GulfofMexico

bp

GOO Performance

Management of Change Procedure

AMENDMENT RECORD

Amendment Date	Revision Number	Amender Initials	Amendment
31-Jul-2015	0	CLA	Original document. Replaces 2010-T2-EA-PR-0001, 2010-T2-EA-PR-0025, and 2010-T2-EA-PR-0027 (approved per MoC AMOC-GOMDW-15-0052)

TABLE OF CONTENTS

1 How to Use this Document

This document provides the Global Operations Organization (GOO) Gulf of Mexico (GoM) Region process for Management of Change (MOC). It includes the guidance necessary to deliver the requirements of OMS Group Essential 4.2 and Group Recommended Practice for Management of Change (GRP 4.2-0001).

This procedure applies to any change to **Plant, Process, or People** with the potential to impact safe, compliant and reliable operating activity and should be followed by anyone who is involved in the MOC process for GOO GoM including those functions such as GPO and GWO, where changes impact GOO GoM facilities or operating activities. To ensure MOC is completed consistently across GOO GoM, local procedures should not be developed.

This procedure conforms to:

- Operating Management System (OMS) element 4.2, Management of Change.
- Safety and Environmental Management System (SEMS) Program
- BP Group Recommended Practice (GRP) for Management of Change (GRP 4.2-0001).

Details of these requirements are provided in Appendix A.

Guidance is provided for all types of MOCs. This procedure is broken down into the following Parts.

Overview	Provides overarching requirements for MOC, including the definitions of the different types of MOCs and the requirements that apply to all.
Technical	Provides the process, requirements, responsibilities and competencies specific to Technical MOCs.
Administrative	Provides the process, requirements, responsibilities and competencies specific to Administrative MOCs.
Organizational	Provides the process, requirements, responsibilities and competencies specific to Organizational MOCs.

The Part(s) covered is indicated by the boxes on the right of each page.

Appendix B provides acronyms and definitions of terms used in this procedure.

2 Deviations from this document

Any requests to deviate from the requirements in this document must follow the process for deviating from a procedure, including the completion of an MOC to be reviewed by the Document Authority of this procedure.

Part I – Overview

Overview

Technical

Administrative

Organizational

3 Purpose

Management of Change is about identifying potential hazards that a change can introduce, then assessing the risks associated with these hazards, and systematically addressing them.

Any change to plant, process or people could introduce risk. In addition, changes can have unintended or unsuspected consequences. A review of incidents across industry indicates that ineffective Management of Change processes can result in:

- Change management that focuses on the expected benefits without properly considering the possible risks;
- A tendency to focus on technical change rather than all types of change e.g., organizational, materials and legal and regulatory requirements;
- Failure to communicate changes to the people affected by the change;
- Failure to update or revise key documents such as operating procedures; and
- Failure to address all relevant aspects of a change, which is a factor in many incidents and poor business decisions.

Therefore, a formal process that is used to manage any change from conception through to implementation is essential to identifying foreseeable potential hazards and managing their risks.

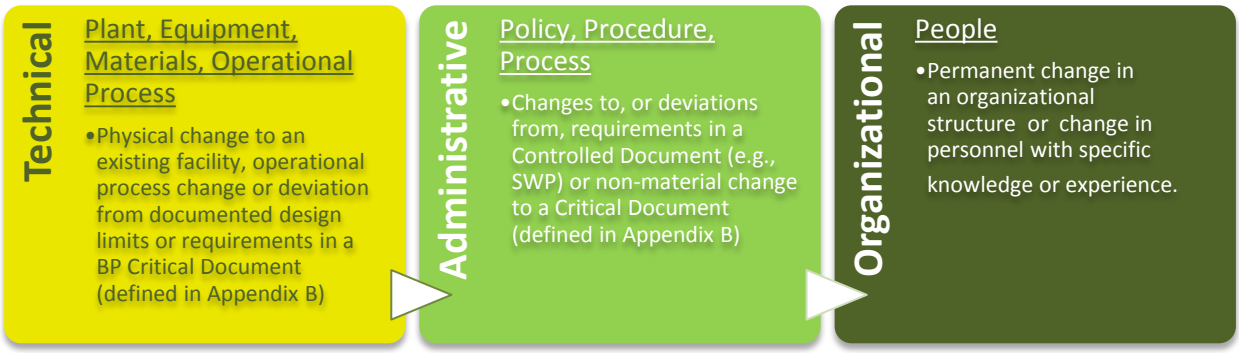
The MOC process is not a way to capture or explore ideas. Before initiating an MOC in the MOC system, the following activities should be completed.

- Discussed it with the right people, for example your line manager
- An indication from them that it's feasible and that money and people are available to complete the change
- Agreement from them that it should be progressed through MOC

This agreement is then formally documented in the MOC system

4 Types of MOCs

The MOC process consists of the following three types of changes:



5 Process, Roles and Responsibilities

Everyone involved in the MOC process is responsible for stopping the job if they have concerns regarding the safety of the change being considered. See Section 9 for details on cancelling an MOC.

5.1 Process and MOC Process Roles

Table 1 provides the general Stages for each MOC Type. Further details for the specific types of MOCs can be found in Parts II, III and IV of this document.

Table 1. MOC Stages

Technical	Administrative	Organizational
Initiate	Initiate	Initiate
Verify		
Coordinate	Verify/ Coordinate	
Review	Review	Review
Pre-Approval Actions	Pre-Approval Actions	Pre-Approval Actions
Approve	Approve	Approve
Pre-Startup Actions	Implementation Actions	Post-Approval Actions
Pre-Startup Safety Review		
Authorization		
Post-Startup Actions		
Temp Assurance/ Closure	Closure	Closure

5.2 Communication of Change

Each MOC shall include communication of changes to affected parties of the workforce. Affected Parties are those individuals (BP and contractor) who will have a role or responsibility or are otherwise impacted by the proposed change. The type of communication should be based on both the risk involved and the complexity of the change. The following guidelines should be considered:

Email Notification – Use for awareness only. Should be considered when change is easily understood and has a low risk. If awareness is required, email should be attached to MOC as evidence.

Computer Based Training/ Video Training – Use for high level training. Should be considered when change requires training for low risk activity. If knowledge is required, testing should be considered and results attached to MOC as evidence.

Instructor Lead Training – Use for detailed training. Should be considered when change requires training responsible parties on high risk activity. Testing should be completed and results attached to MOC as evidence.

5.3 Key Supporting Roles

Management Systems Team Lead ensures that a Management of Change procedure is in place and meets BP and regulatory requirements.

MOC Specialist is responsible for the MOC system and the content of the MOC Procedure, facilitates their use and verifies requirements are being adhered to, particularly in regard to minimizing risk.

MOC Administrator provides general support within the Region for use of the MOC System, including ad hoc guidance and training, troubleshooting and system reporting.

IMDC Document Controller maintains document repository, ensuring that updated documentation is correctly revised / annotated and uploaded.

5.4 Related Processes

GOO GoM has other processes related to, but not part of, the MOC process.

5.4.1 Replacement in Kind (RIK)

The MOC process is not used for "Replacement in Kind" activities. RIK means a technically "like for like" replacement where the replacement is in full conformance with approved specifications and will have no impact on the plant. This means that RIK changes use the same size, style, type, duty, and performance characteristics.

When considering whether a replacement is RIK, it is important that Initiators take environmental and regulatory issues into consideration. A change may not be considered RIK if a new emissions permit is required or an existing one requires amendment as a result of the change. Contact the Area/Hub Field Environmental Coordinator or Houston-based Environmental Specialist with questions.

