



SHEERS Control of Work Process

Version	Date	Approver
1.0	March 31, 2024	JO EHS Division

Control of work

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1.0 PURPOSE

The purpose of the Control of Work (CoW) Process is to manage workplace safety and health hazards and to prevent workforce Serious Injuries and Fatalities (SIF).

2.0 OBJECTIVES

Objectives of CoW include:

- Control all work, not just permitted work.
- Define a fit-for-purpose framework to plan, prepare, deliver, and learn from work.
- Utilize a risk-based approach to define controls for the task regardless of asset class or business segment.
- Ensure representation of persons performing work in all four phases of the work cycle.
- Set JO requirements for CoW that must be met at a minimum, with flexibility to add safeguards as required for the task.

The CoW process is part of JO's SHEERS Management System. It is not the company's interpretation of any legal or regulatory requirements.

The CoW process does not encompass local legal or regulatory requirements that may be applicable.

3.0 SCOPE

The CoW process applies to work performed by JO employees, their delegates, contractors, and subcontractors (hereafter referred to as the workforce).

This includes work performed at locations within the scope of the JO, including JO facilities, drilling and completions, vessel operations, construction, demolition, maintenance, inspection, and other similar activities that have the potential to adversely impact the safety or health of the workforce.

JO shall ensure that all aspects of occupational safety, including, but not limited to, those listed below are managed in accordance with local, national and applicable transboundary/ International regulatory requirements as a minimum:

- a) Work Authorization
- b) Confined space
- c) Electrical safety
- d) Hazard Analysis
- e) Lifting & Rigging
- f) Isolation of hazardous energy
- g) Work at height
- h) Marine operations
- i) Excavation
- j) Bypassing critical protection
- k) Portable gas dedication

- l) Simultaneous Operations SIMOPS
- m) Hot work
- n) Personal Protective Equipment (PPE)

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

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

4.0 REQUIREMENTS

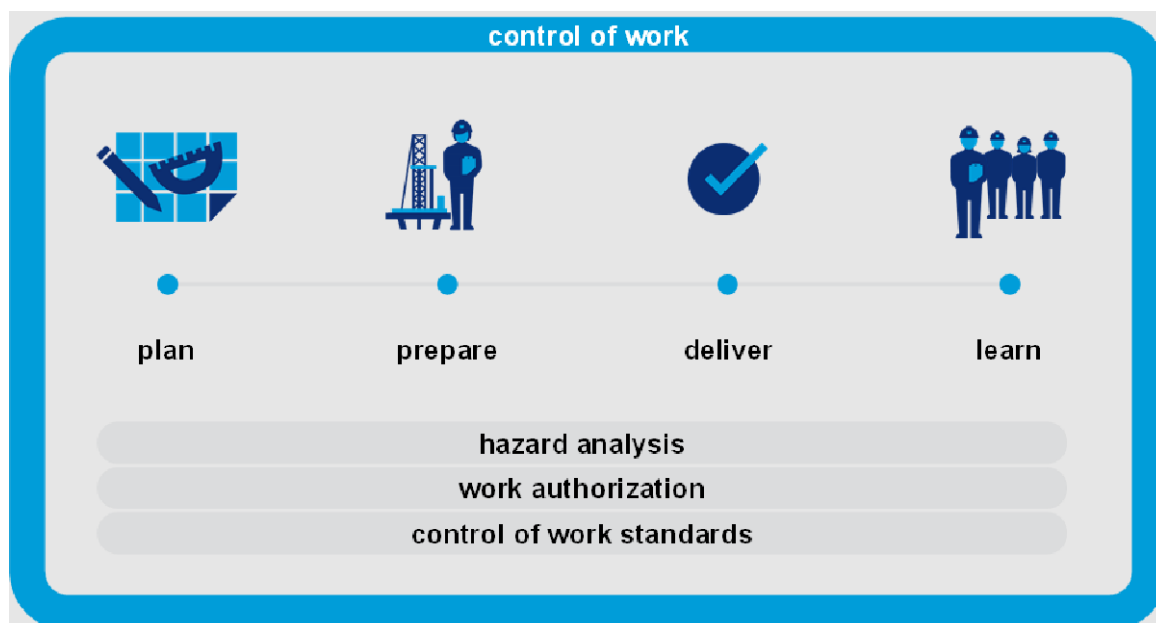
The following sections provide minimum requirements for CoW and guidance to clarify the intent of those requirements.

