



EHSS Enterprise Program Process Management of Change (MOC)

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1 PURPOSE

This program aims to establish the guidelines to ensure that all changes are evaluated with respect to potential risks to health, occupational safety, quality, environment, business, company image and process safety, pointing out what measures should be taken to ensure that changes are not implemented or tested without proper risk analysis and with the necessary controls in place to identify, eliminate, control, minimize and/or prevent risks.

2 SCOPE

The requirements of this program apply to operations, distribution, capital and their related technical support groups within North America and South America. The program pertains to changes to our physical assets and processes in accordance with the Mosaic Management System (MMS) Element 10: Management of Change (MOC) policy and with legal requirements where applicable.

3 APPENDICES

The following appendices are associated with this Program:

Appendix	Appendix Title
A	Definitions
B	Roles and Responsibilities
C	Hazard Analysis for MOC's
D	Risk Ranking

4 GENERAL REQUIREMENTS

- 4.1 Process change is any action that is not a *Replacement-in-kind* that modifies or alters existing equipment or conditions.
- 4.2 All process changes must be approved by Operations prior to startup within the affected facility.
- 4.3 Process MOCs shall be completed using the SAP/S4 module in all facilities and operations where it is available¹.
- 4.4 All MOCs are required to have communication to affected personnel.
- 4.5 Required documentation must be included in the MOC folder in Content Server.

5 STAGE 1: INITIATION OF A CHANGE

¹ Excel version of MOC is acceptable for Legacy sites without SAP/S4 module.



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5.1 Requesting a Change

5.1.1 To initiate a change, an SAP/S4 user² must create a *Change Request* and is prompted to provide mandatory information, including:

5.1.1.1 Description of the change

5.1.1.2 Justification or rationale

5.1.1.3 Indication of *Emergency* change, if applicable

5.1.1.4 Change impact (risk ranking)

5.2 Document Control

5.2.1 Each MOC must have a Content Server folder³ specific to the Change Request to store all additional documentation.

5.2.2 The Content Server MOC folder should be attached as a "Link" using the URL.

 **Note:** The system is configured such that specific fields must be populated to progress the Change Request per Mosaic requirements.

6 STAGE 2: PLANNING (ASSESSMENT AND APPROVAL) MOC Assessment

6.1 Change Request Review

6.1.1 Once the *Change Request* is submitted, the Change Coordinator is automatically notified by email for *Initial Evaluation* to answer a series of questions related to the change.

6.1.2 Answers to the *Initial Evaluation* questions will determine the applicable Subject Matter Expert (SME) reviews required for the requested change.

6.1.3 Either the Area Owner or Change Coordinator shall validate the risk ranking, personnel proposed to manage the activities, and the overall change request.

6.1.4 Risk ranking will affect:

6.1.4.1 Approval designees

6.1.4.2 Reviews

6.1.4.3 Process Hazard Analysis

6.1.4.4 Pre-Startup Safety Review Questions

6.1.4.5 Notifications

6.1.4.6 Closure

6.1.5 The Area Owner is responsible for the *Initial Approval* and can *Approve* or *Reject* the *Change Request* as applicable.

² Only personnel with a Mosaic user account may access the system.

³ Legacy sites that do not have access to Content Server could use other platforms for controlled documents.



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6.1.6 If *Change Request* is rejected, Change Coordinator and Requestor will be notified via e-mail.

6.1.7 The rejected *Change Request* could be put back in process if needed.

6.2 Review and Evaluate / Assess the Change

6.2.1 Upon approval of the *Change Request*, the change progresses for more in-depth evaluation by technical discipline.

6.2.2 SME's will be auto-notified to carry out their respective *Evaluation*.

6.2.3 The answers from questions in the *Evaluation* segment trigger the automatic assignment of potential activities as action items in the next stages of the process.

6.2.4 All changes require *Safety* and *Environmental* evaluations to be completed, regardless of scope of the change.

6.3 Reviewers

6.3.1 Reviews must be completed by personnel within that discipline when the risk impact is above the lowest ranking.

6.3.1.1 i.e., Safety Professional must complete the *Safety Review*.

6.3.2 For changes to assets or process controls in PSM/RMP-covered areas within the US, the PSM engineer must be included as a reviewer.

6.3.3 To ensure the integrity of the process, it is a best practice that the change is approved by personnel that did not submit an SME *Evaluation*.⁴

 **Note:** If any part of the MOC is inadequate or its risk potential is not properly ranked, **DO NOT SIGN OFF**. All team members are collectively responsible for identifying and mitigating risk, **NOT INCREASING RISK** to our personnel, the environment, or our business.

