

Development of Infrastructure for the Transportation of Slimes
+/- 1.5 km; maximum internal diameter of 0.25 m and peak throughput of +/- 145 l/s
Decommissioning of Phase 1 H:H Slimes Dam
Footprint Area – 1.35 ha
Height - 15 metres
Storage capacity 52 000 m ³
Coordinates of the facility: S 25° 39' 18.46" E 27° 50' 46.93"
Development and Expansion of Process Water and Storm Water Canal System including Silt Traps at Morula PCD, Storm Water PCD No.1, Storm Water PCD No.2, Storm Water PCD No.3, Storm Water PCD No.4 and Plant Process Water Dam
Development of Morula Pollution Control Dam (PCD)
Footprint Area – 0.60 ha
Freeboard – 0.8 metres
Wall height - 3.1 metres
Storage capacity 26 800 m ³
Coordinates of the facility: S 25° 39' 50.3" E 27° 51' 19.6" S 25° 39' 50.3" E 27° 51' 14.7"
Expansion of Storm Water Pollution Control Dam No.1
Footprint Area – 2.30 ha
Freeboard – 0.8 metres
Wall height - 4.44 metres
Storage capacity 46 500 m ³
Coordinates of the facility: S 25° 39' 19.3" E 27° 50' 12.2" S 25° 39' 20.9" E 27° 50' 09.1"
Development of Storm Water Pollution Control Dam No.2
Footprint Area – 2.20 ha
Freeboard – 0.8 metres
Wall height - 3.8 metres
Storage capacity 61 500 m ³
Coordinates of the facility: S 25° 39' 33.8" E 27° 49' 56.0" S 25° 39' 34.3" E 27° 49' 53.6"
Development of Storm Water Pollution Control Dam No.3
Footprint Area – 0.60 ha
Freeboard – 0.8 metres
Wall height - 0.81 metres
Storage capacity 26 250 m ³
Coordinates of the facility: S 25° 39' 17.4" E 27° 50' 37.3" S 25° 39' 22.13" E 27° 50' 31.9"

Development of Storm Water Pollution Control Dam No.4
Footprint Area – 0.05 <i>ha</i>
Freeboard – 0.85 metres
Wall height - 0.8 metres
Storage capacity 275 m ³
Coordinates of the facility: S 25° 39' 32.4" E 27° 49' 58.6" S 25° 39' 32.8" E 27° 49' 58.0"
Expansion of the OB Plant Process Water Dam
Footprint Area – 1.82 <i>ha</i>
Freeboard – 0.8 metres
Wall height - 4.55 metres
Storage capacity 23 833 m ³
Coordinates of the facility: S 25° 39' 18.2" E 27° 50' 21.5" S 25° 39' 21.7" E 27° 50' 17.1"
Expansion of the Plant Process Water Dam
Footprint Area – 3.35 <i>ha</i>
Freeboard – 0.80 metres
Wall height - 3.42 metres
Storage capacity 18 480 m ³
Coordinates of the facility: S 25° 39' 24.4" E 27° 50' 10.3" S 25° 39' 29.2" E 27° 50' 05.6"
Expansion of the CRP Silt Trap Process Water Dam
Footprint Area – 0.27 <i>ha</i>
Freeboard – 0.8 metres
Wall height - 1.5 metres
Storage capacity 9000 m ³
Coordinates of the facility: S 25° 39' 44.7" E 27° 50' 32.9" S 25° 39' 46.2" E 27° 50' 31.4"
Decommissioning of the Morula Dewatering Dams:
Footprint Area – 0.5 <i>ha</i>
Length - 221.90 metres
Storage capacity 12 000 m ³
Coordinates of the facility: S 25° 39' 48. 74" E 27° 51' 11. 95"
Expansion of the Taphole Fume Extraction System
Coordinates of the facility:
Furnaces 1: S 25° 39' 38. 05" E 27° 50' 20.51"
Furnaces 2: S 25° 39' 39. 03" E 27° 50' 19.23"
Furnaces 3: S 25° 39' 40. 31" E 27° 51' 17.54"
Furnaces 4: S 25° 39' 42. 62" E 27° 50' 15.51"

