

# valeura energy inc.

HEALTH, SAFETY, AND ENVIRONMENT MANAGEMENT SYSTEM (HSEMS)



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#### HEALTH, SAFETY AND ENVIRONMENT POLICY STATEMENT

Valeura Energy Inc. is committed to conducting its business in a manner that protects the health and safety of its employees, contractors and the public and is environmentally responsible.

#### Key Beliefs

- Nothing is more important than protecting human health, safety and the environment.
- All incidents can be prevented
- Management is accountable for Health, Safety and Environment (HSE) performance
- Working safely and in an environmentally responsible manner are conditions of employment
- Preventing incidents and managing environmental impacts are fundamental to good business

#### **Guiding Principles**

#### **LEADERSHIP**

Valeura management will demonstrate visible and active leadership to our employees and contractors to achieve our HSE objectives.

#### **ACCOUNTABILITY**

Valeura management will ensure that employees under their direction are:

- Competent to manage their HSE responsibilities
- Knowledgeable of the hazards and risks associated with their jobs
- Provided with practices, procedures and tools to conduct their work in a safe and environmentally responsible manner

All employees and contractors have a responsibility to perform their jobs with integrity and in a safe and environmentally acceptable manner and are accountable for:

- Compliance with relevant HSE regulations and corporate policies, practices and procedures
- Their own personal safety
- The safety of their co-workers
- Reporting all incidents and taking action whenever they see an unsafe act or condition

#### **INTEGRATION**

Valeura will integrate HSE considerations in business plans, project designs, operating practices and employee development programs.

#### **PREVENTION**

Valeura uses a Health, Safety and Environment Management System (HSEMS) to systematically identify, assess and manage risks to employees, contractors, the environment and the communities in which we operate. The goal is to anticipate, prevent and mitigate harm to health, safety and the environment.

## **PREPAREDNESS**

Valeura will ensure that an emergency response capability is in place for all of its operations and is periodically tested. In the event of an incident, Verenex will respond promptly in a manner that protects the health and safety of its employees, contractors and the public, and that minimizes the incident's impact on the environment.

#### **MEASUREMENT**

Valeura will measure and report on health, safety and environmental performance and maintain regular communications with stakeholder groups and communities in which we operate.

#### **CONTINUAL IMPROVEMENT**

Valeura aspires to eliminate all occupational injuries and incidents. This requires active engagement and progressive improvement in competencies and performance by all employees in how we identify and manage hazards and risks associated with our work.



## **PURPOSE**

Valeura Energy Inc. (the "Company") has adopted a Health, Safety and Environment Management System (HSEMS) to support the Corporate Health, Safety and Environment Policy. Use of the HSEMS throughout the Company will assure that the HSE policy and principles are applied consistently to all operations. The HSEMS is a management tool to achieve the Company's commitment to conduct its business in a way that protects the health and safety of its employees, contractors and the public and is environmentally responsible.

This document describes a comprehensive HSEMS for the Company. The HSEMS consists of elements that contain specific principles and expectations. The principles and expectations communicate corporate expectations. Each business unit will determine for themselves how best to meet these expectations by setting their own priorities and addressing the expectations.

The HSEMS will ensure that all business units conduct business in accordance with the HSE Policy. For the Management System to be successful, employees should have an appropriate understanding of the process and their accompanying responsibilities within it. Managers are responsible for establishing programs and procedures to meet these principles and expectations.

Introduction

#### **HSEMS FRAMEWORK**

The HSEMS is built on the ISO 14001, OHSAS 18002:2000, OGP and API Standard models to ensure that health, safety, and environmental issues are systematically identified, controlled, and monitored. There are several reasons for selecting these standards as models for the Company's HSEMS framework:

- The standards ensure that performance of the HSEMS improves over time continual improvement.
- The ISO 14001 Standard for Environmental Management Systems is an accepted international Standard for Environment Management Systems.
- The OHSAS 18002:2000 Occupational Health and Safety Management Systems is an accepted international standard for Occupational Health and Safety Management Systems.
- The OGP Management System model is a standard for International Oil and Gas Exploration companies.
- The API (American Petroleum Institute) Model HSEMS is a voluntary tool for companies interested in developing an HSEMS or enhancing an existing one and is widely used within the Petroleum industry.
- The standards are consistent with the key elements found in most management system models.

