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

Critical EHS Devices Program

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1 PURPOSE

The purpose of this program is to provide guidance on critical devices that shall be in place to provide a measure of safety and environmental protection where any physical, chemical or operations change alters a process outside its current safe design or documented safe operating condition. Critical Safety Devices (CSD) and Critical Environmental Devices (CED) are inclusive of this program and will be referred to as Critical EHS Devices (CEHSD).

2 SCOPE

This program applies to all Mosaic North America Business operations facilities and covers all employees and contractors performing work on Mosaic property.

The intent of this program is to focus on the true engineering solutions, that consist of mechanical equipment and programming logic, incorporated into our operating processes, that prevent or warn against an injury or environmental incident.

3 APPENDICES

The following appendices are associated with this Program:

Appendix	Appendix Title
A	Critical EHS Device Bypass Permit
B	Critical EHS Device Program RACI Matrix

4 GENERAL REQUIREMENTS

4.1 Identification and documentation of CEHSD assets.

4.1.1 The general description of what constitutes a **CEHSD** is as follows:

- **Safety** - any device or system that ensures any process condition is contained and maintained within it's designed safety limits, and if it fails or malfunctions may lead to serious injury or death.

  --The failure or malfunction of a device or system that would result in an A/B Safety consequence per the Mosaic 5 X 7 EHS RAM

- **Environmental** - any device or system that ensures any process condition is contained and maintained within it's designed limits, and if it fails or malfunctions may result in an environmental incident.

  --The failure or malfunction of a device or system that would result in an A/B/C/D environmental consequence per the Mosaic EHS 5 X 7 RAM

  Link to Mosaic EHS 5X7 RAM: GUI.IV-EHS.26-Risk Assessment Matrix (RAM)

- CEHSDs typically are or have an associated emergency alarm, shutoff, or suppression action that is part of the operation and can mitigate or prevent an event

***Note**: A CEHSD may be either a single element or may be part of a multiple element system design.*

***Information:** Refer to the Critical EHS Device Decision Tree, Section **12**, for assistance in determining applicability.*

4.1.2 Each facility shall identify processes, if out of control, have the potential to result in a safety or environmental incident such as fire, explosion, the release of hazardous substances (into the air, ground or water system), injury or loss of life.

4.1.3 Each facility shall document and maintain an accurate list of CEHSDs they have identified. The documentation process shall include the following:

- Each CEHSD, whether a single element or multi element system (i.e. group of emergency stop pull cords), will have a unique identifier (example – SAP Asset Number)
- A description of the function
- The location of the CEHSD
- The rationale for categorizing the equipment as a CEHSD based on the process review
- Each CEHSD will have a preventative maintenance and functional inspection / test frequency defined

4.1.4 It is a best practice, where feasible and practicable, to identify (label / sign) Critical EHS Devices, in order to alert employees of the importance of that particular piece of equipment.

4.2 **Functional CEHSDs, inspections/tests, and preventative maintenance.**

4.2.1 Each facility shall ensure identified CEHSDs are properly installed and functioning as designed.

4.2.2 Each facility shall establish either:

1) A functional inspection or test frequency in which the functional tests must be designed to actually test the device(s) and control whenever possible and appropriate. Documentation of the inspection or test shall include:
   - Date of the inspection or test
   - Name of person who performed the inspection or test
   - The identification of the critical device

- A description of the inspection or test (inspection or test must ensure 100 % functionality of the device)
- The results of the inspection or test
- Schedule follow-up maintenance action items to address deficiencies discovered in a timely manner

2) A replacement schedule for all CSEDs.

4.2.3 Each facility shall ensure they establish and maintain a preventative maintenance frequency schedule for all CEHSDs.

4.3 Critical EHS Device Bypass Permit.

4.3.1 A Critical EHS Device Bypass Permit shall be used whenever the CEHSD is impaired, malfunctioning, fails an inspection, or fails a functional test and it is necessary to operate the equipment or process with alternative safeguards in place. Upon Management approval, the CEHSD Bypass Permit is only valid for up to 7 days. (Refer to Appendix A, Critical EHS Device Bypass Permit). The permit may be extended for an additional 7 days (up to a maximum of 14 days)

4.3.2 Any CEHSD that has been in place for greater than 21 days (2 extension approvals) shall require an MOC to be done within 30 days of the original bypass permit date.

Note: *The permit shall be utilized for impairment of fire protection devices. Additional notification may be required to Mosaic's insurance carrier. Refer to Mosaic's Phosphate Fire Protection Program for more information.*
Link: EHS-Phos Program - Fire Protection

***U.S. Distribution Site Specifics (4.3.3 and 4.3.4)**

4.3.3 *Upon Distribution Safety Superintendent or Specialist approval, the permit is valid for up to 7 days. In any case where this period will be less than 24 hours the Facility superintendent has the authority to sign the Permit. (Refer to Critical EHS Device Bypass Permit).

4.3.4 *In the event the 7 day period has elapsed and the process has not been returned back to normal operation a Temporary MOC will be required.

4.3.5 No employee or contractor has the authority to operate any piece of equipment or system with a CEHSD out of service without an approved Critical EHS Device Bypass Permit.

4.3.6 Required posting and communication for a CEHSD Bypass Permit.

- One copy of the permit shall be provided to the Department Manager and/or the Superintendent.

- A second copy of the permit shall be posted in the Control Room (as applicable) of the Process in which it is being utilized, or in a common area where the document will be readily visible to applicable workers (such as the case for underground mines).
- To the greatest extent possible, the perforated tag of the permit will be placed on the CEHSD being bypassed.
- An email, text message or radio broadcast of the CEHSD bypass may be used as an additional means of communication.

