

VOLUME 1

EXECUTIVE SUMMARY

PEPPoS

VOLUME 1 TABLE OF CONTENTS

1.1 Introduction	11
1.2 Using the PPG	12
1.3 User of PPG	13
1.4 Objective of PPG	13
1.5 Scope of PPG	13
1.6 Roles & Responsibilities, Performance Management & Compliance to PPG	16
1.6.1 Compliance and Performance Recognition	16
1.6.2 Non-Compliance and Consequence Management	16
1.6.3 Petroleum Contractor Key Obligations - Assurance and Approval	16
1.7 Anti-Bribery & Corruption and Code of Conduct & Business Ethics	17
1.7.1 Commitment	17
1.7.2 Expectations	18
1.8 Disclaimer and Confidentiality	18
1.9 Acknowledgement	18
1.10 PETROS Departments and Functions	19
Definitions	20
Abbreviations	22

PEPPoS

1.1 INTRODUCTION

PETROS' Petroleum Guidelines (PPG version 1.0) brings together the policies and requirements of Sarawak for its Onshore oil and gas industry into a concise and complete set of guidelines. It serves as the guiding document for PETROS in managing Sarawak's oil & gas resources and regulating its Upstream activities sustainably, in conjunction with Petroleum Contracts, within the hierarchy of PETROS' Corporate Management System (CMS).

PPG is written to provide a structured approach and instil operational discipline whilst at the same time setting a common language and terminology across upstream oil and gas activities.

PPG will continue to be updated and enhanced to ensure that it remains relevant against the current business landscape and meeting Sarawak's industry needs. It includes the procedures and guidelines covering the entire life of hydrocarbon asset from exploration up to abandonment. It is structured following the Upstream asset life cycle, and all requirements in this document complements the phases of the respective oil & gas field life cycle. PETROS therefore manages and regulates the Sarawak Upstream industry sustainably using the PPG within the hierarchy of its Corporate Management System (CMS).

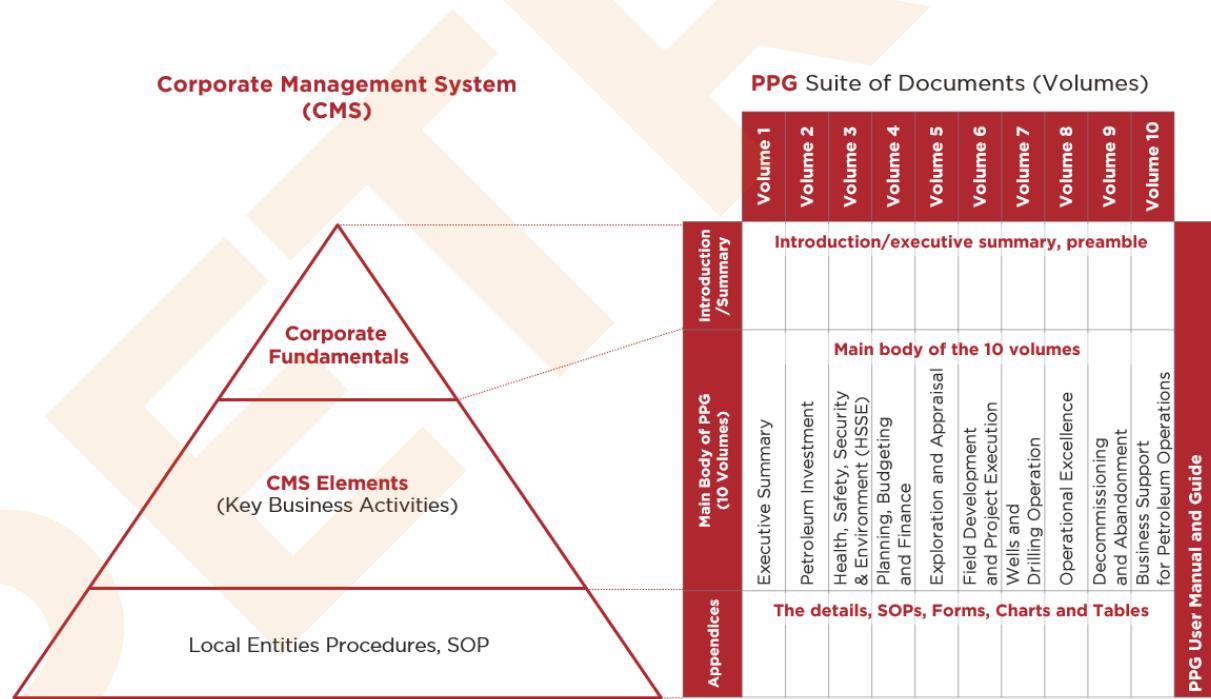


Figure 1.1 PPG in alignment with PETROS Corporate Management System (CMS)

