

Management of Change in E&P

Scope: Global	Code: 20-00138PR
Owner: E.D. Technical Development and S&E	Revision: 0.0

Purpose

- To provide the process to timely address and properly manage changes in E&P whatever the nature of the change or the area of activity, ensuring that every change is duly assessed and approved prior to driving its implementation.
- Additionally, regarding organizational changes, this procedure introduces the definition of key personnel (own and contracted) in all E&P Projects / Assets setting the mechanisms to ensure that the adequate competences and skills are in place when facing an organizational change.
- Enhance the management of change culture by reinforcing the key associated elements and concepts:
 - Change identification.
 - Change types
 - Change assessment
 - Change communication
 - Change approval
 - Change implementation
 - Change close out

Scope of application

This document covers all E&P Projects / Assets at any worldwide location, onshore and offshore, where Repsol E&P has management control. For critical contractors in operated Projects / Assets, the Management of Change system to be used must be clearly defined in the Bridging Document. If it is the MoC contractor's system the one in place, then the contractor should report all MoCs to Repsol.

In the special case of non-operated or co-operated ventures, all reasonable attempts shall be made to influence the partners for implementing the requirements included in this document.

Waiver, deviation, dispensation, etc. will be referred to as Changes and must be fully compliant with the MoC process stated in this document.

Temporary changes are also expected to be fully compliant with the MoC process within the temporary pre-defined deadlines.

In case a change occurs during any Project phase, the change shall be fully compliant with this procedure from the moment there is an approved baseline or basis of design. These baselines and/or basis of design and associated documentation (Project objectives or scope, design philosophies, purchase orders, approved for design/construction drawings, etc.) shall be updated at the beginning of each phase of the Project.

In case a change applies to Project activities subject to QA&QC events (Peer Assistance, Peer Review, Technical Review; see "QA&QC process for E&P Projects and Assets- 20-00003PR"), modifying the assumptions, criteria or design considered under the previous QA&QC exercise and approval, the Project Manager shall include the activity subject to change in the agenda of the next QA&QC event. In case the change occurs prior to the start of operation, the change shall be fully compliant with this procedure and additionally, it shall be addressed between the Project Manager and the Review Team Leader prior to the proposal going to the Gatekeeper for approval.

In case a change occurs as result of an Asset Review (see "QA&QC process for E&P Projects and Assets- 20-00003PR"), the change shall be fully compliant with this procedure.

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Framework regulations

- Management of change (03-00006PR)
- Safety and Environment Risk Management (03-00353NO)
- Hazard Management (20-00139PR)
- Organizational structures and sizing (00-00007NO)

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1. Definitions and Acronyms.

1.1. Definitions.

Change: Any modification that represents a variation from previously approved/defined design, scope, equipment, instrumentation, piping, material, product, process or organization or any deviation from a requirement included in an E&P internal regulation, practice, standard, procedure whether of a temporary or permanent nature.

Change Owner: Person assigned to champion the change through the MoC process from its start to completion. This role is similar to the Change Administrator defined in "Management of Change (03-00006PR)".

Emergency change: A change either resulting from an unplanned event or unplanned situation which needs immediate action to ensure the Project/Asset safety. In an emergency change, the change may be initiated and implemented prior to completion of the MoC process. Changes undertaken in this manner are expected to be fully compliant with the MoC process at the earliest and no later than 10 working days after the change has occurred.

Key personnel: Key personnel is to be understood as the personnel with responsibility over the risks management in the Project / Asset operations.

Permanent change: A change that persists during the life of the Project or Asset or that affects materials or equipment that will be left in place once the Project/operation has finished.

Replacement In Kind (RIK): Consists in the substitution of the originally engineered / intended equipment, material, product or personnel by another one meeting all the specifications, design criteria or requirements of the item it is replacing. RIK means a "like for like" replacement where the replacement is in full conformance with approved specifications (operating parameters, same size, style, type, material, duty, performance or competence characteristics, etc.) or adequate industry standards (e.g.: API, ASME, ASTM, etc.)) and will have no impact in the Project / Asset / Organization / Discipline. RIK does not require a MoC.

Temporary change: A change not intended to be permanent. Temporary changes will not exceed the approved time frame (2 years max.) for the change without additional review and approval.