5.4.2 Request for Action (RFA) Process and Operating System

GoM utilizes the RFA process to investigate potential change prior to the initiation of the MOC process. The RFA process is constructed to allow both ideas, small project proposals, potential modifications and other Audit or HAZOP action items to progress through appraise, select and define engineering stages **prior to** MOC initiation.

Once an RFA has progressed to the point where change definition, associated risks and implementation schedules have been agreed, the RFA can lead to an MOC. The RFA process is described in GoM Procedure *Request for Action Workflow Process and Procedure* (2020-T2-OP-PR-0004).

5.4.3 Management and Change Control of Programmable Electronic Systems

A separate system exists to control change to programmable control systems on GOO GoM facilities. This process is entitled Control System Change Request (CSCR) and details on management and modification of Programmable Electronic Systems can be found in STP *Management and Change Control of Programmable Electronic Systems* (DWGOM GP 30-0003).

5.4.4 Safety Override Risk Assessment (SORA) and Operational Risk Assessment (ORA)

SORA and ORA are systematic risk management processes that determine the level of residual risk and inform decisions on whether to continue operating or require a shutdown of the plant/ equipment when abnormal operating conditions occur.

The SORA process is used when overriding safeguards for a defined period of time, initially up to 96 hours. The ORA process is used in assessing the risks to continue operating under an abnormal operating condition. BP Practice *Safety Overrides and Operational Risk Assessments* (EP SDP 4.5-0006) provides details on this process.

5.4.5 Engineering & Site Technical Practices (ETPs/STPs)

GOM utilizes another process for the implementation of new or modified Group- and Segment-Defined Engineering Technical Practices, which may lead to the development of Regional STPs. The ETP/STP Change Request Process used in GOM is described in STP *Implementation of Technical Practices* (DWGOM GP 00-0001).

5.4.6 Control of Work (COW)

Deviations to permitted, task-executed requirements in GoM Safe Work Practices (primarily the COW Practice) are managed in the Integrated Safe System of Work (ISSOW). The ISSOW system captures HITRA Level 2 Risk Assessments associated with these deviations, related actions to be completed, approvals, and communications to affected parties.

6 Competencies

The competencies required for each role have been summarised into two distinct areas:
1. **Change**: Knowledge of the risks and mitigations necessary for the change
2. **MOC Process**: Knowledge of the MOC process

Table 2 provides competency descriptions, and Table 3 provides competency targets and training for MOC roles. For reviewers, each change competency applies to their area of expertise only.

Table 2. MOC Competency Descriptions

Basic	Skillful	Expert
Change		
Sufficiently knowledgeable of Operations to comprehend the change	Able to identify the SMEs who should be involved in the MOC	Able to assess change risk and determine mitigations needed or work with necessary parties to do so
MOC Process		
Understands their own responsibilities in the MOC process and is able fulfill them	Knows MOC requirements, how they are met by the MOC procedure and is able to provide guidance on both the process and the MOC System and Tools.	Able to write, train others, and provide guidance on the MOC Procedure, System and Tools.

Table 3. MOC Competencies by Role

MOC Role	Change	Process	MOC Training
Initiator	**Expert**	**Basic**	• MOC System training • MOC CBT every 3 years
Verifier (Technical MOC)	**Skillful**	**Basic**	• MOC System training • MOC CBT every 3 years
Coordinator (Technical MOC) or Verifier/Coordinator (Administrative MOC)	**Skillful**	**Skillful**	• MOC System training • MOC CBT every 3 years • In Class Training
Reviewer	**Expert**	**Basic**	• MOC System training • MOC CBT every 3 years
Approver	**Skillful**	**Basic**	• MOC System training • MOC CBT every 3 years
Action Responsible Party	**Expert**	**Basic**	• MOC System training • MOC CBT every 3 years
Authorizer (Technical MOC only)	**Skillful**	**Basic**	• MOC System training • MOC CBT every 3 years
Management Systems Team Lead	**Basic**	**Skillful**	• MOC System training • MOC CBT every 3 years • In Class Training
MOC Specialist	**Basic**	**Expert**	• MOC System training • MOC CBT every 3 years • CoP for MOC

Table 3. MOC Competencies by Role

MOC Role	Change	Process	MOC Training
MOC Administrator	**Basic**	**Expert**	• MOC System training • MOC CBT every 3 years • CoP for MOC
Document Controller	**Basic**	**Basic**	• MOC System training • MOC CBT every 3 years

The GoM Training and Competency Matrix for MOC Essential Personnel (2020-T2-DM-FM-0011) provides additional details on the training requirements for specific roles in GOO GoM.

7 Performance Management

Monitoring is essential to make sure the MOC process is working as it should. The Management System Team Lead is responsible for assuring GOO GoM that the MOC process is working properly.

MOC Specialist and Administrator prepare a monthly performance report including:
- Aging MOCs
- Active (authorized) temporary MOCs
- Temporary MOCs past their expiration date during the quarter
- Temporary MOCs closed or completed during the quarter
- Temporary MOCs past their expiration date at the end of the quarter
- MOCs at Review stage
- MOCs awaiting closure
- Number of open/in progress MOCs in the system

This report will be used to review trends, gather insights and develop recommendations for improvement.

8 Self-Verification

Periodic verification is necessary to confirm that the MOC process is performing effectively and satisfying requirements.

8.1 Process Level

Self-Verification of the overall MOC process is the responsibility of the Management Systems Team under GOO Regional Performance in Region.

The MOC Specialist will review conformance with the MOC process annually to verify:
- The process is being applied and meets the BP and regulatory requirements for MOC
- The MOC process was followed properly and to a satisfactory quality
- Relevant reviewers were assigned as appropriate
- Personnel are competent and trained in their MOC roles
- Implemented changes reflect the original intent and are documented appropriately

Annual Process Self-Verification comprises the following activities:

- Review and assurance of MOC Training Records
- Minimum of one offshore field-verification of a closed MOC implementation,
- Interview MOC participants for recommended modifications to the MOC process and the MOC systems and tools for the purpose of system efficiency improvements.

8.2 Task Level

The Integrity Management Engineer or equivalent will perform an MOC self-verification review with the MOC participants to document conformance with the MOC Procedure and assign actions in Tr@ction as appropriate. These reviews will use the GOO GoM MOC Self-Verification Protocol (Document Number 2020-T2-DM-FM-0010) and will consist of a minimum of one review per Sub-Function per quarter. Reviews will be made available to the MOC Specialist for inclusion in the Process Self-Verification.

9 Cancelling an MOC

It is the responsibility of all those involved in a change to stop the job when unsafe conditions are observed. During the MOC process, there are opportunities to reject individual portions of the MOC that will restart the process, allowing for modifications of the MOC content and ultimate approval. Participants should reject only after discussing their concerns with the MOC Initiator.

Warning! Cancelling an MOC **ends the entire process** and a new MOC will need to be initiated if the change is to be completed and an MOC is required.

MOCs are cancelled for various reasons including, but not limited to, lack of support for the change, a subsequent determination that the change is unsafe, the change may no longer be required, or the scope may have changed significantly subsequent to approval.

Cancelling an MOC is different from rejecting. Rejecting an MOC will cause the process to restart, allowing it to be updated and ultimately approved. Cancelling an MOC ends the entire process and a new MOC will need to be initiated if the change is to be completed and an MOC is required.

Before the MOC is cancelled in the system, the person canceling the MOC is responsible for confirming that the reason for cancellation is input into the MOC System Comments section. A more detailed explanation, if required, may be included as a separate attachment to the MOC.

All cancelled MOCs are filed and remain available for viewing for the life of the facility. Cancellation of an MOC originally initiated to reduce facility and / or operational risk must include details of what other mitigations have been enacted to mitigate that risk or explain why risk mitigation is no longer a concern.