Expansion of the Finished Product Plant Dust Abatement System
Coordinates of the facility: S 25° 39' 46.82" E 27° 50' 20.08"
Expansion of the HERNIC TSF Facility
Footprint Area – 31.14 <i>ha</i>
Final Height - 39 metres
Average Deposition Rate - 26 000 <i>tpm</i>
Coordinates of the facility: S 25° 39' 10.49" E 27° 51' 11.71"
Re-use (screening, stockpiling, internal use and / or selling) of Fine Slag at Fine Slag Processing Plant
Historic Slag Stockpile
Footprint area- 3.84 <i>ha</i>
Final Height - 31 metres
Storage Capacity – 490 000 m ³
Coordinates of the facility: S 25° 39' 53.00" E 27° 50' 58.64"
Current Arising Slag Stockpile 1
Footprint area- 2.11 <i>ha</i>
Final Height - 24 metres
Capacity – 140 588 m ³
Coordinates of the facility: S 25° 39' 26.92" E 27° 50' 43.76"
Current Arising Slag Stockpile 2
Footprint area- 2.46 <i>ha</i>
Final Height - 16 metres
Capacity – 113 553 m ³
Coordinates of the facility: S 25° 39' 30.50" E 27° 50' 39.49"
Re-used of mine waste rock at the Mine Waste Rock Stockpile:
Footprint Area – 3.40 <i>ha</i>
Height - 7 metres
Storage capacity 680 000 m ³
Coordinates of the facility: S 25° 39' 45. 31" E 27° 51' 18. 04"
Development of a New Salvage Yard
Footprint Area – 0.65 <i>ha</i>
Coordinates of the facility: S 25° 39' 33.0" E 27° 50' 00.5"

The granting of this IEA is subject to the conditions set out below (site specific) and in Annexure 2 (Departmental standard conditions). The Environmental Management Programme (EMPr) attached as part of reports for the above development submitted as part of the application for an amended IEA is hereby approved and must be adhered to throughout the life cycle of the operation.

IEA SITE SPECIFIC CONDITIONS

1. Dumping of waste in the areas earmarked for exclusion must be prevented, through fencing or other management measures. These areas must be properly managed throughout the lifespan of the project in terms of fire, eradication of exotics etc to ensure continuous biodiversity.
2. The contractor/s must ensure that no animals are disturbed, trapped, hunted or killed during the construction phase. Conservation-orientated clauses should be built into contracts for construction personnel.
3. All authorised activities which require a Water Use Licence may not commence until such time a relevant Water Use Licence has been obtained from the Department of Water and Sanitation (DWS) unless an exemption has been granted by the relevant competent authority.
4. All authorised activities which require an Atmospheric Emission Licence may not commence until such time a relevant Atmospheric Emission Licence has been obtained from DEA/ READ unless an exemption has been granted by the relevant competent authority.
5. A clean and dirty water separation system should be the first system to be developed on site.
6. The new proposed Dams must be fence off to prevent any unauthorised access and to prevent livestock from drinking the water in the dams.
7. All development footprint areas and areas affected by the proposed development must remain as small as possible and must not encroach onto the surrounding sensitive areas and the associated buffer zones.
8. On-going monitoring and auditing as proposed in the EMPr must be conducted during the life span of the project.
9. That environmental management measures must be adapted or continued based on the outcome of the monitoring and auditing programmes.

ANNEXURE 1: REASONS FOR THE DECISION

1. Background

Hernic Ferrochrome (Pty) Ltd submitted an application to consolidate six (6) of their Environmental Authorisation (approved EMP), to develop and expand various infrastructure listed in terms of the EIA Regulations, 2014 and activities listed NEM: WA, activities listed in terms NEW: Air Quality Act and activities listed in terms National Water Act as specified above.

Hernic Ferrochrome (Pty) Ltd appointed JMA Consulting (Pty) Ltd to undertake the Scoping and Environmental Impact Assessment process as prescribed by Regulation 21 and 23 of the NEMA: EIA Regulations, 2014.