1.2. Acronyms.

- **ALARP:** As Low As Reasonably Practicable
- **EMD E&P:** Executive Managing Division E&P
- **MoC:** Management of Change.
- **QA&QC:** Quality Assurance & Quality Control.
- **RIK:** Replacement in Kind.
- **S&E:** Safety and Environment.

2. Types of changes

The following types of changes are to be addressed through the MoC process:

- **Technical change (hardware):** changes related to physical elements or its use (equipment, instrumentation, piping, materials, products and operating parameters).
- **Scope/Operational change (processes):**
 - (i) changes to approved strategy, scope, objectives or capital investment, basis of design, execution, operation, maintenance or verification scope, routines or plans,

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(ii) deviations from management systems requirements, E&P internal regulations, practices, standards, procedures, processes or administrative controls, that define the way the Project / Asset operations are conducted.

- **Organizational change (people):** changes to organizational structure, roles, key personnel or contractors in the Project/Asset operations. Key personnel is to be understood as the personnel with responsibility over the risks management in the Project / Asset operations.

Appendix I provides a non-exhaustive list of changes and RIK based on this classification.

Projects and Assets may manage a Change as a Project due to its dimension, implications or cost. In this case, “20-00139PR Hazard Management” and Integrated Project Management Methodology shall be followed and the change must be closed out.

3. MoC process.

The steps to be applied in Repsol E&P to manage changes are summarized in Figure 1.

Adherence to this MoC process shall ensure that:

- Changes are identified, assessed and planned.
- Groups, divisions, departments, business units affected by the change are early identified and involved.
- Risks are properly assessed and barriers are put in place to minimize exposure, likelihood and potential consequences.
- Changes are approved / rejected and implemented in a controlled and timely manner.
- Changes are properly communicated, documented, recorded and closed out.

The E&P IT tool to manage and track changes is Synergi.

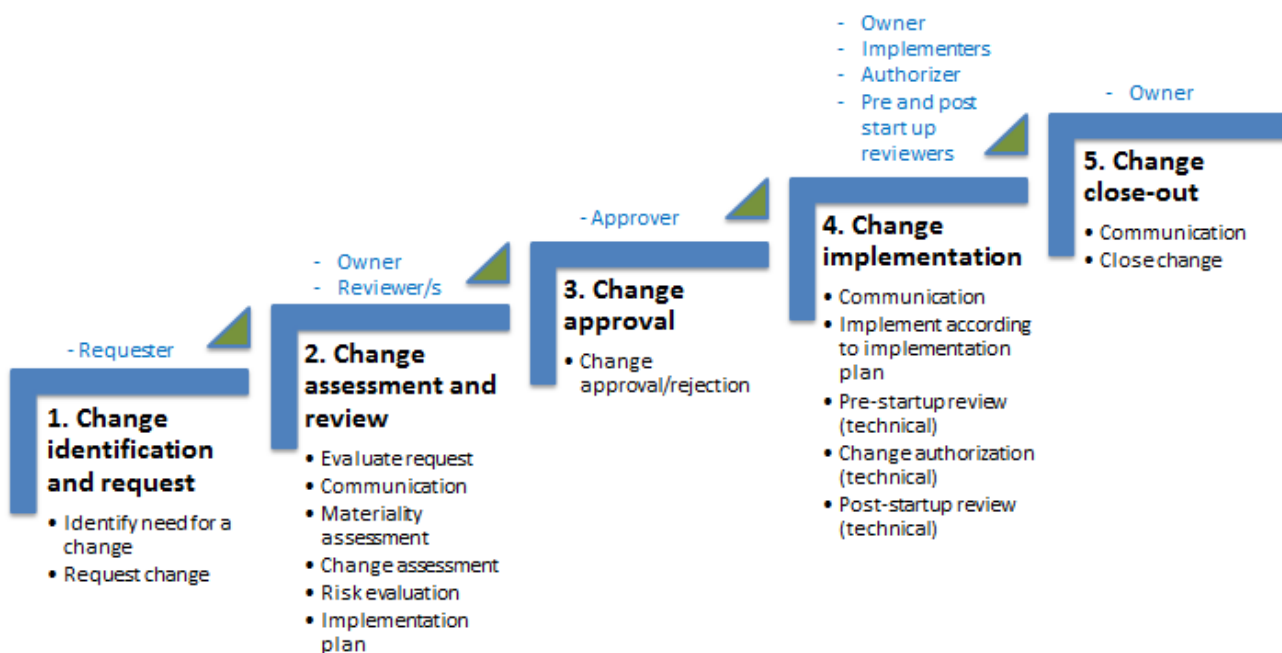


Figure 1: MoC process

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Appendix II provides further explanation and examples of MoC roles and key personnel.