Part II – Technical MOC

Overview

Technical

Administrative

Organizational

10 Technical MOC Determination

A Technical MOC is used to formally evaluate, document, and authorize a **physical, chemical or process change affecting the integrity of the facility or operating activity**.

If the answer to any of these questions is "yes" a Technical MOC is required.

- Is this a change or deviation to operating design limits?
- Is this a change or deviation to process equipment specifications or use?
- Is this a change or deviation to the composition or use of process substances?
- Is this a change or deviation to process design or facility layout?
- Is this a material change to a Critical Document (see Appendix B for definitions)?

Appendix C provides examples to further clarify when a Technical MOC is required.

11 Technical MOC Process

11.1 General Process

It is the responsibility of all MOC participants to assure they are competent to perform the tasks assigned and to stop the job if unsafe conditions are observed.

Technical MOCs should only be initiated when the Initiator believes the change specifications are final and ready for implementation. Table 4 describes the Technical MOC stages and the primary responsibilities of the roles within each stage. These stages are conducted sequentially. Additional details can be found in Appendix D.

Table 4. Technical MOC Stages

- BLUE FONT represents activities **common to all MOC Types**
- *BLACK ITALIC FONT represents activities* ***specific to, or providing greater detail regarding, this MOC Type only***

Initiate	Initiator
• Identify change • Determine the type of the MOC • Identify, and communicate change to, Key Stakeholders • Conduct the appropriate Risk Assessment(s) with input from SMEs (see Appendix E for details) • Initiate the MOC in the MOC system, completing all fields accurately • Compile and load all supporting documentation and impacted documents into the MOC system (see Appendix F for details) • Participate in activities that support the MOC process, as needed. • *Determine the duration of the MOC (permanent or temporary)* • *Identify and red line controlled documents affected by the change (see Appendix F for details)* • *Select an approved Technical MOC Coordinator* • *Add all known Pre-Approval, Pre-Startup, and Post-Startup Actions and assign to Responsible Parties including Document Controller (Stage 2)*	Initiator should be the person most familiar with the change.

Table 4. Technical MOC Stages

Verify (Technical MOC Only)	**Verifier**
• *Endorse or reject MOC based on the:* o *merits of the change* o *need for an MOC* • *Notify the Initiator of the decision rationale if the MOC process does not apply (e.g. RIK)*	Verifier should be the AESTL or delegate or equivalent for non-Hub MOCs
Coordinate	**Coordinator**
• *Add Reviewer(s) and Approver(s), as requested by the Initiator* • *Review the information in the MOC system and work with the Initiator to revise as needed to comply with MOC requirements* • *Facilitate any required follow-up to assure the intent of the MOC was achieved* • *Complete fields in Coordinate stage with input from Initiator, including* o *PSSR Responsibility* o *Risk values*	Coordinator oversees the MOC process to assure conformance with MOC requirements.
Review	**Reviewers**
• Review the information in the MOC system • Add additional Reviewer(s) and Approver(s) as needed • Add and assign additional Action(s), as needed • Load any additional documentation required • Communicate any disagreement to the Initiator for resolution • Document and formally acknowledge their review and concurrence or rejection with the MOC in MOC System • *Technical Reviewer ensures other reviewers are added as needed (e.g., Marine / Floating Systems Engineer)*	Reviewers provide input related to their area of expertise. Technical reviewer shall not be the Initiator or the Approver
Pre-Approval Actions	**Responsible Parties**
• Complete designated actions in a timely manner • Confirm action completion in the MOC system and load any supporting documentation • Share any concerns with the MOC Initiator for resolution	Initiator and Reviewer(s) ensure the correct actions and Responsible Parties are identified.
Approve	**Approver**
• Confirm Pre-Approval Actions are complete • Approve or reject MOC based on documentation that all necessary: o Information has been included o Reviews have been completed o Actions have been identified and assigned • Work with the Initiator to attempt to resolve issues prior to rejecting • Document any reason for rejection in the MOC System for future learning • *Validate that the risk has been endorsed at the appropriate levels*	All MOCs with barrier impact to a purple and blue C+ risk shall be endorsed by the Risk Advisor.

Table 4. Technical MOC Stages

Pre-Startup Actions	Responsible Parties
• Complete designated actions in a timely manner • Confirm action completion in the MOC system and load any supporting documentation • Share any concerns with the MOC Initiator	Initiator and Reviewer(s) ensure the correct actions and Responsible Parties are identified.
Pre-Startup Safety Review (Technical MOC only)	**Responsible Parties**
• *PSSR Responsibility identifies the "PSSR Responsible Person(s)" to address PSSR section completion* • *Responsible Person(s) complete their designated PSSR section or specific action in a timely manner (see Appendix G for details)* • *Work with the Initiator to attempt to resolve issues prior to rejecting an MOC*	"PSSR Responsibility" is assigned by the Coordinator.
Authorization (Technical MOC only)	**Authorizer**
• *Confirm Pre-Startup Safety Review is complete* • *Verify appropriate actions have been identified and completed as indicated* • *Confirm the appropriate level of management has participated in the Verification, Risk Assessment, Review and Approve stages and is documented within the MOC System* • *Authorize Startup once satisfied the above is achieved* • *Work with the Initiator to attempt to resolve issues prior to rejecting an MOC*	The Authorizer should be the OIM for any change on a Hub.
Post-Startup Actions (Technical MOC only)	**Responsible Parties**
• *Complete designated actions within 90 days of MOC Authorization* • *Confirm action completion in the MOC system and load any supporting documentation* • *Share any concerns with the MOC Initiator*	Initiator and Reviewer(s) ensure the correct actions and Responsible Parties are identified.
Closure	**Coordinator**
• Confirm all actions and documentation are complete • Close MOC • *Close out the MOC prior to the 90-day post-Authorization close out rule* • *Follow-up on the disposition of Temporary MOCs*	Coordinator completes close out to verify conformance with MOC requirements

11.2 MOC Duration

11.2.1 Permanent

A Permanent Change is a change expected to follow all of the steps of the MOC process and remain in effect, not to revert back to its original state or initial condition. The majority of Technical MOCs will be permanent in nature. An MOC that remains open for more than two years should be reviewed every two years. If conditions (e.g., processes, equipment, and risk) have changed, the MOC should be closed and a new MOC created. If conditions are the same, this conclusion should be added as a comment to the MOC.

11.2.2 Temporary

A Temporary MOC may be used for a change which is not intended to be permanent. These MOCs will not exceed the approved time frame for the change without additional review and approval.

Temporary MOCs are not a recommended approach for changes that will be in place for significant periods of time, as changes in plant conditions over time may impact the original reason for putting the temporary change in authorized service. Therefore, use of Temporary MOCs should be minimized and carefully managed to ensure that the risks associated with such changes do not increase over time.

Strict requirements exist regarding Temporary MOC duration together with the requirement to periodically revalidate the original risk assessment. The maximum life of a Temporary MOC shall be 360 days following the Startup Authorization date. Any requirement to extend the temporary duration of the same change will require a revalidation of the risk assessment and additional explanation accompanied by Region EA and AOM approval.

Durations should be based on the expected time frame as well as any increase in risk. For Temporary Technical MOCs that are expected to be in place for 30 days or less the risk assessment for restoring back to previous state should be conducted at the same time as the initial temporary change risk assessment.

The GOO GoM Pre-Use Inspection and Qualification Checklist for Temporary Equipment (2030-T2-OP-PR-0002) provides clear standards and requirements regarding the design, procurement, operation, and maintenance of temporary equipment and systems.

