



EHSS Process Safety Management & Risk Management Plan Program
PSM & RMP Process Scope Procedure

Location / Applicability: NAB Concentrates and Distribution Facilities	Originating Department: Process Safety Management Team, NAB EHS
Document Owner: Neisy Ellis, PSM NAB	Document Approver: Holland Thompson, HS Director NAB
Effective Date: 08/15/2021	Review Due Date: 08/15/2024

Table of Contents

1 PURPOSE.....2

2 SCOPE.....2

3 RESPONSIBILITIES..... 2

4 GENERAL REQUIREMENTS FOR SCOPE DETERMINATION..... 2

5 TRAINING.....6

6 DOCUMENTATION AND REVIEWS..... 6

7 REFERENCES..... 6

8 REVISION LOG.....6



EHSS Process Safety Management & Risk Management Plan Program

PSM & RMP Process Scope Procedure

1 PURPOSE

The purpose of this document is to comply with OSHA 29 CFR 1910.119 Process Safety Management, EPA 40 CFR 68 Chemical Accidental Release Prevention Programs, the OSHA Akzo-Noble interpretation, and the Meer court decision.

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, Hooker's Point, and Port Sutton

3 RESPONSIBILITIES

The following responsibilities are associated with this program:


Category	Responsibility
Boundary Determination	The PSM team is responsible for working with facility personnel, EHS team members, and the Legal department to ensure appropriate boundaries for PSM/RMP scope are established at each location.
Inventory Calculations	Process Engineering is responsible for ensuring process calculations accurately reflect current maximum inventory for all Highly Hazardous Chemicals (HHC) identified under OSHA 29 CFR 1910.119 Process Safety management and EPA 40 CFR 68.
Tier II Reporting Compliance	The Environmental Department is responsible for Tier II submittals.
RMP Submittals	The PSM team is responsible for preparing the RMP submittals / reviews according to the cycle and requirements of the RMP.
RMP Approval	The General Managers at the Concentrates sites or Superintendents in our Distribution facilities are responsible for approving the site-specific PSM/RMP Process Scope documents.

4 GENERAL REQUIREMENTS FOR SCOPE DETERMINATION



EHSS Process Safety Management & Risk Management Plan Program

PSM & RMP Process Scope Procedure

- 4.1 PSM/RMP Covered Process Scope determination includes the existence of a PSM/RMP covered chemicals above a threshold quantity and an evaluation of the process boundaries.
- 4.2 Existence of a PSM/RMP Covered Process
 - 4.2.1 A **Process** is defined as any activity involving an RMP or PSM Highly Hazardous Chemical (HHC), including
 - 4.2.1.1 Any use, storage, manufacturing, handling, on-site movement of such chemicals, or combination of these activities.
 - 4.2.1.2 Any activity which involves a flammable liquid or gas on site in one location in excess of 10,000 lbs.
 - 4.2.2 Hydrocarbon fuels used solely for workplace consumption as a fuel, such as gasoline/diesel tanks, are exempt from the covered process if:
 - 4.2.2.1 They are not a part of a process containing another HHC located onsite, or
 - 4.2.2.2 They are stored in atmospheric tanks not connected to a Covered Process.
 - 4.2.2.3  **References:** 29 CFR 1910.119 (a)(1)(ii)(A), Meer Decision Memorandum
 - 4.2.3 To document inclusion or exclusion within the scope of the PSM or RMP Covered Process, the following information must be contained within the facility Process Scope document:
 - 4.2.3.1 List of PSM and RMP HHC's located onsite,
 - 4.2.3.2 The HHC's Threshold Quantities (TQ), and
 - 4.2.3.3 The maximum intended inventory of all HHC's located onsite
- 4.3 Inventory Calculations
 - 4.3.1 If the amount of an HHC in a process exceeds the TQ for that chemical, the process is covered by the regulations.
 - 4.3.2 The presence of a TQ of an HHC is to be determined at any one point in time, not aggregated over a period of time.
 - 4.3.3 Calculations shall be consistent with 40 CFR 68.115, Threshold Determination, and with the Standard Operating Control Limits (SOCL's) contained in the Process Safety Information documentation.
 - 4.3.4 If a facility intends to limit the quantity of an HHC in a process to avoid exceeding the TQ, a written, effective, inventory control program must be in place and the facility must be able to demonstrate that the process will never contain a TQ at



EHSS Process Safety Management & Risk Management Plan Program

PSM & RMP Process Scope Procedure

any one point in time. In addition, documentation related to current and past operations is required to be maintained.

4.3.4.1  **Reference:** *American Meat Institute Interpretation Letter, 1992*

4.3.5 Vessels segregating inventory in amounts that do not exceed TQ, so that a release from one storage area would not cause a release from others, are not covered by PSM.

4.3.5.1  **Reference:** *Air Products Interpretation Letter, 1994*

4.4 Evaluation of the Process Extent and Boundaries Within the Facility

4.4.1 Boundaries of the Covered Process must be documented by, at a minimum, a description or location of piping components or equipment.

4.4.2 Process extent and boundaries are defined as the following:

4.4.2.1 Any group of vessels which are interconnected and separate vessels which are located such that an HHC could be involved in a potential release.

4.4.2.2 All Aspects, including engineering controls and utilities, that serve an HHC process are considered part of the process where they can impact on or affect a release of the HHC in the process.

