



the human energy company™

MSW Initial Training:
Simultaneous Operations
(SIMOPs)

Training Objectives

Objectives

- Personnel are knowledgeable about the requirements of SIMOPs.
- Personnel can conduct, participate and evaluate SIMOPs, so that operations are performed without:
 - Injuries
 - Property damage
 - Adverse environmental impact
- Personnel understand their role and responsibilities within the SIMOPs Standard.



Simultaneous Operations (SIMOPs) Standard

Introduction & General Requirements

Simultaneous Operations (SIMOPs)

SIMOPs requirements are designed to manage potential conflicts, risks and hazards by effective planning, communication and execution of two or more concurrent work activities at or near the same location, work area or process stream where there is potential for unplanned shutdowns, process reductions, injuries to personnel, property damage and adverse environmental impacts.

General Requirements

- Always consider alternatives before beginning simultaneous operations.
- Conduct a Planning Phase Hazard Analysis and JSA in accordance with the Hazard Analysis Standard when planning SIMOPs activities.
- A written SIMOPs plan, in accordance with the Work Authorization Standard, is required for:
 - Complex work activities (e.g. commissioning and decommissioning, field operations with multiple vessels or work units, **operations in restricted work areas**, seismic activities, turnarounds, etc.).
 - Work that requires several multi-disciplinary work teams (e.g. **multiple business units**, production and construction, **emergency response and operations**, etc.).
 - Work that requires significant communication and coordination (e.g. concurrent marine and diving operations, **product receipt and maintenance work** etc.).



Simultaneous Operations (SIMOPs) Standard

General Requirements

- Hazards associated with SIMOPs are always identified and mitigated prior to beginning work.
- Personnel involved in SIMOPs activities are always trained and competent in the roles for which they are responsible.
- A Job Safety Analysis (JSA) is always conducted at the work site in accordance with the Hazard Analysis Procedure prior to commencing SIMOPs activities.
- If work is interrupted by Stop Work Authority, weather conditions, alarms or unforeseen conditions, the SIMOPs plan must be revalidated before work can be restarted.



Simultaneous Operations (SIMOPs) Standard

Key Definitions

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.

Simultaneous

- Existing, occurring or operating at the same time; concurrent

Operations

- Form of work, action, performance or production

Concurrently

- Taking place at the same time or in the same location

Proximity

- Nearness in place, time, order, occurrence or relation; vicinity (with in 25 meter radius)



Simultaneous Operations (SIMOPs) Standard

Roles and Responsibilities

- **SIMOPs Controller**

- Must be a **Chevron** employee
- Coordinates SIMOPs activities with SIMOPs representatives
- Ensures SIMOPs activities are conducted in accordance with the SIMOPs plan, work permits and hazard analysis documents
- Establishes communication protocols prior to and during SIMOPs activities

- **Subject Matter Expert**

- Specific HES and technical expertise related to the process or procedure area identified

