



JOINT OPERATIONS



SAUDI ARABIAN CHEVRON INC. – KUWAIT GULF OIL COMPANY (K.S.C.)

SHEERS Process

Environment Risk Management Process

March 2023

Compliance Management

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1.0 PURPOSE

The purpose of the Environment Risk Management Process (ERMP) is to support JO in identifying, assessing, mitigating, and managing environmental risks throughout the life cycle of assets including:

- supporting informed, data-driven decision making for JO ongoing operations, projects, and operational changes
- informing JO leadership of ongoing environmental risks and associated safeguards

2.0 OBJECTIVES

The following are objectives of the ERMP:

- Establish standardized methodologies for the data-driven assessment and management of environmental risks
- Identify environmental safeguards and mitigation measures, and support prioritization of their verification
- Support assurance activities for environmental safeguards and mitigation measures
- Maintain environmental information associated with the evaluation of environmental risks
- Utilize the Management System Cycle (MSC) process to identify improvement opportunities for ERMP

3.0 SCOPE

The ERMP applies to business activities conducted by JO and supporting procedures and standard may include additional definitions for in-scope and out-of-scope activities applicable to the specific procedure or standard.

The following are outside the scope of the ERMP:

- Property transfer where environmental risks are addressed by Non-Ops.
- Compliance with regulatory/legal requirements; per Policy 2, JO employees are always expected to comply with all applicable laws when conducting Company business. In the event the ERMP conflicts with applicable law, compliance with legal requirements is mandatory and supersedes the ERMP
- The ERMP is not designed to manage legal risk to the Company. Any issues that involve actual or potential legal risks to the Company will be managed in collaboration with the Law Department. If an issue is principally legal in nature, it will be managed outside of the ERMP by the Law Department in the Non-Ops as necessary.
- Potential greenhouse gas (GHG) emissions from JO facilities and operations are out of scope of the ERMP and are coordinated through the Non-Operators concerned.

This Standard applies to all aspects of Health, Safety (including Process Safety), Security and Environment management

This SHEERS Process aligns with:

- ISO 14001 and ISO 45001 requirements
- International conventions and protocols ratified by the government of Kuwait and by the Kingdom of Saudi Arabia
- JO Management System

This SHEERS Procedure will not in any case substitute or modify the Local, National official legislation referring or related to Compliance Management, which must be followed by all WJO (Wafra Joint Operations) employees.

Where there is a conflict between legislation and the requirements set out in this Standard, the more stringent requirements shall be followed while ensuring legal compliance requirements are met.

4.0 REQUIREMENTS

The ERMP includes the following requirements:

- Implement the Environment Risk Assessment and Management (ERAM), see Appendix E Procedure to identify, assess, mitigate, and manage environmental risks, environmentally related community health risks, and environmentally related social risks
- Meet the requirements of the Third-Party Waste Stewardship (TWS) Standard for managing waste disposal at third-party facilities, see appendix G.
- Apply the Site Residual Impact Risk Management (SRIRM), see appendix F Procedure to manage environmental risks associated with sites with residual environmental impacts (i.e., groundwater, surface water, soils, vapor, and/or sediments)
- Maintain environmental information supporting the ERMP in a System of Record (SoR), in accordance with the requirements set out and according to the applicable JO data retention schedule.

5.0 MEASUREMENT AND VERIFICATION

5.1 Measurement

JO shall establish, track, and review leading and lagging metrics to determine the effectiveness in meeting the purpose and objectives of the ERMP and its procedures and standard.

5.2 Verification

JO shall establish and implement verification approaches to assure the quality of implementation of ERMP and associated procedures and standard. JO may use the SHEERS Assurance Plan, SHEERS-self assessment tools, process metrics, peer assists, benchmarking data, and stakeholder inquiries to determine and document how conformance is verified.