#### PART I Introduction

The HSEMS is organized into four (4) phases with twenty two (22) distinct elements.

## Phase 1: Leadership & Accountability

- 1. Management Leadership and Accountability
- 2. Employee Leadership

## Phase 2: Policy and Planning

- 3. HSE Policy
- 4. Management of Risks
- 5. Compliance and Advocacy
- 6. Objectives and Targets
- 7. Financial, Human and Physical Resources

## Phase 3: Implementation & Operations

- 8. Practices and Procedures
- 9. Competency and Training
- 10. Emergency Preparedness and Response
- 11. Personal Protective Equipment
- 12. Contractor Control Program
- 13. Environmental Protection
- 14. Occupational Health
- 15. Security and Travel
- 16. Management of Change
- 17. Reliability of Operations
- 18. Efficiency of Operations
- 19. Incident Management
- 20. Documentation and Records

#### Phase 4: Assessment & Corrective Action

- 21. HSEMS Audits
- 22. Management Review

## **HSEMS**

The HSEMS is organized around the following 4 phases and 22 elements. The following pages list the principles and expectations of each element of the HSEMS. The principles and expectations provide a benchmark against which current practices can be assessed and modified, as required.

# **Phase 1: Leadership & Accountability**

## **ELEMENT 1** MANAGEMENT LEADERSHIP & ACCOUNTABILITY

## **Principle**

Effective management leadership is vital to the success of an HSE Program and lays the foundation upon which a solid HSE program is built. Management must see their role in the HSEMS as a key responsibility and must be held accountable for the HSE performance of the company.

- 1.1 Management demonstrates leadership commitment to HSE performance through words, actions and visible participation in the HSEMS (i.e. walk the talk).
- 1.2 Management at all levels should establish a vision and objectives for their organization and participate in the review process.
- 1.3 Management reward systems should recognize and take into consideration HSE leadership behaviors as well as HSE results.
- 1.4 An internal communication strategy should be implemented to communicate HSEMS issues and raise awareness of HSE to employees, contractors and the public.



#### **ELEMENT 2** EMPLOYEE LEADERSHIP

#### **Principle**

HSE leadership from all levels of the organization is key to the success of an HSE Program. All employees must demonstrate HSE leadership on a daily basis if the organization's HSE program is to be successful. Many times it is the non-management employees that are supervising most the high risk activities in the company.

## Expectations

- 2.1 Employees should understand the HSEMS and their leadership role in assisting the company to achieve its HSE objectives.
- 2.2 Employee reward systems should consider HSE leadership behaviors and results in assessment of performance.

# **Phase 2: Policy and Planning**

#### **ELEMENT 3** HSE POLICY

#### Principle

A clearly defined HSE Policy ensures that the health and safety as well as the protection of the environment are top priorities.

- 3.1 Health, Safety and Environment policies are clearly documented and implemented.
- 3.2 Health, Safety and Environment policies are widely distributed, easily accessible, communicated and understood by all affected individuals.
- 3.3 Health, Safety and Environment policies are reviewed periodically to ensure they are relevant and appropriate to the organization.



#### **ELEMENT 4** MANAGEMENT OF RISK

#### **Principle**

A risk management process is necessary to identify HSE risks and hazards which can then be mitigated.

## Expectations

- 4.1 Procedures exist to identify risks and hazards in all Company operations.
- 4.2 Potential adverse impacts associated is each HSE hazard are evaluated.
- 4.3 Identified hazards have action plans put in place to mitigate the hazard and these action plans are documented and tracked.
- 4.4 Qualified and experienced personnel of the organization are involved in the risk assessment and management process.

