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## Management of Change

### Purpose

To establish and implement a management system which proactively reviews and documents all changes for MIOSHA Part 91 Process Safety Management (PSM) and EPA 40CFR68 Risk Management Processes (RMP) for the Escanaba Mill under the Management of Change (MOC) requirements.

Uncontrolled changes to processes, process chemicals, technology, equipment, procedures, and facilities can introduce potentially unsafe or hazardous conditions into the mill. Our policy is to manage changes in regulated processes according to this procedure and to assure that the level of safety originally designed into the process is maintained or enhanced.

### Extent

The Management of Change (MOC) system covers facilities and procedures involved in the design, maintenance, and operation of the following covered process chemicals: anhydrous ammonia, chlorine, chlorine dioxide, methanol and turpentine. This system must be applied whenever any changes are to be made to a regulated process. The MOC system is a method of requesting, documenting, approving, and communicating changes that are to be made to a regulated process. The MOC system includes person responsible for initiating the change; proposed changes; approval levels of the change; length of time for the change (temporary) and a review process for the consequences of change.

## I. Definitions

- A. **Request for Change** – a form and a process that must be completed before a change can take place under the PSM and RMP standards. For our facility it will be the Area Superintendent/Manager.
- B. **Originator** – the person responsible for initiating the Request for Change and completing the ROC form, this employee will be Area Superintendent/Manager for the Kraft Mill or Outside Utilities or their designee or Mill PSM Coordinator. Under Emergency MOC originator can be Area Foreman or Lead Operator.
- C. **Replacement in Kind** – a direct substitution of process chemicals, technology or equipment that satisfies the design specifications. Replacement-in-kind **does not** require a request for change form
- D. **Replacement-not-in-Kind** – any substitution of process chemicals, technology or equipment that is not a direct substitution. Replacement-not-in-kind **does** require a request for change form.

## II. Responsibilities

- A. The Area Superintendent/Manager is the originator of the request for change and must complete the following for management of change:
  - 1. Determine that the change is:
    - a. replacement-in-kind or replacement-not-in-kind (if replacement in kind no need to continue), and
    - b. permanent or temporary
  - 2. Start Request for Change form

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3. Send invite for an initial Request for Change meeting for approval of change to the following (or their designee):  
Area Superintendent, Maintenance Supervision Representative, PSM Coordinator, Process Control Representative (if necessary for the change).
4. Tracking documentation
5. Ensuring all necessary reviews and preliminary estimates are complete.
6. Assist in updating all documentation (i.e., P&IDs, PSI, PHA, SOPs, etc.).
7. Ensure all affected employee are properly trained.
8. Ensure Pre-Start-up Safety Review is completed.
9. Properly notify all affected employees using the Notice of Change form
10. Complete Request for Change form and forward to PSM Coordinator.

**B. Maintenance Representative must:**

1. Participate in meetings on MOC
2. Assist in updating documentation that pertains to their area (e.g., Mechanical Integrity and P&IDs).
3. Serve as technical advisor to Area Superintendent/Manager
4. Assist with training affected employees

**C. PSM Coordinator must:**

1. Participate in meetings on MOC
2. Assist Area Superintendent in monitoring progress of MOM and Request for change.
3. Assist with training affected employees and updating procedures and SSOPs.
4. Assist in updating all documentation (i.e., P&IDs, PSI, PHA, SOPs, etc.).

**D. Process Control Representative must:**

1. Participate in meetings on MOC (if necessary)
2. Serve as technical advisor to Area Superintendent/Manager
3. Assist in updating documentation that pertains to their area

