- ทำความสะอาดบริเวณหน้างานก่อนเริ่มงานและหลังเลิกงาน - จัดแยกขยะก่อนนำไปทิ้ง	LOW (1B)	ผู้ปฏิบัติงาน	

Prepared by: Prepared By 	Reviewed by: Reviewer 1 (Line Supv.) Name: Suphanburi Lead Operator Production -	Reviewed by: Reviewer 2 (Area Owner) Name: Suphanburi Technician SSHE -	Approved by: Area Authority/Field Manager Name: Suphanburi Operations Supervisor
Date: 19/03/2021	Date: 22/03/2021	Date: 22/03/2021	Date: 22/03/2021

Work Step	Work Activities	Potential Hazards	Top Event	Initial Risk	Barriers & Mitigation	Residual Risk	Action Party	Verified By
การเก็บตัวอย่างน้ำใต้ดินและการจัดเก็บตัวอย่าง	การเข้าถึงตัวอย่างน้ำใต้ดินภายในพื้นที่ฐาน	Pandemic e.g. SARS, MERS, COVID-19 etc.	Expose to infected person	HIGH (3E)	<ul style="list-style-type: none"> - Provide proper house keeping program - Regular communicate on relevant hazards and mitigation measures - Routine hygiene inspection - Supervision by team leader - สวมใส่ผ้าปิดจมูกอยู่ห่างกัน/ล้างมือด้วยสบู่และแอลกอฮอล์/ไม่กินอาหารรวมกัน/วัดไข้ 	MEDIUM (2D)	ผู้ปฏิบัติงาน	
		Manual materials handling	Exposure to ergonomic hazard	HIGH (3E)	<ul style="list-style-type: none"> - Establish proper work plan - Provide adequate manpower - Provide job rotation /team work/alteration of workplace 	MEDIUM (2D)	ผู้ปฏิบัติงาน	
		Slip, trip, fall	Loss of control	HIGH (3E)	<ul style="list-style-type: none"> - Hazard control measures communication - Supervision by team leader - ดูแล รักษาความสะอาดพื้นที่ปฏิบัติงานให้อยู่ในสภาพที่ปลอดภัย ไม่มีสิ่งกีดขวาง 	MEDIUM (2D)	(ผู้)ปฏิบัติงาน	
		Poisonous animals and insects (snakes, scorpions, lizards, bees)	Exposure to biological hazards	HIGH (3E)	<ul style="list-style-type: none"> - Provide proper house keeping program - Regular communicate on relevant hazards and mitigation measures 	MEDIUM (2D)	ผู้ปฏิบัติงาน	
		Physical condition e.g. pinch point, sharp object etc.	Others	HIGH (3E)	<ul style="list-style-type: none"> - Hazard control measures communication - Supervision by team leader 	MEDIUM (1D)	ผู้ปฏิบัติงาน	

Work Step	Work Activities	Potential Hazards	Top Event	Initial Risk	Barriers & Mitigation	Residual Risk	Action Party	Verified By
การเก็บตัวอย่างน้ำใต้ดินและการจัดเก็บตัวอย่าง	การเข้าเก็บตัวอย่างน้ำใต้ดินภายในพื้นที่ฐาน	Adverse weather e.g. wind, temperature extremes, rain, etc.	Heat stress	HIGH (3E)	<ul style="list-style-type: none"> - Periodically conduct workplace environment inspection i.e. light, noise, heat and chemical - Hazard control measures communication - Job rotation/team work/alteration of workplace - Provide proper refreshment drinks e.g. water, ORS (Oral Rehydration Solution) - Supervision by team leader - Weather forecast communication - Workplace preparation e.g. sunlight & raining protection - จัดช่วงเวลาการพักผ่อนให้เหมาะสม 	MEDIUM (2D)	ผู้ปฏิบัติงาน	
		Fatigue	Exposure to ergonomic hazard	HIGH (3E)	<ul style="list-style-type: none"> - Establish proper work plan - Provide job rotation /team work/alteration of workplace - Provide specific training for hazard preventions e.g. manual handling course 	MEDIUM (2D)		
การถ่ายภาพขณะเก็บตัวอย่าง	การถ่ายภาพลักษณะเก็บตัวอย่าง	Hydrocarbon gas	Ignition	HIGH (3E)	<ul style="list-style-type: none"> - Emergency response plan - Ensure communication among working team - Portable gas detection - No Naked Flame Hot Work In vicinity - Site supervision - ก่อนทำการถ่ายรูปต้อง ปิดแฟลชก่อนทุกครั้ง 	LOW (1B)	ผู้ปฏิบัติงาน	
		Dusts (particulate)	Others	MEDIUM (2E)	<ul style="list-style-type: none"> - สวมใส่หน้ากากป้องกันฝุ่นทุกครั้งก่อนปฏิบัติงาน 	LOW (1B)		
การทำความสะอาดพื้นที่ทำงาน	การทำความสะอาดเก็บความเรียบร้อย บริเวณพื้นที่ทำงาน	ขยะ	พื้นที่สกปรก	MEDIUM (2E)	<ul style="list-style-type: none"> - ทำความสะอาดบริเวณหน้า งานก่อนเริ่มงานและหลังเลิกงาน - จัดแยกขยะก่อนนำไปทิ้ง 	LOW (1B)	ผู้ปฏิบัติงาน	