#### **ELEMENT 5** COMPLIANCE & ADVOCACY

## **Principle**

There are HSE legislation, regulations and by-laws with which the Company must comply. These regulations set the minimum standards on how business will be conducted to ensure the health and safety of employees and the public, and reduce impacts on the environment. It is important that employees are aware of regulations that affect the company and comply with them.

## Expectations

- 5.1 A process exists to identify activity specific HSE regulations, guidelines industry standards, and corporate policies and incorporate into relevant programs.
- 5.2 Employees and contractors are aware of current HSE regulations, guidelines and corporate polices related to their areas of responsibility.

## **ELEMENT 6** OBJECTIVES & TARGETS

## **Principle**

Each level of the organization will establish objectives and targets for HSE performance. Annual HSE action plans should be developed to achieve the stated objectives and targets. The action plans should include responsibilities and timeframes.

- 6.1 A process exists to develop HSE performance objectives and targets at each organizational level.
- 6.2 Progress towards meeting the objectives and targets is monitored, reported and communicated.



- 6.3 A process exists at each organizational level to develop and revise action plans to meet HSE objectives and targets.
- 6.4 The HSE objectives, targets and action plans are communicated to all relevant employees and contractors.

## **ELEMENT 7** FINANCIAL, HUMAN & PHYSICAL RESOURCES

## **Principle**

Management shall ensure that appropriate financial, human and physical resources are provided to achieve the Company's HSE goals, objectives and targets.

## Expectations

- 7.1 Senior management has designated specific management representative(s) with defined responsibilities and authority for the development, maintenance and communication of the HSEMS framework.
- 7.2 Each business unit will customize the management system to manage their specific HSE risks.
- 7.3 An individual at the Corporate and business unit level has been assigned with the ownership of the HSEMS.
- 7.4 HSEMS training has been provided for personnel expected to implement and manage the HSEMS.
- 7.5 Adequate financial resources have been allocated in each business unit to implement and maintain the Management System.

# **Phase 3: Implementation & Operations**

#### **ELEMENT 8** PRACTICES & PROCEDURES

#### **Principle**

HSE practices and procedures are prescriptive "how to's" of job tasks. They must be followed to protect the health and safety of employees, contractors and the public and to protect the environment.

- 8.1 Practices and procedures are developed (from identified HSE hazards) and implemented to manage associated risks.
- 8.2 Industry standards are used in the development of practices.



- 8.3 A documented process is in place to regularly review and update all practices and procedures.
- 8.4 A process is in place to monitor workplace behaviours and activities to ensure conformance with practices and procedures.

#### **ELEMENT 9** COMPETENCY & TRAINING

## **Principle**

It is important that personnel have the necessary skills and competencies to carry out their HSE responsibilities in a safe and effective manner. Managers will ensure all employees have the appropriate skills and knowledge, and will provide training where necessary.

- 9.1 A process is in place to identify, evaluate, and review HSE training needs for each level and function within the organization.
- 9.2 All employees are trained, as applicable, to ensure work is performed in a safe and environmentally responsible manner.
- 9.3 HSE trainers shall be appropriately qualified.
- 9.4 Training records are maintained.
- 9.5 HSE training and education programs are evaluated for effectiveness.



#### **ELEMENT 10** EMERGENCY PREPAREDNESS & RESPONSE

#### **Principle**

It is important that all areas of operation have the necessary emergency response plans, skills and equipment to respond quickly to any emergency.

- 10.1 An up-to-date Corporate Crisis Management Plan is in place and is integrated with each Business Unit's Emergency Response Plan.
- 10.2 Business Unit Emergency Response Plans are up-to-date and in place, to deal with known hazards and potential emergency situations.
- 10.3 Responsibility has been assigned to identify and list possible emergencies, identify their effects and impact, and review response scenarios for each.
- 10.4 Regular emergency response training exercises, tabletop exercises and emergency drills are conducted to ensure readiness.
- 10.5 Equipment and facilities required to respond to emergencies are maintained and readily available.
- 10.6 Trained personnel are prepared to fulfil their role in emergency situations.
- 10.7 Emergency response plans are accessible, clearly communicated and understood by all employees and contractors.
- 10.8 The roles and responsibilities of government, emergency response agencies and mutual aid partners are understood by key parties and incorporated into emergency response plans.