- **SIMOPs Representatives**

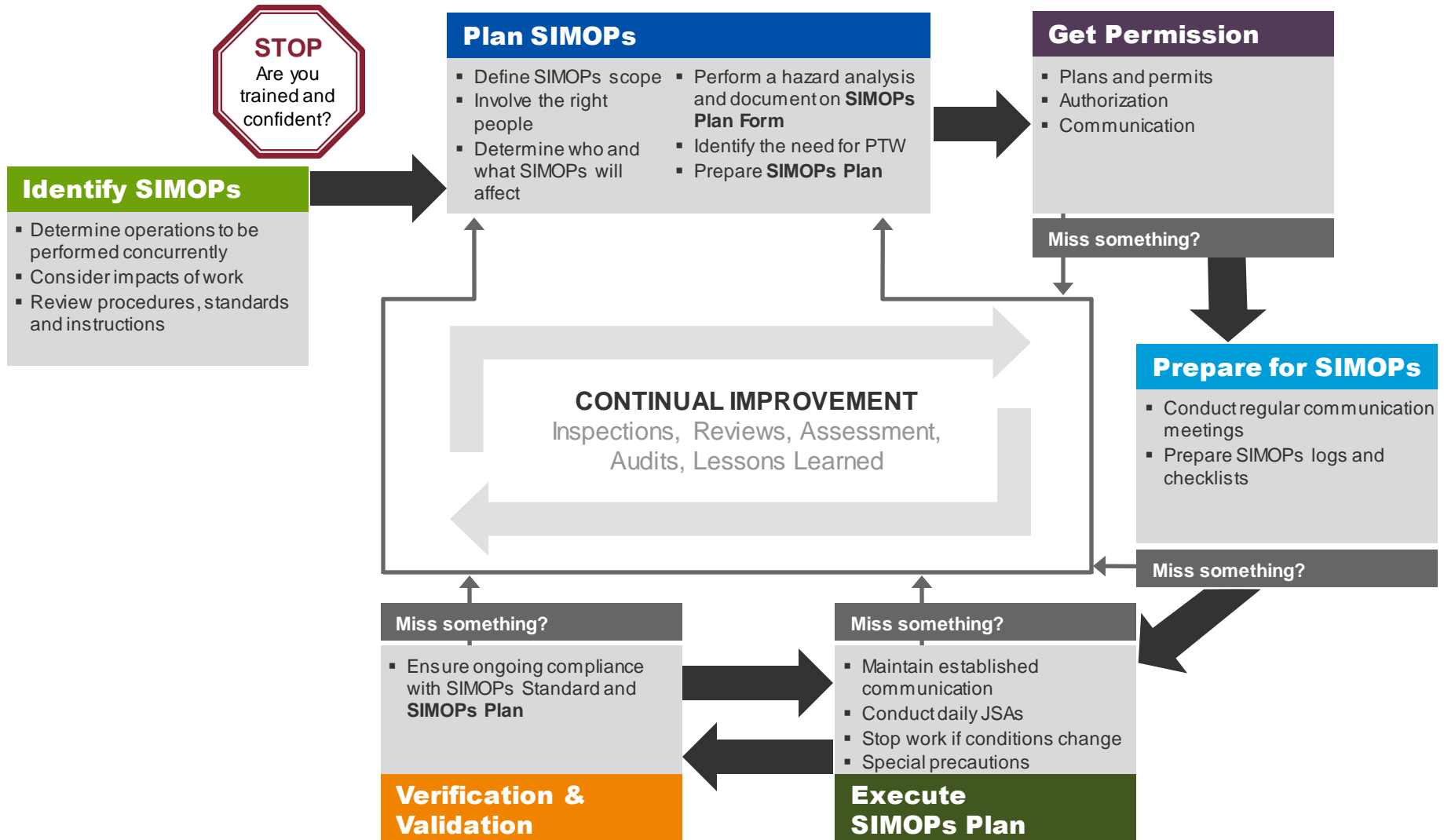
- Participates in daily SIMOPs meetings
- Communicates SIMOPs plan to work team(s) in designated area of responsibility
- Ensures activities within designated area of responsibility are conducted in accordance with the SIMOPs plan, work permits and hazard analysis documents
- Conducts scheduled SIMOPs meetings
- Maintains SIMOPs logs

- **Person Managing Control of Work (PMCoW)**

- Implements individual work activity(s) are conducted in accordance with the communicated SIMOPs plan, work permits and hazard analysis documents

Simultaneous Operations (SIMOPs) Standard

The Path to Simultaneous Operations



Simultaneous Operations (SIMOPs) Standard

Steps when considering SIMOPs

Identify SIMOPs

- Determine operations to be performed concurrently
- Consider impacts of work
- Review procedures, standards and instructions

Determine

- If any two defined SIMOPs activities will be performed concurrently
 - If it is determined that SIMOPs is not being performed, follow other appropriate MSW standards

Review

- Applicable procedures, standards and instructions for the concurrent activities scheduled to take place



Task Specific Considerations - Do you...

- Know what your role is for the task you are asked to do?
- Know what training is required for the task you are asked to do?
- Understand the scope of the work?
- Been trained for the task that you are asked to do?

Human Performance Considerations

Do you...

- Have the tools, time, resources and people to do the task?
- Know what performance mode you are working in?
- Considered potential error traps?

Simultaneous Operations (SIMOPs) Standard

Steps when considering SIMOPs

PLAN SIMOPs

- Define SIMOPs scope
- Involve the right people
- Determine who and what SIMOPs will affect
- Perform a hazard analysis and document on SIMOPs Plan Form
- Identify the need for PTW
- Prepare SIMOPs Plan

Determine who and what the SIMOPs could potentially affect.