JO may engage the Non-Ops SMEs (Subject Matter Experts) to facilitate a self-assessment review to:

- assess the effectiveness of ERMP implementation,
- assess the effectiveness of safeguards to verify that they are in place and functioning effectively to mitigate identified environmental risks,
- conduct quality reviews of environmental risk assessment studies, and

- identify gaps in ERMP implementation and develop action items to close gaps.

5.3 Continual Improvement

JO shall evaluate the execution effectiveness of the ERMP during the JO annual MSC through review of leading and lagging metrics, verification programs, and assurance activities. ERMP improvement opportunities will be directed by JO leadership based on the results of the MSC review.

As part of the annual Enterprise MSC, the SHEERS Sponsor and Advisor shall review performance of the ERMP including:

- JO MSC results
- Non-Ops Audit outcomes

Improvements to the ERMP will be made as appropriate by the Non-Ops SMEs.

5.3.1 Audit of Performance

The effectiveness of ERMP implementation will be audited through Non-Ops SHEERS reviews. These reviews are conducted at various levels within the organization.

6.0 REFERENCES

This process comprises references to additional supporting procedures, policies, and other resources (e.g.: Standards, requirements etc.) including those that address WJO process.

6.1 Other References

The following documents inform or are referred to in the content of SHEERS process:

6.2 Other References

Chevron and KGOC (Kuwait Gulf Oil Company) Documents Referenced in the Development of this Process:

Title
SHEERS HSE (Health Safety and Environment) Functional Governance
Environment Risk Assessment and Management Procedure
HES Assessment and Engagement of Non-Operated Joint Venture and Affiliate Companies OE Process
SHEERS Management System
SHEERS Risk Management Process
Site Residual Impact Risk Management Procedure
Third-Party Waste Stewardship Standard
Environmental Management (KPC-HSSE-E06-EV-S01)

The ERMP is closely linked to and supports other components of the SHEERS MS, some of which are identified in the table below.

OEMS	Linkage
Environment Focus Area Strategy	The Environment Focus Area Strategy sets objectives for protecting the environment and driving improvements in environmental performance across the Enterprise. The Strategy aligns JO specific environmental goals with the Enterprise Strategy objectives and Focus Area expectations. In addition, the Strategy clarifies how Chevron identifies and addresses emerging, long-term, and Enterprise-level environmental risks. The ERMP supports data-driven decisions in implementation of the Environment Focus Area Strategy.
Management of Change (MOC)	JO can leverage their MOC Process in implementing the ERMP and associated procedures and standard. The MOC Process can be used to document the completion of the ERAM environmental aspect identification and screening steps.
SHEERS Assurance	Information from the ERR is provided for the development of the JO SHEERS Assurance plan, SHEERS Assurance Register, SHEERS Audits, and safeguard assurance activities.

OEMS	Linkage
SHEERS Standard Incident Investigation	Incidents, including those with potential environmental impacts, are investigated under the SHEERS Incident Investigation Standard. Findings from II&R investigations are shared with Environmental Practitioners and used in updating the ERR.
SHEERS Risk Management Process	The ERMP aligns with and leverages the risk assessment and risk management methodologies of the SHEERS Risk Management Process, including the SHEERS Integrated Risk Prioritization Matrix. Information documented in the ERR is used when applying the Risk Management Process to identify JO's Risk Profile items. Information from the Risk Management Process risk studies may be used in the ERAM Procedure.
Non-Operators Stakeholder Engagement and Issues Management (SEIM)	Non-environmentally related community health and non-environmentally related social risks are evaluated concurrently with environmental, environmentally related community health, and environmentally-related social risks. Risk scenarios from the ERAM Procedure and SEIM Process are both risk-ranked in the ESRM Tool, but SEIM related risk scenarios must be developed by, and the sessions facilitated with representatives from Corporate Affairs. Stakeholder, community health, and social impacts are managed by the appropriate Corporate Affairs or Health SMEs.