- Requirements **shall** be met.
- JO Procedure outlines how the requirement is being met in Joint Operations.

4.1 Framework

The CoW framework illustrates SHEERS expectations throughout the four phases of the work, as per the following figure:

1. Plan;
2. Prepare;
3. Deliver;
4. Learn.



4.2 System

The following requirements apply to the overarching system to control work and support all four phases of the work.

1. Requirement: JO Procedure:	Implement and maintain a documented system to control work that meets the requirements of the CoW process and supporting standards. This standard provides the Joint Operations procedure and system for controlling work as per CoW process and its associated standard.
2. Requirement: JO Procedure:	The workforce shall meet training and competency requirements that apply to their roles in accordance with the Training and Competency standard. a. Training Needs Analysis (TNA) shall be developed to identify role-based training requirements. b. Workforce shall complete the required training as per TNA prior to deploying them at worksites. c. JO employees training records shall be captured in Training & Development records and contractors in HES Training Passport d. Work crew CoW competencies shall be assessed onsite during Leaders and CoW field engagements. Improvement opportunities shall be communicated to the Leaders concerned for appropriate corrective action. e. Refresher training frequency shall be 3 years.
3. Requirement: JO Procedure:	The authority and responsibility to "Stop Work" without personal consequence shall be communicated to all members of the workforce and reinforced by leaders. Stop Work Authority is an important aspect of safe operations and is embedded in all of the SHEERS processes. Joint Operation will communicate Stop Work authority to all workforce through the Joint Operations EHS induction, PTW training, CoW related trainings, pre-job brief, and Stop Work Authority cards JO leaders shall communicate and reinforce SWA expectations in meetings and field engagements.
4. Requirement: JO Procedure:	If contractor CoW standards will be used in place of Joint Operation's standards, they shall be evaluated in accordance with the Contractor OE Management (COEM) Process and align with the requirements of the CoW process. Joint Operations will comply with the SHEERS Contractor Operational Excellence Management process.

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4.3 Plan

Planning phase identifies and evaluates the steps and controls required to prevent workforce injuries and fatalities while achieving the desired outcome in an efficient and cost-effective manner.

JO management shall adopt a philosophy of zero harm and shall aim to reduce the number of accidents to a rate through zero.

The following Requirements shall be followed:

9. Requirement: JO Procedure:	Incorporate CoW planning phase requirements into the task planning and scheduling process. Joint Operations will comply with the SHEERS Work Authorization & the Hazard Analysis Standard which includes the planning phase of work.
10. Requirement: JO Procedure:	Incorporate operational learning in the design of the task. Joint Operations will comply with the SHEERS Incident Investigation and Reporting Standard. During the planning process, work team shall review and incorporate operational learnings that may be relevant to the task and could improve the process or task. Lessons learnt captured previously in similar conducted work and post job reviews can be used. Other sources include, learning teams, incident alerts, bulletins, and industry communications.
11. Requirement: JO Procedure:	Assess the task for Simultaneous Operations (SIMOPS). Joint Operations will comply with the SHEERS Simultaneous Operations Standard.
12. Requirement: JO Procedure:	Identify CoW resources required to complete all phases/steps of the task. Joint Operations will comply with the requirements outlined in the SHEERS CoW technical standards. • Written Safe Work Practices including but not limited to: permit to work, hot work, confined space entry, equipment isolation (lockout/tagout), excavation, working at heights, electrical work, simultaneous operations (SIMOPS), bypassing critical protections and lifting and rigging and other applicable practices identified through risk assessment of local operations. • Qualified personnel, e.g., to conduct the hazard analysis, issue work permits, or support specialized technical work such as confined space entry or excavation. • Equipment, e.g., fall protection, lifting equipment with adequate load capacity, breathing systems, high-pressure equipment.

	• A written job safety analysis (JSA) to identify, eliminate or mitigate potential risks prior to conducting work. • Stop Work Authority (SWA). • Documentation, e.g., hazard analysis, work permits, rescue plans, equipment isolation checklists, site-specific or activity-specific emergency response plans.
13. Requirement: JO Procedure:	Determine the hazard analysis required for the task in accordance with the Hazard Analysis standard. Joint Operations will comply with the SHEERS Hazard Analysis Technical Standard
14. Requirement: JO Procedure:	Determine the work authorization required for the task in accordance with the Work Authorization standard. Joint Operations will comply with the work authorization requirements outlined in the SHEERS CoW Technical Standards.