- Consider
 - Health
 - Environment
 - Safety
 - Processes
 - Equipment, machinery and/or facilities
 - Individuals or groups

Define the SIMOPs scope and document your plan:

- Evaluate if there is a safer work alternative than conducting activities simultaneously?
- Determine the SIMOPs activities that will take place.
- What assets will be involved?
- Proximity of concurrent activities
- Schedule

Involve the right people.

- Designate a CHEVRON SIMOPs controller, SIMOPs representatives for each concurrent activity and a PMCoW for each concurrent activity that is knowledgeable about the tasks and hazards.
- Determine if any SMEs are needed

Simultaneous Operations (SIMOPs) Standard

Steps when considering SIMOPs

Document your Plan

- Time and Proximity
 - Develop a schedule for the activities.
 - Determine and document the proximity of the concurrent work activities.
- Procedures and Standards
 - Determine and document all the processes, procedures and standards that must be followed (e.g. operating, maintenance, drilling procedures, safety procedures and standards, etc.).
- Communication
 - Determine and document how you will communicate the work planned to those that should know.



Simultaneous Operations (SIMOPs) Standard

Steps when considering SIMOPs

GET PERMISSION

- Plans and permits
- Authorization
- Communication

Plan and Permits

A SIMOPs plan is required for all SIMOPs activities.

A general permit to work and specialized permits are required for all specialized concurrent activities in accordance with F&L Work Authorization standard.

Authorization

All permits must be approved/acknowledged before work begins by:

- Subject Matter Expert (if required)
- Permit Approver
- Person Managing Control of Work

Communication

- There must be a means for clear communication and coordination of work to address potential permit conflicts and/or simultaneous operations.
- Communication and permit documentation must be available in the language appropriate for personnel involved in the work.
- SIMOPs plans must be communicated to all personnel affected by concurrent work activities. This must include specifics on:
 - Communicating with third parties prior to conducting work as necessary (e.g. regulatory authorities, consultants, sub contractors, etc.)
 - Maintaining ongoing communication throughout the concurrent activities
 - Daily shift turnover (including all affected parties)



Simultaneous Operations (SIMOPs) Standard

Steps when considering SIMOPs

PREPARE FOR SIMOPs

- Conduct regular communication meetings
- Prepare SIMOPs logs and checklists

Hold communication meetings with all personnel/parties involved in and affected by the SIMOPs:

- Communication meetings must be established prior to commencing SIMOPs activities.
- Communication meetings must be held regularly by the Chevron SIMOPs Controller.
 - Meetings must include third parties (if appropriate)
 - Meeting content must include SIMOPs scope review, plan execution updates, discussion of hazards, emergency plans and reviews of key procedures and standards
 - Meetings must occur daily and cover shift turnover/handover
- All SIMOPs communication must be documented. Documentation could be achieved via daily SIMOPs logs, daily SIMOPs checklists etc.



Simultaneous Operations (SIMOPs) Standard

Steps when considering SIMOPs

Execute SIMOPs Plan

- Maintain established communication
- Conduct daily JLA review
- Actions if something changes
- Special precautions

- Establish communication at the onset of SIMOPs and conduct daily meetings thereafter (shift change/turnover).
- Maintain clear and continuous communication between all work teams daily (both during normal and abnormal conditions) and document these communication on the SIMOPs log.

Conduct a RiskMan2 Risk Assessment When:

- Simultaneous operations result in an increase in temporary staffing and/or structures in a facility, affecting:
 - Changes to emergency response needs
 - Changes to rescue needs
 - Changes to shelter capabilities
- Simultaneous operations result in changes to safety exclusion zones.
- Simultaneous operations result in changes to sanitation needs.

Typically in a Major Capital Project (MCP)



Simultaneous Operations (SIMOPs) Standard

Steps when considering SIMOPs

VERIFICATION & VALIDATION

- Ensure ongoing compliance with the SIMOPs plan and SIMOPs standard

- **Verification** is the evaluation of whether or not safeguard and or system complies with a requirement or specification (i.e., is in place).
- **Validation** is the assurance that a safeguard or system meets the need (i.e., effectiveness of safeguard).

CONTINUAL IMPROVEMENT

Inspections, Reviews, Assessment,
Audits, Lessons Learned

Continual improvement includes:

- The frequency and detail of continual improvements must depend upon statutory and Chevron requirements as well as best practices.
- Inspections, reviews, assessments, audits and lessons learned are documented.