Contractor is required to comply with PPG when executing its operation and are expected to drive their upstream activities in a competent, effective, and

sustainable manner, applying self-governance over operations and ensuring compliance to all PPG requirements.

PPG makes reference to applicable procedures and guidelines issued by the relevant authorities. Contractor shall ensure that the latest issuance of the procedures and guidelines from the relevant authorities are complied with. Should there be any conflict, discrepancy or inconsistency between PPG and the regulations, and also within the regulations themselves, Contractor shall notify and consult PETROS before proceeding with the relevant authorities.

The procedures and guidelines of PPG may be revised or amended from time to time upon written notice by PETROS. In the event of conflict between PPG and the respective Contract, the Contract shall prevail. Any amendment to PPG shall be effective the day PETROS notifies the Contractor.

1.2 USING THE PPG

In this document, the recommendations for a course of action are made with varying degree of emphasis. As a requirement:

- a. "shall", "must", "have/has to", "are/is obliged to" and "are/is required to" indicates mandatory requirements that the Contractor must fulfil and comply with.
- b. "should" indicates recommendation, which the Contractor(s) may fulfil in the absence of the Contractor's own internal guidelines or standards.
- c. "may" indicates recommendation, which possibility for the Contractor to fulfil and comply with.
- d. "minimum requirements" indicates the basic requirements that Contractor(s) must fulfil and comply with. Wherever applicable, Contractor may fulfil and comply with, over and above these minimum requirements.

The definitions listed in this Volume 1 above shall apply to the PPG and its intent and objectives.

PETROS is the authority and regulator responsible in the overall management of Sarawak's domestic petroleum resources throughout the life cycle of upstream oil and gas assets.

1.3 USER OF PPG

This document shall provide the guidelines to the Contractor in managing the upstream activities, from investment, exploration and so forth right up to abandonment.

1.4 OBJECTIVE OF PPG

PPG is the main reference in regulating and managing Sarawak's upstream activities. It provides references, procedures, forms, definitions, and a consistent terminology to supplement the Contract.

1.5 SCOPE OF PPG

PPG consists of ten (10) volumes which are generally based on the oil/gas field lifecycle phases, as follows:

Volume	Section	Guidelines/Procedures
Volume 1 Executive Summary	1	Introduction
	2	Using the PPG
	3	User of PPG
	4	Objective
	5	Scope of PPG
	6	Contractor's Performance Management and Compliance to PPG
	7	Anti-Bribery & Corruption and Code of Conduct & Business Ethics
	8	Disclaimer and Confidentiality
	9	Acknowledgement
	10	PETROS Departments and Functions
Volume 2 Petroleum Investment	1	Acreage Acquisition and Asset Acquisition
	2	Farm In/Farm Out
Volume 3 Health, Safety, Security & Environment (HSSE)	1	HSSE Policy
	2	HSSE Regulatory Requirements and Standards
	3	Contractor HSSE MS Procedures

Volume	Section	Guidelines/Procedures
Volume 4 Planning, Budgeting and Finance	1	Work Programme and Budget (WPB)
	2	Annual Review of Petroleum Resources (ARPR)
	3	Crude Oil, Gas Supply and Condensate Annual Production Targets
	4	Finance for Petroleum Contracts
Volume 5 Exploration and Appraisal	1	Exploration Petroleum Contract Management
	2	Exploration Well Drilling
	3	Seismic Data Acquisition and Processing Operation
	4	Non-Seismic Survey
	5	Geohazards Survey
Volume 6 Field Development and Project Execution	1	Asset Development and Management
	2	Health, Safety, Security and Environment (HSSE)
	3	Project Execution Management Planning
	4	Engineering Management
	5	Contracting and Procurement
	6	Site Execution Management
	7	Development Drilling
	8	Handover to Operation and Project Closeout
	9	Reporting and Documentation
	10	Regulatory Requirements
Volume 7 Wells and Operations	1	Well Programme Approval
	2	Recording and Reporting
	3	Drilling Quality Assurance or Quality Control
	4	Drilling Unit Design, Manning, and Logistics
	5	Well Design and Drilling Operations
	6	Formation Evaluation
	7	Completion Operations
	8	Well Barriers and Well Integrity
	9	Plug and Abandonment of Wells
	10	Workover and Well Intervention Operations
	11	Onshore Drilling Operations
	12	Onshore Completion, Workover and Well Intervention Operations
	13	Waste Material Handling and Disposal