#### **ELEMENT 11 PERSONAL PROTECTIVE EQUIPMENT**

#### **Principle**

Proper selection, use, and care of personal protective equipment ("PPE") are necessary to reduce the risk of accidents and personal injuries.

## Expectations

- 11.1 A process exists to conduct risk assessments for PPE usage.
- 11.2 PPE guidelines regarding the type and specific applications have m been established.
- 11.3 PPE is used in accordance with applicable regulatory requirements, established industry standards, corporate practices and guidelines, and manufacturer's recommendations.
- 11.4 The consistent use of PPE is duly recognized and positively reinforced. Issues of non-compliance are dealt with immediately.

#### **ELEMENT 12** CONTRACTOR CONTROL

#### **Principle**

It is important that controls be in place to ensure that activities undertaken by contractors, vendors and service providers are carried out in an efficient, safe, and environmentally responsible manner.

- 12.1 HSE performance is considered in the selection of all contractors, vendors and service providers.
- 12.2 All contractors, vendors and service providers are informed of the Company's HSE expectations.
- 12.3 Contractors, vendors and service providers are regularly monitored to ensure compliance with HSE expectations.
- 12.4 Contract work is evaluated at the conclusion of projects and applicable feedback is provided regarding HSE performance.



#### **ELEMENT 13** ENVIRONMENTAL PROTECTION

## **Principle**

A top priority of the Company is the protection of the environment and complying with established regulations. The management and minimization of environmental risks and liabilities must be integral to the management of our operations.

- 13.1 Environmental issues are managed to comply with all applicable laws, regulations and approvals
- 13.2 Air and water emissions are managed to ensure regulatory compliance and good environmental stewardship.
- 13.3 Vegetation is managed using practices that comply with permits/ licenses and regulations, with appropriate measures being taken to manage lands surrounding the facilities / pipelines.
- 13.4 Noise sources have been identified and measures taken to minimize noise disturbances to the public.
- 13.5 The generation, storage, transport, treatment and disposal of all waste, including hazardous waste, is safely and properly managed, reported and documented.
- 13.6 Processes exist to manage the risk of groundwater and soil contamination resulting from operations.
- 13.7 Contaminated sites are assessed and properly remediated.
- 13.8 Processes exist to reduce water usage, minimize waste, and efficiently use energy and natural resources.
- 13.9 Project planning considers opportunities to minimize environmental impacts.



#### **ELEMENT 14** OCCUPATIONAL HEALTH

## Principle

Occupational health programs ensure that all people working at or near the Company's locations are not adversely affected by exposure to hazardous physical or chemical agents. Occupational health programs encourage and promote the consistent identification, evaluation, and control of potential occupational health hazards, before injuries or losses occur.

#### Expectations

- 14.1 Potential occupational health exposures have been identified and evaluated.
- 14.2 An established monitoring program measures and identifies potential health exposures.
- 14.3 Health hazard controls are developed, maintained and assessed for effectiveness.
- 14.4 Employees using, handling, storing or exposed to hazardous material in the workplace are trained in hazard prevention and notification procedures.
- 14.5 Potential exposure to harmful substances is always considered during pre-job planning and procedure development.

#### **ELEMENT 15** SECURITY AND TRAVEL

#### **Principle**

It is important to review and identify the HSE risks associated with new projects, asset purchases and divestitures. During the planning stage of new projects or business developments it is important to provide HSE controls that will reduce the risk of injury, illness, environmental damage and corporate liability.

- 15.1 A process is in place to ensure security of personnel, contractors and assets for all company projects.
- 15.2 A process is in place for updating security risk levels and provides necessary controls.
- 15.3 A process is in place to ensure safety of personnel while traveling and the tracking of such personnel.



#### **ELEMENT 16** MANAGEMENT OF CHANGE

## Principle

Any change that has the potential to introduce HSE risks to people, property and the environment (including changes to the organization, operation and personnel) should be managed prior to and during implementation.

