**ASBESTOS MANAGEMENT PROGRAM**

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# PURPOSE

The purpose of the Asbestos Management Program is to protect the health and safety of employees and contractors at Mosaic Saskatchewan potash facilities from the hazards associated with asbestos and asbestos containing materials (ACM) and to ensure compliance with the *Occupational Health and Safety Regulations, 2020*.

# SCOPE

This program applies to employees and contractors at Mosaic Saskatchewan potash facilities. It includes processes for the identification, tracking, and management of asbestos containing materials at the sites.

# APPENDICES

The following appendices are associated with this Program:

| **Appendix** | **Appendix Title** |
| --- | --- |
| A | Asbestos Processes |
| B | Low Risk Asbestos Process Requirements |
| C | Moderate Risk Asbestos Process Requirements |
| D | High Risk Asbestos Process Requirements |
| E | Uncontrolled Asbestos Release Procedures |
| F | Asbestos Permit |
| G | Asbestos Exposure Letter Template |

# DEFINITIONS AND INTERPRETATION

## Key terms and acronyms used in this program are defined below.

|  |  |
| --- | --- |
| **Term** | **Definition** |
| Amended Water | Water to which surfactant (wetting agent) has been added to increase the ability of the liquid to penetrate ACM and reduce airborne fibre generation. |
| Asbestos | The fibrous form of crocidolite, amosite, chrysotile anthophyllite, actinolite, tremolite or a mixture containing any of those minerals. |
| Asbestos Dust | Dust that consists of or contains asbestos fibres that are likely to become airborne. |
| Asbestos Containing Material  (ACM) | Either:   * Vermiculite determined to contain any asbestos when tested according to an approved method, or * Any material, other than vermiculite, that when tested according to an approved method is determined to contain:   + a proportion of asbestos greater than 0.5% if the material is friable, or   + a proportion of asbestos greater than 1.0% if the material is non-friable. |
| Asbestos Process | Any activity that may release asbestos dust, including but not limited to:   * the sawing, cutting or sanding of ACM, * the repair, maintenance, replacement or removal of asbestos surfaces, * the cleaning or disposal of asbestos materials, * the mixing or application of asbestos shorts, cements, grouts, putties, or similar compounds, * the storing or conveyance of materials containing asbestos, and * the demolition of structures containing asbestos.   Low, Moderate, and High Risk Asbestos Processes are outlined in Appendix A. |
| Asbestos Surface | The surface of an object that contains asbestos. |
| Competent | Possessing knowledge, experience and training to perform a specific duty. For the purpose of this program, an individual is deemed competent according to the training requirements in Section 13. |
| Friable | Material that, when dry, is or can be crumbled, pulverized or powdered by hand pressure. |
| HEPA Filter | A high-efficiency particulate aerosol filter that is at least 99.97% efficient in collecting a 0.3 micrometre aerosol. |
| Non-Friable | A material that, due to the bonding agent, will not allow asbestos fibres to become airborne unless damaged. It cannot be crumbled, pulverized or powdered by hand pressure. |

# ROLES AND RESPONSIBILITIES

## The following table contains a list of personnel that hold responsibilities within the program:

|  |  |
| --- | --- |
| **Position** | **Responsibilities** |
| General Managers | * Ensure implementation of and compliance with the program at their facility. * Provide the required resources to protect against asbestos exposure. |
| Senior Managers  Superintendents/Leads | * Ensure that employees are aware of and comply with program requirements at their facility. |
| Supervisors | * Ensure that employees are aware of ACM in their work areas and that the ACM is undisturbed. * If ACM is found damaged or disturbed, ensure the area is barricaded and a competent person is notified for remediation as soon as possible. * Ensure that suspect material that cannot be positively identified as ACM is secured and that samples are collected by a competent person. * Ensure that employees have received asbestos training appropriate to the assigned task. * Provide the required PPE, materials, permits, and procedures for any assigned asbestos-related task. |
| Employees | * Complete any required asbestos training. * Adhere to warning signs, placards, etc. to prevent asbestos exposure. * Ensure ACM is not disturbed or removed unless authorized and trained to do so. * Report all ACM damage to their supervisor. * Follow asbestos safety procedures and instructions and use the required safeguards when authorized to undertake any asbestos process. |
| Site Health and Safety | * Assist with and support program implementation and compliance. * Monitor program related documentation. * Review Asbestos Control Plans and Asbestos Permits when required. * Conduct periodic inspections of asbestos processes to monitor effectiveness of controls and ensure compliance with the program. * Provide support for respiratory protection requirements, including fit testing, if needed. |
| Contractors | * Abide by the requirements of the program. * Ensure workers are informed, trained, and provided the equipment to perform their duties under the program. * When performing asbestos remediation work and abatement, abide by the requirements of the regulations and program and ensure that all necessary controls are implemented to prevent asbestos exposure to all personnel on site, including required clean up and disposal of ACM. * When performing a High Risk Asbestos Process, provide documented air samples that asbestos fibre concentration in the air is within regulatory limits. |
| Occupational Health Nurses | * Provide support for respiratory protection requirements, including fit testing, if needed. * Provide consultation and arrange a medical exam, if required, to a worker who has had an asbestos exposure. |

# IDENTIFICATION OF ASBESTOS CONTAINING MATERIALS (ACM)

## The identification and assessment of ACM or the determination of asbestos-free materials shall be conducted by a competent person.

