



**EHSS Process Safety Management & Risk Management Plan Program**  
**PSM & RMP Operating Procedures**

<b>Location / Applicability:</b> NAB Concentrates and Distribution Facilities	<b>Originating Department:</b> Process Safety Management Team, NAB EHS
<b>Document Owner:</b> Neisy Ellis, PSM NAB	<b>Document Approver:</b> Holland Thompson, HS Director NAB
<b>Effective Date:</b> 09/15/2021	<b>Review Due Date:</b> 09/15/2024

**Table of Contents**

1 PURPOSE.....2

2 SCOPE.....2

3 RESPONSIBILITIES..... 2

4 GENERAL REQUIREMENTS..... 2

5 DOCUMENTATION REVIEWS.....3

6 EHS SAFE WORK PRACTICES.....4

7 REFERENCES..... 4

8 REVISION LOG.....5



## EHSS Process Safety Management & Risk Management Plan Program

### PSM & RMP Operating Procedures

---

#### 1 PURPOSE

This program was written to outline requirements for documenting operating procedures and safe work practices to comply with requirements of OSHA 1910.119 Process Safety Management and EPA 40 CFR 68 Chemical Accident Prevention.

#### 2 SCOPE

2.1 Process Safety Management and Risk Management Plan requirements apply to the Mosaic sites listed below.

2.1.1 North America Business Unit facilities: Bartow, Faustina, New Wales, and Riverview

2.1.2 Distribution Business Unit facilities: Henderson, Hookers Point, and Port Sutton

#### 3 RESPONSIBILITIES

The following responsibilities are associated with this program:

Group	Responsibility
Area Leadership	<ul style="list-style-type: none"> <li>Ensures operating procedures are certified annually for accuracy and documented in Content Server</li> <li>Ensures operating procedures are current and accurate</li> </ul>
PSM Engineer	<ul style="list-style-type: none"> <li>Collaborates with site teams to ensure operating procedures are reviewed as needed</li> <li>Ensure operating procedures are certified annually through Content Server for accuracy</li> <li>Ensuring operating procedures are current and accurate</li> </ul>
Information Management Administrator	<ul style="list-style-type: none"> <li>Ensures folder permissions and file structure allow accessibility for personnel</li> </ul>

#### 4 GENERAL REQUIREMENTS

4.1 Operating Procedures may be in any existing format provided that the criteria contained in this procedure are included.

4.2 Operating procedures shall be developed for each operating phase. The phases to be considered at a minimum are:

4.2.1 Initial startup

4.2.2 Normal operations



## **EHSS Process Safety Management & Risk Management Plan Program**

### **PSM & RMP Operating Procedures**

---

- 4.2.3 Temporary operations
- 4.2.4 Emergency shutdown must include the following:
  - 4.2.4.1 Conditions under which emergency shutdown is required
  - 4.2.4.2 The assignment of shutdown responsibilities to qualified operators
  - 4.2.4.3 Include return to normal operations conditions
- 4.2.5 Emergency Operations, including
  - 4.2.5.1 Initiating or triggering conditions or operating limits
  - 4.2.5.2 Return to normal operating conditions
- 4.2.6 Normal shutdown
- 4.2.7 Startup following a turnaround or after an emergency shutdown
- 4.3 Operating Procedures shall include, or reference, at least the items below.
  - 4.3.1 Standard Operating Control Limits, including:
    - 4.3.1.1 Equipment identification.
    - 4.3.1.2 Upper and lower process control limits such as temperature, pressure and level. If an emergency shutdown or emergency operations procedure is triggered by process control limits, then reference the appropriate procedure.
    - 4.3.1.3 Consequences of deviation from the upper and lower control limits, including those affecting the safety and health of employees.
    - 4.3.1.4 Steps to correct or avoid deviation from the upper and lower control limits.
    - 4.3.1.5 Include engineering and administrative controls
    - 4.3.1.6 Additional preventative protection equipment (PPE) if necessary
  - 4.3.2 Safety and Health considerations, including:
    - 4.3.2.1 Properties of the chemicals used in the process and Hazards presented by the chemicals.
    - 4.3.2.2 Precautions necessary to prevent exposure including engineering controls, administrative controls and personal protective equipment.
    - 4.3.2.3 Measures to be taken if physical contact or airborne exposure occurs.
    - 4.3.2.4 Quality control for raw materials.
    - 4.3.2.5 Control of hazardous chemical inventory levels.
    - 4.3.2.6 Any special or unique hazards.
  - 4.3.3 Safety systems and their functions, including applicable
    - 4.3.3.1 Indication/detection systems or controls



## EHSS Process Safety Management & Risk Management Plan Program



### PSM & RMP Operating Procedures

---









4.3.3.2 Interlocks

4.3.3.3 Suppression systems

## 5 DOCUMENTATION REVIEWS

- 5.1 Operating procedures are readily accessible to employees through Content Server and are linked through the employee homepage.
- 5.2 Changes or revisions to operating procedures follow Mosaic's procedural Management of Change process in Content Server.
- 5.3 Minor changes that do not affect the employee's or contractor's job tasks, such as formatting or clarification updates, can use the Minor Change workflow in Content Server.
- 5.4 Operating procedures may be reviewed as often as necessary to assure that the procedures reflect current operating practice, including changes in process chemicals, technology, equipment, and facilities.
- 5.5 Certification documentation must be completed using the Mosaic PSM/RMP Annual Certification Operation Form.
- 5.6  **Reference:** PSM RMP Operating Procedure Certification Form
- 5.7  **Reference:** OSHA Letter of Interpretation for Operating Procedures, 1994

## 6 EHS SAFE WORK PRACTICES

- 6.1 Mosaic has developed safe work practices for the control of hazards during operation and maintenance activities.
- 6.2  **Reference:** EHSS-Phos Program – Confined Space Entry
- 6.3  **Reference:** EHSS-Phos Program – Hazardous Work-Safe Work Permit
- 6.4  **Reference:** EHS Health and Safety Programs
- 6.5  **Reference:** EHSS-Phos Program – Hot Tapping and In-Service Metal Equipment
- 6.6  **Reference:** EHSS-Phos Program – Hot Work Welding Cutting
- 6.7  **Reference:** EHSS-Phos Program – Line Breaking and Equipment Opening Program
- 6.8  **Reference:** EHSS-Phos Program – Lockout-Tagout (Control of Hazardous Energy)
- 6.9 Safe work practices apply to employees and contractors and can be found in Content Server and through Mosaic's contractor webpage.
- 6.10  **Reference:** Mosaic Contractor Safety Page
- 6.11 Facilities will develop a procedure to describe control over the entry into a PSM covered specific to their operations.



## EHSS Process Safety Management & Risk Management Plan Program

### PSM & RMP Operating Procedures

---

## 7 REFERENCES

References
Regulations: OSHA 29 CFR 1910.119, EPA 40 CFR 68
Mosaic PSM/RMP Programs, Procedures, and Reference Documents
PSM RMP Operating Procedure Certification Form
OSHA Letter of Interpretation for Operating Procedures, 1994
Mosaic HS Programs

## 8 REVISION LOG

Rev. No.	Rev. Date	Revised By	Reason for Revision
0			Initial release
1	2018	J. Vincent	Review Cycle
2	2021	N. Ellis, E. Victorino, S. Warman	Review Cycle