



## Zambia Environmental Management Agency DECISION LETTER

### 1.0 PROJECT BACKGROUND

#### 1.1 PROJECT TITLE:

Gemstone Mining at Kafubu Mine in Lufwanyama District under Licence Number 8509-HG-LSGL by Gemfields Mining Limited

#### 1.2 PROJECT PROPONENT:

Gemfields Mining Limited  
6374 Corner of Dr. Aggrey and Kariba Roads  
Light Industrial Area

**KITWE**

#### Contact Person's Details

Name: Sanjay Bohra  
Designation: Project Manager  
Address: Gemfields Mining Limited, 6374 Corner of Dr. Aggrey and Kariba, Roads, Light Industrial Area, **KITWE**  
Tel: (+260) 971 512 242/968 416 849  
Email address: sanjay.bohra@gemfields.co.uk

#### 1.3 PROJECT LOCATION:

The project site for Licence Number 8509-HG-LSGL is located in the Lufwanyama Restricted Emerald Mining Area in Lufwanyama District, Copperbelt Province. It lies approximately 60km from Kitwe, 40km from Kalulushi and 100km from Luanshya.

#### 1.4 DATE OF SUBMISSION BY PROPONENT:

January 12, 2018

#### 1.5 DATE OF CONSIDERATION BY THE AGENCY:

March 29, 2018





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#### 2.0 DETAILS OF THE PROJECT:

The project involves commencement of mining operations at Kafubu Mine. This will entail the following activities:

- i. Site clearing and construction of access roads and ramps to the Overburden, Waste Rock Dump and Washing areas;
- ii. Construction of perimeter drainages around the proposed Kafubu Mine Pit;
- iii. Construction of a water settlement pond, an access road to link the Kafubu Mine Pit and the existing Kagem Mine ore processing facilities, via a new bridge currently being constructed across the Kafubu River;
- iv. Trial mining and bulk sampling; and
- v. Development of the Kafubu Mine Pit over an estimated five-year period to a final depth of about 30m. The Pit Dimension will be (L x B) of 300m x 115m. The final depth of the pit at the end of the 5-year estimated lifespan will be 30m with a high wall slope angle of about 53°.

Ore crushing, washing of the ore material and sorting of gemstones will be done using the existing Kagem Mine facilities.

The estimated ore output is 0.08 million tonnes over the 5 year lifespan. The area of the project site is 1.84 square kilometers.

#### 3.0 DECISION BY THE AGENCY:

3.1 The project is **approved** subject to conditions listed below:

3.1.1 Gemfields Mining Limited shall implement the project and all environmental management commitments as stated in the Environmental project brief (EPB) **with changes** as made by Zambia Environmental Management Agency (ZEMA) and any other conditions that may be issued thereafter.

3.1.2 The approval is for Gemfields Mining Limited mining activities under Licence No. 8509-HG-LSGL in Lufwanyama District only. Therefore, Gemfields Mining Limited shall not conduct or carry out activities that may impact negatively on the environment and are not part of the approved project.





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- 3.1.3 Gemfields Mining Limited shall consult and comply in full with the requirements and specifications of the Mines Safety Department, Forestry Department, Energy Regulation Board, Lufwanyama Town Council and other authorities.
- 3.1.4 Gemfields Mining Limited shall put in place appropriate measures or install and operate adequate and effective air pollutants suppression techniques and/or air pollution abatement equipment or materials in all areas with potential to generate air pollutants.
- 3.1.5 Gemfields Mining Limited shall be monitoring and keeping records of the quality of ambient air in the surroundings in respect of air pollutants especially dust, particulate matter 2.5, particulate matter 10 and other air pollutants.
- 3.1.6 All radioactive materials or materials containing radioactive substances shall be handled and disposed of appropriately.
- 3.1.7 Gemfields Mining Limited shall put in place appropriate measures for monitoring, preventing and controlling soil erosion and siltation/sedimentation of surface water bodies.
- 3.1.8 Gemfields Mining Limited shall ensure that blasting is carried out within the allowed limits and that blasting does not cause harmful noise pollution and land degradation.
- 3.1.9 The project and ancillary activities shall be conducted in such a way that public and private property, the health of people and livelihood shall not be endangered, harmed, affected negatively, damaged or lost. Where it is determined that the health of people, property or source of livelihood is endangered, harmed, damaged, affected negatively, or lost as a result of project activities, Gemfields Mining Limited shall be liable for payment or settlement of the appropriate compensation and/or other forms of relief or replacement.
- 3.1.10 Gemfields Mining Limited shall collect, decontaminate and dispose of all contaminated waste in an environmentally sound and acceptable manner.
- 3.1.11 Hazardous and other types of waste shall be managed by licensed persons.
- 3.1.12 Gemfields Mining Limited shall put in place appropriate measures for collection, transportation and disposal of solid (municipal) waste at a licensed disposal site.