As a Temporary MOC approaches its maximum selected and specified duration (90, 180 or 360 days), the MOC team shall decide to progress the MOC using one of the following Temporary Assurance Options:

1. Restore the temporary change to its previous state and progress to closure – requires revalidation of the original risk assessment
2. Extend the Temporary MOC – requires revalidation of the original risk assessment and explanation for extension and approval by the Region EA and AOM
3. Convert the Temporary MOC to a Permanent Technical MOC – requires a new risk assessment and new MOC (Note: Temporary MOC shall not be closed until the Permanent MOC has been authorized for startup)

11.2.3 Emergency

An Emergency Change is a change resulting from either an unplanned event or unplanned situation and needs immediate action to make the facility safe. In an Emergency Change, the change might be initiated prior to completion of the MOC. Changes undertaken in this manner are expected to be recorded in the MOC system and verified as soon as possible, and no later than 96 hours after the change has occurred.

During the emergency the site management of risk may be considered and managed through control of work procedures until the approved MOC can be put in place and authorized for service. In these cases, the change shall be permitted on the verbal authority of the OIM or equivalent.

The AOM should then be notified as soon as is reasonably practical. Emergency Changes require the earliest practicable coordination between local management and engineering.

The temporary or permanent MOC process (in the MOC system) shall be initiated **no later than 24 hours after the emergency has subsided** to confirm change(s) has been made and enable further evaluation of the change as necessary.

Following implementation, the temporary or permanent MOC for the Emergency Change should be completed through the Authorization Stage of the MOC process **within 7 days (168 hours).**

Part III – Administrative MOC

Overview

Technical

Administrative

Organizational

12 Administrative MOC Determination

An Administrative MOC is used to formally evaluate, document, and approve any changes to the content of, or deviations from, a policy, procedure, or administrative process at the Regional, Area or facility level that affects process safety, integrity management, environmental and regulatory compliance, OMS requirements, and contractual or other controlled documents.

If the answer to any of these questions is "yes" an Administrative MOC is required.

- Is this a material change to a Controlled Document?
- Is this a non-material change to Critical Document not already included in a Technical MOC?
- Is this a deviation from a BP Requirement?

If a Critical Document is being updated due to equipment, chemical, facility layout or process changes, the Critical Document update should be included in the Technical MOC for that change. If a Technical MOC was not completed, one should be done when updating the Critical Document.

See Appendix C for additional information regarding the MOC Determination.

13 Administrative MOC Process

13.1 General Process

It is the responsibility of all MOC participants to assure they are competent to perform the tasks assigned and to stop the job if unsafe conditions are observed.

Administrative MOCs should only be initiated when the Initiator believes the changed document or deviation is ready for implementation. Table 5 describes the Administrative MOC stages and the primary responsibilities of the roles within each stage. These stages are conducted sequentially.

Table 5. Administrative MOC Stages

- BLUE FONT represents activities **common to all MOC Types**
- *BLACK ITALIC FONT represents activities* ***specific to, or providing greater detail regarding, this MOC Type only***

Initiate	**Initiator**
• Identify change • Determine the type of the MOC • Identify, and communicate change to, Key Stakeholders • Conduct the appropriate Risk Assessment(s) with input from SMEs (see Appendix E for details) • Initiate the MOC in the MOC system, completing all fields accurately • Compile and load all supporting documentation and impacted documents into the MOC system • Participate in activities that support the MOC process, as needed • *Determine the duration of the MOC (permanent or temporary)* • *Select an approved Verifier/Coordinator* • *Add all known Pre-Approval and Implementation Actions and assign to Responsible Persons including Document Controller*	Initiator should be the person most familiar with the change.
Verify/ Coordinate	**Verifier/ Coordinator**
• *Add Reviewer(s) and Approver(s), as requested by the Initiator* • *Review the information in the MOC system and work with the Initiator to revise as needed to comply with MOC requirements* • *Facilitate any required follow-up to assure the intent of the MOC was achieved*	Verifier/ Coordinator Oversees the MOC process to verify conformance with MOC requirements
Review	**Reviewers**
• Review the information in the MOC system • Add additional Reviewer(s) and Approver(s) as needed • Add and assign additional Action(s), as needed • Load any additional documentation required • Communicate any disagreement to the Initiator for resolution • Document and formally acknowledge their review and concurrence or rejection with the MOC in MOC System	Reviewers provide input related to their area of expertise.
Pre-Approval Actions	**Responsible Parties**
• Complete designated actions in a timely manner • Confirm action completion in the MOC system and load any supporting documentation • Share any concerns with the MOC Initiator for resolution	Initiator and Reviewer(s) ensure the correct actions and Responsible Parties are identified.

Table 5. Administrative MOC Stages

Approve	Approver

• Confirm Pre-Approval Actions are complete
• Approve or reject MOC based on documentation that all necessary:
  o Information has been included
  o Reviews have been completed
  o Actions have been identified and assigned
• Work with the Initiator to attempt to resolve issues prior to rejecting
• Document any reason for rejection in the MOC System for future learning
	Approver should be the Document Owner or Authority

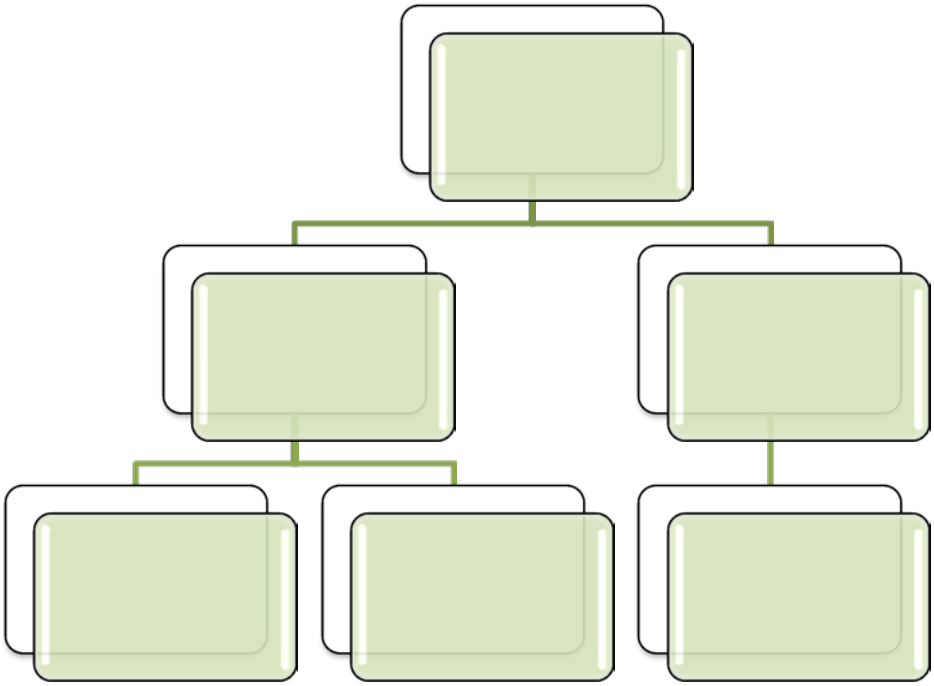
Implementation Actions	**Responsible Parties**
• Complete designated actions in a timely manner • Confirm action completion in the MOC system and load any supporting documentation • Share any concerns with the MOC Initiator	Initiator and Reviewer(s) ensure the correct actions and Responsible Parties are identified.
Closure	**Verifier/ Coordinator**
• Confirm all actions and documentation are complete • Close MOC • *Follow-up on the disposition of Temporary MOCs*	Verifier/ Coordinator completes close out to verify conformance with MOC requirements

13.2 MOC Duration - Administrative

A Permanent Administrative Change is a change expected to follow all of the steps of the MOC process and remains in effect, not to revert back to its original state or initial condition.

A Temporary Administrative MOC may be adopted for a change which is not intended to be permanent (e.g., deviations) and will not exceed the approved indicated time frame for the change without additional review and approval.