4.4 Prepare

Preparation phase authorizes work as defined in the planning phase, assesses site conditions for unplanned changes, and verifies controls are in place and functioning immediately prior to the work commencing.

The following Requirements shall be followed:

15. Requirement: JO Procedure:	Conduct start-of-shift discussion to coordinate planned tasks for the upcoming work period. Joint Operations will comply with the start of work discussions outlined in the SHEERS CoW Technical Standards. The intent is to ensure all affected persons are aware of the work to be conducted, and may include status updates of ongoing work, allocation of resources, any potential SIMOPS issues, and incorporation of any relevant learnings.
16. Requirement: JO Procedure:	Authorize work in accordance with the Work Authorization standard. Joint Operations will comply with the SHEERS Work Authorization Technical Standard.
17. Requirement:	Conduct pre-job brief with persons performing work, in appropriate language(s), to review the task and approved boundaries/conditions, and to verify controls

JO Procedure:	are in place and functioning immediately before work starts. Joint Operations will comply with the pre-job briefs outlined in the SHEERS CoW Technical Standards. After the CoW documentation is authorized, a discussion is held with the persons performing work to: • Review the scope of work. • Communicate the approved boundaries and conditions of the work. • Provide the opportunity to clarify, and if necessary, revise the documentation to assure alignment of the work to be conducted in accordance with the documented boundaries and conditions. • Review the Hazard Analysis and allow the workers the opportunity to contribute any additional information that was not previously addressed. • Verify controls required for the work are in place and functioning.
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4.5 Deliver

Delivery phase is where the work is conducted as planned, monitored for variability, and stopped if unsafe conditions arise.

The following Requirements shall be followed:

18 Requirement: JO Procedure:	Maintain access to CoW documentation at the task location. Joint Operations will comply with the SHEERS Work Authorization Technical Standard making all CoW documents available at the work location. • CoW documentation shall be available at the task location for the person(s) performing work and authorized personnel visiting task location to readily refer to the CoW documentation. • Documents to be accessible should include, at a minimum, those that define the boundaries and conditions of the task (e.g., work permits, hazard analysis, Start Work Checks, checklists, etc.).
19 Requirement: JO Procedure:	Provide appropriate monitoring of the task to verify the work is being conducted within the approved boundaries/conditions. Joint Operations will comply with the monitoring levels & approval levels outlined in the SHEERS CoW Technical Standards • Person performing work and the work crew with thorough knowledge of the approved boundaries and conditions are accountable to monitor the work and ensure it is conducted within those approved parameters.

		• Person performing work shall be available throughout the job to Safety execute work scope within the parameters of Control of Work documentation. • Transfer of monitoring to other individuals is acceptable if that person is also qualified and authorized to fulfill that role and the transfer is approved and documented.
20	Requirement: JO Procedure:	Conduct applicable Start Work Checks. Start-work checks shall be performed by the approved start-work verifier prior to executing high risk activities to assure that work will not proceed until all safeguards are physically verified 100% of the time.
21	Requirement: JO Procedure:	Stop work if approved boundaries/conditions are no longer met. Joint Operations will Stop Work as outlined in the SHEERS CoW Technical Standards. Conditions to stop work shall be discussed and captured as part of hazard analysis.
22	Requirement: JO Procedure:	Return jobsite to a safe condition when left unattended or upon completion of the task. Joint Operations will maintain jobsites as outlined in the SHEERS Work Authorization Technical Standard. Permit conditions must be revalidated if the job site left unattended for more that 30 minutes before work can be restarted.

4.6 Learn

Learning phase captures operational learnings to increase Chevron's performance and reliability for future tasks. Work authorizations are closed out.

The following Requirements shall be followed:

23. Requirement: JO Procedure:	Report operational learning opportunities identified throughout the phases/steps of the task. Joint Operations will report operational learnings as outlined in the SHEERS Work Authorization Technical Standard & Incident Investigation & Reporting Standard.
24. Requirement:	Close out work authorizations in accordance with the Work Authorization Standard.

5.0 MEASUREMENT AND VERIFICATION

5.1 Measurement

JO shall track and review leading and lagging metrics to determine the effectiveness in meeting the purpose and objectives of the CoW process and standards. The following leading and lagging measures must be tracked as key considerations in confirming that the CoW process is effective in meeting its stated purpose.