“Management of Change (03-00006PR)” procedure allows to delegate the responsibilities of the “MoC General Coordinator” role. Subsequently, the responsibilities of the “MoC General Coordinator” role have been distributed among the different roles defined in this procedure. “Change Administrator” and “PSUR Coordinator” roles defined in “Management of Change (03-00006PR)” procedure have been adapted to the E&P terminology as “Change Owner” and “Pre start up Reviewer” respectively.

Projects and Assets Managers are accountable for the effective implementation of the MoC process, by assuring that it is followed according to the requirements herein defined and that the resources (i.e. human, financial, logistical, training, and documentary, etc.) necessary to fulfill it are available.

3.1. Change identification and request.

Any Repsol E&P employee can identify and propose a potential change. See Appendix I for guidance on how to identify a change.

The **Change Requester** is responsible for collecting and submitting to the **Change Owner** the justification and reason for the change (including current and future status once the change is implemented) together with all the necessary up to date information to assess the change and, in case of temporary change, the maximum duration or deadline for the change.

The **Change Owner** is the person assigned to champion the change through the MoC process from its start to completion. The Change Owner must be formally appointed by a person with overall responsibility of the Project/Asset/area/s the change is impacting.

3.2. Change assessment and review.

The **Change Owner** shall assess the change request to:

- Validate the change request. Confirm the request is eligible for the MoC process already launched.
- Select the most appropriate **Reviewers** to assess the change, based on the type and materiality of the change and the recognized competencies in the disciplines, domains and potential implications in regards to the change being reviewed and assessed.
 - In the case of low materiality changes, cross-multidisciplinary **Reviewers** from the Project/Asset shall be nominated.
 - In the case of medium or high materiality changes, in addition to **Reviewers** from the Project/Asset, cross-multidisciplinary **Reviewers** independent from the Project/Asset, must be part of the **Reviewers**.
 - In the case of a deviation from a requirement included in an internal regulation, the Regulation Owner must be part of the **Review team** and shall agree the risk evaluation.
- Coordinate the risk assessment (see Appendix III for reference) of the change. The purpose of the risk assessment is to:
 - Identify the hazards and analyze the risks introduced by the proposed change using the most appropriate technique.
 - Identify the barriers / alternatives or mitigation measures to minimize the risks.
 - Risk evaluate the change; inherent and residual.
- Define an implementation plan to ensure the change is implemented in a timely and safely manner. The implementation plan shall include the documentation, actions (pre and post change start up), schedule, resources (personnel, materials, spares, etc.), budget, identification of permits, communication plan to

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affected parties of the workforce (before, during and after the implementation, including inherent and residual risks at appropriate levels) and a training plan to affected parties of the workforce.

- Endorse the change, together with the implementation plan, at the appropriate approval level based on the residual risk (see Appendix III for reference).
- Update and keep track of change and related records in Synergi.

The **Reviewers/Expert Team** shall:

- Technically review all the MoC related information.
- Participate in the risk assessment of the change.
- Agree the risk assessment.
- Provide input to the implementation plan.

3.3. Change approval.

Once the change has been properly assessed, the **Change Approver** approves it for implementation or rejects it. In case of rejection, the change shall be closed out and the reasons for rejection properly recorded.

The **Change Approver** is defined based on the change residual risk of the MoC assessment (see Table 1). Projects / Assets shall pre-define change approvers for emergency changes, depending on the type and materiality of the change.

If barriers are not implemented by deadlines, the **Change Owner** shall coordinate a re-evaluation of the risk and a review of level of approval.