2. Information considered in making the decision

In reaching its decision, the Department took, *inter alia*, the following into consideration -

- a) The information contained in the application form received by the Department on 26 January 2017;
- b) The information contained in the EIA received by the Department on 15 August 2017;
- c) The objectives and requirements of the applicable and relevant legislation, policies and guidelines and the EIA Regulations, 2014;
- d) The Information Related to Public Participation attached as APPENDIX 7(A);
- e) Socio-Cultural and Socio-Economic Specialist Report attached as APPENDIX 7(B);
- f) Archaeology and Heritage Specialist Report attached as APPENDIX 7(C);
- g) Soils, Land Capability and Land Use Specialist Report attached as APPENDIX 7(D);
- h) Roads and Traffic Specialist Report attached as APPENDIX 7(E);
- i) Blasting and Vibration Specialist Report attached as APPENDIX 7(F);
- j) Topography Specialist Report attached as APPENDIX 7(G);
- k) Geology Specialist Report attached as APPENDIX 7(H);
- l) Groundwater Specialist Report attached as APPENDIX 7(I);
- m) Surface Water Specialist Report attached as APPENDIX 7(J);
- n) Plant Life Specialist Report attached as APPENDIX 7(K);
- o) Animal Life Specialist Report attached as APPENDIX 7(L);

- p) Wetlands Specialist Report attached as APPENDIX 7(M);
- q) Aquatic Ecosystems Specialist Report attached as APPENDIX 7(N);
- r) Air Quality Specialist Report attached as APPENDIX 7(O);
- s) Noise Specialist Report attached as APPENDIX 7(P);
- t) Visual Aspects Specialist Report attached as APPENDIX 7(Q);

3. Key factors considered in making the decision

All the information presented to the Department was taken into account upon the Department's consideration of the application. A summary of the issues which, in the Department's view, were of the most significance are set out below.

- a) The environmental impacts associated with the proposed activities will be addressed by the proposed mitigation measures outlined in the EMPr compiled by Mr Jasper Muller and Mrs. Rene Rademeyer of JMA Consulting (Pty) Ltd;
- b) As required in terms of section 24 P of NEMA as read together with Regulation 4 of the regulations pertaining to the financial provision for prospecting, exploration, mining or production operations, Heric Ferrochrome (Pty) Ltd has supported their application with the required financial provision to the amount of **R33, 129 097.12 (Thirty Three million, One Hundred and Twenty Nine Thousand, Ninety Seven Rand and Twelve Cents only)**. The said amount was provided in a form of a bank guarantee (**Guarantee Number: GR/G/2054/0118/0486**) issued by GUARDRISK Insurance Company Limited. The original bank guarantee was received by this office on the 26th January 2017.
- c) A sufficient Public Participation Process (PPP) was undertaken and the applicant has satisfied the minimum requirements as prescribed in Chapter 6 Regulation 41 of the EIA Regulations, 2014;
- d) The socio-cultural and Socio-economic Specialist report dated June 2017 compiled by Ms Anna Sophia Kritzinger of Southern Economic Development indicated that Heric Ferrochrome's positive socio-economic impacts outweigh the negative socio-economic impacts of the operation and the environmental authorisation for the project is recommended;
- e) The Archaeology and Heritage Specialist report dated May 2016 compiled by Dr Julius CC Pistorius indicated that there are graveyards within the project area however, such graveyards will not be affected by Heric's operation;
- f) The Soils, Land Capability and Land Use Specialist Report dated June 2017 compiled by B.B. McLeroth of Red Earth CC concludes that the proposed project may proceed subject to the recommendations and conditions set on the report;

