



Health, Safety and Environmental (HSE) Policy and Management System

PETRONAS Chemicals Group Berhad (PCG)

Released Date

July 2022

PETRONAS Group adopts zero tolerance against all forms of bribery and corruption. As an employee, it is incumbent upon each and everyone of us to internalise and abide by the PETRONAS Code of Conduct and Business Ethics (CoBE) & Anti-Bribery and Corruption (ABC) Manual while remain guided by our shared values of loyalty, integrity, professionalism and cohesiveness.

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PCG Health, Safety and Environmental (HSE) Policy



PETRONAS CHEMICALS GROUP BERHAD
HEALTH, SAFETY & ENVIRONMENT (HSE) POLICY

OUR ASPIRATION
At PETRONAS Chemicals Group Berhad (PCG), our competitive advantage in the industry comes with the responsibility to attain and sustain excellence in HSE matters.
We strive to be in the top quartile in world-class HSE performance. Our aim is zero incidents, zero occupational illnesses and injuries. We want to be recognised as the embodiment of HSE excellence.

OUR COMMITMENTS

Regulation Compliance
We commit to HSE excellence in all activities wherever we operate and comply with relevant laws and regulations, and adhere to applicable standards and procedures.

Safe Workplace
We shall endeavour to take every reasonable and practicable step to prevent and eliminate the risk of injuries, health hazards and damage to properties.

Environment
We shall take proactive steps and strive towards conservation of the environment.

Resource & Engagement
We shall provide the necessary resources, organisation and system and shall communicate with key stakeholders on relevant HSE matters.

Best Practices
We shall ensure the facilities we design, build and operate, the products we manufacture and the services we provide are in accordance with appropriate legal requirements and industry best practices.

Emergency
We shall ensure that contingency plans are in place to deal with and recover from emergencies and shall notify all relevant stakeholders during the emergencies, as per procedure.

Continuous Improvement
We shall ensure continuous improvement in our HSE management and performance by leveraging on people, process and technology.

Lines of Responsibility
We require all our employees, suppliers and contractors to understand and strictly adhere to the policy at all times, and recognise that HSE is everyone's responsibility.

OUR EXPECTATION “WE STRIVE FOR ZERO”



Jr. Mohd Yusri Mohamed Yusof
Managing Director / Chief Executive Officer
PETRONAS Chemicals Group Berhad
13 April 2022

HSE Management System (HSE MS) Framework and Scope



PCG HSE MS Framework

Scope of HSE MS

- Own operations acquired after 2 years
- Products and Services

PCG also encourages its joint ventures and non-managed operations, along with other key business partners such as suppliers, contractors, suppliers and other licensees, outsourcing partners and anyone who acts on behalf of PCG, to uphold its HSE Management System (MS) as appropriate.

HSE MS Standards Overview

Management System Standard

1. Leadership & Commitment
2. Policy & Strategic Objectives
3. Organisation, Responsibilities, Resources, Standards and Documents
4. Hazards and Effects Management Process
5. Planning & Procedures
6. Implementation & Monitoring
7. Assurance
8. Management Review

Standards/ Procedures/ Plans

- New project development
- Merger & Acquisition, Due-diligence
- Production Standard Operating Procedures (SOPs)
- Product Stewardship
- Distribution and Logistics
- Suppliers and Contractor Management
- Change Management
- Natural Resource Use (Freshwater Management)
- Environmentally Hazardous Substances Management
- Waste Management
- Energy Management
- Biodiversity

HSE MS Standard: Intent and Key Requirements

1. Leadership & Commitment

Visibility

- HSE as first agenda of any meeting
- Chair HSE meeting
- Recognising HSE achievements
- Participating personally in HSE activities

Proactive in target setting

- Seeking views from employees, contractors and benchmarking to develop HSE KPIs and targets
- Assigning and appraising staff's HSE KPIs
- Setting of minimum standards on HSE through HSE Letter of Assurance

Informed involvement

- Tracking the progress of HSE MS implementation and providing feedback
- Prioritising appropriate resources and expertise to meet HSE KPIs and targets
- Conducting training in areas of expertise
- Being personally involved in HSE improvement efforts
- Attend training