RISK LEVEL	ACTION REQUIRED	DEADLINE TO IMPLEMENT BARRIERS	LEVEL OF APPROVAL
MINOR	None	None	Change owner
MODERATE	Demonstrate ALARP criteria is met	Best before start up/spud in of the change	Asset/Project Manager
HIGH	Demonstrate ALARP criteria is met	Prior to start up/spud in of the change	BU / Exploration / Global Central Function Director
URGENT	Operation not allowed. Detailed risk assessment required. Additional barriers implementation compulsory.	Immediately	Executive Managing / Executive Director

Table 1: Levels of approval for all changes except organizational ones.

The levels of approval to be used to evaluate the identified impacts of an Organizational change of the Project / Asset are displayed in Table 2.

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DESCRIPTION	THE HIGHEST OF THESE:		LEVEL OR APPROVAL
	CHANGE IN KEY PERSONNEL	ORGANIZATION/STRUCTURE DOWNSIZING	
MINOR	<p>< 1 year's differential experience. Concerned personnel's training is current and fit for purpose. Concerned personnel have been assessed competent (based on their experience, certificates...) to perform their activities.</p>	Operator level	Change administrator
MODERATE	<p>1 - 5 years' differential experience Concerned personnel's training is current and fit for purpose. Concerned personnel has been assessed competent but has little experience in these specific tasks (< 1 year).</p>	Supervisory level	Asset / Project Manager / Director + endorsement of P&O business partner
HIGH	<p>5 - 10 years' differential experience. Concerned personnel's training is not current nor fit for purpose. Concerned personnel have little experience (< 1 year) developing similar tasks</p>	Technician level	
URGENT	<p>Concerned personnel have not received the required training. Concerned personnel have no experience developing similar tasks</p>	Managerial level	BU/Exploration/Global Central Function Director + endorsement of P&O business partner

Table 2: Organizational change impact assessment matrix and approval levels

3.4. Change implementation.

Once the change has been approved, the change is implemented following the actions of the implementation plan. Any deviation from the implementation plan shall be reassessed as per chapter 3.2.

In case of a temporary MoC, when it approaches its maximum selected duration the following options are possible:

- Restore the temporary change to its previous state and progress to close out. A re-evaluation of the original risk assessment and approval (see Chapter 3.2.) is required.
- Extend the temporary change. A re-evaluation of the original risk assessment together with explanation for the extension and approval (see Chapter 3.2) is required. If the extension of the temporary change exceeds six months, a new MoC is required.
- Convert the temporary change to a permanent one. A new MoC is required.

The **Change Owner** is responsible to:

- Ensure the implementation plan is followed and fulfilled.
- Communicate to all affected parties.
- Nominate **Implementers** for specific actions, who must implement the designated actions in a safe and timely manner, according to the implementation plan. The implementers shall have recognized competencies in the disciplines and domains in regards to the change being implemented.
- Nominate pre and post start up **Reviewers** (only for technical change).
- Confirm the scope and deadlines of the change are fulfilled and not exceeded. If scope or deadlines are modified, a new change assessment and implementation plan shall be developed as per chapter 3.2.
- Update and keep track of change and related records in Synergi.

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- Advise the Project / Asset Manager and, if necessary, coordinate the QA&QC review of the new Project / Asset operation conditions, design specifications, criteria, etc. related to the change.
- Track and monitor temporary changes in order to ensure they do not exceed its maximum selected duration.

In the case of technical changes, a pre-start up and a post start up review are required. The aim of those is to ensure that it is safe to commission the change and to ensure, after a certain period of time that the change is working as intended.

Pre-start up Reviewer/s is/are responsible to:

- Verify that the change to be commissioned has been built per approved specifications.
- Confirm completion of actions (including barriers to minimize the risk).
- Produce a punch list or deficiency action items for the applicable pre-start up review.
- Ensure that relevant documentation is updated (PFD's, P&ID's, operating, maintenance and emergency procedures, risk analyses, etc.).

The **Change Authorizer** is responsible to:

- Authorize the commissioning and start-up of the technical change as result of the pre-start up review
- Ensure the proper handover between implementers and final users.

Post-start up Reviewer/s is /are responsible to:

- Confirm completion of actions, including those from the punch list.
- Verify that the commissioned change is working as intended.

3.5. Change close out.

Once the confirmation that all actions are completed, documentation updated and circulated and training provided to affected parties, the change is closed.