Part IV – Organizational MOC



Overview

Technical

Administrative

Organizational

14 Organizational MOC Determination

An Organizational MOC is used to formally evaluate, document, and approve any material changes to the people or organizational structure that affects process safety, integrity management, environmental and compliance with requirements.

If the answer to any of these questions is "yes" an Organizational MOC is required.

- Is there a change 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 (Table 6)?

Table 6 provides a list of roles that require Organizational MOC when transitioned to a new person.

Table 6. Roles Requiring Organization MOC

Area/Hub Ops Sub-Function	Sub-Functions
• Area Operations Manager (AOM) • Area Engineering Support Team Lead • OIM • OTL • Control Room Operator • Maintenance Team Lead • Lead Technician • Barge Supervisor • Ballast Control Operator • HSE Site Lead • Medics • Line Manager required*	• Extended Leadership Team, which includes all Team Leads within these sub-functions: o Logistics o HSE o Engineering Services o Subsea Operations o Activity Planning o Performance • Line Manager required*

* The Line Manager should use discretion on an individual basis and take into consideration the knowledge of the person(s) leaving or joining a role/team, the person's time in role, and the broader view of changes on a cumulative basis (i.e. three people transfer into/out of an advisor role within the same year).

15 Organizational MOC Types

GoM Organizational MOCs will be categorized by the following types:

- **1 to 1** - Organizational changes involving the transfer of responsibilities from one employee (Incumbent) to another (Appointment)
- **Blended** - Organizational changes involving the transfer of responsibilities from one or more employee(s) (Incumbent(s)) to another/others (Appointment(s)). For example, a blended, Organizational MOC can occur when an Incumbent transfers and his/her position is unfilled, resulting in a distribution of job responsibilities to multiple Appointments. Likewise, the reverse is possible, whereby multiple Incumbents' responsibilities merge to a single Appointment.
- **Organizational Structure** - Organizational changes involving changes of the structure and makeup of a Region team(s).

16 Organizational MOC Process

It is the responsibility of all MOC participants to assure they are competent to perform the tasks assigned and to stop the job if unsafe conditions are observed.

Organizational MOCs for 1 to 1 or Blended changes should only be initiated when the Organizational MOC Form (2010-T2-AD-FM-0002) is complete and signed off by Appointment(s). Table 7 describes the Organizational MOC stages and the primary responsibilities of the roles within each stage. These stages are conducted sequentially

Table 7. Organizational MOC Stages

- BLUE FONT represents activities **common to all MOC Types**
- *BLACK ITALIC FONT represents activities* ***specific to, or providing greater detail regarding, this MOC Type only***

Initiate	**Initiator**
• Identify change • Determine the type of the MOC • Identify, and communicate change to, Key Stakeholders • Conduct the appropriate Risk Assessment(s) with input from SMEs (see Appendix E for details) • Initiate the MOC in the MOC system, completing all fields accurately • Compile and load all supporting documentation and impacted documents into the MOC system • Participate in activities that support the MOC process, as needed • *Add any additional Reviewer(s) and Approver(s), as needed* • *Add all proposed Pre- and Post-Approval Actions and assign to Responsible Parties*	Initiator is often the incumbent leaving the role
Review	**Reviewers**
• Review the information in the MOC system • Add additional Reviewer(s) and Approver(s) as needed • Add and assign additional Action(s), as needed • Load any additional documentation required • Communicate any disagreement to the Initiator for resolution • Document and formally acknowledge their review and concurrence or rejection with the MOC in MOC System • *Formally accepts the responsibilities of the role upon approval*	Appointment(s) shall be included as reviewers for 1 to 1 or Blended changes
Pre-Approval Actions	**Responsible Parties**
• Complete designated actions in a timely manner • Confirm action completion in the MOC system and load any supporting documentation • Share any concerns with the MOC Initiator	Initiator and Reviewer(s) ensure the correct actions and Responsible Parties are identified.

Table 7. Organizational MOC Stages

Approve	Approver

• Confirm Pre-Approval Actions are complete
• Approve or reject MOC based on documentation that all necessary:
  o Information has been included
  o Reviews have been completed
  o Actions have been identified and assigned
• Work with the Initiator to attempt to resolve issues prior to rejecting
• Document any reason for rejection in the MOC System for future learning
• *Formally acknowledges the Incumbent had adequately handed over the responsibilities to the Appointment(s)*
	Approver(s) should include the Team Lead

Post Approval Actions	**Responsible Parties**
• Complete designated actions in a timely manner • Confirm action completion in the MOC system and load any supporting documentation • Share any concerns with the MOC Initiator	Initiator and Reviewer(s) ensure the correct actions and Responsible Parties are identified.
Closure	**Initiator**
• Confirm all actions and documentation are complete • Close MOC	Initiator is often the incumbent leaving the role.

Per Document UG 2.2-0001 "Upstream People Selection - S&OR Decision Rights," the Region VP S&OR holds "Agree" rights over Appointments into defined "S&OR Critical Roles."

When completing the Organizational Change Handover Form, the Initials and Handover columns are to be completed in writing by the Appointment(s) after the handover is complete for that item.

Appendix A MOC Conformance and Compliance Requirements

A.1 OMS 4.2 Management of Change

BP Entities employ a formal, systematic process to document, evaluate, approve and communicate temporary and permanent changes that could impact safe, compliant and reliable operating activity.

Group Essentials – Each BP Entity shall:

- 4.2.1 ***Implement*** and maintain a management of change (MOC) process for temporary and permanent changes.
- 4.2.2 Monitor ***legal and regulatory requirements*** and ***BP requirements*** so as to be aware of changes in these that might necessitate changes to the ***Entity operating*** activity.
- 4.2.3 Specify criteria for determining which proposed changes to ***Entity operating*** activity require application of the MOC process, paying particular attention to those affecting plant, material, equipment, technology, process, products, services, procedures, practices, people and organization.
- 4.2.4 Include in the MOC process: ***risk*** assessment, identification and application of ***risk reduction measures***; the required level of management approval; application of a review prior to implementing the change to verify that identified ***risk reduction measures*** are in place and identified training completed; and updating of relevant documents.
- 4.2.5 Communicate the details of the proposed change to affected members of the ***workforce***.
- 4.2.6 Track MOC actions to closure.
- 4.2.7 Verify the original scope and duration of temporary changes are not exceeded without review and approval

A.2 SEMS

30 CFR 250.1912 - What criteria for management of change must my SEMS program meet?
(a) You must develop and implement written management of change procedures for modifications associated with the following:
(1) Equipment,
(2) Operating procedures,
(3) Personnel changes (including contractors),
(4) Materials, and
(5) Operating conditions.
(b) Management of change procedures do not apply to situations involving replacement in kind (such as, replacement of one component by another component with the same performance capabilities).
(c) You must review all changes prior to their implementation.
(d) The following items must be included in your management of change procedures:
(1) The technical basis for the change;
(2) Impact of the change on safety, health, and the coastal and marine environments;
(3) Necessary time period to implement the change; and
(4) Management approval procedures for the change.
(e) Employees, including contractors whose job tasks will be affected by a change in the operation, must be informed of, and trained in, the change prior to startup of the process or affected part of the operation; and
(f) If a management of change results in a change in the operating procedures of your SEMS program, such changes must be documented and dated.

Appendix B Acronyms and Definitions

B.1 Acronyms

The table below provides acronyms used throughout this Procedure.