2. Policy & Strategic Objectives

Content of policy statement

- Consistent with PETRONAS Group HSE policy
- Commitment to comply with applicable legislation
- Prevention of pollution
- Continual improvement of HSE management and performance
- Responsibility of line management in the execution of HSE policies
- HSE risks being assessed in business activities and interests of stakeholders
- Signed, endorsed and dated by highest authority at location

Dissemination of policy statement

- Communicated to all employees and contractors
- Readily available to the public in a language and format that is easily understood
- Records are retained to demonstrate that employees have received this information
- All employees and contractors are informed of policy revisions

3. Organization, Responsibilities, Resources, Standards and Documents

- Well structured organisation
- Clearly defined roles and responsibilities
- Resources
 - Manpower
 - Budget
 - Assets
- Standards
 - Accepted industry standards and practices
- Documentation
 - Manual/procedures on managing documents/ records
- Communication
 - Meeting procedures
 - Procedures on releasing information to internal/external stakeholders

HSE MS Standard: Intent and Key Requirements

4. Hazard and Effect Management

Identify

- Are people, assets & environment exposed to hazards resulting from the company's operations?

Assess

- What are the causes, consequences & effects?
- How likely is the loss of control?
- What is the risk & is it ALARP?

Control

- Can the causes be eliminated?
- What controls are needed & are they effective?

Recover

- Can the potential consequences & effects be mitigated?
- What are the recovery measures required?
- Are the recovery capabilities suitable & sufficient?

5. Planning & Procedures

- Document and maintain plans for responding to abnormal situations and potential emergencies
- Identify and document credible medical, operational, and environmental incident scenarios
- Comprehensive tiered emergency response plan, which is integrated with individual site plans and external agencies in compliance with relevant legislations and PETRONAS standards

6. Implementation & Monitoring

- Activities and tasks shall be conducted according to the procedures and work instructions
- The HSE MS shall have documented procedures to verify implementation activities are in accordance to procedures and work instructions
- HSE critical activities with their performance indicators shall be specified in the HSE MS Manual
- Each critical activity shall be assigned to an accountable party who shall monitor and regularly report the performance of their activities using the indicators
- Monitor HSE MS implementation through documented and current procedures
- Measure, record, track and report HSE performance vs. targets
- Monitor proactive and reactive statistics on a regular basis

HSE MS Standard: Intent and Key Requirements

7. Implementation & Monitoring

Audit plan

- Maintain an audit programme and procedure for HSE audits
- Audit programme shall include:
 - HSE MS audits
 - ISO 14001 audits
 - independent audits led by auditors approved by PETRONAS
 - specific activity audits such as facilities, start up, occupational health

Auditor competency

- Procedures for audit teams in terms of competency, experience in subject area of audit and impartiality

Contractor audits

- Contractors' senior personnel to participate in OPU led integrated HSE audits
- Contractors shall have an HSE Audit process and schedule for audits
- Records of results of audits, findings and corrective actions are retained

8. Management Review

- Management to review the effectiveness and suitability of the HSE MS in managing HSE risks and ensuring continual improvement
- Management review shall address but not be limited to:
 - Findings of previous reviews and audit findings
 - Need to change HSE policies and strategic objective
 - Impact of significant organizational, location or activity changes
 - HSE concerns of employees, contractors and external stakeholder
 - Resources and competent personnel to manage HSE
 - Closure of corrective actions from HSE reviews, audits, self assessments, inspections and incident investigations

HSE MS Standard: Intent and Key Requirements

HSE Guideline/ Production Standard Operating Procedures (SOPs)

New Project Development

- Feasibility review
- Impact assessment
- Construction & installation
- Commissioning

Merger & Acquisition, Due-diligence

- Due-diligence
- Transition plan
- Gap closure plan

Product Stewardship

- Product design
- Life Cycle Assessment

Supplier and Contractor Management

- Prequalification
- Selection & Contracting
- Onsite observation
- End-of-work evaluation

Change Management

- Change initiation
- HSE risk and mitigation
- Change approval
- Change implementation & close