The **Change Owner** is responsible to:

- Coordinate and ensure the communication/training to affected parties of the workforce as per the implementation plan.
- Asses the effectiveness of the change and identify and collect lessons learned.
- Update and archive the keep track of change and related records in Synergi, ensuring traceability.
- Get the approval of all the affected areas of the change to formally close the change.
- In case of a rejected change, properly record the reasons for rejection.

3.6. Monitoring, review and audit.

The Project / Asset Manager is responsible to monitor and ensure the MoC process is working properly.

Periodic independent verification (internal and/or external to the Project/Asset), aligned with Project duration for Project changes, shall be scheduled to verify:

- The process is being applied and meets the requirements of this procedure.
- Relevant roles are assigned as appropriate.
- Personnel are competent in MoC.
- Implemented changes reflect the original intent and are documented properly.

The Project/Asset Manager shall ensure that all changes are registered in Synergi.

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4. Appendices

Appendix I. MoC examples.

I.1. Technical change.

Technical changes are changes related to physical elements or its use (equipment, materials and products).

As a guideline, the following set of questions can be used to identify a technical change. If the answer to any of the questions is “yes” a technical MoC is required:

- Is there a change or deviation to process equipment specification or use?
- Is there a change or deviation to the composition or use of process substances?
- Is there a change or deviation to process design or facility layout?

The following is a non-exhaustive list of technical changes:

- Operating equipment other than “in kind” (pumps, piping, valves, instrument, vents, etc.) is added, tie-in, removed or altered in any way that could affect or change the process or the capacity of the system.
- Changes are made in the pipe classification, configuration of piping, major pump components (including seals) and alarms and control schemes.
- Operating parameters are changed so that they are outside the established design specifications (maximum or minimum) for the allowable pressure, flow rate, level, temperature, etc.
- Permanent bypassing or removal of any safety system device.
- Safety critical control system logic which alters original design.
- A “temporary fix” is made to a process system or piping
- Disabling or modifying alarm settings.
- Bypassing or inhibiting a safety barrier, specially Safety and Environmental Critical Elements, unless it is required as part of a formally approved procedure such as a temporary bypass during startup of the plant of equipment.
- Reactivating out of service equipment.
- Well reactivation.
- Material of construction specifications.
- Changes in product safety information.
- Changes in recipes.
- Storing/using new products.
- Deactivating equipment.
- Changes in product formulation or specifications.
- Changes in additives & raw materials.
- Safety Data Sheets (SDS) generation/revision.

The following is a non-exhaustive list of technical RIKs:

- Substitution of a device with another with the same specifications.
- Temporary bypassing following an existing bypass procedure.
- Routine activities covered by maintenance or operational procedures, which have gone through a documented risk assessment.

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I.2. Scope/operational change.

- Scope/operational changes are changes to or deviations from:
 - (i) approved strategy, scope or objectives, basis of design, execution, operation, maintenance or verification scope, routines or plans,
 - (ii) management systems, internal regulations, practices, standards, procedures, processes or administrative controls,

that define the way the Project / Asset operations are conducted.

As a guideline, the following set of questions can be used to identify a scope/operational change. If the answer to any of the questions is “yes” a scope/operational MoC is required:

- Is there a change to or deviation from operating design limits?
- Is there a change to or deviation from the requirements included in a controlled document?
- Is there a change to or deviation from any approved routine, program or plan?
- Is there a change to or deviation from any applicable specification, norm, procedure or standard, either internal or external?

The following is a non-exhaustive list of scope/operational change:

- Change to / deviation from internal regulatory framework.
- Change to business plans, philosophies, objectives, etc. These are documents that communicate strategic, operational, budgetary, commercial, etc. directives/arrangement/contracts that drive business operations.
- Change to / deviation from Field Development Plans.
- Change to supply sources, locations or facilities.
- Change to / deviation from the design presented in a previous Assets or Technical Review.
- Change to/deviation from equipment specifications.
- Change to/deviation from construction specifications.
- Change to/deviation from engineering standards.
- Change to/deviation from operational procedures.
- Change to/deviation from maintenance or inspection procedures.
- Change to/deviation from subsurface, reservoir assumptions that will have an impact on well design.
- Change to/deviation from casing or tubing design.
- Change to/deviation from planned drilling intervals.
- Change to/deviation from well integrity envelope from a verification, testing perspective.
- Change to/deviation from operational program (design program and sequence, directional program objectives or sidetrack, change in cement program, change in BHA program objectives, etc.)
- Change to/deviation from work practices.
- Change to/deviation from emergency response plans.