#### **Expectations**

- 16.1 A system is in place to assess, approve, and manage all changes (such as technology, organization, personnel or project activity) to ensure that potential HSE risks introduced with such changes are minimized.
- 16.2 Affected personnel understand the impact of changes being made and have appropriate skills and knowledge to manage the associated hazards.

## **ELEMENT 17** RELIABILITY OF OPERATIONS

## **Principle**

Reliability of equipment, processes, procedures and people are critical to preventing incidents and improving HSE performance.

#### Expectations

- 17.1 A process is in place to identify critical structures, equipment and work processes and to assess possible failure modes and consequences.
- 17.2 A process is in place to establish and use a standard set of equipment operation and surveillance duties and readings for all critical structures, equipment and work processes.
- 17.3 A process is in place to plan, schedule and complete necessary maintenance for all structures, equipment and protective devices.

## **ELEMENT 18 EFFICIENCY OF OPERATIONS**

#### **Principle**

Environmental stewardship starts with maximizing the efficiency of all operations and conserving natural resources.

- 18.1 A process is in place to analyze operational processes and improve the efficient use of people time and assets.
- 18.2 A process is in place to track and improve energy efficiency of all operations.
- 18.3 A process is in place to measure and reduce emissions.



18.4 Each facility should have a process in place to conserve natural resources by reducing raw materials and recycling materials when possible.

#### **ELEMENT 19** INCIDENT MANAGEMENT

## **Principle**

All incidents and near misses shall be reported, investigated, and recorded. Serious incidents shall include root cause analysis to identify areas for improvement and prevent recurrence.

#### **Expectations**

- 19.1 A documented procedure exists to ensure that all types of incidents and near misses are reported, investigated and recorded.
- 19.2 Employees report all incidents and near misses.
- 19.3 A qualified person(s), trained in incident investigation root cause analysis, thoroughly investigates all serious incidents and serious near misses
- 19.4 Corrective actions are developed and responsibilities assigned to address incident investigation findings.
- 19.5 Incident, accident and near miss reports are reviewed at least annually to determine trends.
- 19.6 Lessons learned from incidents and near misses are shared throughout the Company to facilitate improvement in performance.
- 19.7 Management participates in the incident management process.

#### **ELEMENT 20** DOCUMENTATION & RECORDS

#### **Principle**

Business units must ensure that all documents and records required by regulations and corporate requirements are maintained, organized and accessible.

- 20.1 All working documents related to the HSEMS are readily accessible to personnel who may require them.
- 20.2 Record retention guidelines are in place and adhered to.
- 20.3 Records are maintained and properly managed.



## **Phase 4: Assessment & Corrective**

#### **ELEMENT 21** HSEMS AUDIT

## Principle

Compliance with regulatory requirements and the Company's HSEMS must be periodically measured and audited as part of the continuous improvement process.

- 21.1 HSEMS audits are conducted on Business Units to measure the effectiveness of the implemented HSEMS.
- 21.2 A documented protocol exists that provides guidance to the auditors.
- 21.3 The audit team possesses the appropriate skills to perform the audit effectively.
- 21.4 A system is in place to develop and implement efficiently all recommendations for improvement.
- 21.5 Recommendations for improvements established from the HSEMS audits are tracked to ensure they are implemented efficiently.



#### **ELEMENT 22** MANAGEMENT REVIEW

## **Principle**

Ensuring the suitability and effectiveness of the HSEMS requires that the Company's management conducts a review of the management system at appropriate intervals to identify areas for improvement.

- 22.1 Management personnel at each level of the organization annually review the HSEMS to ensure it is effectively meeting objectives and managing risks.
- 22.2 Outcomes from the review of the HSEMS include documented recommendations relating to elements, principles, expectations, processes and programs in need of improvement.
- 22.3 Recommendations from the review are implemented to ensure a continual improvement process.
- 22.4 There is a process in place for management to receive and respond to concerns related to HSE issues anonymously from employees as well as the public.