ConocoPhillips

Health, Safety and Environment

Life Saving Rules Standard

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About the Standard

Purpose	This standard outlines the minimum required actions aimed at preventing fatal injuries during higher-risk activities.
Scope	The Scope of this Standard applies to: • ConocoPhillips and its subsidiaries globally • All affiliated joint ventures in which ConocoPhillips or a subsidiary is the operator or acts as manager of a project • Contracted activities that take place at ConocoPhillips owned or leased facilities, or facilities under ConocoPhillips control
Critical Controls	Critical Controls are identified for each Life Saving Rule and are highlighted at the beginning of each set of minimum requirements. Critical Controls serve as a final barrier designed to be entirely within the worker's control, ensuring their safety.

Life Saving Rules

Activities or work tasks may include more than one Life Saving Rule. The following requirements apply to all Life Saving Rule activities.

General Requirements

Risk Assessment	Prior to each Life Saving Rule activity, a risk assessment must be performed. The scope of the risk assessment must be appropriate for the task.
Fitness for Duty	Prior to any Life Saving Rule activity, confirm that all workers are fit for duty.
Training and Competency	Prior to any Life Saving Rule activity, confirm that all workers are trained and/or competent for the task they are to perform.
Hazard Identification and Mitigation	Prior to and during each Life Saving Rule activity a system must be in place to: 1. Identify hazards 2. Provide mitigation for those identified hazards 3. Ensure the ongoing effectiveness of mitigations For control of work activities, ensure that acceptable work conditions are communicated to affected personnel.
Changes in Work Scope and/or Conditions	For any changes in work scope and/or conditions: 1. Stop the work 2. Reassess the hazards 3. Verify effectiveness of existing and/or any new safeguards prior to recommencing work
Life Saving Rules Verification	Each Business Unit must have in place a Life Saving Rules Verification process that addresses the Critical Controls and all Minimum Requirements.

Work Permits

Critical Controls	The Critical Controls for Work Permits are: • **Work** with a valid work permit when required • **Verify** all isolations • **Perform, evaluate, and document** initial and periodic atmospheric testing as required by the permit
Scope of Work	The scope of work must clearly describe: • The work to be performed • The work location
Competency	All persons working under the work permit must be competent to perform their assigned tasks.
Permit Requirements	Prior to the start of work, permit requirements must: • Be communicated to all affected persons, including those that arrive after work has begun • Account for interactions with other work permits and any non-permitted Simultaneous Operations • Define methods for revalidation if needed
Hazard Control/Mitigation	Confirm mitigation for all hazards identified on the permit prior to the start of work and as needed throughout the task.
Hot Work	Prior to and during any Hot Work activities: • Identify and control all ignition sources • Remove or shield all flammable or combustible materials
Changing Conditions	When conditions and/or work scope change: • Stop the work • Reassess the hazards • Revise the permit as necessary • Confirm/reconfirm original and any additional hazard mitigation measures

Process/Mechanical/Electrical Isolation

Critical Controls

The Critical Controls for Process/Mechanical/Electrical Isolation are:

- **Identify** all energy sources
- **Isolate,** Lock and Tag all energy sources
- **Verify** absence of energy before start of work (Try)

Identifying Energy Sources

Energy sources must be:

- Identified by Authorized Persons
- Documented on applicable permits, LOTO plans, isolation certificates, etc.

Isolating Equipment

All isolations must be performed by an Authorized person.

> **NOTE:** All Isolations (including self-isolations) completed within defined limits/scope of a turn-around must be approved via permit to work and integrated with applicable SIMOPS processes.

Locking and Tagging Equipment

Locks and Tags must:

- Be placed on each isolating point while work is being performed
- Prevent the operation of the isolating device
- Clearly identify isolation points and lock owner
- Be removed only by Authorized Persons

Isolation locks and keys must be strictly controlled.

> **NOTE:** Exceptions for minor servicing activities which take place during normal production operations, cord & plug equipment, and where isolation points cannot be physically locked, are allowed when tasks meet the specified criteria in accordance with OSHA 1910.147 and are performed in compliance with applicable national standards.

Verify Zero Energy (Try)

Prior to the start of work, a physical walk-through of the installed isolation and verification of zero energy must be performed, at a minimum, with the authorized person and lead worker who is performing the work, when not the same person.

Absence of energy must be confirmed:

- After work breaks, as necessary
- As required by permits or LOTO plans
- By opening bleeder valves, operating start/stop switches, testing for hazardous materials, testing for absence of voltage, etc.

Driving

Critical Controls	The Critical Controls for Driving are: • **Do not drive** when impaired or fatigued • **Wear** a seat belt when vehicle is in motion • **Do not exceed** the speed limit • **Do not use** mobile devices while driving
Driving Behaviors	Drivers on company business or property must: • Obey local driving regulations • Drive to accommodate weather and road conditions • Pull over and take a break when necessary • Utilize spotters when required
Mobile Devices	Mobile devices include: • Mobile Phones • Tablets • Laptops The use of mobile devices while driving for work-related purposes, even with hands-free features, is prohibited. Mobile devices may be used as navigational aids for turn-by-turn directions via audible speech from the device. Manual activation or manipulation must only be performed when the vehicle is safety parked. Special Circumstances: A mobile device may be used while operating a vehicle to communicate with emergency personnel or any person that can immediately report or mitigate the danger or risk in situations involving: • Imminent danger to life • Exposure to substantial risk to personal or public safety • Personal injury • Substantial loss of company property
Journey Management	Perform a pre-trip inspection prior to operating a vehicle. Complete a Journey Management Risk Assessment when required.