Volume	Section	Guidelines/Procedures
Volume 8 Operational Excellence	1	Asset Management
	2	Well and Reservoir Management
	3	Physical Asset Integrity and Reliability Management
	4	Hydrocarbon Measurement and Allocation
	5	Onshore Operations
	6	Asset Relinquishment
	7	Operational Excellence Strategy
Volume 9 Decommissioning & Abandonment	1	Laws, Regulations and Guidelines
	2	Health, Safety, Security and Environment
	3	Pre-Decommissioning Process
	4	Decommissioning Execution
	5	Post Decommissioning Process
	6	Abandonment Cess
Volume 10 Business Support for Petroleum Operations	1	Manpower
	2	Training
	3	Information Release (PIR)
	4	PETROS Inventory Management System (PIMS)
	5	Licensing, Tenders and Contracts
	6	Affiliate Services (AS)
	7	Upstream Data Governance
	8	Technology Deployment
	9	Regulatory Compliance for Onshore Oil & Gas Activities
	10	Land Matters
	11	Enterprise Risk Management
	12	Business Continuity
	13	Insurance Procurement for Contract Asset, Wells and Liabilities

1.6 ROLES & RESPONSIBILITIES, PERFORMANCE MANAGEMENT AND COMPLIANCE TO PPG

PETROS is supportive towards Contractor in ensuring compliance to the requirements and PPG whilst ensuring safe and efficient operations. Contractor is expected to comply with the Petroleum Contractor Key Obligations, PPG and other technical and non-technical standards and guidelines set by PETROS. Contractor's Performance Management will lead to Performance Recognition and Consequence Management.

Contractor shall immediately notify and consult PETROS should they be unable to comply with any part of the PPG or the Petroleum Contractor Key Obligations, and shall request approval for exemption, if necessary. The exemption from PPG or any other key obligations, if granted by PETROS, shall be at PETROS' sole discretion.

1.6.1 Compliance and Performance Recognition

PETROS strives to recognise Contractor, not only in terms of its compliance with the Contract and PPG, but also their commendable efforts and achievements in their Upstream activities and operations. Its achievements would be a future reference for the industry in striving for continuous improvement whilst maintaining compliance to Contract and PPG requirements.

1.6.2 Non-Compliance and Consequence Management

Consequence management shall be carried out by PETROS where there is non-compliance to PPG and the Contract which has an adverse impact to safety, security, people, environment, asset and reputation of Sarawak's upstream oil and gas industry. Each non-compliance will be treated, reviewed, and assessed thoroughly on a case-by-case basis, to identify the root causes and impact of the non-compliance.

The consequence management actions may vary, from supportive to corrective, depending on the severity of the root cause and impact, including warning letters and stop work orders.

1.6.3 Petroleum Contractor Key Obligations - Assurance and Approval

All plans, documents and submissions related to Petroleum Contractor key obligations shall be administered and processed for assurance and approval as per the flowchart in Figure 1.6.3. below.