Prepared by: Prepared By [REDACTED] Name: [REDACTED]	Reviewed by: Reviewer 1 (Line Supv.) Name: Suphanburi Lead Operator Production -	Reviewed by: Reviewer 2 (Area Owner) Name: Suphanburi Technician SSHE -	Approved by: Area Authority/Field Manager Name: Suphanburi Operations Supervisor
Date: 19/03/2021	Date: 22/03/2021	Date: 22/03/2021	Date: 22/03/2021

		SSHE Tool box Talks Meeting แบบฟอร์มบันทึกการประชุมความปลอดภัยก่อนเริ่มงาน		Form No: 13250-SUP-SSHE-FRM-018-R03	
<p>It is important that all personnel involved in the work activity participate in the toolbox talk</p> <p>ทีมงานทุกคนที่มีส่วนเกี่ยวข้องในการทำงาน จะต้องร่วมประชุมและประเมินอันตรายจากการทำงาน ก่อนเริ่มงานทุกครั้ง</p>					
Work/Task Description รายละเอียดงาน: - ฉาบทดสอบคุณภาพน้ำ - Ground water - คัดน้ำ			PTW No. หมายเลขใบอนุญาตทำงาน: <input checked="" type="checkbox"/> HOT WORK No. <u>SPR-HWP-2023-00248</u> <input type="checkbox"/> COLD WORK No.		
Date วันที่: 24/3/23			Time เวลา: 9.00		Location / Area สถานที่ / พื้นที่ปฏิบัติงาน: SPR KS
			JSA No หมายเลข JSA: <u>SPR-JOB-2021-00043</u> Task Supervisor ผู้ควบคุมงาน: <u>SPR-JOB-2021-00043</u>		
Check before execute work ตรวจสอบก่อนเริ่มปฏิบัติงาน			Completed ปฏิบัติแล้ว	N/A ไม่เกี่ยวข้อง	Remark หมายเหตุ
1. Inform work scope and details to working team ซึ่งแจ้งรายละเอียดงานให้พนักงานทราบเรียบร้อยแล้ว			✓		
2. Inform hazards, controls & mitigation measures that identified in JSA/PTW/RTJ to all working team ซึ่งแจ้งอันตรายและมาตรการป้องกันตามที่ระบุไว้ใน JSA/PTW/RTJ ให้ทุกคนรับทราบอย่างครบถ้วนเรียบร้อยแล้ว			✓		
3. Inform the location of muster point, fire exit, firefighting equipment and ERP to all working team แจ้งตำแหน่งจุดรวมพล ทางหนีไฟ อุปกรณ์ระงับอัคคีภัยและแผนรองรับเหตุฉุกเฉินให้ทีมงานรับทราบแล้ว			✓		
4. All workers are fit to work พนักงานทุกคนมีความพร้อมในการทำงาน (Fit to work)			✓		
5. Ensure good housekeeping and no obstruction พื้นที่ทำงานมีความสะอาด เรียบร้อย ปลอดภัย ไม่มีสิ่งกีดขวาง			✓		
6. Ensure wear PPE for prevention to according hazards list. สวมใส่อุปกรณ์ป้องกันอันตรายส่วนบุคคลตามเป็นอันตรายของลักษณะงาน			✓		
7. มาตรการป้องกันอื่น ๆ (ถ้ามี) โปรดระบุ..... <u>Cover - H</u>			✓		
HAZARDS / TOPICS FOR TOOLBOX TALK (Tick ✓ where applicable) (ระบุอันตรายที่เกี่ยวข้องกับการทำงาน (โปรดทำเครื่องหมาย ✓ ในช่องที่เกี่ยวข้อง))					
<input checked="" type="checkbox"/> Hydrocarbon/ H ₂ S/Flammable material/ Explosive (ไฮโดรคาร์บอน/ไฮโดรเจนซัลไฟด์/วัตถุไวไฟ/วัตถุระเบิด)		<input type="checkbox"/> Ignition source (แหล่งที่ก่อให้เกิดประกายไฟ)		<input type="checkbox"/> Working at height (ทำงานที่สูง)	
<input checked="" type="checkbox"/> Dropped/ Flying objects (วัตถุตกหล่น/กระเด็น)		<input type="checkbox"/> Light/ Noise/ Heat (แสง/ เสียง/ ความร้อน)		<input type="checkbox"/> Psychosocial (จิตวิทยา-สังคม)	
<input type="checkbox"/> Hot/ Cold surface (พื้นผิววัตถุร้อน/ เย็น)		<input checked="" type="checkbox"/> Pinch point/ Sharp object (จุดหนีบ/ วัตถุมีคม)		<input checked="" type="checkbox"/> Ergonomic (ท่าทางการทำงาน)	
		<input checked="" type="checkbox"/> Weather/ Temperature (สภาพอากาศ/ อุณหภูมิ)		<input checked="" type="checkbox"/> Slip/ Trip/ Fall (ลื่น/ สะดุด/ ล้ม)	
		<input type="checkbox"/> Crane / Lifting /Rigging (รถเครน/งานยก/การผูกยึดรัด)		<input checked="" type="checkbox"/> Dust/Fume/Smoke (ฝุ่น/ฟุ้ง/ควัน)	
				<input type="checkbox"/> Security related Hazards (อันตรายด้านความมั่นคง)	
				<input checked="" type="checkbox"/> Other อื่น ๆ (โปรดระบุ)..... <u>Pro</u>	
What could go wrong? จะเกิดข้อผิดพลาดอะไรได้บ้าง			Identify Preventive Measure ระบุมาตรการป้องกัน		
1. ติดป้ายแจ้งเตือนพนักงานเดินรถ 2. สวมใส่ PPE (รองเท้า) ที่เหมาะสม			- ตรวจสอบพื้นที่ก่อนใช้งาน - สวมใส่ PPE (รองเท้า) ที่เหมาะสม		
ระบุของเสียที่จะเกิดขึ้น			ระบุอันตราย		
ขยะทั่วไป <input type="checkbox"/> เศษอาหาร <input type="checkbox"/> วัสดุจากการก่อสร้าง เศษปูน เศษปูน <input type="checkbox"/> สายไฟ <input type="checkbox"/> อื่น ๆ ระบุ			ขยะรีไซเคิล <input type="checkbox"/> พลาสติกสะอาด <input type="checkbox"/> กระดาษสะอาด <input type="checkbox"/> อื่น ๆ ระบุ		
			ขยะอันตราย <input type="checkbox"/> วัสดุปนเปื้อนน้ำมัน/สารเคมี <input type="checkbox"/> ภาชนะปนเปื้อนสารเคมี <input type="checkbox"/> อื่น ๆ ระบุ.....		
			<input type="checkbox"/> หลอดไฟ <input type="checkbox"/> แร่ใยหิน		
Emergency Call (เบอร์โทรฉุกเฉิน): 081-9313804			If the task is deviated from PTW/JSA/RTJ or mitigation control is inadequate, STOP Work Authority MUST be applied and line supervisor is informed. ถ้าลักษณะงานที่ทำการเปลี่ยนแปลงจากที่ระบุไว้ใน PTW/JSA/RTJ หรือ มาตรการป้องกันที่มีอยู่ไม่เพียงพอ ให้หยุดงานและแจ้งหัวหน้างานทันที		