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- 3.1.13 Gemfields Mining Limited shall put in place appropriate and effective measures for preventing, monitoring and controlling land degradation, contamination of soil, pollution of surface water, pollution of groundwater, and pollution of air in respect of all project facilities including the open pit, the waste rock dump, camp sites or living quarters, workshop, sanitary facilities, etc.
- 3.1.14 Noise and vibrations shall be maintained within levels at which property and/or the health of employees and the public shall not be harmed or endangered. Appropriate measures shall be put in place where it is determined that noise and vibration levels are approaching harmful state.
- 3.1.15 Dust suppression shall be carried out in areas where dust will be generated.
- 3.1.16 Gemfields Mining Limited shall ensure that all incidences with potential to pollute the environment and harm human beings are reported to ZEMA immediately.
- 3.1.17 Gemfields Mining Limited shall put in place an appropriate Emergency Preparedness and Response Plan, and shall submit the same to ZEMA for approval within three months following this approval.
- 3.1.18 Firefighting equipment shall be placed where it can be easily accessed and it shall be kept in good working condition.
- 3.1.19 Gemfields Mining Limited shall obtain the appropriate Licences or Permits from Zambia Environmental Management Agency and comply in full with the conditions of the Licences and/or Permits issued under the Environmental Management Act No. 12, 2011 and the Environmental Management (Licensing) Regulations, 2013.
- 3.1.20 At decommissioning and closure, Gemfields Mining Limited shall prepare and submit an appropriate decommissioning and closure plan and report outlining implementation of all environmental management commitments presented in the environmental project brief for consideration by ZEMA.
- 3.2** The Agency **advises** Gemfields Mining Limited to:
- 3.2.1 Obtain and comply in full with any other relevant authorisations such as those stipulated in but not limited:
- i. The Zambia Wildlife Act No. 14 of 2015;
  - ii. The Mines and Minerals Development Act No. 11 of 2015;
  - iii. The Local Government Act, CAP 281 of the Laws of Zambia;





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- iv. The Occupational Health and Safety Act No. 36 of 2010;
- v. The Urban and Regional Planning Act No. 3 of 2015;
- vi. The Public Health Act cap 295 of the laws of Zambia;
- vii. The Workers' Compensation Act No. 10 of 1999.
- viii. The Energy Regulation Act, CAP 436 of the laws of Zambia;
- ix. The Water Resources Management Act No. 21 of 2011;
- x. The Forestry Act No. 4 of 2015;
- xi. The Employment (Amendment) Act No. 15 of 2015;
- xii. The Ionising Radiation Protection (Amendment) Act No 19 of 2011; and
- xiii. The Pneumoconiosis Act, CAP 217 of the Laws of Zambia.

3.2.2 Make available information on hygiene, malaria control, HIV/AIDS and other communicable and infectious diseases to employees.

3.2.3 Put in place occupational health and safety policies and procedures.

3.2.4 Provide employees with appropriate fire-fighting equipment and train them in firefighting and emergency response.

3.2.5 Provide employees with Personal Protective Equipment (PPE) and employees shall undergo appropriate medical checkups.

**3.3** Gemfields Mining Limited shall comply with environmental standards and/or specific limits of particular pollutants as its responsibility. Thus, compliance with Zambia Environmental Management Agency recommended measures **does not absolve** Gemfields Mining Limited of its responsibility if such measures do not achieve compliance with environmental control standards.

**3.4** Gemfields Mining Limited shall, in accordance with section 15 of the Environmental Management Act No. 12 of 2011, allow inspectors from ZEMA **unrestricted entry** to the project site at any reasonable time with or without making prior notice throughout the project cycle.

**3.5** The implementation of the project shall commence **within three years** from the date of approval. Failure to commence implementation of the project within the stated period shall render the Decision Letter invalid and Gemfields Mining Limited shall be required to re-submit the EPB for consideration.





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- 3.6 The Agency may suspend or cancel the Decision Letter **without notice** should Gemfields Mining Limited fail to comply with any condition of approval.



A handwritten signature in blue ink, appearing to read "John Msimuko".

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John Msimuko

**Director General**

**ZAMBIA ENVIRONMENTAL MANAGEMENT AGENCY**