The following is a non-exhaustive list of scope/operational RIK:

- To modify the owner of an internal regulation / standard / specification.
- Non-material modifications to internal regulations / standards / specifications. The materiality of these modifications / deviations shall be assessed by the **Change Owner**. In case of not proceeding with the MoC process, this decision shall be documented.

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I.3. Organizational change.

Organizational changes are changes to organizational structure, organizational size, roles or key personnel, either in the Company's structure or in the contractors' organization.

As a guideline, the following set of questions can be used to identify an organization change. If the answer to any of the questions is "yes" an organization MoC is required:

- Is there a change in the appointed key personnel?
- Is there a downsizing of the organigram or organizational structure?
- Is there a change in the roles, functions or responsibilities within the organizational structure or reporting relationships within the structure?
- Is there a loss, transfer or delegation of responsibilities of personnel with specific knowledge or experience: Project/Asset Manager, Offshore Installation Manager (OIM), Operations Manager, Maintenance Manager, control room Operator, etc.?
- Is there a replacement of key personnel by an employee with shorter experience or lower qualification?

The following is a non-exhaustive list of organizational change:

- A reorganization move of key personnel or change in their responsibilities. Merging roles
- A new key personnel hire.
- A downsizing of key personnel.
- Change to work schedules / shifts.
- Change affecting competency requirements of key personnel.
- Changes in occupancy levels of facilities (e.g.: changes in POB upsizing or downsizing impacting accommodation capacity, evacuation procedures and equipment, etc.).
- Change from one contractor to another with a lower qualification score.
- Relocation of site technical activities to a corporate or regional location.
- Outsourcing activities previously performed in house.

The following is a non-exhaustive list of organizational RIK:

- Reassignment of responsibilities between similarly qualified personnel (included in the job descriptions of both roles).
- Delegations to qualified personnel.
- Changes to contractor with same or higher qualification scores.

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Appendix II. MoC roles and key personnel examples.

II.1. Change Requester.

This is the person who has identified and requested the change to be performed. The **Change Requester** should be the person most familiar with the proposed change.

Examples of **Change Requesters** (depending of the structure of the Project/Asset) are:

- Operators/supervisors/tradesmen
- Discipline engineers.

II.2. Change Owner.

This is the person who has overall responsibility to implement the change.

Examples of **Change Owners** (depending of the structure of the Project/Asset) are:

- Discipline leads.
- Operations and maintenance leads.
- Drilling superintendent.
- Line manager.
- Operations manager.
- Project services function (typically in projects)

II.3. Change Approver.

This is the person who has overall responsibility to approve the change.

Examples of **Change Approvers** are:

- Project Manager.
- Asset Manager.
- Business Unit Director.
- Executive Director.
- EMD E&P.

II.4. Reviewer/s.

This is the person or group of people with the overall responsibility of assessing the proposed change and providing input within the MoC process relating to their area of expertise.

Examples of **Reviewers** are:

- Internal Regulation Owners
- Operation and maintenance leads.
- Discipline leads.
- HSE leads.

II.5. Change Authorizer (technical change).

This is the person who authorizes the commissioning of the change within the Project/Asset

Examples of **Change Authorizers** are:

- Project Manager.
- Asset Manager

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- Drilling Manager.
- Commissioning and start-up Manager.
- Operations Manager.

II.6. Implementers.

This is the person or group of people assigned to complete the actions identified in the change implementation plan. They shall be competent in the area subject to the change:

Examples of implementers are:

- Operators/Supervisors.
- Discipline Engineers.
- Project Manager.

II.7. Pre and post start up Reviewers (technical change).

This is the person or group of people assigned to complete the pre and post start up **Reviews** of the change.

Examples of pre/post start up **Reviewers** are:

- Operations and maintenance leads
- Discipline leads.

II.8. Key personnel (organizational change).