## Samples of materials containing suspected ACM shall only be analyzed by an accredited lab.

## Confirmed and presumed ACM will be listed in the Hazardous Materials Inventory System (HMIS).

### ACM information in the HMIS will be available to all employees and contractors either directly through the web application or by scanning the location QR code labels.

### The HMIS will be maintained by Pinchin personnel. Mosaic is responsible to provide Pinchin with abatement and sample information so that the HMIS can be updated accordingly.

### Information contained in the HMIS will include:

* Confirmed ACM on site by location
* Presumed ACM on site by location
* Location of ACM – on drawings and within data/reports
* Characteristics of ACM (friable or non-friable)
* Accessibility of ACM
* Condition of ACM

## QR code labels, providing real time information from the HMIS, will be placed at entrances to all locations where ACM is located.

# Note: Absence of a QR code label does not mean that there is no asbestos present at the location. Any suspected ACM found should still be sampled and sent for analysis.

## All confirmed ACM on site will be clearly identified with:

### A label on the ACM, or

### A placard placed in a conspicuous location as close as possible to the ACM and/or at the location entrance.

## All labels and placards used to identify ACM will contain a warning of the danger to health from taking asbestos fibres into the body.

## Labels and placards are to be removed only by competent personnel who complete an asbestos abatement. QR code labels must not be removed after an abatement unless all ACM covered under that QR code location has been abated.

## Upon discovery of a material that is suspected to contain asbestos:

### The person who discovered the material shall report it to their supervisor, stop work, and barricade the area if the material is damaged.

### The supervisor will assign a competent worker to collect a sample.

### The worker will collect the sample as per Low Risk Asbestos Process procedures (Appendix B). The sample will be double bagged/sealed and labelled with the asset number (if applicable), specific location as per the HMIS, the date and time, and the name of the person who collected the sample.

### The sample and required documentation will be sent to an accredited lab for processing.

### Sample results will be:

* Provided to the Supervisor who requested the sample
* Provided to the person who discovered the material
* Entered in the HMIS

### If the result is positive, new labelling will be installed as required at the location.

# INSPECTIONS

## An inspection of all ACM will be conducted annually by a competent person.

### The annual inspection will be documented along with any remediation recommendations.

### The HMIS will be updated to reflect the results of the annual inspection.

## Vacuum cleaning equipment equipped with a HEPA filter for ACM disposal will be inspected prior to use and maintained according to manufacturer instructions.

## Vacuum cleaning equipment equipped with a HEPA filter for ACM disposal will be certified annually by a competent person.

# ASBESTOS PROCESSES

## Asbestos processes as defined in the Saskatchewan *Occupational Health and Safety Regulations, 2020* are set out in Appendix A

## One square metre (10 square feet) or less can be used as a guideline for a “minor” amount of asbestos. However, a risk assessment taking into account the friability and amount of material, the nature of the work to be performed (eg. repair, removal, or cleanup), and building occupancy must be used to help determine the asbestos process to be followed.

## Low Risk Asbestos Process requirements are outlined in Appendix B.

## Moderate Risk Asbestos Process requirements are outlined in Appendix C.

## High Risk Asbestos Process requirements are outlined in Appendix D.

# ASBESTOS CONTROL PLAN AND PERMIT

## Asbestos Control Plans will be developed and followed for asbestos processes carried out as per the requirements in Appendices B, C, and D.

## When there is an uncontrolled release of asbestos, an Asbestos Control Plan will be developed and followed to remediate the release according to the Asbestos Process Requirements (Low, Moderate, or High). See Appendix E for Uncontrolled Release Procedures.

## An Asbestos Permit (Appendix F) will be completed and approved for all Asbestos Processes as part of the Asbestos Control Plan.

# ASBESTOS CLEANUP AND DISPOSAL

## Asbestos waste must be cleaned by using vacuum cleaning equipment equipped with a HEPA filter or by wet methods.

## Asbestos waste must be double bagged and sealed in 6 mil thickness disposal bags which are labelled “Asbestos”.

## Asbestos waste includes ACM debris as well as disposable clothing and materials used for cleanup of ACM, including HEPA filters.