Excavation

Critical Controls	The Critical Controls for Excavation are: • **Identify** all underground services • **Verify** all isolations are in place and effective • **Enter** excavations only with appropriate protective systems in place
Underground Services	Prior to and during excavation activities, underground services must be: • Positively identified • Marked and markings maintained • Deenergized when required
Energy Isolations	Verify absence of energy for any associated energy isolations.
Entering Excavations	Never enter an excavation before: • Determining if a confined space entry permit is required • A competent person has inspected the excavation • An appropriate protective system is in place and inspected, as required • Verifying a safe means of access and egress
Excavation Equipment	When excavation equipment is in use, utilize competent spotters to: • Aid in identification of underground hazards • Warn personnel of heavy equipment movement • Identify and communicate overhead hazards Always establish, maintain, and honor barriers and exclusion zones.

Lifting Operations

Critical Controls	The Critical Controls for Lifting Operations are: • **Establish**, maintain, and honor barriers and exclusion zones • **Do not walk** under a suspended load • **Confirm** all lifting equipment is rated for the load
Competency Requirements	Ensure all employees meet competency requirements for their tasks, including: • Lift plan preparers and approvers • Lifting equipment operators • Riggers • Signalpersons • Lift supervisors
Equipment Inspections	Conduct the required inspections of the following equipment: • Lifting equipment • Rigging components • The load to be lifted and any rigging attachment points Ensure load limits and inspection dates, as required, are clearly marked, understood, and appropriate for the load. Ensure that third party certifications of all lifting equipment and components have been completed.
Suspended Loads	When loads are suspended: • Establish clear escape routes • Establish an agreed upon set of standard hand signals • Establish a communication plan for blind lifts • Do not walk under a suspended load • Utilize tag lines or other assist devices to guide and set load
Critical Lifts	Complete a Critical Lift plan when required.
Barriers and Exclusion Zones	Establish, maintain, and honor barriers and exclusion zones.

Working at Heights

Critical Controls	The Critical Control for Working at Heights is: • **Maintain** 100% fall protection where required • **Plan** for fall prevention and/or protection when working from ladders

Equipment Selection and Inspection	Before working at heights, a qualified person must:
	• Determine if work can be completed at grade or in a manner not requiring personal fall arrest equipment
	• Identify rated anchor points, above the worker's head, where possible
	• Inspect all fall arrest equipment, including:
	  ○ Full body harness with a D-ring attachment point
	  ○ Lanyards with shock absorbers or fall limiting devices
	  ○ Dual action, self-locking snap hooks at each connection
	• Remove any damaged equipment from service

Dropped Object Prevention	Protect against dropped objects by: • Securing tools and equipment from falling to a lower level • Establish and maintain exclusion zones below overhead work
Working at Heights	All personnel working at heights must: • Maintain 100% fall protection where required • Only work on scaffolding built, modified, and inspected by a competent person • Plan for fall prevention and/or protection when working from ladders • Have an established rescue plan, including equipment to minimize suspension trauma in the event of an arrested fall • Protect all wall and deck openings

Confined Space Entry

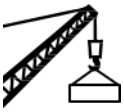
Critical Controls	The Critical Controls for Confined Space Entry are: • **Verify** all isolations are in place and effective • **Perform** all required initial, periodic, and continuous atmospheric monitoring • **Prevent** unauthorized entry
Energy Isolation	Verify that all energy isolations are in place and effective Acceptable isolation methods for confined space entries are: • Blinding/Positive Isolation • Disconnecting process piping • Isolating all electrically driven/powered equipment
Atmospheric Testing	Ensure Atmospheric testing equipment is calibrated, inspected, and maintained Perform, Evaluate, and Document the following atmospheric testing: • Initial • Periodic • Continuous, as required Establish and maintain ventilation as required by permit.
Confined Space Attendant	The confined space attendant's duties are: • Maintain communication with entrants • Evacuate the space in the event of an emergency • Do not enter the confined space • Prevent unauthorized entry
Emergency Response	Emergency response procedures and resources are in place.
Entry Authorization	The confined space entry permit requirements must be communicated to all entrants and the attendant(s). The permit must be posted at the point of entry. A log of personnel in and out of the space must be maintained when required.