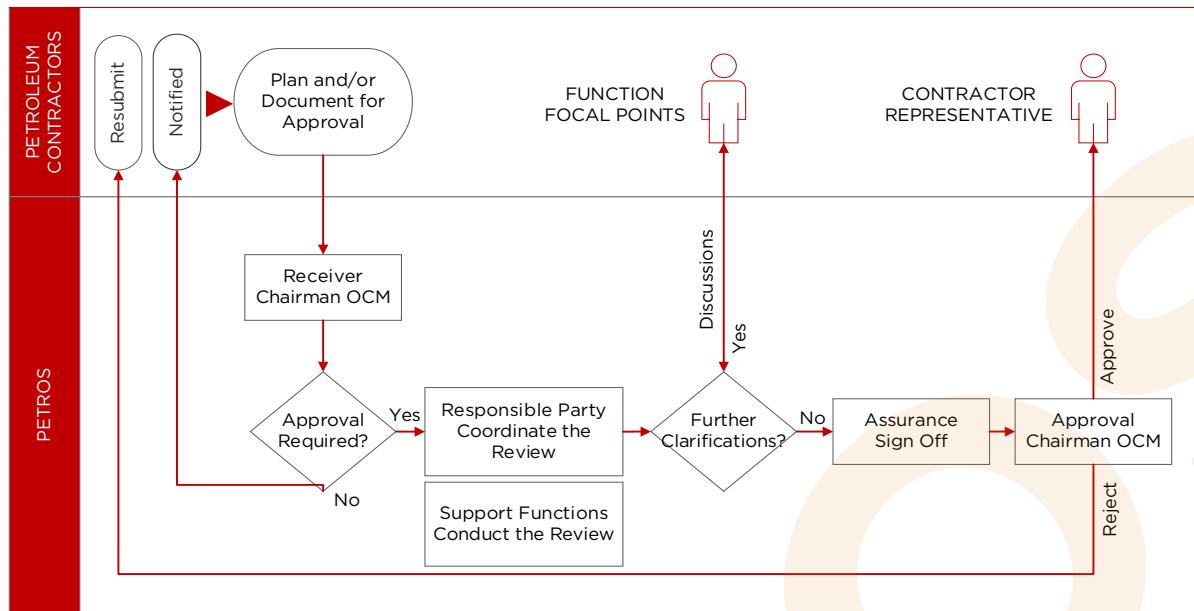


Figure 1.6.3 Assurance and Approval Flowchart for Petroleum Contractor Key Obligations

1.7 ANTI-BRIBERY & CORRUPTION AND CODE OF CONDUCT & BUSINESS ETHICS

1.7.1 Commitment

Petroleum Sarawak Berhad and its subsidiaries (collectively “PETROS”) takes a zero-tolerance stand against all forms of bribery and corruption. PETROS is committed to Professionalism and Integrity in all its business dealings and relationships by and with its directors, employees, service providers and other business partners, wherever it operates.

PETROS’ Anti-Bribery & Corruption Policies & Procedures, alongside with its Code of Conduct & Business Ethics, sets out PETROS’ corporate principles in dealing with improper solicitation, bribery and other corrupt activities and issues that may arise in the course of doing business.

1.7.2 Expectations

It is the responsibility of contractors, sub-contractors, agents, representatives, and service providers performing work or services of any kind for or on behalf of PETROS to comply with the following:

- a. To subscribe to PETROS' standards of business ethics, professionalism, and integrity.
- b. To comply with PETROS Anti-Bribery & Corruption Policies & Procedures and its Code of Conduct & Business Ethics.

This PPG is to be issued with PETROS' Anti-Bribery & Corruption Policies & Procedures and its Code of Conduct & Business Ethics.

1.8 DISCLAIMER AND CONFIDENTIALITY

PETROS shall not be held as giving any warranty on the accuracy or completeness of the information contained in this document. PETROS is the owner and copyright holder of PPG. No part of PPG may be reproduced, stored in a retrieval system, or transmitted in any form or by any means (electronic, mechanical, recording or otherwise) or be disclosed by users to any company or person whomsoever, without the prior written consent of PETROS.

PETROS may, from time to time, require information from PPG users and the Contractor in order to ascertain how users comply with PPG in terms of accuracy, understanding and compliance.

Prior approval shall be obtained from PETROS for all information releases regarding all Volumes under this PPG. Further information and guidance shall be referred to in Volume 10, Sections 3 and 7.

1.9 ACKNOWLEDGEMENT

PPG was developed by PETROS staff, management, and its technical experts. PETROS wishes to express its gratitude to all parties who have contributed directly or indirectly to the development of PPG.

