JOINT OPERATIONS

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

SHEERS Process

Risk Management

04 September 2022

Contents

1.0 PURPOSE

The purpose of the SHEERS Risk Management process is to systematically manage risk across the SHEERS focus areas with the objective of preventing high-consequence incidents and impacts by understanding and mitigating risk and maintaining and assuring safeguards. Leaders are responsible for understanding risks across the SHEERS focus areas, which are defined as:

- Workforce safety and health
- Process safety, reliability and integrity
- Environment
- Efficiency
- Security (including cybersecurity)

2.0 OBJECTIVES

All identified hazards shall be assessed and analyzed to determine how likely the hazard is to cause harm and how severe the consequences would be if it were to be realized (i.e., the level of risk).

The SHEERS Risk Management Process supports that objective by providing a framework to systematically assess risks and identify safeguards across SHEERS focus areas to evaluate:

- Safety and health risks from physical, chemical and biological workplace exposures
- Process safety, reliability and integrity
- Environmental risks, including current and emerging environmental issues and related social and community health issues
- Security risks to personnel, assets and the business
- Social, community, political and reputational risks to the business and potential impacts to them from our business

The framework comprises:

- Application of a standardized approach to the assessment of risk across the focus areas (including the requirement to close identified risk-reduction recommendations and periodically revalidate assessments)
- Provision of a mechanism to give leaders an understanding of SHEERS risks and the safeguards that are in place to manage those risks
- Studies will be revalidated as determined by JO but should be completed no more than every 5 years

3.0 SCOPE

This process is designed to address workforce safety & health, public safety & community health, environmental, security, asset and business & reputation risks related to facilities (surface and subsurface, including idled assets and legacy sites with residual impacts).

In Scope

The process includes activities under JO operational control, e.g., seismic campaigns, drilling and completions, small and capital projects and also simultaneous operations.

This process applies across the asset life cycle including:

- Facility design, construction, installation; and hookup and commissioning
- Operation of facilities
- Maintenance, shutdowns, turnarounds and modifications
- Transportation and distribution of products
- Idling, decommissioning, remediation and restoration
- Divestment

Not in the Scope

This process does not apply to non-SHEERS risks and should not be used to justify noncompliance with legal requirements, company policies or standards.

Categories of risk that are not addressed by the SHEERS Risk Management Process include (but are not limited to):

- Legal (consequences due to litigating expenses and court judgments)
- Financial (losses such as liquidity risk or a partner default)
- Project execution (complications such as delays, and cost over runs). SHEERS risk associated with project execution activities is in scope
- Geological (risk assessing geological uncertainties, which may result in poor or no oil recovery, i.e., no reservoir cap or no-fault seal)
- Commodity and trading (poorly priced oil futures contracts)
- Geopolitical/Legislative, e.g., risks associated with change in the political climate. Unsafe conditions resulting from violent political discourse is in scope and assessed by the security focus area
- Strategic (decisions resulting in lost opportunities, i.e., submitting the low bid on a new lease)
- Organizational Capability (ineffective talent retention efforts)
- Intellectual property (unauthorized use of JO licensed technology)

This process addresses risks identified for operating facilities, projects and discrete activities under JO operational control and applies to all JO.

SHEERS Risks associated with property transfer are addressed by the JO Land Release Process.

When the completion of a SHEERS risk assessment is a legal requirement, the requirements of both the legislation and this process shall be met unless regulations dictate otherwise. In the event of possible conflict, compliance with regulatory requirements is mandatory. However, if meeting the requirements of this process represents a higher standard, then compliance with this process shall also be required.

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

4.0 REQUIREMENTS

The requirements of the SHEERS Risk Management Process are to:

1. Meet the requirements of the RiskMan procedure; SAC (Non-Operator) document will be used in Joint Operations
2. Meet the requirements of the TechSafe procedure, which is one specific risk assessment approach for the process safety, reliability and integrity focus area; SAC (Non-Operator) document will be used in Joint Operations
3. Provide SHEERS risk assessment and risk profile documentation to Non-Operators, if requested.
4. Include the SHEERS Risk Management process in the JO annual management system cycle (MSC). Provide MSC results to Non-Operators, if requested.
5. Review and update periodically with KGOC and Chevron RM processes, as required.
6. Develop and maintain a Risk Profile for JO

5.0 MEASUREMENT AND VERIFICATION

5.1 Measurement

JO Risk Management Process Advisor shall establish leading and lagging metrics to determine the effectiveness of the SHEERS Risk Management process in meeting its stated purpose.

Metrics shall be tracked and reviewed.