- g) Roads and Traffic Specialist report dated 15 June 2017 compiled by Claire Birungi of KOLEKO Transportation Engineering and Planning concludes that the proposed HERNIC's operations will not have a negative impact on the existing road network within the project area therefore the proposed new activities should be favourably considered;
- h) The Blasting and Vibration Specialist report dated 11 May 2017 compiled by J.D Zeeman of Blast Management Consulting indicated that there is no reasons to believe that this operation will have significant negative influence on the surface structures. It was also specified that there is no reason to believe that this operation cannot continue based on the investigation done;
- i) Topography Specialist report dated April 2017; compiled by Mrs Rene Rademeyer of JMA Consulting (Pty) Ltd concludes that the current and new proposed activities at HERNIC will not have an unacceptable impact on the surface topography in terms of morphology and stability. The impact associated with the activities can be managed to an acceptable level and the effectiveness of the management measures can be monitored;
- j) Geology Specialist report dated February 2017 compiled by Mr Shane Turner of JMA Consulting (Pty) Ltd concludes that the current and planned operations at HERNIC will not have a significant impact on the geological environment and it is therefore proposed that the operations and activities continue as planned, according to the specific design and criteria and conditions;
- k) Groundwater Specialist report dated July 2017 compiled by Mr Shane Turner of JMA Consulting (Pty) Ltd is in support of development as the proposed activity's impacts to groundwater will be addressed by the proposed mitigation measures outlined in the report;
- l) Surface Water Specialist report dated March 2017 compiled by JL Jonck of Inprocon Consultants CC recommends that the proposed activities should be approved as the impacts on water quantity and quality can be managed to be insignificant;
- m) Plant Life Specialist report dated June 2017 compiled by E. van der Westhuizen of Scientific Aquatic Services CC concludes that if all the mitigation, management and monitoring measures set out in this report are adhered to, the proposed activities are not anticipated to have significant impact on the receiving floral environment;
- n) Animal Life Specialist report dated June 2017 compiled by E. van der Westhuizen of Scientific Aquatic Services CC concludes that if all the mitigation, management and monitoring measures set out in this report are adhered to, the proposed activities are not anticipated to have significant impact on the receiving faunal environment;
- o) Wetlands Specialist report dated June 2017 compiled by E. van der Westhuizen of Scientific Aquatic Services CC concludes that if all the mitigation, management and monitoring measures set out in this report are adhered to, the proposed activities are not anticipated to have significant impact on the receiving freshwater environment;

- p) Aquatic Ecosystems Specialist Report dated June 2017 compiled by Keiren Bremner of Scientific Aquatic Services CC concludes that should all the mitigation, management and monitoring measures as set out in this report be adhered to, it is thus the opinion of the ecologist that the proposed activities are not anticipated to have significant impact on the receiving aquatic environment;
- q) Air Quality Specialist report dated 30 May 2017 compiled by Dr DG Fourie & JG Potgieter for and on behalf of ENVIRONGAKA CC has recommended that a supplementary abatement and mitigation strategies will be required in addition to conventional measure to mitigate the additional fine particles stored on the TSF following the PGM extraction plant;
- r) Noise Specialist report dated June 2017 compiled by Morne de Jager of Enviro-Acoustic Research CC concludes that with the appropriate mitigation options, it may be possible to manage the noise impact and in terms of acoustic, there are no potential fatal flaws and the operation and proposed construction activities can be authorised;
- s) Visual Specialist report dated April 2016 compiled by Studio IMW Architects (Pty) Ltd concludes that if the management measures that are proposed in this report and the various applicable related specialist reports are implemented correctly, the visual status of HERNIC site operations in the Construction, Operational, Decommissioning and Closure Phases will be acceptable and in the Post Closure Phase and beyond it will conform to expectation for a fully rehabilitate mining site. It was recommended that the proposed activities should be authorised and
- t) Comments from MHS

4. Findings

After consideration of the information and factors listed above, the Department made the following findings –

- a) The potential impacts on the proposed site were clearly investigated and mitigation measures were outlined.
- b) Public Participation Process complied with Chapter 6 Regulation 41 of the EIA Regulations, 2014. The PPP included, *inter-alia*, the following:
- Notification letters were e-mailed to all relevant I&AP's on 16 June 2017;
 - A newspaper advertisement was placed in the two local newspaper "BRITS POS & PLATIMUM WEEKLY" on the 13 January 2017;
 - Site notice board notifying stakeholders and I&APs of the proposed activities were placed at conspicuous places in the project area on the 12 January 2017;
 - Public meeting was held on the 30 June 2017 at Heric Ferrochrome Admin Lapa.
 - I&APs were informed that the draft EIA and EMPr would be available for public review as from 30 June 2017;
 - The hard copies of the draft EIR and EMPr report were made available at Heric Ferrochrome Main Entrance and Madibeng (Brits) Local Librrary;

