North America Business Program – Environmental, Health and Safety (EHS) Department

EHS Incident Investigation Program

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1 PURPOSE

The purpose of this program is to provide guidance on how EHS related incidents and non-conformance events are investigated. Investigations are conducted this way for the purpose of preventing reoccurrence and improving both Operational Controls and Management System performance.

This program also provides, Appendix A – Incident Investigation Procedure, the six (6) stage procedure that encompasses the EHS Incident Investigation process from origination to end.

This program compliments and directly supports the:

- Mosaic Management System (MMS) Element 14: Preventive Actions, Handling of Incidents and Nonconformities and,
- MMS Incident Management Program.

2 **SCOPE**

This program applies to all North America Business operations and support locations.

3 APPENDICES

The following appendices are associated with this Program:

Appendix	Appendix Title	
Α	Incident Investigation Procedure	

4 REQUIREMENTS

- 4.1 The requirements for Tier-level investigations shall follow the MMS Incident Management Program.
- 4.2 If a formal investigation for an EHS incident requires the use of the RCA Investigation method, it shall produce a Cause Map with selected Corrective or Preventative Actions, and at least one Evaluation of Effectiveness (EoE).
 - **Note**: The RCA Investigation is normally referred to as the RCA Cause Map session.
- 4.3 All EHS formal investigations (RCAs) shall have the following:
 - Use of Appendix A Incident Investigation Procedure
 - An investigation Cross-Functional Team
 - An investigation Cross-Functional Team Lead
 - A Qualified RCA facilitator

- A meeting session(s) where Cross-Functional Team members are presented all the evidence gathered, and then construct the RCA Cause Map
- GM/Site Leader participation in the investigation and reviews and approves all CAPA resulting from the investigation in Intelex
- Cross-Functional Team Lead review of the cause map and Investigation Workbook
- GM/Site Leader review of the cause map and Investigation Workbook

4.4 Incident Notifications

- 4.4.1 For Tier 1 and Tier 2 incidents, follow the requirements as stated in the MMS Incident Management Program.
- 4.4.2 For Tier 3 Incident notification, all sites shall utilize the existing Daily Phosphate/Potash Incident Summary report in Intelex as the "site's process for notification" requirement. Sites shall ensure they share all incidents, that occur at their site, the following day with all applicable employees and contractors.

5 ROOT CAUSE ANALYSIS REQUIREMENTS

5.1 RCA Cause Map session

- 5.1.1 The RCA Cause Map sessions shall follow the procedure in Appendix A Incident Investigation Procedure, Stage 4.
- 5.1.1 The RCA Cause Map session shall consider and address any applicable Operational Controls, related Risk Register entries, EHS Management Software entries, and any Human Factors.
- 5.1.2 A completed cause map will visually depict the causes (in logical order), supporting evidence (where applicable), proposed corrective/preventative actions, and selected Evaluations of Effectiveness.
- 5.1.3 The RCA Cause Map session requires a Qualified RCA facilitator. Qualification requirements are listed in this program, section 7 Training.

5.1.4 A Qualified RCA Facilitators will:

- Organize collected incident evidence and supporting materials for presentation at the RCA Cause Map session(s)
- Ensure the Incident Investigation Program and Appendix A are followed during EHS investigations
- Complete the Investigation Workbook (see 5.2)
- Ensure the completed RCA Cause Map and Investigation Workbook are reviewed by the Cross-Functional Team Lead and the GM/Site Leader

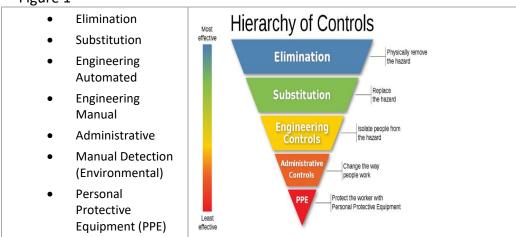
5.2 Investigation Workbook

- 5.2.1 The Investigation Workbook is an Excel spreadsheet file that has been specifically designed for the use in Mosaic EHS investigations. It is used and completed by the Qualified RCA Facilitator for all formal investigations.
- 5.2.2 The Investigation Workbook is located in Content Server, in the same folder as the program, and will be updated by the EHS team as required.
- 5.2.3 Instruction on how to complete the RCA Workbook is provided in the Qualified RCA Facilitator training.
- 5.2.4 At a minimum, the following Tabs shall be included in the completed Investigation Workbook:
 - Title Page
 - Legal Obligation Statement
 - Cause Map Meeting Sign-in Sheet (Scanned)
 - Problem Statement Outline
 - RCA Diagrams/Cause Map
 - Solutions (CAPA and if appropriate, NON-CAPA Tables)
 - Incident Photos and Document Evidence

5.3 Hierarchy of Controls (HOC)

5.3.1 HOC is a system of seven (7) categories (figure 1) used to minimize or eliminate exposure to a recognized hazard. This system is used in EHS incident investigations. Improved hazard control is achieved through solutions derived from within this Hierarchy of Control (listed most effective to least effective):

Figure 1



5.3.2 The HOC shall be used to determine which proposed Corrective Actions to select during the RCA Cause Map session and subsequent reviews. The intent is to develop solutions that are in the top 3 categories, as they are typically more effective and sustainable.

5.4 Site Final Cause Map review

5.4.1 The completed Investigation Workbook shall be reviewed by the Cross-Functional Team Lead and the GM/Site Leader.

5.5 QA/QC Review Process

5.5.1 The QA/QC review process includes the steps taken to share the draft Investigation Workbook/Investigation Final Report with the Health & Safety or Environmental Director (as appropriate) and the incident owner's senior leadership (VP level) for their review and comment.