Abbreviation	Name
ABS	American Bureau of Shipping
AESTL	Area Engineering Support Team Lead
AOM	Area Operations Manager
BSEE	Bureau of Safety and Environmental Enforcement
CFR	Code of Federal Regulation
CSCR	Control System Change Request
CVP	Capital Value Process
DRID	Document Request Form and Impacted Documents Matrix
DSP	Decision Support Package
EA	Engineering Authority
EPCA	Engineering Practice Control Authority
ETP	Engineering Technical Practice
GOC	Guidance on Certification
GOO	Global Operations Organization
GPO	Global Projects Organization
GSMS	Global Service Management System
GWO	Global Wells Organization
HAZID	Hazard Identification Study
HAZOP	Hazard & Operability Study
HITRA	Hazard Identification & Task Risk Assessment
HSSE	Health, Safety, Security and Environmental
HUET	Helicopter Underwater Escape Training
IT&S	Information Technology & Services
LOPA	Layer of Protection Analysis
MEDL	Minimum Engineering Document List
MI	Management Information
MOC	Management of Change
OIM	Offshore Installation Manager
OMS	Operating Management System

Abbreviation	Name
P&ID	Piping & Instrumentation Diagram
PFD	Process Flow Diagram
PSE	Process Safety Engineer
PSSR	Pre-Startup Safety Review
RFA	Request for Action
RIK	Replacement in Kind
S&OR	Safety & Operation Risk
SEMS	Safety and Environmental Management Systems
SME	Subject Matter Expert
SOETL	Subsea Operations Engineering Team Lead
SOM	Subsea Operations Manager
SOP	Site Operating Procedure
SPA	Single Point of Accountability
STP	Site Technical Practice
TA	Technical Authority
USCG	United States Coast Guard
WSL	Wells Site Leader

B.2 Definitions

The following definitions are used in this document:

- **Shall** – designates a BP Requirement, and is used in BP Requirement Documents only when it is designating a BP Requirement.
- **Should** – designates a specific recommendation where conformance is not mandatory.
- **May** – designates an option that is not mandatory. This is generally offered as helpful advice
- **Change** – Modification to the Plant, Process or People involved in delivery of the business
- **Controlled Document** – written information that is used for day-to-day effective operations management that is managed through a formal process
- **Critical Document** – Documents directly vital to safe, reliable and effective operations of the facility, including drawings (e.g., P&IDs), facility layout drawings, regulatory required documents (e.g., Fire Control Plans), Lightship Weight Reports, and new Level 1 and 2 Site Operating Procedures.
- **Key Stakeholders** – Members of the organization directly affected by the change
- **Material Change** – To be material, a change must alter essential content of a document, such as the drawings, requirements, scope, roles and responsibilities, which would affect those using the document. Corrections and changes to document owners are not considered material.
- **Risk Assessment** – A broad term for formal and informal tools used to identify hazards, evaluate risks and develop safeguards to eliminate or mitigate risks to health, safety, the environment, financial aspects (plant) and non-financial aspects (reputational). Examples: Hazard Statement, HITRA, What-if Checklist, HAZOP, Quantitative Risk Assessment, etc. Hazard Analysis will be in accordance with GRP 3.1-0001 "Selection of Hazard Evaluation and Risk Assessment".

- **Site Operating Procedure** – a step by step set of instructions to enable a competent person to safely accomplish a task related to the Operating, Startup Shutdown of a process. These should be in checklist format. The degree of detail in the SOP should reflect the risks and complexity of the task to be performed.
- **Startup** – When the process is energized after change is complete
- **Sub Function** – Each team reporting to the GOO GoM VP Operations, including the each Area/Hub

B.3 Related Documents

The following table provides some, but not all, of the documents related to the content of this procedure.

Title	Document Number
GoM S&OR Register of Region Engineering, Marine, Operations and Technical Authorities	2010-T2-EA-RR-0001
GoM Major Hazards Risk Management Policy	2010-T2-IM-RP-0010
GoM Lightship Certification and Weight Management Procedure	2012-T2-WT-PR-0001
GoM MOC Self-Verification Protocol	2020-T2-DM-FM-0010
GoM Training and Competency Matrix for MOC Essential Personnel	2020-T2-DM-FM-0011
GoM Operations Document Request and Impacted Documents Matrix (DRID)	2020-T2-DM-FM-0014
GOO - GoM Topsides & Hull Operations Information Management Document Control (IMDC) Procedures	2020-T2-DM-PR-0003
GoM Production Pre-Startup Safety Review (PSSR) Checklist	2020-T2-OP-FM-0001
Request for Action (RFA) Work Flow Process and Procedure / BizFlow User Guide	2020-T2-OP-PR-0004
GoM Region Policy for Operating Procedures	2030-T2-CN-PL-0001
Pre-Use Inspection and Qualification Checklist for Temporary Equipment Operation	2030-T2-OP-PR-0002
Implementation of Technical Practices	DWGOM GP 00-0001
Site Technical Practice for the Management and Change Control of Programmable Electronic Systems	DWGOM GP 30-0003
Site Technical Practice for Override / Bypass Control	DWGOM GP 30-0130
Group Defined Practice - Assessment, Prioritization and Management of Risk	GDP 3-1.001
Hazard and Operability (HAZOP) Study	GP 48-02
BP Group Recommended Practice for Management of Change	GRP 4.2-0001
Group Recommended Practice - Marine Operations	GRP 5.6-0001
Contractor Health, Safety, Security and Environmental Management System (HSSE-MS) - Assessment and Retention Practice	UPS-US-SW-GOM-HSE-DOC-01038-2

Appendix C MOC Type Examples

The following are examples of changes that meeting the criteria for requiring an MOC. They are provided to bring some clarity to what requires an MOC and the MOC Type required, but are not by any means a complete list. When in doubt contact your AESTL or equivalent for clarity.

C.1 Technical MOC

If the answer to any of these questions is "yes" a Technical MOC is required.

- Is this a change or deviation to operating design limits?
- Is this a change or deviation to process equipment specifications or use?
- Is this a change or deviation to the composition or use of process substances?
- Is this a change or deviation to process design?
- Is this a change to a Critical Document (see Appendix B for a definition)?

C.1.1 Requires a Technical MOC

- Changes to operating conditions that could cause equipment or systems to be operated beyond their rated capacities (e.g., pressure, temperature, and flow rate).
- New Level 1 or 2 SOPs
- Disabling or modifying alarm setting out side of design limits
- Replacing process related equipment with equipment with specifications that are different from the original equipment
- Construction of new production or process facilities or new projects tied into existing facilities
- Permanent bypassing or removal of any safety system device.
- Change to an IT&S system or technology that will impact operating activities. If the change affects the global IT&S infrastructure, it must also be entered into the Global Service Management System (GSMS) in addition to the Region MOC process
- Use of new substances in the operating process
- Changes in the concentrations, amounts or manufacturer of substances used in the process

C.1.2 Does not require a Technical MOC:

- Changes to operating conditions that do not result in operations outside of design limits
- Work that does not affect operating activity or facility integrity
- Modification to a Level 1 or 2 SOPs, if the change does not meet any of the other criteria requiring a Technical MOC
- New or Modification to a Level 3 SOP
- Replacement in Kind
- Temporary bypassing, for a period of up to 7 days, of safety systems for routine testing, maintenance or start up purposes
- Routine activities including work covered by maintenance and operations procedures.
- Work controlled under other safety management practices (e.g., work permits under control of work).

C.2 Administrative MOC

If the answer to any of these questions is "yes" an Administrative MOC is required.

- Is this a change to the requirements in a Controlled Document?
- Is this any type of change to Critical Document not already included in a Technical MOC?
- Is this a deviation from a BP Requirement?

If a Critical Document is being updated due to equipment, chemical, or process changes, the modified critical document update should be included in the Technical MOC. If a Technical MOC was not completed, one should be done when updating the Critical Document.

