

Black Mountain Mining

BMM-HSE-ENV-SOP-0039 Handling of a chemical spillage

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BMM-HSE-ENV-SOP-0008	BMM-HSE-ENV-SOP-0039	Standard Operating Procedure	Approved
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1. POLICY STATEMENT

Black Mountain's Standard Procedures (SOP's) shall be written in a clear concise manner, communicated to all employees and applied accordingly.

2. OBJECTIVES

The objective of this procedure is to give guidelines for cleaning up chemical spills in a safe & correct manner in order to minimise impact on the environment.

3. SCOPE

BMC-HSE-ENV-SOP-039: Handling of Chemical Spillage applies to all chemical spills occurring at BMC Plants, Workshops or Analytical Laboratories.

4. DEFINITIONS

The following definitions and abbreviations are relevant to this procedure:

Chemical spill: Any uncontrolled leak or mishandling of a chemical substance that spills onto the ground or the floor area.

BMC: Black Mountain Complex, which consists of Deeps mine, Swartberg Mine, Gamsberg Mine with all associated supporting services and infrastructure.

MSDS: A Material Safety Data Sheet is a 16 section fact sheet developed by manufacturers describing the chemical properties of a product.

PPE: Personal Protective Equipment worn by an individual to protect the body against insults from the environment

COP: Code Of Practice

5. PROCEDURE CONTENT

Steps for cleaning and chemical spill

- Assess safety: Make sure that people are kept clear, and that you have the right training and equipment to deal with the spill.
- Safeguard human life: Eliminate all ignition sources, including cigarettes, open flames, naked lights, mobile phones and radios.
- Consult the Material Safety Data Sheet (MSDS): The MSDS will have instructions on how to deal with specific product spills
- Personal Protective Equipment (PPE): PPE is mandatory, this includes steel capped footwear, Acid resistant overall, chemical gloves and safety glasses.
- Stop the source: Stop or contain the spread. This may involve righting an overturned container or sealing holes or cracks, stop a pump or engine, close a valve or pipe, etc

- Care should be taken to wear appropriate **personal protective clothing (PPE)** when handling any chemical.
- **Spillage** within the Concentrator Plant building, drainage systems have been provided for washing chemical spills.
- **Bunded concrete floors** have been constructed at the various section in the containment process. Each area drains to a spillage pump, which returns washed spillage to the process or the flotation Tailings sump, where it is diluted and pumped directly to the Tailings dam.
- All chemical spills within the Plant area should be washed to the nearest spillage pump.
- The **Cyanide COP** should be consulted prior to the commencement of any clean-up operations involving cyanide spillages.
- Chemical spills within the Laboratory are specific to each chemical used in the laboratory and clean-up is to be done following strict guidelines set by the Laboratory Manager
- All precautions are taken by personnel to **prevent** spills by using funnels to transfer hazardous chemicals in washbasins and containers.
- All **drains** in the Laboratory lead to an acid sump where a pump routes spills to another pump at the weighbridge gate, which in turn pumps to the flotation Tailings sump, and from there directly to the Tailings dam.
- Dry chemical spills can be **classified** as soluble powders and insoluble powders.
 - Soluble powders should be swept up, taken to an area with drainage as detailed above and washed away.
 - Insoluble dry chemical powders should be disposed of in the central hazardous waste container.
- More information on the disposal of these chemicals can be found in BMC-HSE-ENV-SOP-040: Handling, Storage and Disposal of Waste.
- Should a chemical spill occur, this is to be reported as an Environmental Incident according to BMC-HSE-ENV-SOP-041 *Environmental Incidents / Non-conformances*.

6. REVISION HISTORY

Revision 4 of SSD-ENV-SOP 039 – “Handling of Chemical Spillages” dated 05 June 2019

- Associated documents updated.

Revision 5 of SSD-ENV-SOP 039 – “Handling of Chemical Spillages” dated 15 July 2019

- Changed Approval / owner from SHE manager to HSE manager.
- Added BMC into scope and define definition.

Revision 6 of SSD-ENV-SOP 039 – “Handling of Chemical Spillages” dated February 2021

- Update with BMC Logo
- Document reference from SSD-ENV-STD to SSD-ENV-SOP
- Update document signature field

Revision 7 of BMC-HSE-ENV-SOP-039 – “Handling of Chemical Spillages” dated August 2022

- Reference to section 4.2 in the definitions have been removed
- Addition of steps for cleaning and chemical spill

Revision 8 of BMC-HSE-ENV-SOP-0039 – “Handling of Chemical Spillages” dated August 2023

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- Updated all document reference to the new document naming convention
- Update on abbreviations used within the document

7. RESPONSIBILITIES

- The designated custodian shall implement and maintain this document.
- Department Heads shall ensure that this SOP is applied with due diligence.
- Deviations from this SOP shall be effected via approved "Deviations from Standard" documentation.
- Should additional precautions, due to special circumstances unique to that Department/Section, over-and-above the requirements of the Procedure be necessary, then the Department Head shall ensure that, in consultation with the relevant specialists, such requirements are specified in writing, conveyed over to the end users and recorded as such.

8. ASSOCIATED DOCUMENTATION

- BMC-HSE-ENV-SOP-040: *Handling, Storage and Disposal of Waste*.
- BMC-HSE-ENV-SOP-041: *Environmental Incidents / Non-conformances*
- BMC-HSE-ENV-BMF-008 New chemicals Clearance Report/Request for Approval

9. REVIEW AND APPROVAL

Content Owner(s)

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This document was approved (in sequence) by the individuals above using electronic approval in our Document Control System.

Final approval status: Approved

Approvals were done electronically.