5.6 Investigation Final Report

- 5.6.1 The final version of the Investigation Workbook, after any changes from the Site Final Cause Map Reviews and/or the QA/QC process, shall be saved in PDF form and becomes the Investigation Final Report.
- 5.6.2 The Investigation Final Report will be attached to the Final Notice (as per the Global Program requirements) and shall be archived in the Mosaic Incident Management system.

6 TRAINING

6.1 The following table outlines the training required for EHS Incident Investigation:

Audience	Training Elements / Topics	Frequency	Method
	1) Introduction to Mosaic RCA Training Requirements	Initial	СВТ
	2) Mosaic RCA Workbook	Initial	СВТ
Qualified RCA Facilitator	3) RCA Cause Mapping for Facilitators (2 days)	Initial	ILT/Virtual
	4) 1 Documented RCA Observation	Initial	Observe RCA session
	5) 1 Documented RCA Participation	Initial	Participate in RCA session

Audience	Training Elements / Topics	Frequency	Method
	6) 2 Formal RCA Facilitations, Evaluated and Documented	Initial	Be observed and evaluated during RCA facilitation

• Qualified RCA Facilitator preferred order of events: 1, 2, 3, 4, 5, 6

6.2 Retraining

- 6.2.1 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
 - When deemed necessary by NAB EHS or Facility Management based on the quality execution of the process and underlying procedures.

6.3 Training records

6.3.1 Training records shall be maintained by the Mosaic Learning Management System (LMS).

7 SELF-ASSESSMENTS

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

Note: Recommend any changes to the Program Management Office (PMO) via the PMO Change Request form.

8 **PROGRAM REVIEW**

8.1 EHS PMO team will review this program every seven (7) years and update on an as needed basis.

9 RECORD RETENTION

9.1 Refer to the *Mosaic Document and Record Control* policy for record retention requirements.

Reference: Mosaic Document and Record Control policy

10 ROLES AND RESPONSIBILITIES

10.1 Responsibilities for the overall process and for the execution of the procedures listed below.

Group or Title	Responsibility
Environmental Health and Safety or designee	Provides subject matter expertise throughout the investigation process including: • Ensuring appropriate/adequate initial evidence is collected from incident scene by the front-line supervisor. • Consults with Area Management for safe release of the incident scene • Acts as SME on EHS operational controls during the RCA Cause Map investigation • Reviews Corrective Actions for potential effectiveness in preventing reoccurrence of the event prior to finalizing the investigation. • Ensures internal review of draft Investigation Workbook aligned with the QA/QC process. • Reviews the Final Notice for quality and accuracy prior to distribution by the GM or site equivalent
Cross-Functional Team Lead	 Coordinate the investigation process including: Coordinating collection of additional evidence Meeting coordination and planning prior to the RCA Cause Map session Ensures assigned Qualified Facilitators have completed training requirements Oversees internal site review of the Draft Investigation Workbook Post RCA follow-up Routing of all final documentation to appropriate person(s) for entry into current EHS Management Software and record archiving.
	Responsible for implementation and ensuring compliance to the process including:

Group or Title	Responsibility
	Sufficient evidence is collecting from incident scenes prior to their release
	 Initial Investigations are initiated within 12 hours of the incident and investigation team leads are assigned
General Managers Or Site equivalent	 RCA Cause Map sessions are conducted for incidents that require formal investigation
	 Selected corrective actions have potential to be effective and tracked to completion
	 Evaluations of Effectiveness (EoE) are selected and tracked to completion
	 Internal and External QA/QC of the Investigation Final Report to ensure alignment to process / program requirements
	 Distribution of 24 Hour and Final Notices (as required)
Area Management Front Line Supervisors	Responsible for securing the incident scene and initial reporting of the incident including: • Initiating any needed Emergency Response action
	 Preventing unnecessary entry to the area
	 Collection and storing of initial evidence
	 Coordinating release of the scene with EHS
	Initial entry of the incident into the EHS Management Software
	 Initiating the Incident Investigation Checklist / Envelope

Group or Title	Responsibility	
Qualified RCA Facilitator	Facilitates the RCA Cause Map session(s) with the Cross-Functional Team Lead, EHS, and team members to produce a cause map of relevant causes, supporting evidence, proposed corrective actions and selected evaluations of effectiveness	
	 Organizes collected incident evidence and supporting materials for presentation during the Cause Map meeting 	
	 Ensures application of program requirements 	
	 Prepares Investigation Workbook for QA/QC process 	
	 Produces Draft and Final Investigation Workbooks 	
	Responsible for data quality and complete records in EHS Management Software including:	
EHS Management Software Full User	 Review of mandatory fields to ensure data matches final investigation report 	
Designee	 Closing of EHS Management Software incidents 	
	 Entry of corrective actions, assignees, due dates, and evaluations of effectiveness 	
	 Required attachments such as 24-Hour Notice, Final Notice, and other electronic evidence 	

11 REFERENCES

References			
>	MMS Element 14, Preventative Actions, Handling of Incidents and Nonconformities		
>	MMS Incident Management Program		
>	Incident Investigation Program reference material:		
	Evidence Gathering Checklist Form / Envelope		
	Investigation Team Lead and EHS Representative Quick Reference Guide		

12 **REVISION LOG**

Rev. No.	Rev. Date	Revised By	Reason for Revision
0	15 February 2023	PMO	Initial release
1	15 February 2024	PMO	Align with newly released corporate Incident Management Program
2	14 November 2024	РМО	Update investigation requirements to align with MMS Incident Management Program