1.10 PETROS DEPARTMENTS AND FUNCTIONS

PETROS departments and capability functions consist of the following:

- a. Sarawak Resource Management (SRM)
- b. Exploration
- c. Non-Operated Ventures
- d. Engineering
- e. Operations
- f. Development
- g. Onshore Assets
- h. Finance
- i. Supply Chain
- j. Legal
- k. Health, Safety, Security & Environment (HSSE)
- l. Governance, Risks & Compliance
- m. Economics & Planning
- n. Business Development & Strategy
- o. Commercial
- p. Human Resources & Administration
- q. Corporate Communication & External Relations
- r. Digital

DEFINITIONS

Term	Definition
Abandonment	<p>The process of abandonment of wells is concerned with the isolation of rock formations that have flow potential; flow potential is defined as coming from formations with permeability and pressure differential with other formations or surface.</p> <p>An abandonment process begins with a well killing operation in which produced fluids are circulated out of the well, or bull headed into the formation, and replaced by drilling fluids heavy enough to contain any open formation pressures.</p>
Abandonment Cess	<p>Abandonment Cess Fund (ACF) is set up to administer Abandonment Cess received for the purpose of Decommissioning of upstream installations.</p> <p>Contractor(s) may request for Abandonment Cess withdrawal in accordance with their contribution to the fund based on respective contractual obligation, which shall be subject to PETROS' approval.</p>
Assurance	A process/an activity of evaluation of systems and controls to provide a reasonable level of confidence to stakeholders that Health, Safety, Security and Environment (HSSE) risks are being adequately and effectively managed.
Authority	An organisation, institution or agency that has the right to give orders, make decisions and enforce compliance with specific regulations.
Contract	Contract refers to Petroleum Contract (PC) i.e., PC or RSC, whichever is applicable, unless explicitly mentioned.
Contractor	<p>A Petroleum Contractor (PC) i.e., a company or companies that enters into a Petroleum Contract or Risk Sharing Contract (RSC) with PETROS unless explicitly mentioned.</p> <p>Note that there could be multiple investors in a PA contract where one of them shall be designated as the Operator.</p> <p>The Operator shall be responsible in leading and ensuring successful execution of petroleum operations in the pertinent acreages, as well as fulfilments of all commitments, as defined in the appropriate Joint Operating Agreement (JOA).</p>
Corporate Management System (CMS)	A corporate framework set up and used by PETROS to operate as a manager and operator of Sarawak's Upstream hydrocarbon assets. It is a governance framework, consisting of industry best-practices, standards and PETROS expectations for the industry.
Crisis	An adverse situation or incident that has an impact on operations, personnel, reputation, environment, and asset which can usually be brought under control by the Contractor.
Decommissioning	The process of safely plugging of the well and the safe removal, transport and disposal of the equipment and facilities used in oil or gas production without harming the environment.

Term	Definition
Facilities	Infrastructure related to the extraction, production and processing of hydrocarbons including but is not limited to wells, structures, sub-structures, pipeline, sub-sea systems, terminals, and floaters.
Farm In/Farm Out	<p>The assignment and transfer of a party's participating interest (PI) in a Production Sharing Contract (PSC) to a party outside the PSC.</p> <p>Whenever a Potential Investor acquires/assigns its participating interest from an existing Contractor in an existing Contract.</p>
Hydrocarbon	Crude oil, natural gas, or condensate.
Policy	<p>A deliberate set of principles to guide decisions and achieve rational outcomes.</p> <p>A policy is a statement of intent, and its implementation is typically supported by procedures.</p>
Potential Investor	A company that is interested in investing in the specified E&P activities, including existing Contractor(s) intending to acquire additional acreages.
Premium Warranty	Define period an insured is required to make the premium payment, failing which may result the policy being null and void.
Procedure	<p>A documented steps to be followed in a specified sequence to accomplish an activity or task with defined responsibilities and accountabilities.</p> <p>Implementation of procedures typically cuts across interfaces in the organisation and procedures can include work instructions/job aids, operating instructions, checklists.</p>
Reservoir Management	<p>An ever-changing and ongoing process, which must be conducted at all stages of petroleum reservoir system's life cycle (from discovery to abandonment) to ensure optimum exploitation of the reservoirs.</p> <p>Reservoir management is a multi-disciplinary process aimed at cost effectively enhancing the knowledge and understanding of the reservoir system and translating that enhanced understanding into operational plans to optimise production and reserves.</p> <p>A reservoir system includes any associated aquifers, gas caps, wells, and surface facilities.</p>

ABBREVIATIONS

Term	Terminology
CMS	Corporate Management System
HSE	Health, Safety and Environment
HSSE-MS	Health, Safety, Security and Environment Management System
PETROS	Petroleum Sarawak Berhad
PPG	PETROS Petroleum Guidelines