Leading Measures:

CoW Focused Leadership Engagement Quality:

CoW focused leadership engagement quality percentage is calculated by running the Leadership Engagement Quality Report in the CoW Leadership Engagement IT tool. Quality is determined by completeness of review and feedback documentation.

The purpose of this metric is to measure the quality of CoW leadership engagements. The goal is to drive consistent execution and quality of CoW leadership engagements.

Annually, JO will establish and communicate the quality target.

Lagging Measures:

Hazard Recognition and Identification Index:

This percentage value is calculated from:

$$\frac{\text{Number of Level 2, 3a and 3b incidents with "Hazard not Recognized" as a root cause category}}{\text{Total number of Level 2, 3a and 3b incidents}}$$

The purpose of this metric is to determine the impact of JO hazard analysis tools and focused engagements in driving hazard recognition and identification performance improvements.

JO targets thresholds are established and communicated annually.

5.2 Verification of process effectiveness

The following steps shall be conducted to verify process performance.

5.2.1 Review of Process Effectiveness

The Process Effectiveness Review is addressed through the Assessment step of the Management System Process.

5.2.2 Audit of Process Compliance

Process compliance is addressed by Compliance Assurance Programs of Control including the JO Audit Plan as defined in the JO Compliance Assurance SHEERS Process.

5.2.3 Continual improvement

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

6.0 LINK TO OTHER REFERENCES

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

6.1 Linkage to Other Internal Resources

The SHEERS CoW Process is linked to all the other SHEERS Processes

- Leadership Accountability (Management System Cycle)
- SHEERS Competency Development (Training)
- Occupational health and safety
- Environmental Risk Management
- Risk management
- Management of change
- SHEERS Contractor Management
- Facility design and construction
- Incident reporting, investigation and learning
- Compliance Assurance
- OE Management System (OEMS)
- KPC-HSSE-E06-SA-S03 - Occupational Safety Management
- KPC-HSSE-E02-GE-S01 - HSSE Planning and Performance Management
- Corporate Policy 530 (Operational Excellence)
- Hazard Analysis CoW Technical Standard
- Work Authorization CoW Technical Standard

6.2 Linkages to Other External References

The CoW process utilizes the following **Non-Operator** and industry processes and documents:

- KPC-HSSE-E06-SA-S03 - Occupational Safety Management
- KPC-HSSE-E02-GE-S01 - HSSE Planning and Performance Management
- Chevron Corporate Policy 530 (Operational Excellence)
- Hazard Analysis OE Standard (Final)
- Work Authorization OE Standard
- U.S. Department of Energy DOE-HDBK-1028-2009: Human Performance Improvement Handbook

- CCPS Conduct of Operations and Operational Discipline: For Improving Process Safety in Industry
- Health & Safety Executive HSG250: Guidance on permit-to-work systems
- IOGP Report No. 6.29/189: Guidelines on permit to work (P.T.W.) systems.
- IOGP Report 459: Life-Saving Rules
- AFPM Practice Sharing: Establishing Scope of Activities Managed Outside of a Permit to Work Document
- ISO BS ISO 45001:2018: Occupational health and safety management systems - Requirements with guidance for use
- API Recommended Practice 75: Safety and Environmental Management System for Offshore Operations and Assets
- API Recommended Practice 76: Contractor Safety Management for Oil and Gas Drilling and Production Operations

APPENDIXES

APPENDIX A – Roles and Responsibilities

Table 1.0 outlines the roles and responsibilities associated with this process.

Table 1.0 – Roles and Responsibilities

Role	Responsibilities
WJO CoW Sponsor	• Serve as the advocate of this process with the WJO to ensure that it is adopted and implemented, and staff and other resources are available. • Ensure that the effectiveness and efficiency of this process is measured and verified within the WJO. • Allocate resources to operate and improve the process including asset allocation for business plan alignment. • Be accountable for continual improvement of this process in the and for ensuring improvement opportunities are evaluated for inclusion in the business plan
WJO CoW Advisor (or equivalent)	• Coordinate and lead the implementation of the CoW process and supporting standards at the WJO. • Provide CoW subject matter expertise to WJO. • Evaluate effectiveness of WJO CoW process by coordinating or supporting process measurement and verification • Lead development of input to the WJO Management System Cycle (MSC) • Conduct performance reporting and trend analysis • Participate in and provide Corporate CoW Cop with required input.