5.2 Verification

JO Risk Management Process Advisor shall establish verification approaches to assure the quality of implementation of the SHEERS Risk Management Process. Risk assessment assurance activities shall address all SHEERS focus areas and as a minimum shall include:

- Quality review of risk assessment studies
- Closure verification of risk-reduction recommendations

6.0 REFERENCES

6.1 Linkages to other processes/ procedures

Risk Management is linked to these SHEERS processes

- Technical codes and standards
- Leadership commitment and support
- Training, competency and behavior

- Occupational health and safety
- Process safety management
- Environmental management
- Reliability and Uncertainty Management Standard
- Management of change
- Contractor EHS management
- Facility design and construction
- Incident reporting, investigation and learning
- Compliance management
- Emergency and security management
- Transportation management
- Information and documentation management
- Communication and stakeholder engagement
- Assurance and Interface Risk

Risk Management supports alignment across the following Chevron OE standards and processes:

- Operational Excellence Management System Cycle Brochure March 2018
- RiskMan Procedure
- TechSafe Procedure
- OE Risk Profile Guidance
- Additional Chevron Risk Management Procedures
- OE Required Process Health, Environment and Safety Property Transfer Standard, September 2010
- Drilling and Completions Global Standard G-005: Risk and Uncertainty Management Standard (RUMS), DCM-SP-102105-B April 2017
- Subsurface Integrity Risk Assessment Process, June 2016
- HES Assessment and Engagement of Non-Operated Joint Venture and Affiliate Companies, Corporate OE Process, September 2015

Risk Management is linked to these KGOC processes:

- KPC Health, Safety and Environment Management System
- KPC-HSSE-E04-GE-S01_HSSE Risk Management
- KPC-HSSE-E05-GE-S01 - Facilities Design and Construction Standard
- KPC-HSSE-E06-GE-S01 - Security Management Standard & supporting technical annexures
- KPC-HSSE-E08-GE-S01 - HSSE Communication & Information System
- KPC-HSSE-E10-GE-S01 - Management of Change

- KPC-HSSE-E13-GE-S01 - HSSE Audit
- KPC-HSSE-E14-GE-S01 - HSSE Management Review

APPENDIXES

APPENDIX A – Procedures

SHEERS Risk Management process contains two required procedures, as illustrated on Figure 1:

1. RiskMan, which is applicable across all SHEERS focus areas, and

2. TechSafe, which applies specifically to the assessment of process safety risk. RiskMan is the overarching framework for managing SHEERS risk. TechSafe is the specific detailed procedure for assessing process safety risk associated with operating facilities and projects and also RM (Identifies Safeguards & Mitigates Gaps in Safeguards throughout the barrier model).

Joint Operations will utilize the SAC (Non-Operator) RiskMan and TechSafe procedures to meet requirements of this SHEERS process.