6.4 Approval and Release for Implementation

6.4.1 Upon submission of the *Evaluations*, the change progresses to the *Management Approval Request* step.

6.4.2 By issuing a *Management Approval*, the Area Owner is verifying that:

6.4.2.1 Sufficient details related to the scope, justification, and technical basis are documented within the request.

6.4.2.2 The selected impact (risk level) is suitable.

6.4.2.3 The information submitted by the subject matter experts is adequately explained, risks are identified, and appropriate actions are proposed.

⁴ In certain circumstances, such as Blending Units or Distribution facilities, it may be necessary to have overlap in reviewer and approval assignments.



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6.4.2.4 Personnel can continue to work on implementation of the change.

7 STAGE 3: EXECUTION AND STARTUP

7.1 Automatic Action Item Assignments

- 7.1.1 Depending on the *Evaluation* results, specific action items will be pre-populated for executing prior to the change implementation, after the change is implemented, and upon startup.
- 7.1.2 The Change Coordinator, or other personnel with applicable permission levels, may adjust the actions and assignees as needed.

7.2 Post-Change / Before Startup of Activities⁵

- 7.2.1 After all *Post-Change/ Before Startup of Activities* tasks are executed in the field and marked complete by the Change Coordinator, the request advances to the *Pre-Startup Activities* phase.

7.3 Pre-Startup Activities, including the Pre-Startup Safety Reviews (PSSR)

- 7.3.1 PSSR questionnaires are in checklist format, and they are assigned as a final check prior to startup of a change and are classified as “short” or “long.”
- 7.3.2 All MOCs will require the “*Short PSSR*” questions to be answered.
- 7.3.3 All levels of risk except for minor require one or more “*Long PSSR*” questionnaires to be answered.
- 7.3.4 The assignment for completion of the “*Long PSSR*” questions is determined in the previous stage of the MOC process.

7.4 Approval⁶

- 7.4.1 Once the PSSR checklists are complete, the *Change Request* routes to the Management Approver.
- 7.4.2 By issuing an approval, the Management Approver is verifying that:
 - 7.4.2.1 All implementation plans satisfy the requirements.
 - 7.4.2.2 PSSR checklists are completed to the best of the team’s knowledge.
 - 7.4.2.3 Start-up of equipment and processes may commence.
- 7.4.3 The Management Approver request includes the option for rejection.

7.5 Post-Startup Activities⁷

⁵ Previously in the “Pre-Start” tab in Maximo.

⁶ Formerly the “Authorize” tab in Maximo.

⁷ Previously in the “Post-Start” tab in Maximo



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- 7.5.1 The system will generate post-startup activities based on the results of the review questions.
- 7.5.2 The Change Coordinator has option of adding additional post-startup activities where required.

8 STAGE 4: EVALUATION AND CLOSURE

8.1 Review and Closure

- 8.1.1 Once all *Post-Startup Activities* are completed, the *Change Request* moves to the *Evaluation and Closure* phase.
- 8.1.2 Area Owner will receive a request notification to complete the *Change Request Closing Questionnaire*.
- 8.1.3 For an *Emergency* or *Temporary Change Request*, the Change Coordinator is prompted to decide if the *Change Request* needs to be reversed or become permanent instead of routing to the *Evaluation and Closure* phase.
- 8.1.4 By completing the *Change Request Closing Questionnaire*, the *Change Request* is closed, and the user is verifying that:
 - 8.1.4.1 All appropriate documentation is attached.
 - 8.1.4.2 All actions are complete.
 - 8.1.4.3 Updated drawings are published in document management system.

9 TEMPORARY CHANGES

- 9.1 For changes where there is an intent to revert to the prior state of the assets, there is an option to select “*Temporary*” in the initial entry process for the *Change Request*.
- 9.2 *Temporary Change Requests* follow the same process as a *Permanent Change*, with an additional step added after the PSSR Activities stage.
- 9.3 Temporary changes and related MOCs can remain in place for up to 6 months.
- 9.4 There is an allowance for a temporary MOC extension, but once that extension time lapses, the MOC must either be returned to the original condition OR permanent MOC created.
- 9.5 After completion of the *PSSR Activities* stage, the Change Coordinator is prompted to decide whether the change will remain in place. For change to remain in place, Change Coordinator should create a permanent MOC as a *Child Change Request*.

10 EMERGENCY CHANGES

- 10.1 For increased urgency, users may select “*Emergency*” in the initial entry process for the *Change Request*.