Bypassing Safety Devices

Critical Controls	The Critical Controls for Bypassing Safety Devices are: • **Obtain** authorization prior to bypassing, disabling, or inhibiting a safety protection device or system • **Communicate** all bypasses between shifts/crews. • **Use** personal safety devices when required.
Risk Assessment and Authorization	Prior to bypassing a safety protection device an authorized person must perform a risk assessment that includes the following: • Identifying the affected safety protection devices • Understanding the impact of interaction with other safety protection devices and on the system as a whole • Mitigating the associated risks • Completing any required Management of Change processes Authorization level must be based on risk assessment results.
Common Safety Protection Devices	Common safety protection devices include: • Emergency shutdown systems • Fire and gas systems • Process controls and alarm systems • Relief valves • Crane operator aids (LMIs, Anti two-block)
Bypass Logs and Management Reviews	Bypassing safety protection devices requires: • A current log for bypassed safety protection devices. • A routine management review for all bypasses or inhibits
Communication and Shift Handovers	The communication plan must cover all shift and crew handovers.

Line of Fire

Critical Controls	The Critical Controls for Line of Fire are: • **Establish, maintain, and honor** barriers and exclusion zones • **Position** yourself and others to avoid line of fire hazards • **Protect** against dropped objects
Barriers and Exclusion Zones	When establishing barriers and exclusion zones consider the following: • Overhead lifts, pressure testing, moving equipment, overhead work, etc. • Completeness, maintenance, and communication of barricades • Adherence to barriers and exclusion zones
Positions of People	When determining the proper position of people during work, consider:

 **Moving Vehicles and Heavy Equipment** – barricades, spotters, evaluation and planning of traffic patterns.	 **Pressure** – breaking flanges and hose connections, removing plugs, blowing down equipment, pressure testing.
 **Suspended and Swinging Loads** – tethering of tools/equipment, management of loads with tag lines and guide poles, evaluation of centers of gravity and environmental conditions.	 **Pinch Points** – activities that subject people to crushing injuries.
 **Dropped Objects** – secure tools and equipment from falling to a lower level and establish and maintain exclusion zones below overhead work.	 **Electricity** – avoid working on or near energized electrical equipment.
 **Tensioned and Compressed Objects** – equipment in stress and the expected direction of energy release in a failure scenario.	 **Projectiles** – identify tasks that generate flying debris, such as grinding and chipping, before starting work.
 **Objects with Fall or Roll Potential** – unexpected movement of tools or equipment, securing of materials such as piping.	 **Pushing and Pulling** – anticipate the possibility that tools or equipment may suddenly loosen or slip.

Definitions

Affected Person	A person whose job requires him/her to operate or use a machine or equipment on which servicing, or maintenance is being performed under lockout or tagout, or whose job requires him/her to work in an area in which such servicing or maintenance is being performed.
Authorized Person	A person who locks out or tags out machines or equipment in order to perform servicing or maintenance on that machine or equipment.
Cord and Plug Equipment	Equipment for which exposure to the hazards of unexpected energization or startup of the equipment is controlled by the unplugging of the equipment from the energy source and by the plug being under the exclusive control of the employee performing the servicing or maintenance. (This applies only if electricity is the only form of hazardous energy to which employees may be exposed.)
Exclusive Control	Means that the authorized person has the authority to and is continuously in a position to prevent (exclude) other individuals from re-energizing the machine or equipment during servicing or maintenance activity.
Minor Servicing	Minor tool changes and adjustments, and other minor servicing activities which take place during normal production operations that meet the following criteria: 1) Conducted during normal production operations (i.e., while the machine or equipment is actually performing its intended production function). 2) Must be routine, repetitive, and integral to the operation. A. Routine – The activity must be performed as part of a regular and prescribed course of procedure and be performed in accordance with established practices. B. Repetitive – The activity must be repeated regularly as part of the production process or cycle. C. Integral – The activity must be inherent to the production process. 3) Must use alternate measures to provide effective protection.
Normal Production Operations	The utilization of a machine or equipment to perform its intended production function. The physical act or process of removing or releasing the isolation (e.g., opening electrical disconnects or valves), during the start-up process, as well as machine or equipment re-energization and/or startup, is considered a normal production operation. Machine or equipment "set-up" is not considered normal production operations.
Turn-Around	A scheduled event where an entire or partial plant process system is taken offline for comprehensive inspection, maintenance, and upgrades.

Revision Log

Revision No.	Revision Date	Summary of Changes
1	9/23/2013	• Original document creation.
2	11/1/2019	• Applied *Usability Mapped* format. • Introduction of critical controls. • Added Line of Fire as 9th LSR
3	11/1/2022	• Reviewed with global HSE LT and elected to maintain 2019 version as is.
4	11/1/2024	• Standard formatting applied. • Added Work Permits Critical Control: Work with a valid work permit when required. • Added a note within Process/Mechanical/Electrical Isolation to allow OSHA minor servicing exemptions for minor tool changes, cord & plug equipment, and where isolation points cannot be physically locked out. • Added a note within Process/Mechanical/Electrical Isolation requiring all isolation within a turnaround scope be part of permit to work and SIMOPS processes. • Added Driving Critical Control: Do not drive when impaired or fatigued. • Incorporated content from the Mobile Device Safety Standard for use of turn-by-turn navigation and "special circumstances." Mobile Device Safety Standard is now archived. • Replaced "Perform a thorough risk assessment" with "Obtain authorization" to Bypassing Safety Devices Critical Control. • Added Bypassing Safety Devices Critical Control: Use personal safety devices when required.