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Step	Who Does It	Action
1	Area Superintendent/ Manager in the Kraft Mill or Outside Utilities or PSM Coordinator (also known as the <i>originator</i> )	Identify the change.
2	Originator	Determine that the proposed modification is a change (see examples and end of procedure) and not a “replacement in-kind.”  <b>IF.....it is a replacement-in-kind</b> <b>THEN...the change can be made without any further action. No additional process safety management documentation is required.</b>  <b>IF....the proposed modification is not-in-kind.</b> <b>THEN....complete a “Request for Change” form and route the form to the appropriate reviewers/approvers.</b>
3	Originator	Obtain a Request For Change (RFC) form and fill that information which is available.
4	Originator	Send invitation to representatives from maintenance, safety and process control (if necessary).
5	Originator, Maintenance Rep, PSM Coordinator (or Safety Manager) and Process Control Rep (if necessary)	Hold initial meeting to explain request for change. Have pertinent information available.  Group will approve or deny based upon information present (additional data collection may be required, which could postpone approval)  IF....the Request for Change is not approved, THEN....then the group will determine a viable option, if necessary. In the event the RFC is denied a copy will be given to the PSM Coordinator for the records.
6	Originator, Maintenance Rep, PSM Coordinator (or Safety Manager) and Process Control Rep (if necessary)	Work can not begin until at least three signatures are on the Request-For-Change form under initial signatures.
7	Originator, Maintenance Rep, PSM Coordinator (or Safety Manager) and Process Control Rep (if necessary)	If the approved change has taken place, determine if there are any training, documentation, safety, health or environmental concerns that must be addressed before startup. Conduct Pre-Startup Safety Review (if required)
8.	Originator	Notify the affected employees using the Notice of Change form
8 9.	Originator, Maintenance Rep, PSM Coordinator	Update all PSM documentation with the change involved.

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### VI. MOC for Emergency Management of Change

In an emergency situation, the normal MOC procedure may not be adequate to allow changes quickly to prevent hazardous condition from occurring. In emergency situations, this emergency MOC procedure must be followed.

Step	Who Does It	Action
1	Originator (Area Foreman or lead operator)	<p><b>Ask the following three (3) questions to determine if it is an emergency change:</b></p> <ol style="list-style-type: none"> <li>1. Is the change required <b>NOW</b> to avoid personal injury or equipment damage?</li> <li>2. Is the change required <b>NOW</b> to avoid adverse impact to the environment or the community?</li> <li>3. Is the change required <b>NOW</b> to avoid severe economic penalty?</li> </ol> <p>If any one of the three questions is answered with a <b>“YES”</b> , then an emergency change will need to be initiated.</p>
2	Originator (Area Foreman or lead operator)	<p><b>IF....the emergency change happens after normal business hours THEN....the Area Foreman will need to monitor the emergency change until the first regular shift during normal business hours.</b></p>
<p><b>IMPORTANT!</b> For an emergency change after normal business hours, an emergency team needs to be assembled as soon as the emergency change has been identified. The Team should be composed of at least three people knowledgeable about the process, one of which should be an operator.</p>		
3	Originator (Area Foreman or lead operator)	<p><b>IF ....the emergency change is performed <i>after business hours</i> THEN.... inform the Area Superintendent and Safety of the corrective action taken on the regulated process.</b></p>
4	Originator (Area Foreman or lead operator)	<p><b>IF...the request for change is an emergency change during business hours THEN...the area superintendent with the help of the maintenance supervisor will approve the emergency change.</b></p>
5	Originator (Area Foreman or lead operator)	<p><b>IF....if is determined not to be an emergency THEN....follow the normal procedure.</b></p>
6	Originator	<p><b>Complete the Request for Change form (within 48 hours) for emergency changes, follow Step 5 above.</b></p>
7	Originator	<p><b>Notify the affected employees using the Notice of Change form</b></p>

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### VII. MOC Examples: Replacement-in-Kind Vs Replacement-not-in-Kind