C.2.1 Requires an Administrative MOC

- Changes to any requirements included in a Controlled Document
- Obsoleting or superseding a Controlled Document
- Modifications to Level 1 or 2 SOPs that are not part of a Technical MOC
- Non-material changes to a Critical Document
- Temporary deviation from a required process in a BP controlled document, while adjustments are made
- Temporary deviation in TWIC from Offshore Travel Requirements
- Deviation to a SWP due to conditions at the facility
- Selection of a new contractor company to perform work that could affect safe, reliable and effective operations
- Corrections to a Critical Document

C.2.2 Does not require an Administrative MOC

- Changes to the Authority or Custodian of a non-Critical Document
- Non-material changes to a non-Critical Document

C.3 Organizational MOC

If the answer to any of these questions is "yes" an Organizational MOC is required.

- Is there a change 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 (Table 6)?

C.3.1 Requires an Organizational MOC

- A reorganization moves the personnel and their responsibilities to a new team
- AOM delegates responsibilities for BP requirements
- New OIM for a facility is hired

C.3.2 Does not require an Organizational MOC

- Additional performance analyst role is created within a team of performance analysts
- New Industrial Hygienist is hired.

Appendix D Technical MOC Role Details

D.1 Initiator

Any BizFlow user can create an MOC. The Initiator should be the person most familiar with the proposed change (i.e., Expert on the change). They complete the actions required in the Initiate stage and own any facilitation required to complete the MOC with support from the Coordinator on the MOC Process.

D.2 Verifier (Technical MOC Only)

Verifiers understand the change, conditions of the operating process, and MOC process enough to determine if an MOC should proceed based on the information provided by the Initiator. This role is typically filled by the Sub Functions Engineering Team Lead (e.g., AESTL).

D.3 Reviewer

MOC Reviewers have the overall role of assessing proposed change and providing input within the MOC process relating to their area of expertise. All Reviewers should complete the actions under the Review stage for their respective disciplines.

In addition, there are a number of discipline-specific Reviewers who must be included in the Technical MOC process together with additional Reviewers who may be selected depending on the nature of the Technical MOC, the level of post mitigation risk and the selection choices of the Technical Reviewer during his/her MOC evaluation. The various Reviewers and their specific responsibilities, in addition to the general responsibilities documented above, are detailed in the sub-sections below. Note that an Initiator may or may not be called upon to act as a Reviewer for his/her own initiated MOC.

D.3.1 Technical Reviewers

The Technical Reviewer(s) are appointed by the AESTLs or the Subsea Engineering Team Leader for their respective Areas/Hubs. Typically the Technical Reviewer will be a Lead or an experienced engineer on the Area Engineering Support or Subsea Operations Teams. The role of the Technical Reviewer is to undertake an independent technical review of a proposed change and identify other key Reviewers as required. Due to the additional review assurance provided by having a separate check on the Coordinator decisions, the Technical Reviewer shall not coordinate the same MOC.

The Technical Reviewer has the following specific responsibilities:

- Reviewing the enclosed Technical MOC critical documentation (including P&IDs, PFDs, Layout Drawings etc.), paying attention to the following aspects to ensure that the appropriate TA and appropriate SMEs are selected as Reviewers for the proposed change, as required:
  - Applicable codes and standards
  - Basis of Design and relevant ETP/STPs
  - Deviations and/or modifications to operating and maintenance procedures
  - Risk Assessments
  - Consideration of the impact of the change on future operations
- Ensuring that the appropriate Marine / Floating Systems Engineer has been selected as a Reviewer for any Technical MOC that impacts an Area/Hub marine-related systems

- Ensuring that the appropriate Offshore Marine Reviewer (typically the Area/Hub Marine Team Lead) has been selected as a Reviewer for any Technical MOC that results in a weight impact (either addition or removal) on a Hub
- Ensuring that the appropriate Region Engineering Practice Control, Technical, Inspection, Operations or Marine Authority, or assigned delegate, has been selected as a Reviewer for any Technical MOC that meets the following, as required:
  - Results in changes that are outside the existing design envelope of the facility
  - Contains a deviation(s) from a "Shall" statement in a Group or Segment Defined ETP or deviation(s) from or changes to requirements in a GoM STP or valid existing facility technical practice.

D.3.2 Risk Advisor

The GoM Risk Advisor has the role of ensuring identified risks in GoM Operations are flagged to senior management for awareness and approval of mitigation actions and is added to Technical MOCs when either of the following happens.

- A new blue or purple risk is identified
- A significant change to the barriers of an existing blue or purple risk

The Risk Advisor is automatically added these MOCs.

D.4 Approver

D.4.1 Sub Function Engineering Team Lead

The Sub Function Engineering Team Lead (e.g., AESTL or SOETL) is accountable for the engineering performed in support of any managed change in their area and for leading their teams in the MOC process. Given this accountability, the AESTL or SOETL, or assigned delegate, shall approve every Technical MOC in their area. (Note that an assigned AESTL delegate should not fulfill the dual role of Technical Reviewer and MOC Approver).

Responsibilities in the MOC process include the following:

- Adhering to the GoM Technical MOC Procedure to ensure changes are managed to eliminate or reduce risks
- Ensuring MOC engineering requirements are properly executed for all technical changes
- Appointing Verifier/Coordinators and Technical Reviewers
- Verifying the engineering support personnel involved in the execution of the Technical MOCs have been trained in the MOC process and have the technical competency to fulfill their assigned roles
- Monitoring Technical MOC status and execution effectiveness via regular reviews
- Undertaking regular MOC self-verification audit activities to document conformance with the MOC Procedure and assign actions in Tr@ction as required.

D.4.2 Operations Manager

Operations Managers (AOM or SOM) are responsible for approving any Technical MOCs in their area with a post-mitigation risk ranking of Turquoise or higher.

D.5 Authorizer

OIMs are accountable for the safe implementation and start-up of any Technical MOC at their facility. Given this accountability, the OIM, or his/her assigned delegate, shall approve and authorize every Technical MOC that impacts the facility (except for facilities with drilling capabilities where Drilling and Completion related Technical MOCs are approved by the OIM and the WSL but only authorized for start-up by the WSL). Their responsibilities in the MOC process include the following:

- Ensuring that the operations personnel involved in the execution of the Area/Hub Technical MOCs have been trained in the MOC process and have the competency to fulfill their assigned roles
- Ensuring that the PSSRs, associated documentation and Pre-Startup Actions were appropriate, have been completed and that the change is safe to start-up
- Ensuring that any Post-Startup actions, if any, are identified, appropriate and are assigned for completion
- Confirming the change meets expectations for Regulatory compliance and conformance with BP HSSE codes and standards
- Verifying that all Area/Hub personnel affected by the change ("affected parties") have been made aware of the change and any associated increased risk or risk mitigations.
- Ensuring that no change is put into service without Start-up Authorization

D.6 Actions

D.6.1 PSSR Responsibility

The PSSR Responsibility is the individual assigned by the Verifier/Coordinator to select the PSSR Responsible Person(s) required to complete an assigned PSSR section in Technical MOCs. The PSSR Responsibility ensures the following:

- A Responsible Person is selected who has the necessary knowledge and competence to fulfill the role in completing their assigned PSSR Section
- The Responsible Person(s) complete their designated PSSR section or specific action in a timely manner.

D.6.2 Responsible Person

An MOC Responsible Person is an individual or user group assigned to complete the Pre-Approval Action, Pre-Startup Action, PSSR Section, or Post-Startup Action. Any MOC System user can be selected as a Responsible Person; however, it is the responsibility of the Initiator, Reviewer, Approver, and PSSR Responsibility to ensure that a Responsible Person has the necessary knowledge and competence to ensure their designated PSSR section or specific action is completed in a timely manner to permit MOC progression.