SSHE Tool box Talks Meeting
แบบฟอร์มบันทึกการประชุมความปลอดภัยก่อนเริ่มงาน

Form No: 13250-SUP-SSHE-FRM-018-R03

Toolbox talk by (ผู้ทำการสื่อสาร)

ชื่อ-สกุล.....

แผนก..... บริษัท.....

WSC / PTTEP Company Rep. (เจ้าหน้าที่ควบคุมการผลิตในพื้นที่ หรือตัวแทน ปตท. สผ. โครงการ

สุพรรณบุรี)

ชื่อ-สกุล..... แผนก.....

Participants (ผู้เข้าร่วมประชุมความปลอดภัยก่อนเริ่มงาน)

ลำดับ	ชื่อ-สกุล	ตำแหน่ง	บริษัท	ลำดับ	ชื่อ-สกุล	ตำแหน่ง	บริษัท
1			UAE	34			
2		ว	UAE	35			
3		ว	UAE	36			
4				37			
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33				66			

หมายเหตุ :

- ผู้รับเหมาทุกคนจะต้องปฏิบัติตามกฎระเบียบด้านความปลอดภัยและสิ่งแวดล้อม รวมถึงกฎระเบียบบริษัทฯ โดยเคร่งครัดตลอดเวลาที่ปฏิบัติงาน
- กรณีเกิดอุบัติเหตุหรือเกิดเหตุฉุกเฉินให้แจ้งหัวหน้างาน และ เจ้าหน้าที่แผนก SSHE ทราบโดยทันที เบอร์ฉุกเฉินโทร 081-9313804
- หลังจากการปฏิบัติงานจะต้องทำความสะอาดพื้นที่ทำงาน และคัดแยกขยะ เพื่อนำไปกำจัดอย่างเหมาะสม