



## environmental affairs

Department:  
Environmental Affairs  
REPUBLIC OF SOUTH AFRICA

### RISK MANAGEMENT PLAN IN TERMS OF REGULATION 10 OF WASTE EXCLUSION REGULATIONS

|                                 |  |
|---------------------------------|--|
| <b>APPLICANT</b>                | Merafe Ferrochrome & Mining Pty Ltd Boshoeck Smelter |
| <b>SOURCE(S) OF WASTE</b>       | Ferrochrome smelter producing slag                   |
| <b>WASTE TO BE BENEFICIATED</b> | Waste Slag from Ferrochrome Metallurgy               |
| <b>BENEFICIAL USE/S</b>         | Use as aggregates                                    |
|                                 | Concrete aggregates                                  |
|                                 | Road base and covering and road stabilisation        |
|                                 | Asphaltic concrete and other bituminous mixtures     |
|                                 | Construction fill                                    |
|                                 | Concrete products                                    |
|                                 | Plaster and granite sands                            |
|                                 | Railroad ballast                                     |
|                                 | Roofing granules                                     |
|                                 | Filtration media                                     |
|                                 | Pipe filling material                                |
|                                 | Backfilling  |
|                                 | Dam construction and stabilisation material          |
|                                 | Construction of drainage systems                     |
|                                 | Hydroponic filling material                          |

|   |  |              |               |
|---|--|--------------|---------------|
|   | Production of cement                                 |              |               |
| <b>MSDS ATTACHED IF HAZARDOUS</b>   | <b>YES</b>   | <b>NO</b> ✓  | Not hazardous |
| <b>WASTE GENERATING FACILITY</b>  | Merafe Ferrochrome & Mining Pty Ltd Boshhoek Smelter |              |               |
| <b>PHYSICAL ADDRESS</b>   | Portion 67, 138 of the farm Boschoek 103 JQ,         |              |               |
|   | Boshhoek, 0301                                       |              |               |
|   |  |              |               |
| <b>GPS CO-ORDINATES OF WASTE GENERATING FACILITY (e.g. 60° 29' 30" Latitude; 34° 20' 15" Longitude)</b> | Latitude: 25 29 46.4S<br>Longitude: 27 06 11.0E      |              |               |
| <b>POSTAL ADDRESS</b>   | Private Bag X 4011                                   |              |               |
|   | Boshhoek   |              |               |
|   | 0301   |              |               |
| <b>CONTACT PERSON</b>   | Tommie Hurter  |              |               |
| <b>TELEPHONE</b>  | <b>014 590 2415</b>                                  | <b>CELL:</b> |               |
| <b>EMAIL</b>  | <b>tommie.hurter@glencore.co.za</b>                  | <b>FAX:</b>  |               |

## RISK MANAGEMENT PLAN

| Activity             | Risk Description   | Action(s) to minimise/ manage the risk  | Responsibility (Who is responsible to do it) |
|----------------------|--|---|--|
| Transporting of slag | Potential for slag to become air-borne during transportation | Make use of tarpaulin over slag during transportation if slag has potential to cause dust or to be thrown from the vehicle. | Transporter                                  |

|  |  |   |          |
|--|--|---|----------|
| Handling of slag                         | Potential for slag to emit dust during the loading and offloading of the slag      | Slag is a heavy and dense material. The potential to cause dust is low. Take precautions to minimize dust formation by wetting of the slag when necessary.  | Operator |
| Material storage                         | Potential for stockpiled material to enter the surrounding environment             | The slag is stable in storage. Slag is usually consumed in large volumes for which packaging is impractical. Avoid deposition outside areas of intended use. Store in demarcated areas. Avoid storage conditions that may generate dust.<br><br>Manage storm water collected in slag stockpile areas. | Operator |
| Material handling and processing         | Potential for slag to emit dust during handling, crushing and screening activities | Slag is a heavy and dense material. The potential to cause dust is low. Take precautions to minimize dust formation by wetting of the slag when necessary.  | Operator |
| Material handling and processing of slag | Potential for skin exposure of humans whilst working with slag                     | Special attention other than routine personal hygiene not required. Wash hands with water and soap. Wear the appropriate PPE. Overalls and safety boots; gloves for hands, where applicable.  | Operator |
| Material handling and processing of slag | Potential for eye contact exposure of humans whilst working                        | Eye protection should be worn were dust is a potential hazard. Safety goggles and face shield if the  | Operator |


|   |   |   |                                 |
|---|---|---|---------------------------------|
|   |   | potential exists for the generation of sharp, small chips, sharp flakes or excess dust.   |                                 |
| <b>Material handling and processing of slag</b> | <b>Potential for inhalation of dust exposure of humans whilst working with slag</b>                                 | <b>Take precautions to minimize dust formation by the wetting of the product and use appropriate personal protective equipment to prevent dust inhalation</b> | <b>Operator</b>                 |
| <b>Material handling and processing of slag</b> | <b>Potential for ingestion of slag dust by humans whilst working with slag and not wearing PPE or washing hands</b> | <b>Wash out mouth with water. Wash hands thoroughly after handling.</b>   | <b>Operator</b>                 |
| <b>Environmental spillage</b>                   | <b>Potential for accidental release of slag into the environment during transport and material handling</b>         | <b>Clean slag spills immediately and remove to suitable storage area.</b>   | <b>Transporter and operator</b> |

**DECLARATION**

I, TF Hurter hereby declare that I have read the completed Risk Management form and hereby confirm that the information is to the best of my knowledge true and correct.

Furthermore, I declare that I am fully aware of my responsibilities in terms of the Waste Exclusion Regulations, and that failure to comply with these Regulations may constitute an offence in terms of the National Environmental Management: Waste Act, 2008 (Act 59 of 2008).

Applicant (Full names) Thoms Francois Hurter  
Designation Group Environmental Manager

Signature   
Date 24/8/2018 Place Rustenburg

**FOR OFFICE USE ONLY**

|                  |            |  |                                 |  |
|------------------|------------|--|---------------------------------|--|
| Date Received    |            |  |                                 |  |
| Decision Taken   | Authorised |  | Not authorised (provide reason) |  |
| Reference Number |            |  |                                 |  |

