International Association of Oil & Gas Producers

For more information on Process Safety Fundamentals, please visit www.iogp.org/PSF

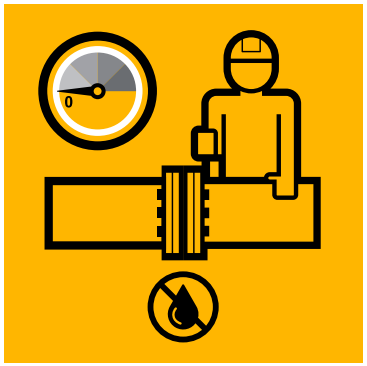
PROCESS SAFETY FUNDAMENTALS

WE RESPECT HAZARDS

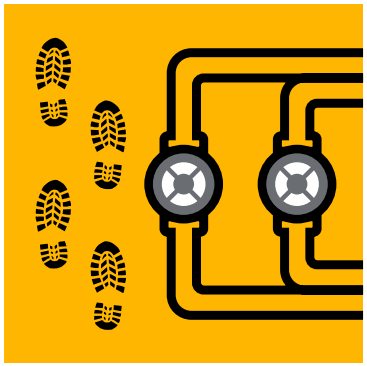
WE APPLY PROCEDURES

WE SUSTAIN BARRIERS

WE STAY WITHIN OPERATING LIMITS

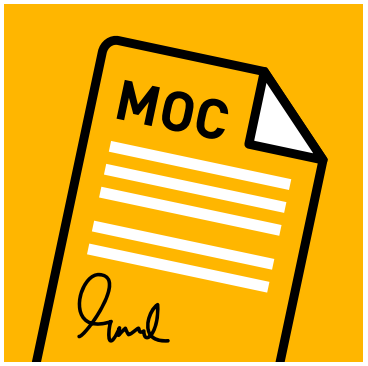


WE MAINTAIN SAFE ISOLATION



WE WALK THE LINE

WE CONTROL IGNITION SOURCES



WE RECOGNISE CHANGE

WE STOP IF THE UNEXPECTED OCCURS

WE WATCH FOR WEAK SIGNALS

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PROCESS SAFETY FUNDAMENTALS

We respect hazards

- We improve our understanding of process safety hazards at our location and our roles in controlling them.
- We are vigilant about the potential impacts of uncontrolled process safety hazards.
- We discuss process safety hazards before starting a task.
- We bring forward process safety hazards to be included in activity risk assessments.

We apply procedures

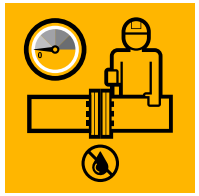
- We use operating and maintenance procedures, even if we are familiar with the task.
- We discuss the key steps within a critical procedure before starting it.
- We pause before key steps and check readiness to progress.
- We stop, inform supervision and avoid workarounds if procedures are missing, unclear, unsafe, or cannot be followed.
- We take time to become familiar with, and practice, emergency procedures.

We sustain barriers

- We discuss the purpose of hardware and human barriers at our location.
- We evaluate how our tasks could impact process safety barriers.
- We speak up when barriers don't feel adequate.
- We perform our roles in maintaining barrier health and alert supervision to our concerns.
- We use an approval process for operations with degraded barriers.

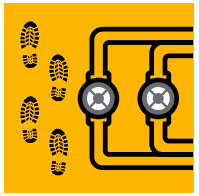
We stay within operating limits

- We discuss and use the approved operating limits for our location.
- We escalate where we cannot work within operating limits.
- We alert supervision if an alarm response action is unclear or the time to respond is inadequate.
- We obtain formal approval before changing operating limits.
- We confirm that potential for overpressure from temporary pressure sources has been addressed.



We maintain safe isolation

- We use isolation plans for the specific task, based on up-to-date information.
- We raise isolation concerns before the task starts and challenge when isolation plans cannot be executed.
- We check for residual pressure or process material before breaking containment.
- We monitor the integrity of isolations regularly and stop to reassess when change could affect an isolation integrity.
- We confirm leak-tightness before, during, and after reinstating equipment.



We walk the line

- We use up-to-date documentation (e.g., Piping and Instrumentation Diagrams) that accurately reflect installed systems and equipment.
- We physically confirm the system is ready for the intended activity (e.g., valve positions, line up of relief devices, etc.).
- We alert supervision to identified documentation and readiness issues before operation.

We control ignition sources

- We identify, eliminate, or control the full range of potential ignition sources during task risk assessments and during job preparation and execution.
- We minimise and challenge ignition sources even in "non-hazardous" areas.
- We eliminate ignition sources during breaking containment and start-up and shutdown operations.

We recognise change

- We look for and speak up about change.
- We discuss changes and involve others to identify the need for management of change (MOC).
- We review the MOC process for guidance on what triggers an MOC.
- We discuss and seek advice on change that occurs gradually over time.

We stop if the unexpected occurs

- We discuss the work plan and what signals would tell us it is proceeding as expected.
- We pause and ask questions when signals and conditions are not as expected.
- We stop and alert supervision if the activity is not proceeding as expected.

We watch for weak signals

- We proactively look for indicators or signals that suggest future problems.
- We speak up about potential issues even if we are not sure they are important.
- We persistently explore the causes of changing indicators or unusual situations.

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