Key personnel is to be understood as the personnel with responsibility over the risks management in the Project / Asset operations.

Examples of key personnel in Geophysical/Well Construction Projects are:

- Project/Drilling/Exploration Manager.
- Drilling Superintendent.
- Drilling lead Engineer.
- HSE lead.
- Company man.

Examples of key personnel in Development Projects are:

- Project Manager.
- Engineering Manager.
- Construction Manager.
- HSE Manager.
- Technical authorities / Subject Matter Experts / discipline leads.

Examples of key personnel in Assets are:

- Asset Manager.
- Offshore Installation Manager (OIM) / Onshore Installation Manager.
- Operations Manager.
- Safety Manager.
- Technical authorities / Subject Matter Experts / Discipline leads.
- Control room operator.

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Appendix III. MoC assessment.

The MoC assessment is central to the whole MoC process. Each MoC shall include a risk or impact assessment that evaluates the residual risk or effect of the impact. Approval and notification of estimated risks / impacts / consequences shall be performed in accordance with the matrices included in this Appendix.

In order to determine which risk assessment will be used for the specific change under consideration, a previous assessment of the materiality (size, complexity and significance) of the change shall be made.

In any case, the previous existing risk studies shall be updated with the outputs of the MoC assessment.

Materiality assessment:

- *Low materiality*: changes that do not impact equipment, system, routine, standards, regulations, key personnel, department, contractor, stakeholder different from the one subject to change.
- *Medium materiality*: changes that impact equipment, systems, routines, standards, regulations key personnel, departments, contractors, stakeholders, project strategies or philosophies.
- *High materiality*: changes to critical equipment or processes, business strategy or that require significant resources and capital investment.

Table 3. displays the risk assessment techniques recommended for each type of change and materiality. One or several assessment techniques may be used for one single change.

	Technical Changes related to physical elements or its use (equipment, instrumentation, piping, materials and products).	Scope/operational (i) changes to approved strategy, scope, objectives or capital investment, basis of design, execution, operation, maintenance or verification scope, routines or plans, (ii) deviations from management systems requirements, internal regulations, practices, standards, procedures, processes or administrative controls, that define the way the Project / Asset operations are conducted.	Organizational Changes to organizational structure, roles, key personnel or contractors in the Project/Asset operations.
Low materiality Changes that do not impact other equipment, system, routine, standard, key personnel, department, contractor, stakeholder different from the one subject to change.	Check List	Check list	Check list
	What if	What if	What if
	HAZID	HAZID	Task mapping (gap analysis)
Medium materiality Changes that impact multiple equipment, systems, routines, standards, key personnel, departments, contractors, stakeholders, project strategies or philosophies.	What if	What if	Bow tie
	HAZID	HAZID	Activity mapping (gap analysis)
	Bow tie	Bow tie	---
	Operational Risk Assessment (ORA) for SECE	Operational Risk Assessment (ORA) for SECE	---
	Economics assessment	Economics assessment	----
High materiality Changes to critical equipment or processes, business strategy or changes that require significant resources and capital investment	HAZID	HAZID	---
	Bow tie	Bow tie	---
	Operational Risk Assessment (ORA) for SECE	Operational Risk Assessment (ORA) for SECE	---
	HAZOP (when change affects process)	HAZOP / procedure HAZOP	---
	---	SWOT analysis	SWOT analysis
	Quantitative Risk Assessment (if applicable)	Quantitative risk assessment (if applicable)	Quantitative risk assessment
	Economics assessment	Economics assessment	----

Table 3: Risk assessment techniques

The Risk Assessment Matrix (RAM) to be used to evaluate the identified risks scenarios of a change is included in "Hazard Management (20-00139PR)" procedure, Appendix IV.

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Approval

Validity

This procedure shall become valid on the tenth (10th) working day after the date of its approval.

Revoked regulations

- Management of Project Change (20-00096PR).
- Approval of deviations from well construction standards and procedures (IT-07-07).

General and temporary provisions

Any criteria and directives contained in this procedure that have been dealt with in other provisions, shall be replaced in their entirety when this document becomes valid.

Revision 0.0 approved by:

Luis Cabra Dueñas

E.M.D. E&P

Approval: 12/06/2018