4.4 Bypassing devices not designated as CEHSDs.

4.4.1 Follow Mosaic's North America Management of Change Program for temporary and/or permanent changes.

5 PERSONAL PROTECTIVE EQUIPMENT (PPE)

5.1 There are no specific PPE requirements for this program.

6 TRAINING

6.1 The following table outlines the training required for Critical EHS Devices:

Audience	Training Elements / Topics	Frequency	Method
Exposed Employees	• What are critical EHS devices • Provide specific examples • Review the Bypass Permit process • Explain how to pull the Site CEHSD list from SAP	Initial and Refresher every three (3) years	CBT or ILT

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

6.3 Training records

6.3.1 Training records shall be maintained as per *Mosaic Document and Record Control* policy.

Reference: Mosaic Document and Record Control policy

7 SELF-ASSESSMENTS

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

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

8 PROGRAM REVIEW

8.1 The North America Business EHSS team will review this program every seven (7) years and update as required.

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 REFERENCES

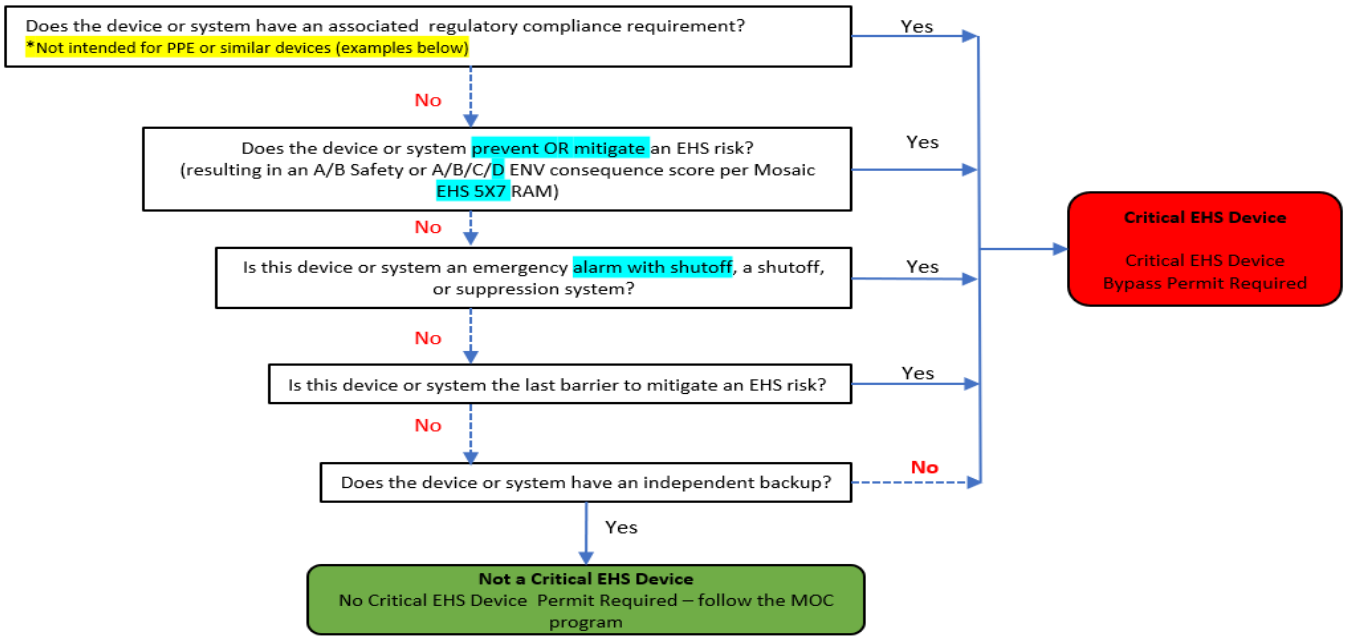
References
Mosaic Document and Record Control Policy

11 REVISION LOG

Rev. No.	Rev. Date	Revised By	Reason for Revision
0		PMO	Initial release
01	2/17/2026	EHS PMO	Incorporated U.S. Distribution under Phos program
02	5/19/2026	EHS PMO	Updated the Training requirements for Initial and refresher

➢ **The Critical EHS Device Decision Tree is on the next page.**

12 CRITICAL EHS DEVICE DECISION TREE



Critical EHS Devices -- any device or system that ensures any process condition is contained and maintained within it's designed safety limits, and if it fails or malfunctions may lead to serious injury or death OR may result in an environmental incident.
Safety -- would result in an A/B Safety consequence per the Mosaic EHS 5X7 RAM
Environmental -- would result in an A/B/C/D environmental consequence per Mosaic EHS 5X7 RAM

Safety examples that ARE CEHSDs include (but not limited to):
- Fire suppression systems
- Pressure relief devices
- Zero speed switches – where malfunction or operation in bypass could result in fire
- Shaft hoist control
- Automatic fire suppression system
- High level alarm, connected to an interlock system
- Belt conveyor emergency stops

Safety examples that are NOT CEHSDs include (but not limited to):
-High level alarm – Not connected to an interlock system.
-Bucket elevator limit switch or conveyor zero speed switch designed for production upset
- An independent pressure relief valve with redundancy
- * SCBAs, escape respirators, AEDs, or Fire extinguishers

Note: *All associated control system programming logic qualify as a "device" and can require a Critical EHS Device Bypass Permit or formal MOC for any modifications*

Environmental examples that ARE CEHSDs include (but not limited to):
- Pressure relief devices
- Zero speed switches – where malfunction or operation in bypass could result in enviro release
- All parametric monitoring systems for air compliance
- High level alarms for registered petroleum storage tanks and mineral acid tanks
- Pressure switch alarms on clay lines
- Oxygenation compressors at outfalls
- ISCO flow measurement devices

Environmental examples that are NOT CEHSDs include (but not limited to):
-Manual PH readings