D.6.3 Document Controller

The role of the Document Controller is to ensure that updated documentation is correctly revised / annotated and uploaded to the correct cabinet in the appropriate document management system.

Appendix E MOC Risk

E.1 Technical

Each Technical MOC shall include a new or updated risk assessment that evaluates the risk after the change and all mitigating actions are complete. Approval and notification of estimated risks shall be performed in accordance with the risk matrix from the GoM Region Risk Management Policy (2010-T2-IM-RP-0010).

The MOC Risk Tool (Document Number (2010-T2-DM-FM-0011) has been developed to provide guidance on the selection of the risk assessment methodology. This tool walks the user through the risk assessment process and provides documentation of how the risk was assessed (method and participants) and the outcome. The tool addresses appropriate use of HAZIDs, HAZOPs, What Ifs, and Hazard Statements and includes a modified Hazard Statement for changes where the AESTL and PSE agree no barriers are impacted. The appropriate risk assessment is attached to each MOC. The tool is available on the OMS Navigator under 4.2.

Mitigating actions identified during the MOC risk assessment are entered as either Pre-Approval or Pre-Startup Actions, as appropriate, and the Responsible Person and Due Date identified in the space provided. Any mitigation actions that require closure by Operations are assigned to a member of the Operations team as the Responsible Person.

E.2 Administrative

Administrative MOCs shall include an evaluation of the risk after the change. If the change results in a change to existing barriers or a risk level, a Technical MOC should be considered. Any mitigating actions identified while evaluating this risk should be added as Pre-Approval or Implementation Actions.

E.3 Organizational

Organizational MOCs shall include an evaluation of the risk after the change. This should include cumulative risk if additional changes have occurred or are occurring around the same time. Any mitigating actions identified while evaluating this risk should be added as Pre-Approval or Post-Approval Actions.

Appendix F MOC Document Management

Documents, drawings, procedures etc. that will be affected by the change are identified on *GoM Operations Document Request and Impacted Documents Matrix (DRID)*.

Not every document identified on the Critical Document list is available for every Hub. However; if such a document is provided and if a change is made to that document it shall be included in the MOC.

The following documents provide additional details on handling MOC related documents in GOO GoM.

Title	Document Number
GoM Operations Document Request and Impacted Documents Matrix (DRID)	2020-T2-DM-FM-0014
GoM Controlled Document Catalog	2020-T2-DM-LI-0002
GOO - GoM Topsides & Hull Operations Information Management Document Control (IMDC) Procedures	2020-T2-DM-PR-0003
GoM Region Policy for Operating Procedures	2030-T2-CN-PL-0001
Implementation of Technical Practices	DWGoM GP 00-0001
Site Technical Practice for Override / Bypass Control	DWGoM GP 30-0130

The handling of various categories of MOC Documents is described in greater detail below.

F.1 Critical Documents

The following are examples of critical documents, which if impacted by a change, shall be attached to the MOC:

- Red-lined or updated Piping & Instrumentation (P&ID) drawings, Logic drawings, Area or Plan drawings, Electrical drawings, Instrument drawings, Structural drawings, Data sheets, PDMS Model shots, Procedures, etc.
- Red-lined or updated Regulatory documents including Fire Control Plans, Emergency Evacuation Plans, Safe Charts, Safety Flow Diagrams etc.
- Lightship Weight Report (if the MOC involves a weight change) detailing weight additions/reductions together with x, y, z coordinates and center of gravity determination. Refer to *GoM Lightship Certification and Weight Management Procedure* (2012-T2-WT-PR-0001) for more information.

Critical Documents shall be added or changes to them identified prior to the MOC review stage to ensure all reviewers are aware of these changes. All changes to drawings and documents should be clearly marked so as to fully describe or illustrate the nature of the change under review. This will allow the most efficient evaluation of the impact of the change.

It is important that any documentation attached to an MOC be organized and titled so that the Reviewers and Approvers can easily identify the Critical Documents requiring their review. Use of Zip Files for organizing documents by subjects (e.g., Red-lined drawings, Communication files, etc.) versus individual documents is a recommended approach.

All updated Critical Documents shall be added to the MOC within the 90 day window, following Startup Authorization, before the MOC can be closed out.

If any updated Critical Documents are identified subsequent to the Review stage being completed, the MOC shall be recycled back to the Reviewers and a note made in the "Comments" field indicating the reason for the recycle.

An accepted practice for minor field markups of engineering drawings (e.g., P&ID red-lining to note the switching from a legacy valve spec number (A2RN) to a standardize valve spec number (A2RN-GIS), to note a missing drain valve, to note a missing bleed valve, etc.) is to red-line the master field copies and submit them quarterly under a single MOC.

F.2 Regulatory Approval Documents

Many changes will require pre-approval of the change by various regulatory authorities either prior to construction/installation (ABS, USCG) or before Startup Authorization (BSEE). Documented approval notifications shall be attached to the MOC. In general these will be in the form of "stamped" drawings or formal approval letters, however some approvals may be email based and occasionally approvals may be verbally provided. In the case of the latter, documentation in the form of an email from the individual receiving the verbal approval shall be attached to the MOC. This email shall clearly identify the name of the regulatory approver and the time the verbal approval was given.

F.3 Non-Critical Documents

Non-critical documents may be attached to the MOC by the Initiator, Coordinator, or Verifier/Coordinator. The lack of these documents should not be used as a reason for holding up progress of the MOC. If a decision is made to attach non-critical documentation they can be added after MOC approval and even after Startup Authorization has occurred. However, updates or revisions should be added within the 90 day window for MOC close out following Startup Authorization. If non-critical documentation is not available to meet the 90 day close out window a new Administrative MOC should be initiated with an Action to upload the document and a reference to the original MOC. A reference to the Administrative MOC should be added to the original MOC prior to closure.

Non-critical documents include:

- Work Packs
- Project CVP Deliverables (e.g. DSPs, etc.)
- GOC & Quality documentation
- Vendor Documentation

Appendix G Pre-Startup Safety Review (PSSR) Checklist

GoM requires a PSSR be completed for all Technical changes prior to Startup Authorization. At a minimum, the PSSR shall:

- Review the impact of the change on safety and health
- Assure that risk assessment recommendations and actions have been resolved / implemented
- Verify construction is in accordance with design
- Document that safety, operating, maintenance and emergency procedures are in place and are adequate
- Ensure that communication and training for on-shift personnel affected by the change, "affected parties", has been completed prior to start up and for off-shift personnel at the first available handover opportunity.

Nevertheless, there are several distinctive technical changes that have the following, additional PSSR guidance:

MOCs with multiple equipment startups - In these cases and early in the MOC Initiation Stage, the Change Team should complete individual MOCs for each equipment item, especially if the startup of each item will occur between lengthy intervals. However, for lower risk changes to multiple equipment items (e.g., an up-rated pump seal or bearing design to multiple units) use of an individual paper PSSR process accompanied by a written Startup Authorization from the OIM for each individual unit may be acceptable, if scanned and attached to the MOC. Formal Start-up Authorization of the MOC for the final unit can then be completed and the MOC closed out within the 90 day period.

Instantaneous as-built, control logic, communication system, software, or structural technical changes - In these cases, startup occurs upon installation and/or implementation of the work scope (e.g. Personnel Heat Protection Cages, structural support which becomes load-bearing immediately upon installation, control logic or communication changes on live systems); the PSSR and Startup Authorization shall take place as soon as practical but no later than 24 hours after these field changes are completed.

Abandonment - In these cases, the PSSR provides assurance that the isolation has been safely achieved. Startup Authorization shall take place immediately after the PSSR is completed.

The workable PSSR checklist (which should be downloaded to ensure the latest version is used) is issued as Controlled Document Number 2020-T2-OP-FM-0001.