Distribution and Logistics

- Distribution optimisation plan
- Logistics optimisation plan

Environmentally Hazardous Substance Management

- Phase-out Program for Banned Chemicals
- Chemical registration
- Permitting and notification

Natural Resource Use (Freshwater Management)

- Identify and quantify major water sources within the battery limit.
- Freshwater data collection and reporting
- Water initiatives/improvement plan with set targets
- Water Recycling Commitment (Target in 2023)

HSE MS Standard: Intent and Key Requirements

HSE Guideline/ Production Standard Operating Procedures (SOPs)

Waste Management

- Waste classification
- Storage and handling
- Tracking and disposal

Biodiversity

- BES risk profiling
- BES risk assessment (BESRA)
- Biodiversity Action Plan (BAP)
- Biodiversity conservation through CSR program
- Biodiversity Commitment (Target in 2023)

Occupational Health & Safety

- Occupational health audit at facility level
- Prioritization and integration of action plan from occupation health risk assessment

Energy Management

- Energy intensity target
- Energy review
- Significant energy use
- Energy conservation plan and implementation

Incident Investigation

- Overexposure to uncontrolled release of health hazards (e.g., chemical, physical, biological, ergonomics and psychosocial)
- Overexposure due to insufficient protection factor (e.g., respiratory, hearing protection)
- Occupational illnesses resulted from exposure to health hazards (e.g., Occupational noise induced hearing loss)

Independent External Verifications

ISO 14001:2015 Environmental Management System

90% of PCG facilities certified

- ASEAN Bintulu Fertilizer Sdn. Bhd.
- BRB International B.V.
- PETRONAS Chemicals Ammonia Sdn. Bhd./ PETRONAS Chemicals LDPE Sdn. Bhd.
- PETRONAS Chemicals Aromatics Sdn. Bhd.
- PETRONAS Chemicals Ethylene Sdn. Bhd./ PETRONAS Chemicals Polyethylene Sdn. Bhd.
- PETRONAS Chemicals Fertilizer Kedah Sdn. Bhd.
- PETRONAS Chemicals Methanol Sdn. Bhd.
- PETRONAS Chemicals MTBE Sdn. Bhd.
- PETRONAS Chemicals OLEFINS Sdn. Bhd./ PETRONAS Chemicals GLYCOLS Sdn. Bhd./ PETRONAS Chemicals DERIVATIVES Sdn. Bhd.

ISO 45001:2018 Occupational Health & Safety Management System

60% of PCG facilities certified

- ASEAN Bintulu Fertilizer Sdn. Bhd.
- PETRONAS Chemicals Ammonia Sdn. Bhd./ PETRONAS Chemicals LDPE Sdn. Bhd.
- PETRONAS Chemicals Ethylene Sdn. Bhd./ PETRONAS Chemicals Polyethylene Sdn. Bhd.
- PETRONAS Chemicals Fertilizer Kedah Sdn. Bhd.
- PETRONAS Chemicals MTBE Sdn. Bhd.
- PETRONAS Chemicals OLEFINS Sdn. Bhd./ PETRONAS Chemicals GLYCOLS Sdn. Bhd./ PETRONAS Chemicals DERIVATIVES Sdn. Bhd.

ISO 9001:2015 Quality Management System

80% of PCG facilities certified

- ASEAN Bintulu Fertilizer Sdn. Bhd.
- BRB International B.V.
- PETRONAS Chemicals Ammonia Sdn. Bhd./ PETRONAS Chemicals LDPE Sdn. Bhd.
- PETRONAS Chemicals Ethylene Sdn. Bhd./ PETRONAS Chemicals Polyethylene Sdn. Bhd.
- PETRONAS Chemicals Fertilizer Kedah Sdn. Bhd.
- PETRONAS Chemicals Methanol Sdn. Bhd.
- PETRONAS Chemicals MTBE Sdn. Bhd.
- PETRONAS Chemicals OLEFINS Sdn. Bhd./ PETRONAS Chemicals GLYCOLS Sdn. Bhd./ PETRONAS Chemicals DERIVATIVES Sdn. Bhd.