APPENDIXES

Appendix A: Roles and Responsibilities

Key SHEERS MS roles and responsibilities for the ERMP are defined in the SHEERS Leader Practitioner Overview and in the SHEERS HSE Functional Governance.

Roles and responsibilities specific to the procedures and standard in the ERMP are defined in those respective documents (where applicable).

Functional Governance

Requests for exceptions to any of the requirements of the ERMP must be approved by the SHEERS LT and Non-Operators through JOC approval.

Appendix B: Abbreviations & Definitions

1. Abbreviations & Acronyms

CHESM	Contractor SHEERS Management
EM	Emergency Management
EMP	Environmental Management Plan
ERAM	Environment Risk Assessment and Management
ERMP	Environment Risk Management Process
ERR	Environmental Risk Register
GHG	Potential greenhouse gas
IRI&L	Incident Reporting, Investigation and Learning
JO	Joint Operations
KGOC	Kuwait Gulf Oil Company
KPC	Kuwait Petroleum Company
MS	Management Systems
SME	Subject Matter Expert
MSC	Management System Cycle
Non-Ops	Non-Operators
SoR	System of Record
SHEERS	Safety, Health, Environmental, Efficiency, Reliability & Security
TWS	Third-Party Waste Stewardship
WJO	Wafra Joint Operations

Appendix C: Procedures and Standard

The ERMP includes the following procedures and standard:

1. Environment Risk Assessment and Management Procedure

[WJO Environment Risk Assessment and Management Procedure](#)

The ERAM Procedure provides a risk-based methodology and Environment and Stakeholder Risk Management (ESRM) Tool for identifying, assessing, mitigating, and managing environmental, environmentally related community health, and/or environmentally-related social risks from JO activities and the physical risk posed by climate change to JO activities, including existing operations, operational changes, projects, and new opportunities. New or changed risks are identified following the steps of the ERAM Procedure and incorporated into the Environmental Risk Register (ERR).

The ERAM Procedure requires in-scope organizations to:

- develop and maintain an ERR and/or a project Environmental Management Plan (EMP) to document and manage environmental risks,
- identify appropriate safeguards/mitigation measures and evaluate whether additional safeguards and/or mitigation measures are needed,
- support the assurance of environmental safeguards, and
- maintain environmental information.

2. Third-party Waste Stewardship SHEERS Standard

[WJO Third-Party Waste Stewardship Procedure](#)

The Third-party Waste Stewardship SHEERS Standard (TWS Standard) is a standardized approach to evaluating and selecting third-party owned and operated waste management facilities to handle waste generated from JO activities.

The TWS Standard reduces potential long-term environmental, safety, and health impacts and potential risks associated with waste disposal through responsible waste management; it is not intended to fully eliminate the generation, treatment, or disposal of waste materials from JO activities.

3. Site Residual Impact Risk Management Procedure

[WJO Site Residual Impact Risk Management Procedure](#)

The Site Residual Impact Risk Management (SRIRM) Procedure is a standardized approach to identifying and managing environmental risks associated with sites with residual environmental impacts (i.e., groundwater, surface water, soils, vapor, and/or sediments). In-scope organizations are required to:

- inventory sites with potential residual environmental impacts (e.g., impacts to groundwater, surface water, soil, air, and/or sediments, etc.) from current and historical operations,
- conduct risk ranking of the potential consequences of the residual environmental impacts, and
- develop a prioritized action plan to address potentially impacted sites.

Appendix D: SHEERS Expectations Met

This SHEERS standard is designed to meet or exceed the asset management expectations associated with the Process Safety, Reliability, and Integrity SHEERS focus areas and to support expectations associated with other SHEERS focus areas and common expectations such as:

- SHEERS Risk Management
- SHEERS Assurance
- Contractor SHEERS Management (CHESM)
- Incident Investigation and Reporting (II&R)
- SHEERS Competency Development
- Emergency Management (EM)
- Learning
- Human Organization Performance
- Legal, regulatory & SHEERS compliance