APPENDIX B – Abbreviations & Definitions

1.0 Abbreviations & Acronyms

ALARP	As Low as Reasonably Practicable
BU	Business Unit
CM	Contractor Management
CoP	Community of Practice
CoW	Control of Work
CTC	Chevron Technical Center
EHS	Environment, Health & Safety
JO	Joint Operations
JSA	Job Safety Analysis
QRA	Quantitative Risk Assessment
HAZID	Hazard Identification
HAZOP	Hazard and Operability Study
KGOC	Kuwait Gulf Oil Company
KPC	Kuwait Petroleum Company
MS	Management Systems
MSC	Management System Cycle
PJB	Post Job Brief
PJR	Post Job Review
SHEERS	Safety, Health, Environmental, Efficiency, Reliability & Security
SIMOPS	Simultaneous Operations
SIF	Serious Injuries and Fatalities
V&V	Validation and Verification
WJO	Wafra Joint Operations

2.0 Key Terms and Definitions

Table 1.0 - Terms and Definitions

Term	Definition
ALARP	In the context of this document, this means, 'As Low as Reasonably Practicable', between tolerable and intolerable levels, representing the range over which efforts must be made to reduce risk levels further and as far as can be achieved without the expenditure of a disproportionate cost, in relation to the benefit gained.
Permit to Work	A permit to work is a formal written statement of work to be completed, safety precautions that must be taken and confirmation that associated hazards have been identified.

Hazard	A condition or action that has the potential for an unplanned release of, or unwanted contact with, an energy source that may result in harm or injury to people, property or the environment.
Hazard Analysis	A procedure used to assess and mitigate workplace hazards. It focuses on the relationship between the worker, the task, the tools and the work environment.
Hazardous Energy	Any of the following energy forms: • Electricity • Kinetic energy (energy of a moving object or materials) • Potential energy (stored energy that an object has the potential to release) • Pressurized liquid or gases, including air • Chemical energy • Thermal energy • Mechanical energy • Hydraulic energy • Pneumatic energy • Radiation
Human Error	An action or inaction that unintentionally results in an undesirable outcome or deviates from a set of rules or expectations.
Human Performance	Human performance is the way people, culture, equipment, the work environment and processes interact as a system. JO's Human Performance efforts focus on proactively reducing human error by: 1. Improving the interaction between the individual and critical systems, and 2. Individual recognition of error-likely situations and applying tools to reduce errors
Job Safety Analysis (JSA)	The JSA is a documented tool for analyzing a task and its associated hazards and mitigations. A JSA lists the critical steps of a task, the hazards specific to each step and the mitigations/safeguards for each step. A JSA is a tool used to document discussions on how to conduct work safely, (conducted at the work site) by those performing the work immediately before work begins.
Lagging Measures	A measurement of outcomes of the EHS efforts that reflect the success (or failure) of the system to manage hazards.
Leading Measures	A measure that characterizes the level of hazard control; measurement of activities towards risk reduction prior to the occurrence of incidents; measure of performance of the process.
SHEERS	The systematic management of process safety, personal safety and health, environment, reliability and efficiency to achieve world class performance.
SIMOPs	Two or more concurrent activities at or near the same location or work area or there is one activity that has the potential to impact multiple locations.
Stop Work Authority	A responsibility of all workforce to stop work when an unsafe condition or act arises that could result in an undesirable event.

APPENDIX C – CoW Technical Standards

The CoW process governs the application of the following standards:

- [Bypassing Critical Protections \(BCP\)](#)
- [Commercial Diving \(DIV\)](#)
- [Confined Space Entry \(CSE\)](#)
- [Electrical Safe Work \(ESW\)](#)
- [Excavation \(EX\)](#)
- [Hot Work \(HW\)](#)
- [Isolation of Hazardous Energy \(IHE\)](#)
- [Lifting and Rigging \(L&R\)](#)
- [Material Transfer & Vacuum Truck Operations](#)
- [Portable Gas Detection \(PGD\)](#)
- [Simultaneous Operations \(SIMOPS\)](#)
- [Training and Competency \(T&C\)](#)
- [Work at Height \(WAH\)](#)
- [Work Authorization](#)
- [Hazard Analysis](#)