- Five hard copies of the draft EIA and EMPr were submitted to the DWS Hartebeesport, DEA Pretoria, READ Rustenburg, Madibeng Local Municipality and Bojanala Platinum District Municipality and
- Minutes of the EIA phase Public Meeting dated 30 June 2017 together signed attendance register where attach to the EIR.

ANNEXURE 2

DEPARTMENTAL STANDARD CONDITIONS

1. SCOPE OF AUTHORISATION

- 1.1 The holder of the amended IEA shall be responsible for ensuring compliance with the conditions contained in the amended IEA. This includes any person acting on the holder's behalf, including but not limited to an agent, servant, contractor, subcontractor, employee, consultant or any person rendering a service to the holder of amended IEA.
- 1.2 Any changes to, or deviation from the project description set out in this amended IEA must be approved in writing by this Department before such changes or deviation may be effected. In assessing whether to grant such approval or not, the Department may request such information as is deems necessary to evaluate the significance and impacts of such changes or deviation and it may be necessary for the holder of the IEA to apply for further authorisation in terms of the EIA Regulations.
- 1.3 The activities, which are authorised, may only be carried out at the properties indicated in the amended IEA and or on the approved EMPr.
- 1.4 Where any of the holder of the amended IEA contact details change including name of the responsible person, physical or postal address/ or telephonic details, the holder of the amended IEA must notify the Department as soon as the new details become known to the holder of the IEA.
- 1.5 The amended IEA does not negate the responsibility of the holder to comply with any other statutory requirements that may be applicable to the undertaking of such activities.
- 1.6 The holder of the amended IEA must ensure that all areas where the authorised activities occur have controlled access to ensure safety of people and animals.

2 APPEAL OF AUTHORISATION

- 2.1 The holder of the amended IEA must in writing, within 14 (fourteen) calendar days from the date of this decision and in accordance with regulation 4 (2) of the EIA Regulations, 2014 must do the following:
- 2.2 Notify all registered I&APs of –
 - 2.2.1 The outcome of the application;
 - 2.2.2 The date of the decision;
 - 2.2.3 The date of issue of the decision and;
 - 2.2.4 The reasons for the decision as included in Annexure 1 and Departmental Standard Conditions in Annexure 2.
- 2.3 Draw the attention of all registered I&APs to the fact that an appeal may be lodged against the decision in terms of the National Appeals Regulations,
- 2.4 Draw the attention of all registered I&APs to the manner in which they may access the decision.
- 2.5 Provide the registered I&APs with:
 - 2.5.1 Name of the holder (entity) of this amended IEA
 - 2.5.2 Name of the responsible person for this amended IEA
 - 2.5.3 Postal address of the holder;
 - 2.5.4 Telephonic and fax details of the holder and
 - 2.5.5 E-mail address of the holder if any.

3 COMMENCEMENT OF THE ACTIVITIES

- 3.1 In order to ensure safety, all employees must be given the necessary personnel protective equipment (PPE).
- 3.2 All pipelines must be regularly inspected in order to ensure they are in good working order to prevent spills of tailings and contaminated water within wetlands.
- 3.3 This amended IEA must be provided to the site operator and the requirements thereof must be made fully known to him or her.
- 3.4 Hauling routes for construction vehicles and machinery must be clearly marked and appropriate signaling must be posted to that effect. Furthermore, movement of construction vehicles and machinery must be restricted to areas outside of the drainage line or wet areas.
- 3.5 Appropriate notification sign must be erected at the construction site, warning the public (residents, visitors etc.) about the hazard around the construction site and presence of heavy vehicles and machinery.