<i>Example 1:</i> Operating Parameters	<b><u>Changing a pump operating speed above or below the original operating limits.</u></b>  Operators must have the flexibility to maintain an operation within the safe operating parameters (pressure limits, temperature ranges, flow rates, etc.). However, any intentional change or operation outside of the established control limits would require an approved <b><u>“Request for Change”</u></b> .
<i>Example 2:</i>  <i>Process Technology</i>	<b><u>Changing the pipe internal diameter size from smaller to larger in order to achieve a higher flow capacity.</u></b>  <b><u>Yield or quality changes including: production rates, raw materials, catalysts, operating conditions, equipment availability, new equipment or new product development would require an approved “Request for Change”.</u></b>
<i>Example 3:</i>  <i>Equipment</i>	<b><u>Substituting the original specified gasket material in a flanged connection to achieve a better seal.</u></b>  <b><u>Equipment changes including: material of construction, equipment specifications, piping pre-arrangements, valve settings, experimental equipment, computer program revisions and changes in alarms and interlocks would require an approved “Request for Change”.</u></b>
<i>Example 4:</i>  <i>Replacement- In Kind</i>	<b><u>Re-routing a pipeline to allow more room for process equipment.</u></b>  <b><u>If materials and sizes are not changed and the new route does not affect system operation, then the change does not require a “Request for Change”.</u></b>
<i>Example 5:</i>  <i>Replacement-In Kind</i>	<b><u>Using an acceptable replacement pump seal as specified by the pump manufacturer.</u></b>  <b><u>A replacement part that meets all applicable standards and codes, is similar in design and function AND that is documented as acceptable by the manufacturer would be considered “IN KIND” and does not require a “Request for Change”.</u></b>
<i>Example 6:</i>  <i>Replacement-In Kind</i>	<b><u>Constructing a mezzanine around process equipment to allow for maintenance to access the equipment.</u></b>  <b><u>If a new structure does not change or interfere with safe system operation, then it does not require a “Request for Change”.</u></b>

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<b>Request for Change</b>		<b>Department:</b>	
		<b>RFC No.:</b>	
Originator:	<b>Type of Change Requested</b>		
Date:	Permanent:	<b>Emergency Change Approvals</b>	
<b>Description and Purpose of the Change</b>	Temporary:		
	Expiration Date:		
	Emergency:		
1. Equipment/Piping 2. Instrumentation/Electrical 3. Facilities 4. Process Technology 5. Operating 6. Chemical Inventory 7. Project Design 8. Other		Originator:	
		Affected Area Supervisor/Foreman:	
		Date:	
		Area Foreman/Tour Maint. Foreman/Operator w/Process Knowledge:	
		Date:	
Describe the Proposed Change:			
Technical Basis for the Change:			
Describe Impact on Process or Personnel, Safety and/or Environment:			
<i>INITIAL REVIEW AND APPROVAL TO PROCEED</i>			
Area Superintendent:	Date:	Safety Department Representative:	Date:
Maintenance Representative:	Date:	Process Control Representative (if necessary):	Date:
<b>PROCESS HAZARD ANALYSIS (If Required)</b>			
PHA Assigned To:	Date PHA Completed:		
<b>PRE-STARTUP SAFETY REVIEW (If Required)</b>			
PSSR Assigned To:	Date PSSR Completed:		
<b>DOCUMENTATION TO BE UPDATED</b>			
<b>Check</b> Those That Apply:	Completion Date	Responsible for Completion	
<input type="checkbox"/> Operating Procedures			
<input type="checkbox"/> Emergency Procedures			
<input type="checkbox"/> Mechanical Maintenance Procedures			
<input type="checkbox"/> Verify Design Specification			
<input type="checkbox"/> Process Safety Information			
<input type="checkbox"/> Material Safety Data Sheets			
<b>TRAINING/COMMUNICATION</b>			
Describe the Training Conducted and Date Completed:			
Individual Responsible for Conducting Training:			
<i>Documentation of Training must be retained by Area Trainer</i>			
<b>FINAL APPROVAL</b>			
Area Superintendent:		Date:	

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**NOTICE OF CHANGE FOR A  
HIGHLY HAZARDOUS CHEMICAL PROCESS**

According to the OSHA regulation 29 CFR 1910.119 concerning Process Safety Management of Highly Hazardous Chemicals, a change is to be made and in the following covered process:

- Kraft mill Chlorine Dioxide (R8) System including Methanol
- Turpentine Recovery System
- Waste Water Treatment Anhydrous Ammonia System
- Water Treatment Chlorine System
- Sanitary Plant Chlorine System
- Bay Pump Station Chlorine System

A copy of this Notice of Intended Change shall be posted in the covered area for a minimum of four (4) weeks.

MOC#: \_\_\_\_\_ Implementation Date: \_\_\_\_\_  
 Description of Change: \_\_\_\_\_

Signed \_\_\_\_\_ Date \_\_\_\_\_  
 Originator of Change

Title \_\_\_\_\_  
 Originator of Change

Copy: PSM Coordinator  
 Maintenance Representative

**Copy Posted in Covered Area**

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