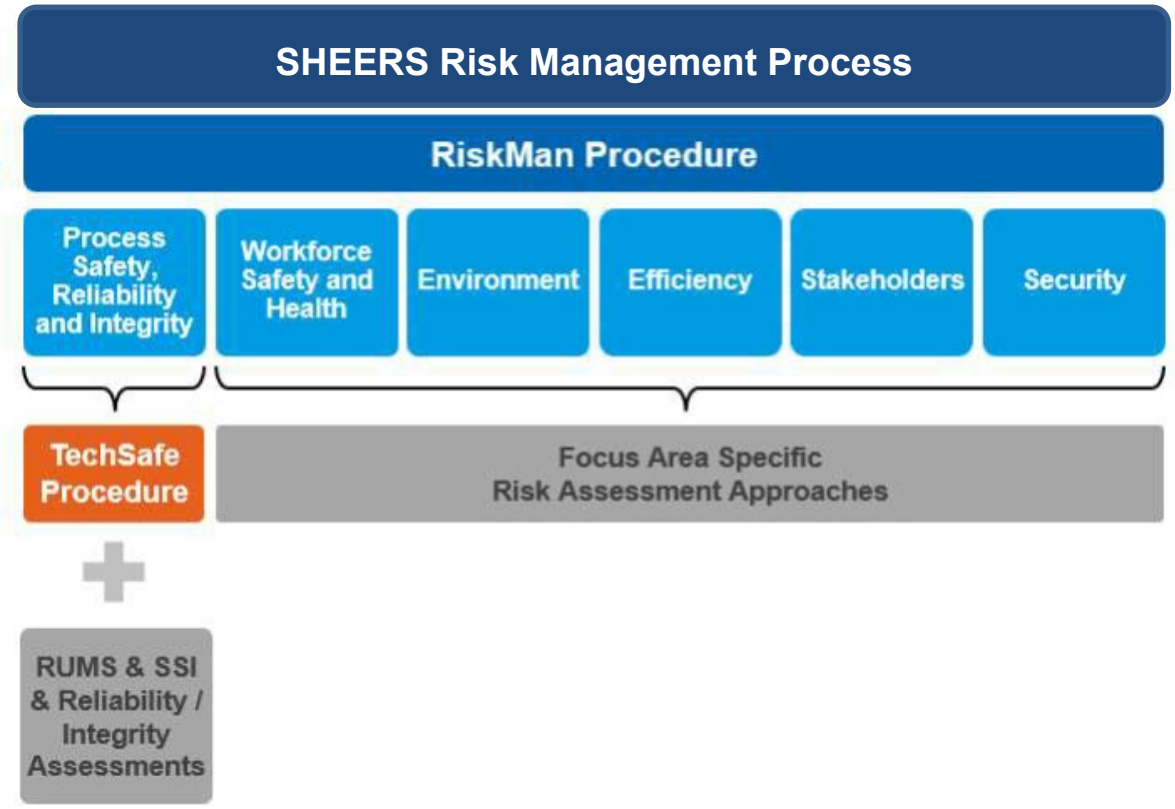

Figure 1: SHEERS Risk Management Process Structure

Each focus area of SHEERS shall develop a risk assessment methodology which aligns with the requirements of the RiskMan Procedure. The following process and standards address these requirements:

Workforce Safety and Health	Managing Safe Work Process Fitness for Duty Process Contractor Health, Environment and Safety Management Process Repetitive Strain Injury Prevention Process Motor Vehicle Safety Standard Occupational Hygiene Process Marine Safety, Reliability and Efficiency Process
Process Safety, Reliability and Integrity	TechSafe Procedure Drilling and Completions Risk and Uncertainty Management Standard (RUMS) Subsurface Integrity Process Surface Equipment Reliability and Integrity Process (SERIP) Unit Reliability Improvement Process (URIP)
Environment	Environmental Risk Management Process EHS Property Transfer Standard Third Party Waste Stewardship Standard
Security	Security of Personnel and Assets Process

1. RiskMan

RiskMan defines the procedure for performing risk assessments, integrating risk assessment results across the SHEERS management system and enabling risk prioritization, risk-based assurance and the management system cycle.

Part or all of RiskMan is applicable to various SHEERS processes or company performance standards. Where not otherwise specified in the SHEERS Risk Management process, each SHEERS process determines the applicability of the RiskMan procedure for that process, along with the required governance.

RiskMan includes:

- General requirements for assessing risk across SHEERS focus areas
- A common qualitative JO-integrated risk prioritization matrix
- A risk profile approach for integrating risk assessment results across SHEERS focus areas and prioritizing risk scenarios
- An Integrated Hazard Identification (IHAZID) approach for initially assessing SHEERS risk in Phase 2 and Phase 3 of large projects. Other capital projects shall follow the general requirements for risk assessments across SHEERS focus areas and are not required to perform an IHAZID.

Each component of RiskMan contains multiple requirements. These requirements are detailed in the SAC (Non-Operator) RiskMan procedure and its associated appendices.

Link to RiskMan Procedure

2. TechSafe

TechSafe addresses process safety risks with the following exceptions:

- Risks associated with drilling and completions, which are covered by RUMS

- Subsurface integrity risks, which are covered by Subsurface Integrity Assessments

TechSafe contains an integrated set of tools used to evaluate and act on loss of containment risks that have the potential to impact people, environment, assets and business/reputation.

The TechSafe procedure includes the following requirements:

- Develop a technical safety risk assessment plan
- Perform qualitative and quantitative risk assessments for projects and existing assets
- Reduce risk and documenting the closure of recommendations
- Revalidate studies as determined by JO but redo should be completed no more than every 5 years

Each component of TechSafe contains multiple requirements. These requirements are detailed in the SAC (Non-Operator) TechSafe procedure, its associated appendices and study-specific standards.

Link to TechSafe Procedure

3. Joint Operations Risk Profile

Joint Operations will develop and maintain a Risk Profile that will include the following:

- A definition of the scope and context of EHS risk assessment including the risk assessment techniques, methodology and risk acceptance criteria to be used;
- A systematic process for identifying all EHS hazards and risks;
- A process for assessing and evaluating EHS risks based on likelihood and consequence using the most appropriate technique and risk criteria (e.g. qualitative and/or quantitative) and making informed decisions based on risk;
- Recording the output of risk assessments;
- Identifying, documenting and implementing suitable risk reduction measures following the hierarchy of control to achieve risk levels that are deemed to be As Low As Reasonably Practicable (ALARP).
- A robust process for reviewing and approving risk assessments by appropriate levels of management based on the nature and scale of risk;
- A process for communicating the outcome of risk assessments to all affected personnel, including employees, contractors, visitors and other stakeholders (internal and external).
- A process for monitoring and reviewing progress on EHS risk management and the changing risk profile of the operations.

Joint Operations will utilize guidance provided in the SAC (Non-Operator) Risk Profile Guidance document for developing and maintaining JO Risk Profile.

Link to Risk Profile Guidance

APPENDIX B – Abbreviations & Definitions

Abbreviations & Definitions

APPENDIX C - SHEERS Common Expectations

SHEERS Common Expectations

APPENDIX D – Risk Study Participants

Risk Study Participants