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- 10.1.1 *Emergency Change Requests* are initially routed the same way as a Permanent or Temporary Change.
- 10.1.2 The *Change Request* is entered, marked as *Emergency*, and submitted to a user-selected Change Coordinator for review and approval.
- 10.1.3 The Change Coordinator reviews the *Change Request*, adds additional information as prompted, and submits to move forward.
- 10.1.4 Under the *Emergency* designation, the *Change Request* will proceed directly to an Area Owner Approver, bypassing the *SME Review* phase due to the nature of the request urgency.
- 10.1.5 Once the Area Owner approves it, then the *Change Request* is routed to a Management Approver.
- 10.1.6 After Management Approval is granted, the *Change Request* continues the same routing to:
 - Pre-Change Implementation Activities,
 - Executing the Requested Range,
 - Post-Change / Before Start-up Activities, and
 - Post-Change Activities.
- 10.2 If *Emergency Change* is not reversed to original condition, Change Coordinator should create a "Child" *Change Request* within 3 business days.
- 10.3 The "Child" *Change Request* could be temporary or permanent and is linked to the original *Emergency Change*, which is now a "Parent."
- 10.4 The "Child" *Change Request* commences at the initial entry screen to begin the process again.

11 TIE-IN TO CAPITAL PROJECT MANAGEMENT (CPM)

- 11.1 *Change Requests* should be initiated during FEL 3 phase (by Gate 4) of the capital project management process timeline.
 -  **Reference:** [Capital Project Management \(CPM\) Roadmap](#)
- 11.2 The Project Systems module of SAP/S4 HANA is not explicitly connected with the MOC module and is solely used for financial management of projects.
- 11.3 Together with site teams, Project Engineers and functional support groups are responsible for determining needs for *Change Request(s)* on a case-by-case basis.

12 ADDITIONAL ITEMS

- 12.1 Maintenance Orders Controls



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12.1.1 A *Maintenance Order* connected to a *Change Request* will have system-automated status updates that move forward based on the *Change Request* progress. This applies to any type of *Maintenance Order* that has the *Change Request* tied to it.

12.1.2 The *Maintenance Order* tie-in is part of the initial *Change Request* phase.

12.1.3 The *Maintenance Order* may not proceed in the planning workflow if the related *Change Request* is not approved and released.

12.2 Parent/Child Change Requests Feature

12.2.1 The option to create one or more “*Child*” *Change Requests* is available for discretionary use for any *Change Request*.

13 TRAINING

13.1 Training for Process Management of Change encompasses both the concepts of managing change and the SAP/S4 HANA platform toolset for documenting the change process.

13.2 The following table outlines the training required:

Audience	Training Elements / Topics	Frequency	Method
All MOC Users	Training for GDA Program Rollout	Initial	ILT
All Employees	Basic Management of Change Awareness	Initial	OLT
All MOC Approvers	Management Approvers and Area Owner Approvers	Initial	OLT
All Reviewers	SME Reviewers	Initial	OLT
All Change Coordinators	Change Coordinator	Initial	OLT
All MOC Users	Refresher for all users	3 years	OLT

13.3 Retraining

13.3.1 Retraining in safety related work practices and applicable changes in this Program shall be performed every 3 years.

13.3.2 In addition, an employee shall receive additional training (or retraining) if any of the following conditions exist:

- Program requirements change;
- Changes in the workplace render previous training obsolete;
- Inadequacies in the employee’s knowledge is of concern;
- Change in job position or role;

13.4 Training records



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13.4.1 Training records shall be maintained within the Learning Management System (LMS).

14 SELF-ASSESSMENTS

14.1 Site self-assessment shall be conducted in accordance with the MMS requirements.

15 PROGRAM REVIEW

15.1 Enterprise EHS team will review this program on a 7-year cycle and update as required.

16 REFERENCES

References
MMS Element 10 – Management of Change (126558612)
OSHA eCFR :: 29 CFR 1910.119 -- Process safety management of highly hazardous chemicals.
EPA eCFR :: 40 CFR Part 68 -- Chemical Accident Prevention Provisions
Global Records and Information Management Policy
Capital Project Management (CPM) Roadmap

17 REVISION LOG

Rev. No.	Rev. Date	Revised By	Reason for Revision
1	2019	D. Evans	Update
2	2021	R. Cockerill, J. Varga, N. Ellis	Update for review cycle
3	2024	R. Cockerill, N. Ellis	SAP/S4 HANA Implementation