## Bagged asbestos waste must be disposed of in designated site Asbestos Bins for removal from site.

# HEALTH EFFECTS AND MEDICAL CONSULTATIONS

## Employees shall be informed, through annual awareness training, of the health risks of exposure to asbestos dust, which include:

Asbestosis (pneumoconiosis)

Mesothelioma / Lung Cancer / Other Cancers

The increased risk of injury to health by smoking in combination with asbestos exposure

## Labels and placards shall include a warning of the risk to health from asbestos.

## Any employees who are regularly employed in performing asbestos processes will have a medical examination once every 2 years which will include medical history, physical exam, and lung function test.

## Employees who have had an ACM exposure or potential exposure will be offered a consultation with the site nurse who will determine if a medical exam is required and if so, arrange the exam.

# INCIDENT AND EMERGENCY MANAGEMENT

## In the event of an uncontrolled release of asbestos, access to the area where the release occurred shall be immediately restricted.

## If an employee suspects an uncontrolled release has occurred, they shall secure the area and immediately notify their supervisor and site EHS.

## Procedures to followed for an uncontrolled release are found in Appendix E.

# TRAINING

## An employee or contractor that is involved in an asbestos process must complete asbestos training based on the level of risk as per Table 1.

## An employee or contractor must complete both the theoretical and practical training to be deemed competent to perform asbestos processes.

# Note: Practical training can be completed on the job. The training must be completed under a supervisor who is already deemed competent (ie. who has completed practical training).

## If an employee or contractor is conducting an asbestos process and has not completed their practical training, the work must be conducted with a competent Supervisor present at the job site.

## An employee or contractor will receive additional training (or retraining) if:

* Program requirements change;
* Changes in the workplace or regulations render previous training obsolete; or
* Inadequacies in the employee or contractor’s knowledge is of concern.

## Employee training records shall be maintained as per the Mosaic Document and Record Control Policy.

## Contractors conducting asbestos processes at Mosaic facilities must be qualified to perform their assigned duties and shall be able to provide proof of competency.

# Table 1

| Audience | Training Content | Method | Frequency |
| --- | --- | --- | --- |
| All employees | General information on asbestosHealth effects of asbestosSask OHS Regulation informationHow to recognize ACM and avoid disturbing itMethods of protection from exposureWhere to find ACM locations at site | Theory – Instructor Lead (ILT) or Computer Based Training (CBT) | Annual |
| Low Risk Asbestos Processes | All topics in the “All Employees” category, as well as:Recognizing and understanding friable and non-friable materialsIdentifying Low, Medium, and High Risk Asbestos ProcessesRecognition of ACM damage and deteriorationPersonal protective equipment for asbestos handling and abatement including respiratory protectionWork procedures and waste handling for low risk abatement processes | Theory – ILT or CBTPractical – skills involving ACM handling methods and equipment(eg. respiratory protection, HEPA vacuum, wet methods)Competency check must be completed | InitialRefresher as needed |
| Moderate Risk Asbestos Processes | All topics in the “Low Risk Asbestos Processes” category, as well as:Work procedures and waste handling for moderate risk abatement processesUnderstanding containment considerations for moderate risk processes | Theory – ILT or CBTPractical – skills involving ACM handling methods(eg. glove bag,establishing containments, etc.)Competency check must be completed | InitialRefresher as needed |
| High Risk Asbestos Processes | All topics in the “Moderate Risk Asbestos Processes” category, as well as:Work procedures and waste handling for high risk abatement processesUnderstanding division notification and air clearance requirements | Theory – ILT or CBTPractical – skills involving ACM handling methods and equipment (eg. negative pressure air systems, decontamination units, etc.)Competency check must be completed | InitialRefresher as needed |

# PROGRAM REVIEW AND RECORD RETENTION

## The Asbestos Management Program will be reviewed a minimum of every seven years or more frequently if one or more of the following apply:

in the event of a significant safety incident,

when a program specific safety concern is identified, or

following a specific incident that may have resulted from a gap in a policy/procedure.

## Site self-assessments and MMS Compliance Audits of the program shall be conducted in accordance with MMS requirements.

## Records shall be maintained as per Mosaic Document and Record Control policy.

# REFERENCES

| **References** |
| --- |
| The Occupational Health and Safety Regulations, 2020 |
| Guidelines for Managing Asbestos in Buildings, Worksafe Saskatchewan |
| Saskatchewan Asbestos Abatement Manual, Guidelines for Asbestos Processes in Building Demolition and Renovation, 2021 |
| Hazardous Materials Inventory System ([Pinchin HMIS](https://hmis2.hmis-online.com/login.php)) |

# REVISION LOG

| **Rev. No.** | **Rev. Date** | **Revised By** | **Reason for Revision** |
| --- | --- | --- | --- |
| 0 | 11/14/2024 |  | Initial release |
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