4.4.2.3  **Reference:** *API Interpretation Letter, 2008*

4.4.2.4 Systems are subject to all the provisions of the PSM standard until such point where a failure in a component of the system can no longer affect a potential release of a covered chemical, or where the utility leaves the control of Mosaic.

4.4.2.5 Independent processes that are near each other such that an incident in one process could involve the potential release of an HHC in another process are included in the Covered Process.

4.4.2.6  **Reference:** *Baker Chemicals Interpretation Letter, 1994*

4.4.2.7 Processes which are not in proximity and not interconnected are separate processes.

4.4.2.8 All Aspects of the process which contain an HHC are covered by all PSM elements.

4.4.2.9 If interconnected equipment downstream from the covered process cannot cause a HHC release or interfere with the mitigating the consequences of a HHC release, and the equipment does not contain a TQ or greater amount of a HHC, then such equipment may be considered outside the limits or boundaries of the covered process.



EHSS Process Safety Management & Risk Management Plan Program

PSM & RMP Process Scope Procedure

- 4.4.2.10 **Reference:** [Azko-Nobel Interpretation Letter, 1997](#)
- 4.4.3 The boundary of a process can extend beyond vessels and piping that contain HHCs, and can include vessels and piping that do not contain HHCs.
- 4.4.4 The boundary of a process is not limited to vessels and piping that pose a risk of catastrophic release if there is interconnection.
- 4.4.5 **Reference:** [Scalia v. Wynnewood, 2020](#)
- 4.5 Evaluation of the Process Extent and Boundaries between the facility and supplier(s) of an HHC
 - 4.5.1 The facility's scope document shall provide information on where the process is covered by Mosaic and where it is covered by the supplier, when applicable.
 - 4.5.2 This determination is achieved through a partnership with suppliers, the Legal team, and EHS, including the PSM engineers.
 - 4.5.3 **Reference:** [Tampa Bay Pipeline Boundaries Agreement](#)
- 4.6 Transport of HHC's
 - 4.6.1 The amount of HHC carried onto the worksite in a DOT-regulated vehicle is not included for the purpose of determining whether there is an HHC above the TQ.
 - 4.6.2 OSHA and EPA defer jurisdiction to DOT for trucks, pipeline, and railroad cars considered "in transit" (connected to motive power).
 - 4.6.3 Carriage would be covered by OSHA standards to the extent that it is not covered otherwise by the Hazardous Material Regulations of the Department of Transportation (DOT) (See 49 CFR Subchapter C, Part 177 - Carriage by Public Highway). These DOT regulations cover containment design, construction, maintenance (including repairs) and associated carriage operations. Operations regulated by DOT include carrier loading and unloading, cargo transfer hose connection and disconnection, attendance by a qualified person during loading and unloading and associated training.
 - 4.6.4 The amount of HHC contained within pipelines regulated by the DOT Pipeline and Hazardous Materials Safety Administration is not included for the purpose of determining whether there is an HHC above TQ.
 - 4.6.5 **Reference:** [Airco Interpretation Letter 1994,](#)
 - 4.6.6 **Reference:** [DOT Regulations for Hazardous Materials](#)
- 4.7 Management of Change
 - 4.7.1 Aspects of a process impacted by a change must be evaluated to determine if they affect the Process Scope and permitting requirements.



EHSS Process Safety Management & Risk Management Plan Program
PSM & RMP Process Scope Procedure

- 4.7.2 The maximum inventories of HHC’s shall be considered whenever a change occurs that could affect the quantity of HHC contained in the Process.
- 4.7.3 **Reference:** [Mosaic Process MOC Program](#)

5 TRAINING

- 5.1 For information on training related to PSM/RMP: **Reference:** [05 PSM/RMP Operator Training](#)
- 5.2 For information on Mosaic’s Management System requirements for training, see **Reference:** [Element 07, Training & Competency \(document ID 48646465\)](#)

6 DOCUMENTATION AND REVIEWS

- 6.1 PSM/RMP Process Scope site documentation must be reviewed every 3 years.
- 6.2 The Processes, Process Extent, Covered Processes, and Process Boundaries shall be documented for all Highly Hazardous Chemical (HHC) Processes at a facility.
- 6.3 The Process Scope documentation may be in any existing format provided that the criteria contained in these guidelines are included.
- 6.4 A Process Hazard Analysis (PHA) shall be used as an objective verification and documentation that PSM Covered Process Boundaries are accurate. The PHA shall analyze one process section upstream and two process sections downstream, when they exist, to document this determination. Reference shall be made in the PHA report to this verification.
 - 6.4.1 **Reference:** [03 Process Hazard Analysis Program](#)

7 REFERENCES

References (Number and title)
Regulations: OSHA 29 CFR 1910.119 , EPA 40 CFR 68 , DOT Regulations for Hazardous Materials
OSHA Interpretation Letters: American Petroleum Institute 2008, Akzo Nobel 1997, Meer Decision 1997, Air Products 1994, Airco Interpretation Letter 1994, Baker Chemicals Interpretation Letter 1994, American Meat Institute 1992
Scalia v. Wynnewood, 2020
Mosaic MMS Element 7, Training & Competency (document ID 48646465)
Facility Scope Documents: Bartow , Henderson , Hooker’s Point , Faustina , New Wales , Port Sutton , Riverview



EHSS Process Safety Management & Risk Management Plan Program
PSM & RMP Process Scope Procedure

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